

MICROFILMED
JUL 8 1969
GROUND PHOTO LAB

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

U-485(8)
I-70-3(19)103

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

FRANKLIN COUNTY
FRA-33-21.72

FRA - 33 - 21.72
CITY OF COLUMBUS

FRANKLIN COUNTY

Part II
For Part I See Plans Designated FRA-40-1824

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CONVENTIONAL SIGNS

Existing Right of Way	-----	R/W
Existing Limited Access	-----	L A
Limited Access Only	-----	L A
Right of Way Only	-----	R/W
Limited Access and Right of Way	-----	R/W
Township Line	-----	
Section Line	-----	
Center Line	-----	
Corporation Line	-----	
Fence Line	-----	X X X
Guard Rail (existing)	-----	•••••
Guard Rail (proposed)	-----	•••••
Railroads	-----	—+—+—+—
Power Poles	-----	P P P P
Telephone Poles	-----	T T T T
Trees or Stumps (existing)	-----	⊗ ⊗ ⊗ ⊗
Trees or Stumps (to be removed)	-----	⊗ ⊗ ⊗ ⊗

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LINE DATA PART II

U-485(8) Begin Project Sta. 113+20.00
End Project Sta. 132+00.00
Net Length of Project = 1880.00 Lin. Ft. or 0.356 Miles
Add For Work
Sta. 112+80.00 To Sta. 113+20.00 = 40.00 Lin. Ft.

Net Length of Work = 1920.00 Lin. Ft. or 0.363 Miles

I-70-3(19)103 Net Length of Project = 0.00 Lin. Ft. or 0.00 Mile
I-70-3(19)103 Begin Work Sta. 132+00.00
End Work Sta. 153+16.00
Net Length of Work = 2,116.00 Lin. Ft. or 0.400 Miles

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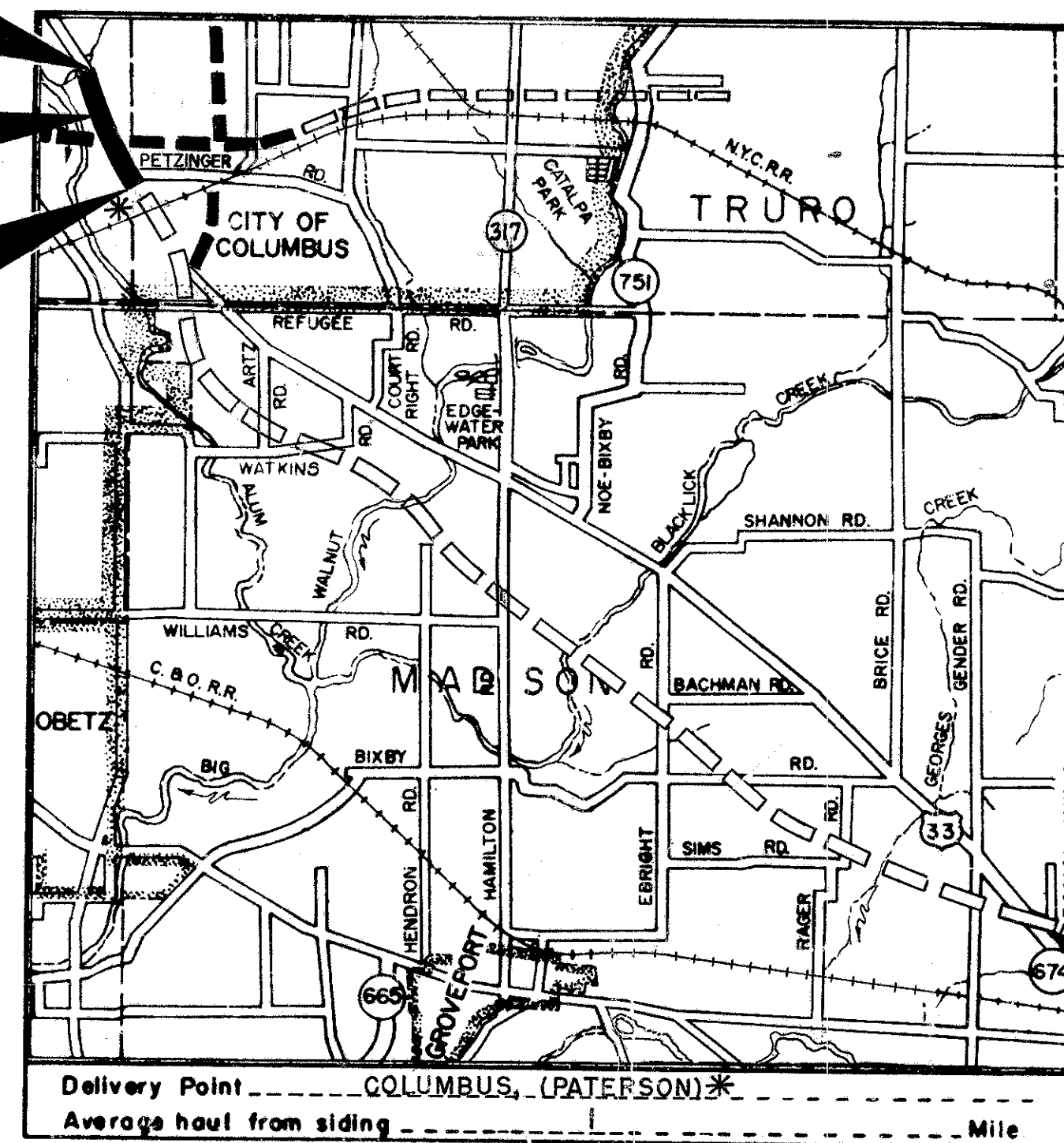
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NET LENGTH OF PROJECT = 1880.00 Lin. Ft. or 0.356 Miles
NET LENGTH OF WORK = 1920.00 + 2,116.00 = 4036.00 Lin. Ft. or 0.764 Miles

File No.	FRANKLIN COUNTY	USR 33	FRA-33-21.72
Date of Letting	19		
Contract No.			

BEGIN PROJECT STA.
113+20.00
U-485(8)
END PROJ. U-485(8)
BEG. WORK I-70-3(19)103
STA 132+00
END WORK STA.
153+16
I-70-3(19)103



LOCATION MAP

SCALE IN MILES

Portion to be improved
State Roads
Construction Under Another Contract
Other Roads

SCALES

Plans
Profile (Vertical)
Profile (Horizontal)
Cross Sections

Supplemental Prints of Standard Construction Drawings									
B-T-70-71	11-15-60	I-8 C.B. NO. 82-1-63	L-3 A	4-1-55					
B-T-71R	3-2-53	I-8 M.H. NO. 1 2-1-63	L.J. NO. 1	7-1-55					
DR-1	1-3-55	I-2 2-1-63	RI 1	7-15-58					
G-707	4-1-64	I-15 NO. 1	11-15-60	T-35	1-2-56				
HW-A&B	7-15-57	I-15 NO. 2 A	8-17-60	T.J.	9-12-60				
HW-E	11-15-60	I-21-23	8-1-56	F-2	2-1-63				
I-1	11-15-60	L-1	4-1-50	I-8 M.H. NO. 1A	2-1-63				
I-8 C.B. 22-A&B	2-1-63	L-3	4-1-50						

SEE PART I

Approved *Frank J. Schaefer* Date 3/18/63
Superintendent, Division of Water, Columbus, Ohio
Approved *Carl W. Schaefer* Date 3-15-63
Chief Engineer, Division of Sewerage & Drainage, Columbus, Ohio
Approved *Robert F. Werner* Date 3-13-63
Chief Engineer, Division of Engineering & Construction, Columbus, Ohio
Approved *Emmet M. Storch* Date 3-10-63
Director of Public Service, Columbus, Ohio
Approved *H. J. Stearns* Date 3-15-63
Superintendent, Division of Electricity, Columbus, Ohio

Supplemental Specifications	
B-112	8-21-61
CE 101.04 REV. 1-2-62	
T-335	
SEE	PART I

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio. Sta. 137+44.77 to Sta. 152+00 Lt. and Sta. 140+98.84 to Sta. 152+40 Rt.

1963 SPECIFICATIONS

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

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

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

Approved *Frank J. Schaefer*
Date 3-29-63 Division Deputy Director
Approved
Date Engineer of Bridges
Approved *R. N. Ristetter*
Date 5-6-64 Engineer of Location and Design
Approved *W. E. Shultz*
Date 5-6-64 Deputy Director of Design and Construction
Approved *T. A. Boland*
Date 4-7-64 Deputy Director of Right of Way
Approved *F. W. Wilson*
Date 5-21-64 Deputy Director of Planning and Programming
Approved
Date First Assistant Director
Approved *P. E. Mearns*
Date 5-21-64 Director of Highways

PLANS PREPARED BY
RACKOFF ASSOCIATES
ENGINEERS
COLUMBUS, OHIO

Melvin Rackoff
MELVIN RACKOFF

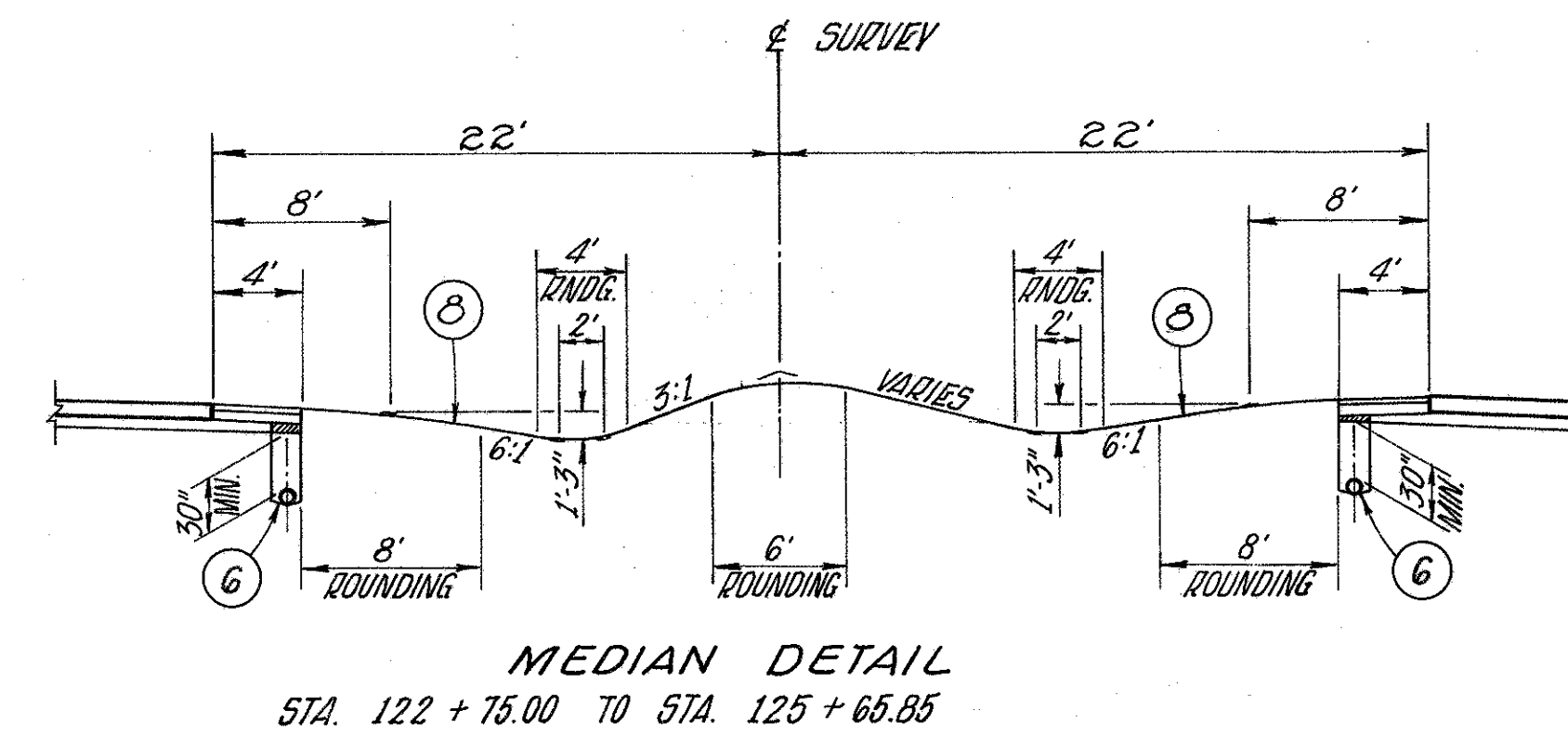
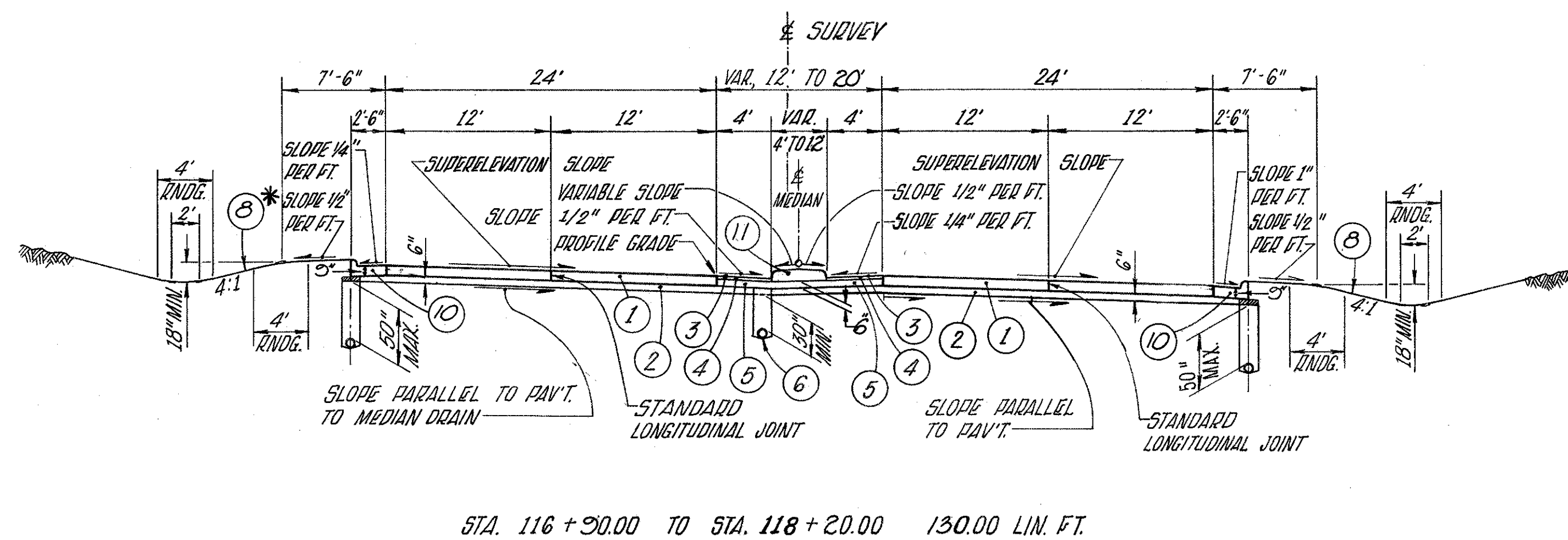
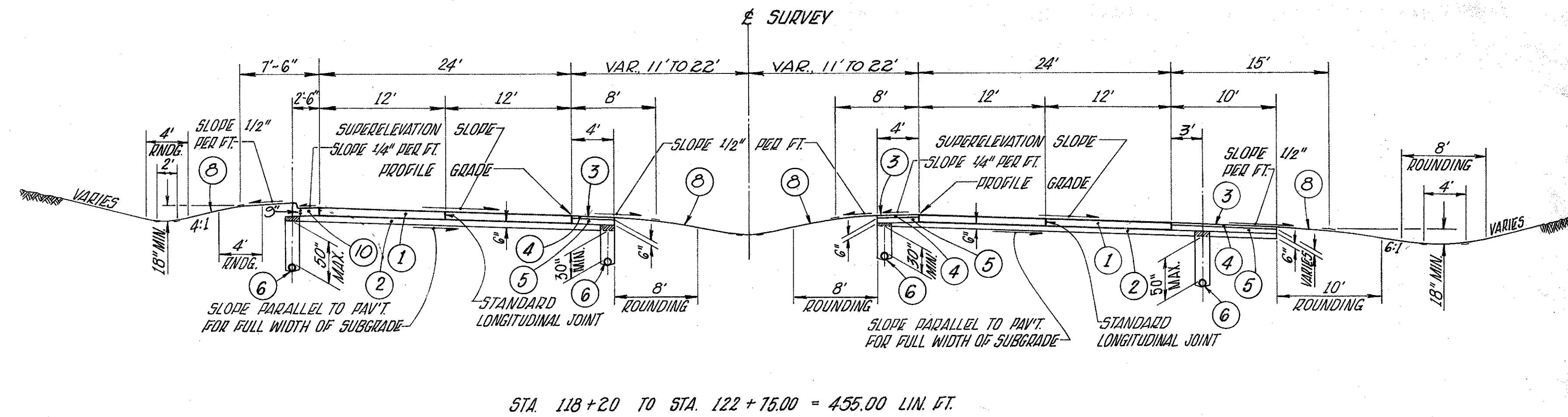
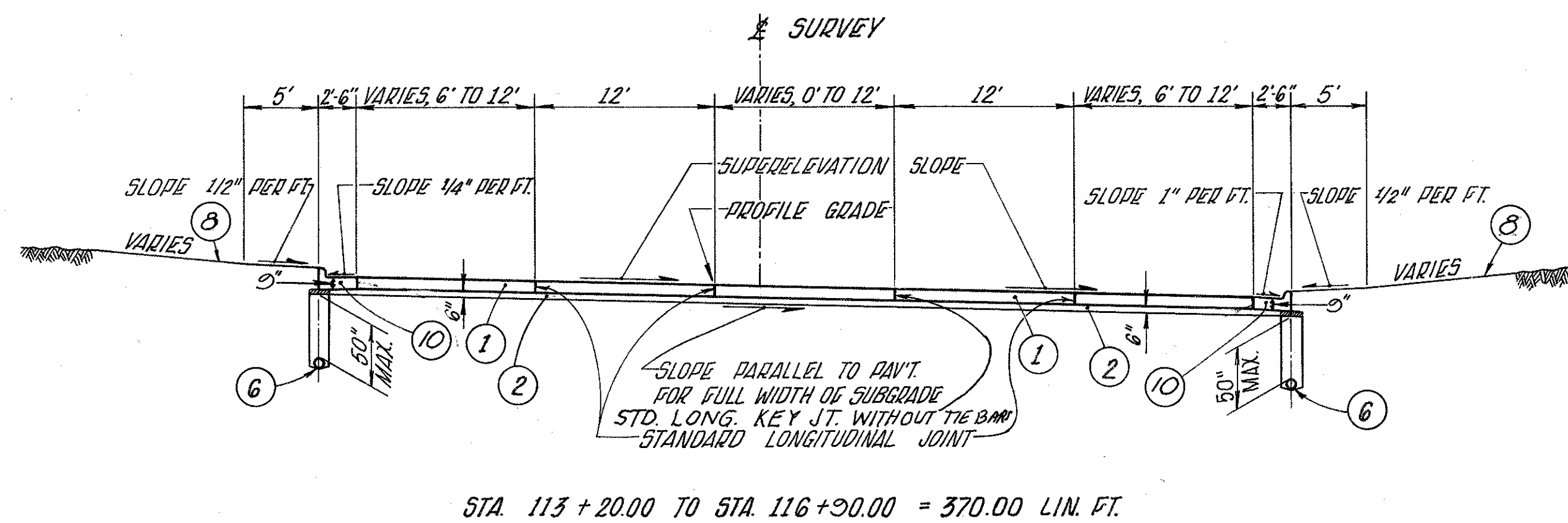
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: JUL 8 1969
DIVISION ENGINEER DATE

TYPICAL SECTIONS

TYPE T-71

FRANKLIN COUNTY
FRA - 33 - 21.72



LEGEND

ITEM	DESCRIPTION	ITEM	DESCRIPTION
①	T-71 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT.	⑩	I-12 STANDARD TYPE 2 CURB AND GUTTER.
②	I-22 SUBBASE, VARIABLE DEPTH. A OR B GRADING, AS PER PLAN.	⑪	I-21 PORTLAND CEMENT CONCRETE MEDIAN, STANDARD TYPE 2.
③	T-31 BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. IN ONE APPLICATION. SEE NOTE IN PROPOSAL.	⑧	L-9 SEEDING AND PROTECTING.
④	B-21 3" WATERPROOFED AGGREGATE BASE COURSE Δ (Type A T-35 or T-335 material may be used in construction of this course, see note in Proposal)		
⑤	B-112 POROUS BASE COURSE.		
⑥	I-1 6" PIPE, CLASS I-3.		

NOTE:

- FOR TOE OF FILL DITCHES SEE CROSS-SECTIONS.
 - IN FILL SECTIONS ALL UNDERDRAINS TO BE SHALLOW (30" MIN.) UNLESS OTHERWISE SHOWN IN THE PLANS.
 - IN CUT SECTIONS OUTSIDE UNDERDRAINS TO BE DEEP (50" MAX.) UNLESS OTHERWISE SHOWN IN THE PLANS.
- Δ THICKNESS SHOWN IS "DESIGNED" THICKNESS AS DESCRIBED IN SECTION B-21.01.
- * OR AS SHOWN ON CROSS SECTIONS

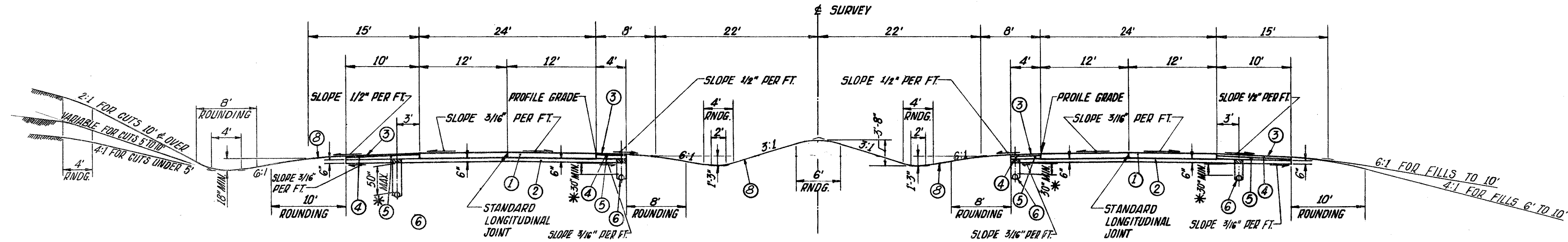
TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

FRANKLIN COUNTY
FRA -33- 21.72

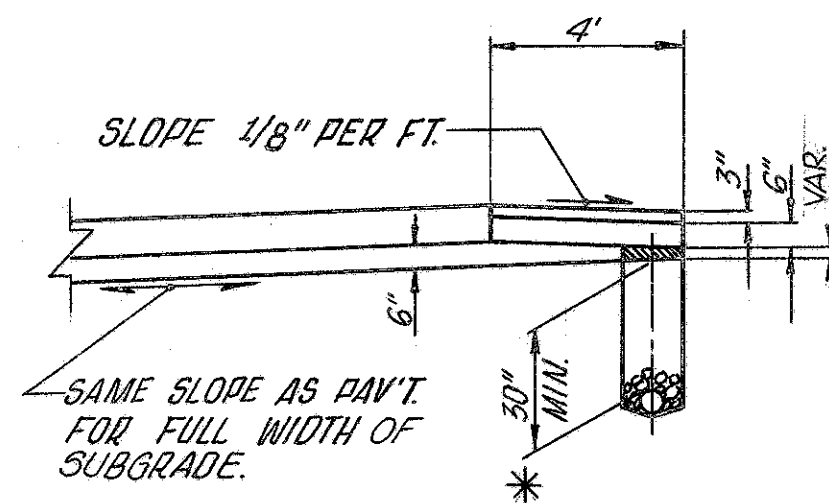
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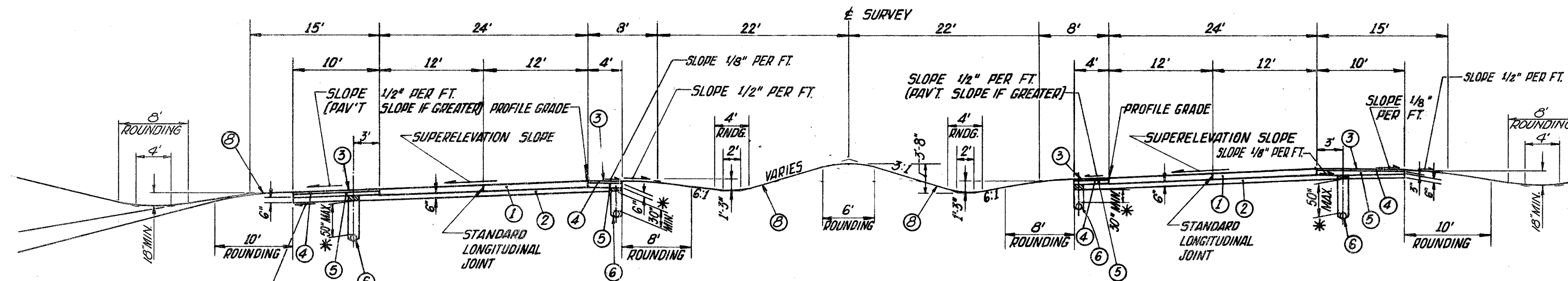
NORMAL SECTION

STATION 122+75.00 to STATION 129+00.00 = 625.00'
STATION 140+50.00 to STATION 152+00.00 N.B. LANES = 1150.00'
STATION 140+50.00 to STATION 152+40.00 S.B. LANES = 1190.00'
Total = 2965.00'

NOTE: See general notes for the location of joints in the edge of the pavement.



SHOULDER DETAIL



SUPERELEVATED SECTION

STATION 131+27.00 to STATION 138+37.00 = 710.00'

SAME SLOPE CRITERIA AS SHOWN ABOVE.

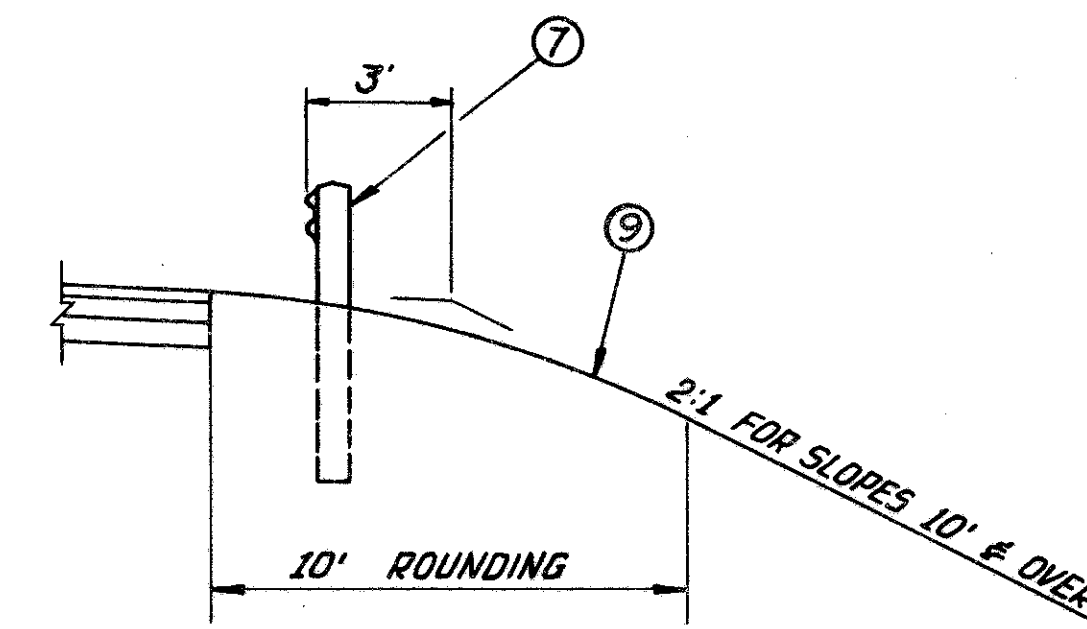
SAME SLOPE AS PAV'T.

SAME SLOPE CRITERIA AS SHOWN ABOVE.

ITEM	DESCRIPTION
① T-71	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT.
② I-22	SUBBASE, VARIABLE DEPTH. A OR B GRADING, AS PER PLAN.
③ T-31	BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. IN ONE APPLICATION. SEE NOTE IN PROPOSAL.
④ B-21	3" WATERPROOFED AGGREGATE BASE COURSE. Δ (Type A T-35 or T-335 material may be used in construction of this course - see note in Proposal)
⑤ B-112	POROUS BASE COURSE.
⑥ I-1	6" PIPE, CLASS I-3.
⑦ I-15	GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP).
⑧ L-9	SEEDING AND PROTECTING.

NOTE:

1. For Toe of Fill Ditches See Cross-Sections.
2. In Fill Sections All Underdrains to be Shallow.
3. In Cut Sections Outside Underdrains to be Deep.
- Δ Thickness Shown is "Designed" Thickness as Described in Section B-21.01.
- * or as Shown in the Plans



GUARD RAIL SECTION

GENERAL NOTES

FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

FRANKLIN COUNTY
FRA -- 33 -- 21.72

DESIGN SPEED

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 60 MILES PER HOUR.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

FIELD OFFICE ~ SEE PART I

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. 8-0.01 (b), PROVIDE FOR THE EXCLUSIVE USE OF THE STATE'S EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE EXCLUSIVE OF THE SANITARY AREA. THE CONTRACTOR SHALL PROVIDE HOT AND COLD RUNNING WATER, FLUSH TOILET AND OTHER NECESSARY SANITARY FACILITIES. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD AND PROVIDE 110 VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THE PROJECT!

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING RI-1, AS MODIFIED BY THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS 12" AND OVER LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM E-9 REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES AND STUMPS FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	TREES	STUMPS
12" to 18"	20	
18" to 24"	10	
24" to 30"	8	2
30" to 36"	4	
36" to 42"		
42" to 48"		
Over 48"		

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T. J.

CENTERLINE REFERENCE MONUMENTS AS PER PLAN

MONUMENTS SHALL BE CONSTRUCTED OF CLASS C CONCRETE, CAST-IN-PLACE IN A CIRCULAR HOLE, EIGHT INCHES IN DIAMETER AND FORTY-INCHES IN DEPTH. TOP OF CONCRETE SHALL BE FINISHED AT A DEPTH OF TWO INCHES BELOW GROUND LEVEL AND THE UPPER SIX INCH PORTION OF THE CONCRETE SHALL BE FORMED. A 1/2 INCH STEEL ROD SHALL BE IMBEDDED IN THE WET CONCRETE AS DIRECTED BY THE ENGINEER TO MARK CENTERLINE AND STATION.

LOCATION AND SIZE OF PIPES

THE LOCATION, TYPE, DEPTH AND SIZE OF ALL EXISTING PIPES ARE SHOWN AS NEAR EXACT AS THE AVAILABLE INFORMATION WILL PERMIT. THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION.

SPECIAL DITCH ELEVATIONS

FOR ELEVATIONS OF SPECIAL DITCHES SEE CROSS SECTIONS.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN LINES TEN (10) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS, OR TO THE RIGHT-OF-WAY LINE IF SUCH LINE IS LESS THAN TEN (10) FEET OUTSIDE THE WORK LIMITS.

SEEDING FORMULA:

THE FOLLOWING SEED MIXTURE SHALL, IN LIEU OF THE MIXTURE LISTED SECTION L-9.11 BE USED THROUGHOUT THE LIMITS OF THIS PROJECT;

10% ALSIKE CLOVER
60% KENTUCKY 31 FESCUE
30% KENTUCKY BLUEGRASS

L-9 COMMERCIAL FERTILIZER

ALL AREAS TO BE SEEDED OR SODDED SHALL HAVE COMMERCIAL FERTILIZER (12-12-12 MIX), APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQ. FT.

UTILITIES

THE CONTRACTOR SHALL NOTIFY, AT LEAST 48 HOURS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. HE SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO AVOID DAMAGES TO ANY AND ALL UTILITIES. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

THE FOLLOWING UTILITIES ARE AFFECTED:

- (1) OHIO BELL TELEPHONE COMPANY
35 EAST GAY STREET, COLUMBUS, OHIO
- (2) COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY
215 NORTH FRONT STREET, COLUMBUS, OHIO

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

SODDING

AN 18" WIDTH OF SOD SHALL BE PLACED AROUND THE BACK AND BOTH SIDES OF ALL HEADWALLS, AND ALONG THE EDGES OF ALL PAVED GUTTERS, (AND RIPRAP WHERE SHOWN ON THE PLANS). THE COST OF THE SODDING SHALL BE PAID FOR AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM L-10 SODDING.

ITEM I-22 SUBBASE GRADING "A" OR "B", AS PER PLAN

THE MATERIAL FURNISHED FOR THIS ITEM SHALL MEET THE REQUIREMENTS OF GRADING "A" OR "B" OF SECTION I-22.02, EXCEPT THAT FOR EITHER GRADING NO MORE THAN 10 PER CENT OF THE MATERIAL SHALL PASS A NO. 200 SIEVE AFTER ALL OPERATIONS OF PLACEMENT AND COMPACTION HAVE BEEN COMPLETED.

ITEM S.S. C.E. 101.04 (PARTS I and II)

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED IN THE GENERAL SUMMARY, FOR USE AS DIRECTED BY THE ENGINEER IN PROOF ROLLING OF SUBGRADE UNDER I-70, US 33, JAMES ROAD (FULL WIDTH CONST.) AND RAHWAY PAVEMENTS AS DIRECTED BY THE ENGINEER. PROOF ROLLING WILL NOT BE REQUIRED WHERE ROCK OR SHALE OCCURS IN SUBGRADE AND IN AREAS WHERE SUBBASE IS TO BE THICKENED TO REPLACE FROST SUSCEPTIBLE SILT. IN LIEU OF THE REQUIREMENTS OF CE-101.04, A MINIMUM OF ONE COVERAGE WILL BE REQUIRED TO CHECK THE SUBGRADE. MOISTURE CONTENT OF THE TOP 12" OF SUBGRADE SHALL NOT EXCEED OPTIMUM AT THE TIME OF PROOF ROLLING. TIRE PRESSURE AND TOTAL LOAD SHALL BE VARIED AS DIRECTED BY THE ENGINEER WITHIN THE LIMITS PROVIDED IN SUPPLEMENTAL SPECIFICATION NO. CE-101.04.

SEQUENCE OF CONSTRUCTION OPERATIONS (PAVING)

UNDERDRAINS SHALL BE INSTALLED AND BACKFILLED TO SUBGRADE ELEVATION, IMMEDIATELY PRIOR TO CONSTRUCTION OF THE SUB-BASE, EXCEPT THAT, WHERE SUBSURFACE CONDITIONS ARE SUCH THAT IMPROVEMENT OF AN UNSTABLE SUBGRADE CAN BE ACCOMPLISHED THROUGH THE DRYING ACTION OF DEEP UNDERDRAINS, THE PROJECT ENGINEER MAY AUTHORIZE OR REQUIRE THE CONTRACTOR TO DELAY THE CONSTRUCTION OF THE SUBBASE AS NECESSARY.

THE SUBBASE SHALL THEN BE CONSTRUCTED UNDER THE CONCRETE PAVEMENT AREA AND EXTENDED OUT TO COVER THE POROUS BACK-FILL FOR THE UNDERDRAIN.

PAVEMENT SHALL THEN BE CONSTRUCTED.

AFTER THE SUBBASE IN THE SHOULDER AREA IS IN PLACE AND COM-PACTED AS SPECIFIED, AND IMMEDIATELY PRIOR TO PLACING THE POROUS BASE COURSE, THE MATERIAL LOCATED ABOVE AND WITHIN THE UNDERDRAIN TRENCH SHALL BE REMOVED TO THE DEPTH NEC-ESSARY TO EXPOSE CLEAN TYPE 3 BACKFILL. THE TRENCH SO EXCAVATED SHALL BE BACKFILLED WITH NEW TYPE 3 BACKFILL MATERIAL.

IF, AFTER TESTING THE SUBBASE MATERIAL FOR COMPOSITION IN THE SHOULDER AREA, IT IS FOUND THAT REMOVAL OF CONTAMINATED MATERIAL FROM THE SURFACE IS NECESSARY, SUCH MATERIAL SHALL BE REPLACED WITH MATERIAL MEETING THE REQUIREMENTS OF ITEM B-112 POROUS BASE COURSE " AT THE EXPENSE OF THE CONTRACTOR.

POROUS BASE COURSE SHALL THEN BE CONSTRUCTED AND CONSTRUCTION OF THE WATERPROOFED AGGREGATE COURSE SHALL FOLLOW IMMEDIATELY.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE PERTINENT ITEMS AFFECTED.

REINFORCED ENDS ON CORRUGATED METAL PIPE

REINFORCED ENDS WILL BE REQUIRED ON ALL CORRUGATED METAL CLASS F-4, SEC. M-6.4(C) PIPE FOR DRIVEWAYS AND UNDERDRAIN OUTLETS IF THE PIPE ENDS ARE UNPROTECTED BY HEADWALLS, CATCH BASINS, OR MANHOLES.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPES, HEADWALLS AND /OR APPURTENANCES WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

PROVISIONS FOR PAVEMENT JOINTS

A STANDARD KEY JOINT WITHOUT TIE BARS SHALL BE PROVIDED IN THE OUTSIDE EDGE OF THE CONCRETE PAVEMENT FROM STATION 150+05 TO STATION 152+40 ON THE SOUTHBOUND LANES AND FROM STATION 140+12.28 TO STATION 142+94.28 ON THE NORTHBOUND LANES. A STANDARD KEY JOINT WITH HOOK BOLTS SHALL BE PROVIDED IN THE OUTSIDE EDGE OF THE CONCRETE PAVEMENT FROM STATION 142+94.28 TO STATION 148+95.61 ON THE NORTHBOUND LANES.

THESE JOINTS ARE BEING PROVIDED TO ABUTT CONCRETE PAVEMENT ON PART I TO PRESENT PROPOSED CONSTRUCTION WHEN THE EAST FREEWAY IS CONSTRUCTED. THE JOINTS SHALL MEET THE REQUIREMENTS OF SEC. T-71. AND THEIR COST WILL BE INCLUDED IN THE PRICE BID FOR "ITEM T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT".

GENERAL NOTES

CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

SUPERELEVATION

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

NON-RIGID PAVEMENT REMOVAL

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

ITEM SPECIAL, DRILLED WELL ABANDONED

THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD TREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

ITEM 1-10 RIPRAP AS PER PLAN

CUTOFF WALLS AS DETAILED ON THE PLAN SHALL BE PROVIDED AND THE COST SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

CONNECTIONS TO EXISTING PIPE

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

PLUGGING PIPE

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS (AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE) SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE LENGTH IS ENCOUNTERED WHICH SHALL BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM WHEN SUCH DRAINS CARRY FLOW FROM ANY PLUMBING FIXTURES INCLUDING FLOOR DRAINS AND SINK DRAINS OR DRAINS FROM LIVESTOCK LOTS OR BARNs OR POLLUTED WATER OF ANY KIND.

EXISTING PIPE CARRYING FLOW WHICH COMES WITHIN THE CATEGORY OUTLINED ABOVE SHALL BE PLUGGED WITH CLASS E CONCRETE AT THE RIGHT-OF-WAY LINE. PAYMENT FOR SAID PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "ITEM E-1 ROADWAY EXCAVATION".

DUST CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR DUST CONTROL.

ITEM 1-4	WATER FOR DUST CONTROL	U-485 (B) 2 M. GALS.	I-70-3 (19) 103 5 M. GAL.
ITEM 1-4	CALCIUM CHLORIDE FOR DUST CONTROL	1 TON	1 TON

MAINTAINING TRAFFIC

THE FOLLOWING ESTIMATED QUANTITIES ARE FOR THE MAINTAINING OF TRAFFIC. PAYMENT SHALL BE MADE ON FINAL MEASUREMENT.

ITEM T-10	TRAFFIC COMPACTED SURFACE COURSE	U-485 (B) 200 CU. YDS.	I-70-3 (19) 103 500 CU. YDS.
ITEM I-4	CALCIUM CHLORIDE FOR DUST CONTROL	4 TONS	10 TONS

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS:- ~ SEE PART I

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS AT EACH OF THE FOLLOWING LOCATIONS:

- 1.
- 2.
- 3.
- 4.

SIGN DETAILS SHALL BE AS SPECIFIED ON STANDARD DRAWING FACI-1, AND THE SIGNS SHALL BE ERECTED IN ACCORDANCE WITH STANDARD DRAWING FACI-2. ADDITIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH NOTES IN THE PROPOSAL.

TRAFFIC NOTE

- 1) CONSTRUCT THE NORTHBOUND LANES FROM STATION 136+45 TO STATION 152+00 AND THE SOUTHBOUND LANES FROM THE BEGINNING OF THE PROJECT TO STATION 136+15 WHILE TWO WAY TRAFFIC USES EXISTING U.S.R. 33.
- 2) CONSTRUCT THE TEMPORARY CROSSOVER STATION 136+ AND REROUTE TWO WAY TRAFFIC OVER THE ABOVE CONSTRUCTED LANES.
- 3) CONSTRUCT THE SOUTHBOUND LANES FROM STATION 136+15 TO STATION 152+40 AND THE NORTHBOUND LANES FROM THE BEGINNING OF THE PROJECT TO STATION 136+45.
- 4) REMOVE THE TEMPORARY CROSSOVER.

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.

TRAFFIC SHALL BE MAINTAINED FROM STATION STATION 136+ TO STATION 139 - BY THE USE OF I-4 AND T-10 WHILE THE TEMPORARY CROSSOVER IS BEING CONSTRUCTED. THE TIME REQUIRED FOR THIS SHALL NOT EXCEED SEVEN (7) CALENDAR DAYS.

TEMPORARY CROSSOVER

THE TEMPORARY CROSSOVER SHALL BE CONSTRUCTED AS DETAILED ON SHEET 12 AND SHALL BE MAINTAINED AND BE PROVIDED WITH THE PROPER DRAINAGE WHILE IN USE. UPON REMOVING THE CROSSOVER, THE AREA SHALL BE RESTORED TO MEET THE INTENT OF THE PLANS.

ALL GRADING AND DRAINING NECESSARY TO PROVIDE THE CROSSOVER AND RESTORE THE AREA SHALL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC. PAVEMENT SHALL BE MEASURED AND PAID FOR AT THE UNIT PRICE BID FOR ITEM T-70 3" PORT. CEMENT CONC. PAVEMENT AS PER PLAN. THE PROVISIONS OF SEC. 5-15.06 APPLICABLE TO ITEM T-70 SHALL APPLY. THE PAVEMENT SHALL BE REMOVED UNDER ITEM E-8 REMOVAL AND DISPOSAL OF EXIST. PAVEMENT.

MATCHING EXISTING PAVEMENT

Where the proposed concrete pavement abuts an existing bituminous surface, a smooth profile shall be provided by feathering with asphaltic concrete at the direction of the Engineer.

An estimated quantity has been carried to the General Summary for this use: Item T-35 Type C (70-85) 10 cu. yds.

GENERAL

SUMMARY

TYPE CODE 7221

COUNTY	STATE	PROJECT
2	OHIO	

FRANKLIN COUNTY
FRA-33-21.72

7
44

ITEM	SHEET NUMBER										SUB-TOTALS			UNIT	DESCRIPTION													
	5	6	8	U-485 (8)		10	11	12	26	42	5	6	8			12	13	14	1-70-3 (19) 103	35	36	42	ITEM	U-485 (8)	1-70-3 (19) 103	TOTAL Part II		
E-1			19,728										58,246									E-1	19,728	58,246	77,974	CUYDS.	ROADWAY EXCAVATION, METHOD B.	
E-1			15,206										17,857									E-1	15,206	17,857	33,063	SQ.YDS.	COMPACTED SUBGRADE	
E-8				2054					280								417					E-8	2,334	928	3,262	SQ.YDS.	REMOVAL AND DISPOSAL OF EXISTING PAVEMENT	
E-8				870																		E-8	870		870	LIN.FT.	REMOVAL AND DISPOSAL OF EXISTING CURB	
E-8									174													E-8	174		174	LIN.FT.	REMOVAL AND DISPOSAL OF EXISTING CURB AND GUTTER	
E-9										LUMP												E-9		LUMP	LUMP	LUMP	REMOVAL OF TREES AND STUMPS	
E-10																				LUMP	E-10		LUMP	LUMP	LUMP	LUMP	REMOVAL OF ONE-1/2 STORY FRAME RESIDENCE, ONE ABANDONED FRAME SCHOOL HOUSE, ONE outhouse, AND ONE-FRAME SHED, PARCEL N# 14 WL	
E-11			40										43									E-11	40	43	83	M.GALS.	WATER	
E-12					50										226							E-12	50	226	276	LIN.FT.	PIPE REMOVED, 15" AND UNDER	
E-12				344											50							E-12	344	50	394	LIN.FT.	PIPE REMOVED, OVER 15"	
I-4		2									5											I-4	2	5	7	M.GALS.	WATER FOR DUST CONTROL	
I-4		5									11											I-4	5	11	16	TONS	CALCIUM CHLORIDE FOR DUST CONTROL	
I-8									5											4	I-8	5	4	9	EACH	CENTERLINE REFERENCE MONUMENTS AS PER PLAN		
I-15															398	52						I-15		450	450	LIN.FT.	GUARD RAIL, STEEL BEAM, STANDARD TYPE DEEP	
I-15															188	42						I-15		230	230	LIN.FT.	GUARD RAIL, REMOVED AND DISPOSED OF	
I-25																				834	I-25		834	834	LIN.FT.	WOVEN WIRE FENCE, TYPE 47		
L-9			17,045										28,545									L-9	17,045	28,545	45,590	SQ.YDS.	SEEDING AND PROTECTING, AS PER PLAN	
L-9			1.5										2.6									L-9	1.5	2.6	4.1	TONS	COMMERCIAL FERTILIZER (12-12-12)	
L-10								118							503	6		55				L-10	118	564	682	SQ.YDS.	SODDING	
T-10		200									500											T-10	200	500	700	CUYDS.	TRAFFIC COMPACTED SURFACE COURSE FOR MAINTAINING TRAFFIC	
CE10104 SPECIAL	5									6												CE10104 SPECIAL	5	6	11	HOURS	COMPACTION USING HEAVY PNEUMATIC-TIRED ROLLER	
S-24																						S-24				Lump	DRILLED WELLS ABANDONED	
E-3																						E-3				Lump	DRAINAGE	
I-1																						I-1				Lump	REMOVAL OF EXISTING STRUCTURES	
I-1																						I-1				Lump	CHANNEL EXCAVATION	
I-1																						I-1				Lump	66" PIPE, CLASS A-1 SEC. M-G-G (a)	
I-1																						I-1				Lump	72" PIPE, CLASS A-1 SEC. M-G-G (a)	
I-1				40											30	30						I-1	40	60	100	LIN.FT.	15" PIPE, CLASS E-1	
I-1				280											502	320						I-1	280	822	1102	LIN.FT.	18" PIPE, CLASS E-1	
I-1				344												26						I-1	344	26	370	LIN.FT.	24" PIPE, CLASS E-1	
I-1				30	40				10						50	60						I-1	80	120	200	LIN.FT.	6" PIPE, CLASS F-4	
I-1															40	30	10					I-1		70	70	LIN.FT.	8" PIPE, CLASS F-4, Sec. M-G-G (c)	
I-1				2002	3992	419									3674	3113	565					I-1	6413	7352	13,765	LIN.FT.	6" PIPE, CLASS J-3	
I-1				50	30				206							30	35					I-1	286	65	351	LIN.FT.	6" PIPE, CLASS J-1	
I-1						68																I-1	68		68	LIN.FT.	12" PIPE, CLASS J-1	
I-1																						I-1		74	74	LIN.FT.	15" PIPE, CLASS J-1	
I-1				96	278	65									203							I-1	439	203	642	LIN.FT.	18" PIPE, CLASS J-1	
I-1																106						I-1		106	106	LIN.FT.	24" PIPE, CLASS J-1	
I-1																150						I-1		150	150	LIN.FT.	27" PIPE, CLASS J-1	
I-16				1												1						I-16	1	1	2	EACH	INLETS ABANDONED	
I-2																						I-2		22.5	22.5	CUYDS.	MASONRY	
I-5																						I-5		1	1	EACH	66" PIPE SPECIAL, CLASS A-1 SEC. M-G-G (a)	
I-5				3	3				2							7	6	2				I-5	8	15	23	EACH	6" PIPE SPECIAL, CLASS J-1	
I-8				2																		I-8	2		2	EACH	STANDARD N# 2-2-A CATCH BASIN	
I-8					1	2										2	6					I-8	3	8	11	EACH	STANDARD N# 8 CATCH BASIN	
I-8				1												1						I-8	1	1	2	EACH	STANDARD N# 1 MANHOLE	
I-10																						I-10		208	208	SQ.YDS.	RIPRAP, 6" REINFORCED CONCRETE SLAB, AS PER PLAN.	
T-70																						T-70						PAVEMENT
B-21			332										523									B-21	332	523	855	SQ.YDS.	9" PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN	
B-112			616										888									B-112	616	888	1504	CUYDS.	WATERPROOFED AGGREGATE BASE COURSE	
T-31			32										50									T-31	32	50	82	CUYDS.	POROUS BASE COURSE	
T-31			996										1571									T-31	996	1571	2567	GALS.	BITUMINOUS SURFACE TREATMENT, BITUMINOUS MATERIAL, AS PER PLAN	
T-70					37																	T-70		37	37	SQ.YDS.	7" PORTLAND CEMENT CONCRETE PAVEMENT	
T-71			11,170										11,573									T-71	11,170	11,573	22,743	SQ.YDS.	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT	
I-12			163																			I-12		163	163	LIN.FT.	CONCRETE CURB, STANDARD TYPE 2-A	
I-12			406																			I-12		406	406	LIN.FT.	CONCRETE CURB, STANDARD TYPE G	
I-12			1417																			I-12		1417	1417	LIN.FT.	COMBINATION CURB AND GUTTER, STANDARD TYPE 2	
I-21			116																			I-21		116	116	SQ.YDS.	PORTLAND CEMENT CONCRETE MEDIAN, STANDARD TYPE 2	
I-22			2550		4																	I-22	2554	2890	5444	CUYDS.	SUBBASE, A OR B GRADING AS PER PLAN	
T-35		10																				T-35	10		10	CU.YDS.	ASPHALTIC CONCRETE SURFACE COURSE TYPE C (70-85)	
I-3		Lump																				I-3	LUMP	LUMP	LUMP	LUMP	LUMP	MAINTAINING TRAFFIC
I-3		Lump																				I-3	LUMP	LUMP	LUMP	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

8

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8
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* U ~ 485 (8)

<u>Excav.</u>	<u>Emb + 15%</u>	
19,728 cu.yds.	less 1,940 cu.yds.	= 17,788 cu.yds.
58,246 cu.yds.	less 2,039 cu.yds.	= <u>56,207</u> cu.yds.
Total Available Excav.		73,995 cu.yds.
Carried to Part I, Sheet 22 to reduce borrow.		

ITEM L-9 ~ SEEDING & PROTECTING			
ITEMS		SQ.	YDS.
DEDUCTIONS	GROSS AREA BETWEEN SEEDING LIMITS	*32,300	46,400
	PAVEMENT, MEDIANS & CURBS	*11,275	11,575
	SHOULDERS	* 3980	6,280
	NET AREA TO BE SEEDED & PROTECTED	45,590	
	U - 485 (8)	17,045	SQ. YDS.
	I ~ 70 ~ 3 (19) 103	28,545	SQ. YDS.

ITEM L-9 ~ FERTILIZER		
(APPLIED AT THE RATE OF 20 LBS. PER 1000 SQ. FT.)		
$[17,045 \times 9 \times 20] \div$	$[1000 \times 2000]$	$= 1.5 \text{ TONS} *$
$[28,545 \times 9 \times 20] \div$	$[1000 \times 2000]$	$= 2.6 \text{ TONS}$

FRANKLIN COUNTY
FRA - 33 - 21.72

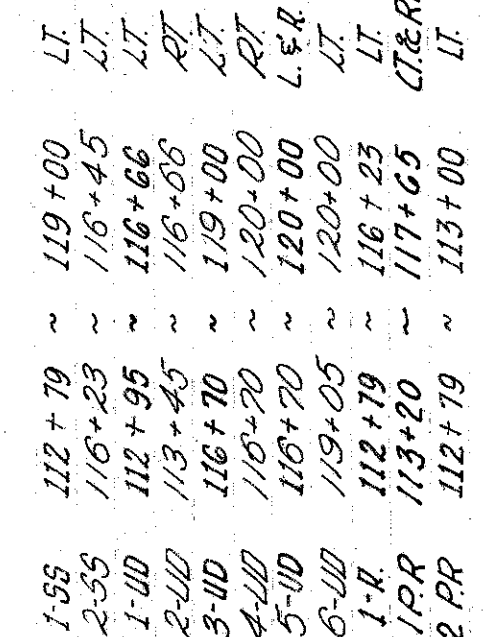
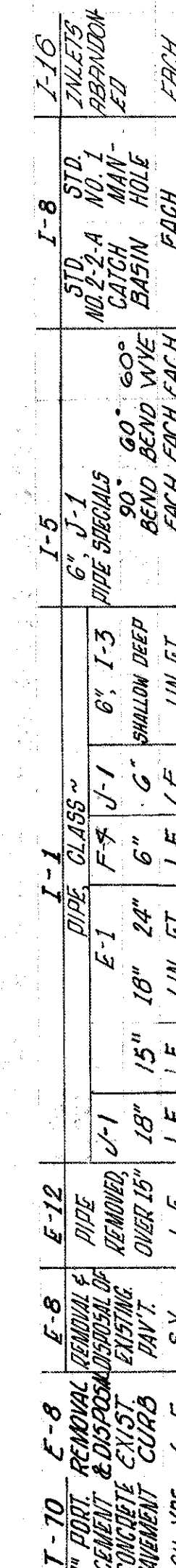
SUPERELEVATION CHARTS

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
P.I. STA. 119+68.77					
Dc= 1°28'		MAX. S.E.= .036'/FT.			
768.16	Pavement Transition 20' - 24'	113+20	768.56	Pavement Transition 20' - 24'	768.16
768.19		113+25	768.59		768.19
768.35		113+50	768.74		768.34
768.55		113+75	768.90		768.49
768.75		114+00	769.05		768.59
768.94		114+25	769.19		768.65
769.12		114+50	769.32		768.68
769.31		114+75	769.45		768.70
769.47		115+00	769.55		768.73
769.63		115+23.15	769.63		768.77
769.64		115+25	769.63		768.77
769.82		115+50	769.70		768.80
770.01		115+75	769.77		768.85
770.17		116+00	769.81		768.87
770.32	116+25	769.84	768.88		
770.47	116+50	769.86	768.89		
770.59	116+75	769.86	768.90		
770.69	770.28	117+00	769.86	769.33	768.90
770.69	770.26	117+25	769.83	769.35	768.91
770.65	770.22	117+50	769.79	769.32	768.90
770.59	770.16	117+75	769.73	769.30	768.87
770.53	770.10	118+00	769.67	769.24	768.81
770.45	770.02	118+25	769.59	769.16	768.73
770.38	769.95	118+50	769.52	769.09	768.66
770.30	769.87	118+75	769.44	769.01	768.58
770.23	769.80	119+00	769.37	768.94	768.51
770.15	769.72	119+25	769.29	768.86	768.43
770.08	769.65	119+50	769.22	768.79	768.36
770.00	769.57	119+75	769.14	768.71	768.28
769.93	769.50	120+00	769.07	768.64	768.21
769.85	769.42	120+25	768.99	768.56	768.13
769.78	769.35	120+50	768.92	768.49	768.06
769.70	769.27	120+75	768.84	768.41	767.98
769.63	769.20	121+00	768.77	768.34	767.91
769.55	769.12	121+25	768.69	768.26	767.83
769.48	769.05	121+50	768.62	768.19	767.76
769.40	768.97	121+75	768.54	768.11	767.68
769.33	768.90	122+00	768.47	768.04	767.61
769.25	768.82	122+25	768.39	767.96	767.53
769.18	768.75	122+50	768.32	767.89	767.46
769.10	768.67	122+75	768.24	767.85	767.45
769.03	768.60	123+00	768.17	767.84	767.51

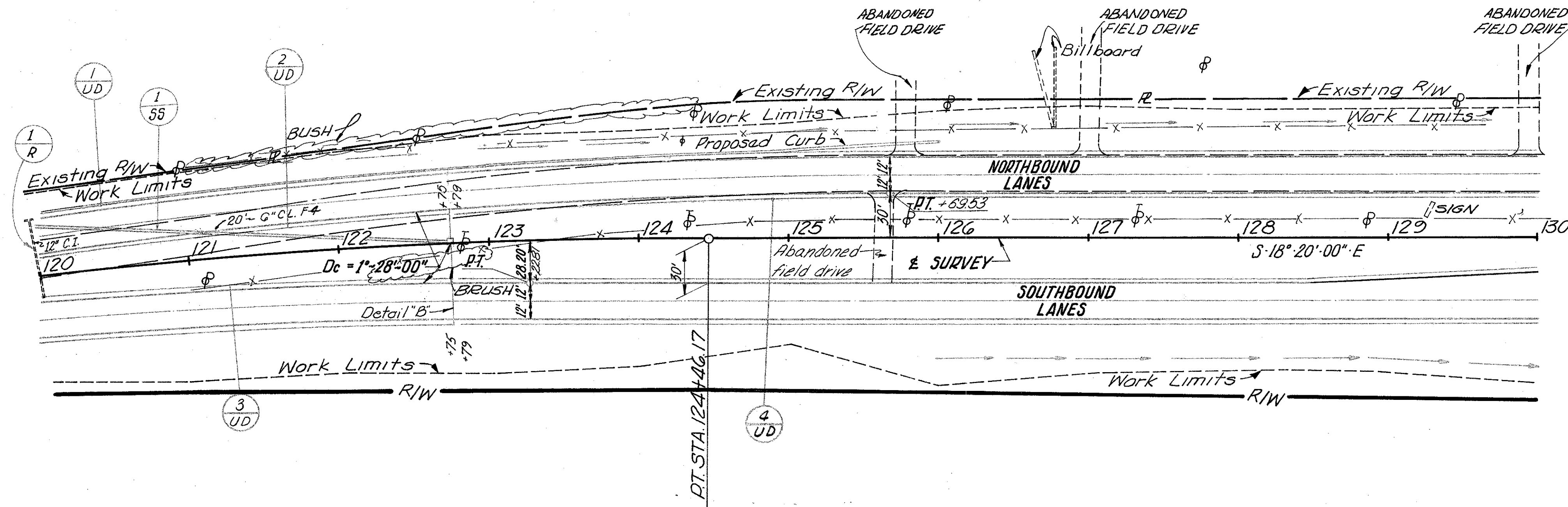
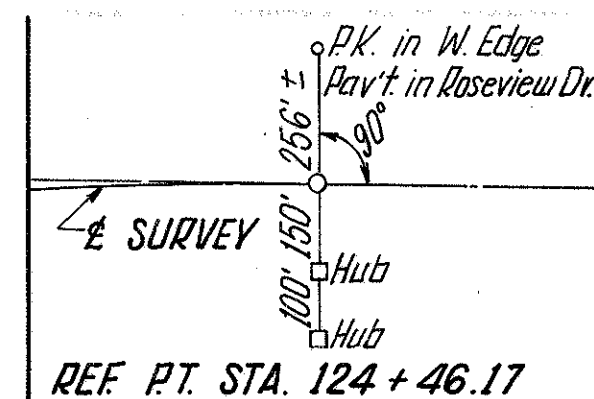
LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
768.95	768.52	123+25	768.09	767.82	767.55
768.88	768.45	123+50	768.02	767.81	767.61
768.80	768.37	123+75	767.94	767.85	767.66
768.73	768.30	124+00	767.87	767.89	767.70
768.65	768.22	124+25	767.79	767.87	767.68
768.58	768.15	124+50	767.72	767.86	767.67
768.52	768.09	124+70	767.66	767.85	767.66
768.50	768.07	124+75	767.64		
768.39	767.98	125+00	767.57		
768.22	767.86	125+25	767.49		
768.03	767.72	125+50	767.42		
767.82	767.58	125+75	767.34		
767.63	767.46	126+00	767.27		
767.43	767.38	126+25	767.19		
767.26	767.31	126+50	767.12		
767.12	767.23	126+75	767.04		
766.99	767.16	127+00	766.97		
766.95	767.14	127+08	766.95		

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
P.I. STA. 134+83.99					
Dc= 1°28'		MAX. S.E. = .036'/FT.			
766.35	766.54	129+00	766.35	766.54	766.35
766.22	766.41	129+25	766.25	766.44	766.27
766.05	766.25	129+50	766.14	766.33	766.22
765.86	766.05	129+75	766.01	766.20	766.16
765.65	765.84	130+00	765.88	766.07	766.11
765.39	765.57	130+25	765.73	765.92	766.08
765.10	765.33	130+50	765.57	765.81	766.05
764.80	765.09	130+75	765.40	765.70	766.01
764.47	764.83	131+00	765.21	765.58	765.94
764.18	764.59	131+25	765.01	765.43	765.84
763.94	764.37	131+50	764.80	765.23	765.66
763.72	764.15	131+75	764.58	765.01	765.44
763.49	763.92	132+00	764.35	764.78	765.21
763.24	763.67	132+25	764.10	764.53	764.96
762.98	763.41	132+50	763.84	764.27	764.70
762.71	763.14	132+75	763.57	764.00	764.43
762.44	762.87	133+00	763.30	763.73	764.16
762.17	762.60	133+25	763.03	763.46	763.89
761.90	762.33	133+50	762.76	763.19	763.62
761.63	762.06	133+75	762.49	762.92	763.35
761.36	761.79	134+00	762.22	762.65	763.08
761.09	761.52	134+25	761.95	762.38	762.81
760.82	761.25	134+50	761.68	762.11	762.54
760.55	760.98	134+75	761.41	761.84	762.27
760.28	760.71	135+00	761.14	761.57	762.00
760.01	760.44	135+25	760.87	761.30	761.73
759.74	760.17	135+50	760.60	761.03	761.46
759.47	759.90	135+75	760.33	760.76	761.19
759.20	759.63	136+00	760.06	760.49	760.92
758.93	759.36	136+25	759.79	760.22	760.65
758.66	759.09	136+50	759.52	759.95	760.38
758.39	758.82	136+75	759.25	759.68	760.11
758.12	758.55	137+00	758.98	759.41	759.84
757.85	758.28	137+25	758.71	759.14	759.57
757.58	758.01	137+50	758.44	758.87	759.30
757.31	757.74	137+75	758.17	758.60	759.03
757.04	757.47	138+00	757.90	758.33	758.76
756.77	757.20	138+25	757.63	758.06	758.49
756.56	756.96	138+50	757.36	757.76	758.16
756.42	756.75	138+75	757.09	757.43	757.77
756.27	756.54	139+00	756.82	757.09	757.36
756.15	756.36	139+25	756.57	756.78	756.99

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
756.05	756.24	139+50	756.35	756.53	756.64
755.98	756.17	139+75	756.16	756.34	756.35
755.89	756.08	140+00	756.01	756.19	756.12
755.83	756.02	140+25	755.89	756.08	755.94
755.80	755.99	140+50	755.80	755.99	755.80



For Details of Underdrain
Outlets See Sheet 33

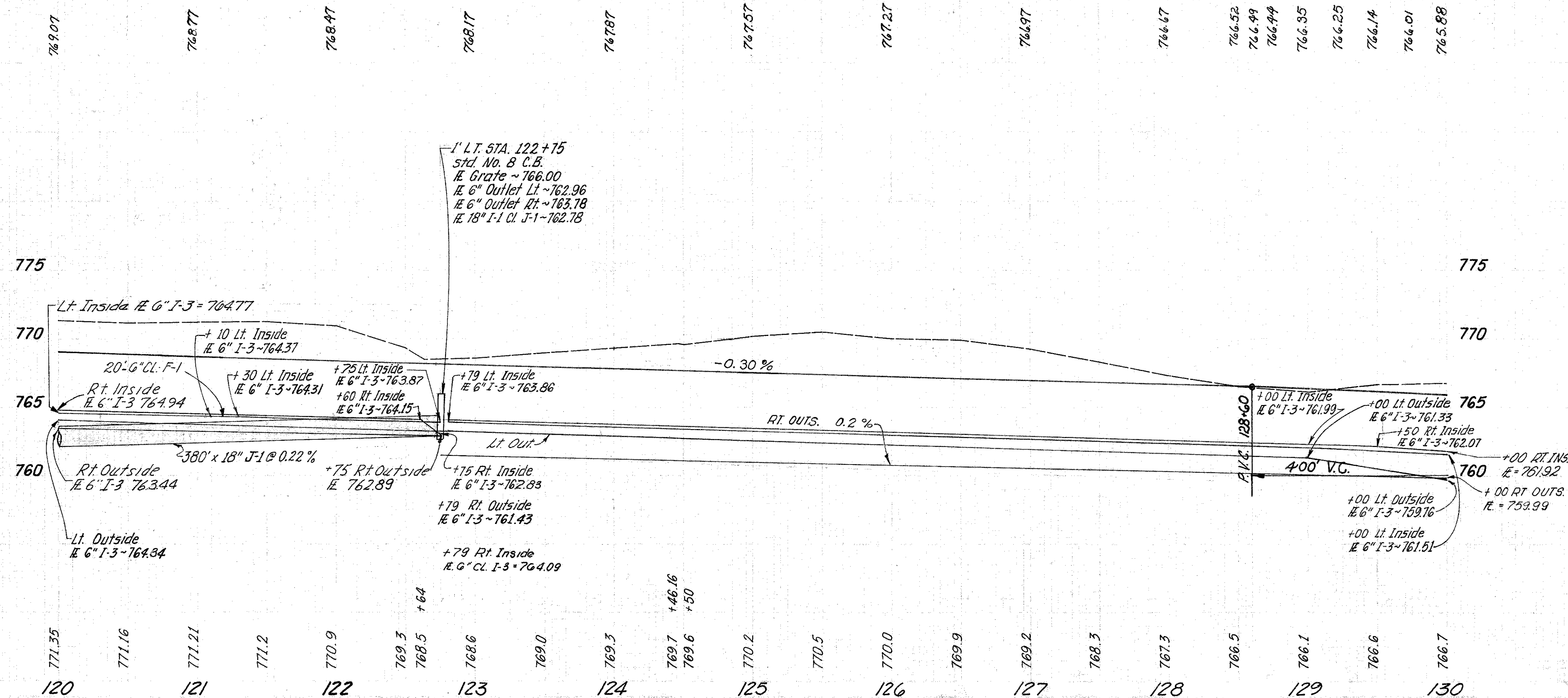


For Median Transition
See Sheet No. 31

BENCH MARK No. A-13
R.R. Spike in # 75-B-97,
82' Lt. P.O.C. Sta. 124+40.
Elev. ~ 771.650

For Proposed Typical Section
See Sheets No. 2-3 & 4.

BENCH MARK No. A-12
R.R. Spike in # 75-B-100,
92' Lt. P.O.T. Sta. 129+44.
Elev. ~ 769.060

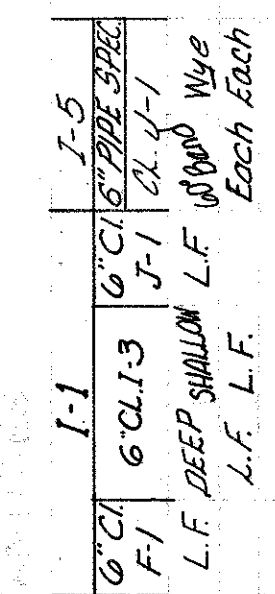


PIPE CLASS	PIPE CLASS	PIPE CLASS	PIPE CLASS
J-1 18" G. L.F.	I-1 6" I-3 SHALLOW DEEP L.F.	I-5 6" CL. 155 J-1 PIPE SPECIALS 90° BEND TEE EACH	I-8 STD. 10" 8 CATCH BASIN EACH

F-12
PIPE
REMOVED
UNDER
L.F.

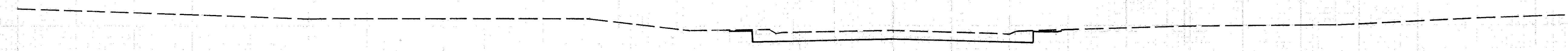
1-R	120+00	L.F.R.	50
1-S3	119+00 ~ 122+75	Lt.	278
1-U0	120+00 ~ 130+00	Lt.	1000
2-U0	120+00 ~ 122+75	Lt.	30
3-U0	120+00 ~ 122+75	Lt.	10
4-U0	122+79 ~ 130+00	Lt.	275
			292
			1442
			721

FRANKLIN COUNTY
FRA-33-21.72



SUB-TOTALS

FRANKLIN COUNTY
FRA - 33 - 21.72



769.05
114+00
769.11

760

76 0

82 2



770

45 3

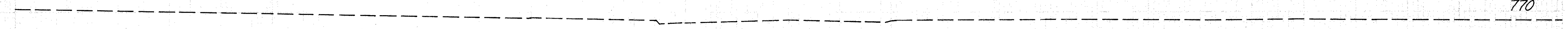
760

56 3

113+63.15
768.85

STA. 113+20

25 0



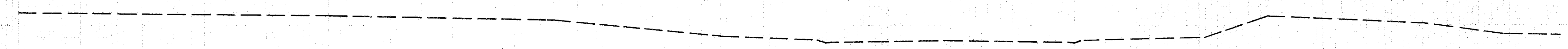
770

760

BEGIN PROJECT STA. 113+20

113+00
768.44

BEGIN WORK STA. 112+80



770

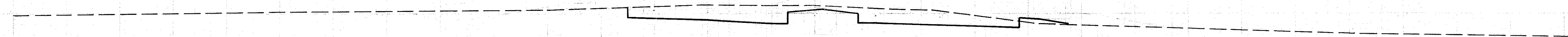
760

112+00
767.72

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 112+00 TO STA. 114+00

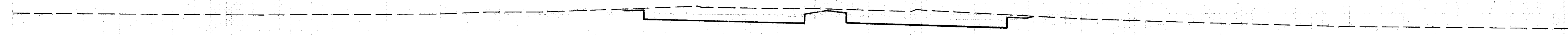
FRANKLIN COUNTY
FRA - 33 - 21.72



769.68
118+00
771.39

760 166 8

622 15

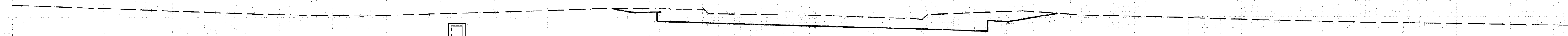


769.86
117+00
771.03

770 170 0

760

596 0



Sta. No. 2-2A C.B.
67' Lt. Sta. 116+45
E Window = 768.50
E 15' Lt. E-1 = 764.49

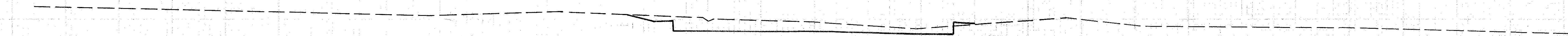
769.81
116+00
770.47

780

770 152 0

760

461 4



769.55
115+00
769.74

770

760 97 2

320 4

STA. 114+00 76 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 115+00 TO STA. 118+00

FRANKLIN COUNTY
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1' LT STA. 122+15
STD. #8 CB
E GRATE 766.00
E 15" I-1 762.78
E 6" I-3 762.96 LT
E 6" I-3 763.78 RT

27:1
768.0

768.47
122+00
770.9

770

760 205 110

744 291

27:1
768.5

768.77
121+00
771.21

770

760 197 47

648 169

27:1
767.6

769.07
120+00
771.35

770

760 153 44

626 111

27:1

Sta 119+00 52' LT
I-8 CB #2-2A
E Grate = 766.80
E 18" I-1 = 761.94
E 6" I-3 = 762.94

769.37
119+00
771.39

770

760 185 16

650 44

STA. 118+00

166 8

140

120

100

80

60

40

20

E

20

40

60

80

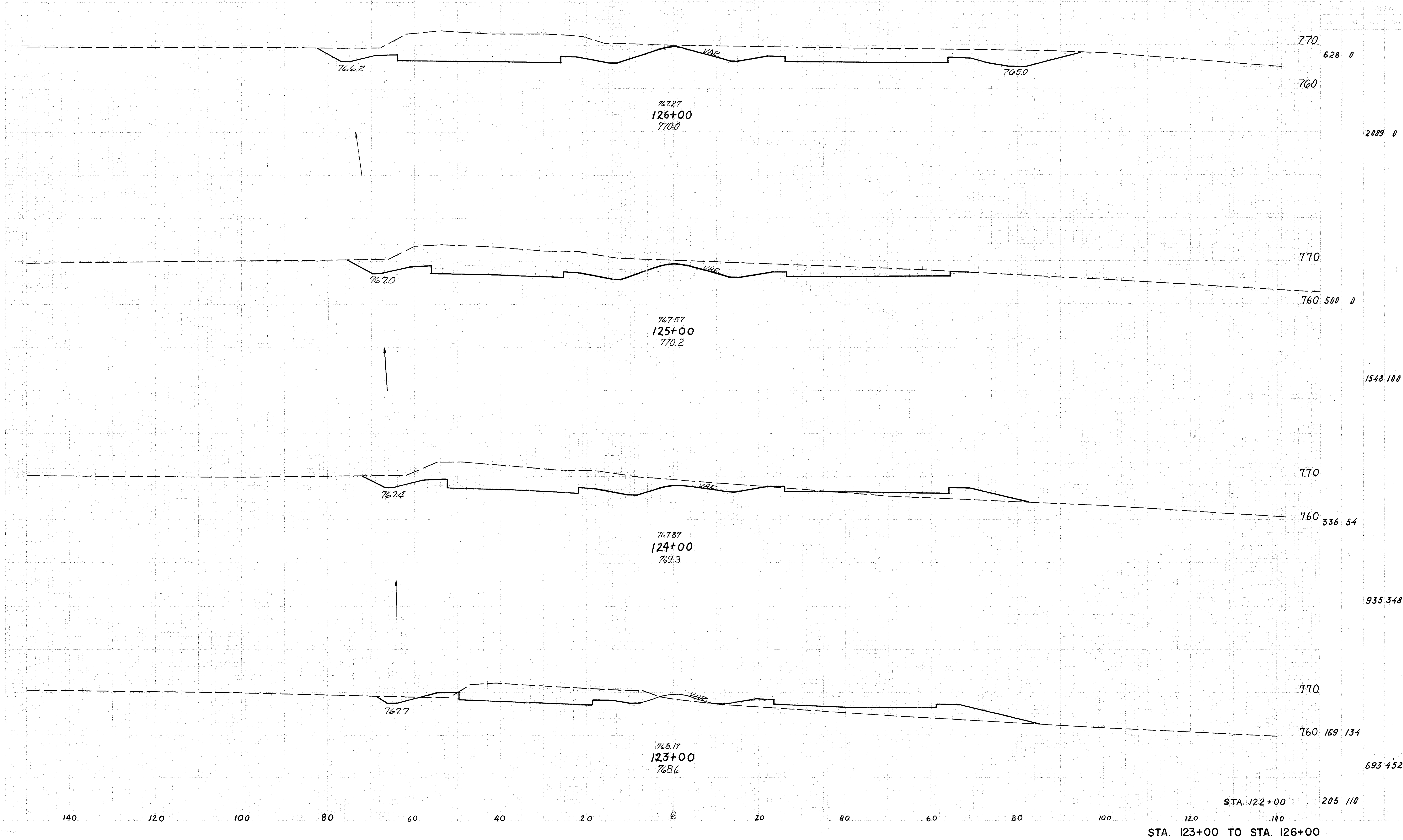
100

120

140

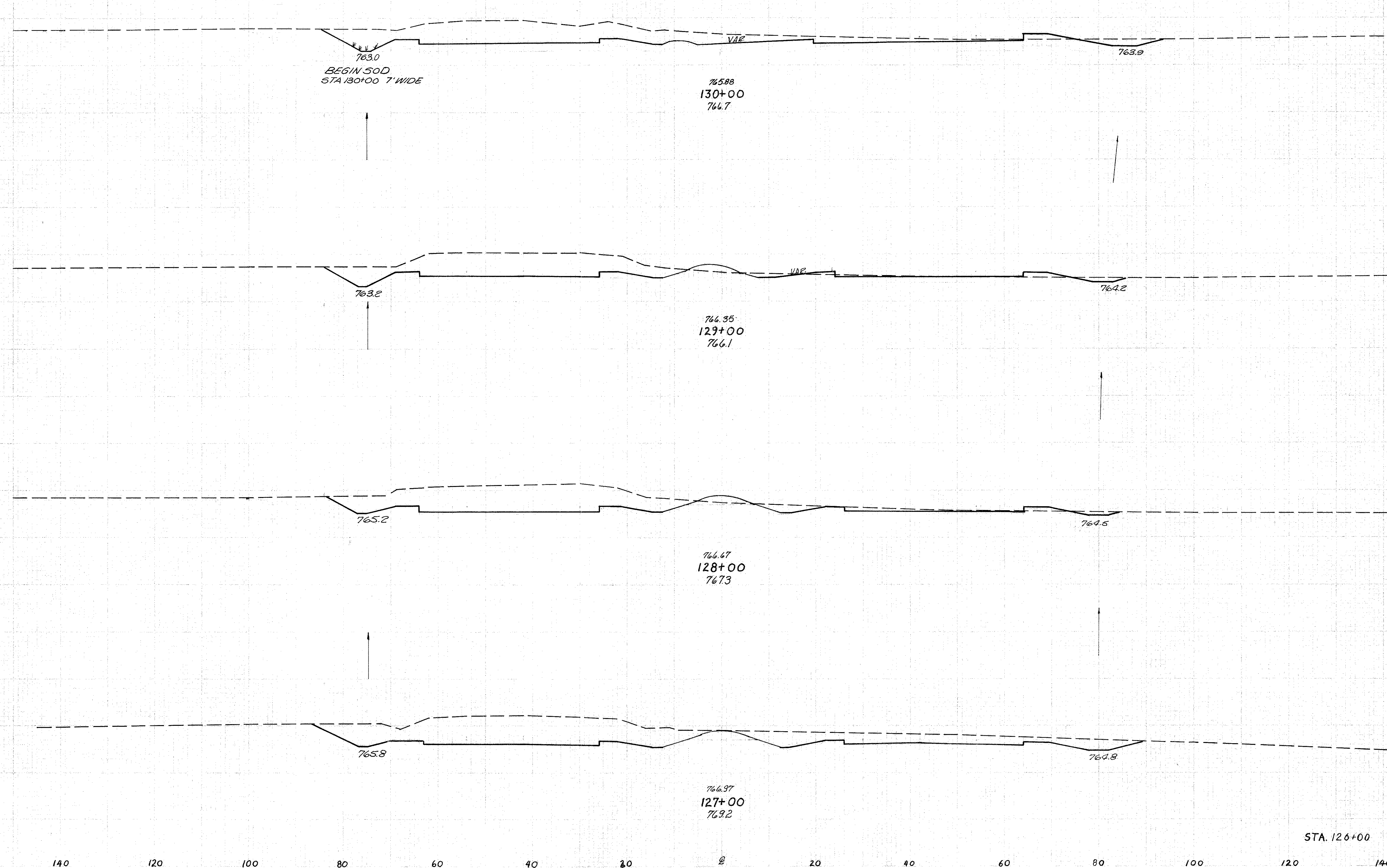
STA. 119+00 TO STA. 122+00

FRANKLIN COUNTY
FRA - 33 - 21.72

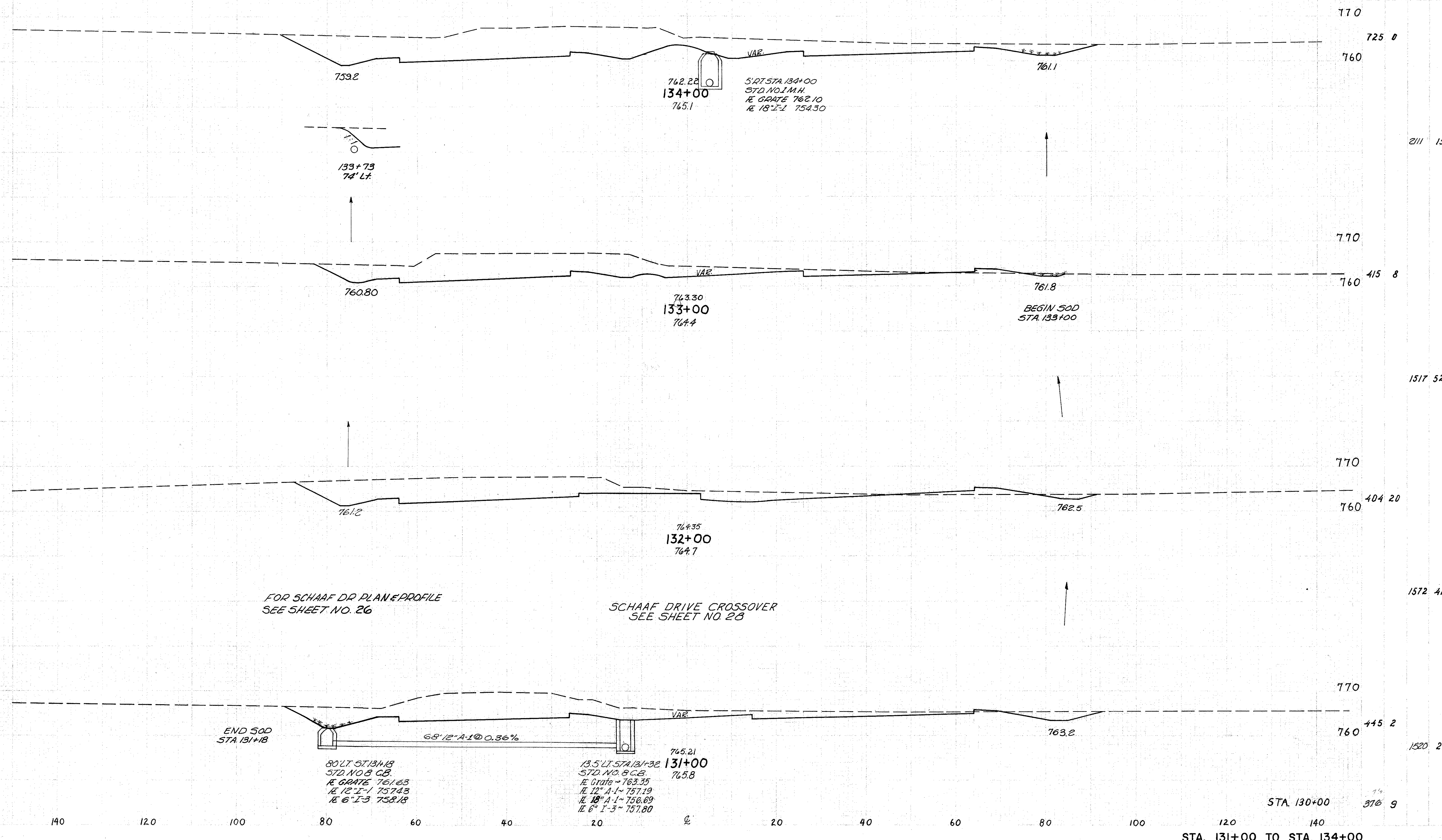


FRANKLIN COUNTY
FRA - 33 - 21.72

19
44



STA. 127+00 TO STA. 130+00

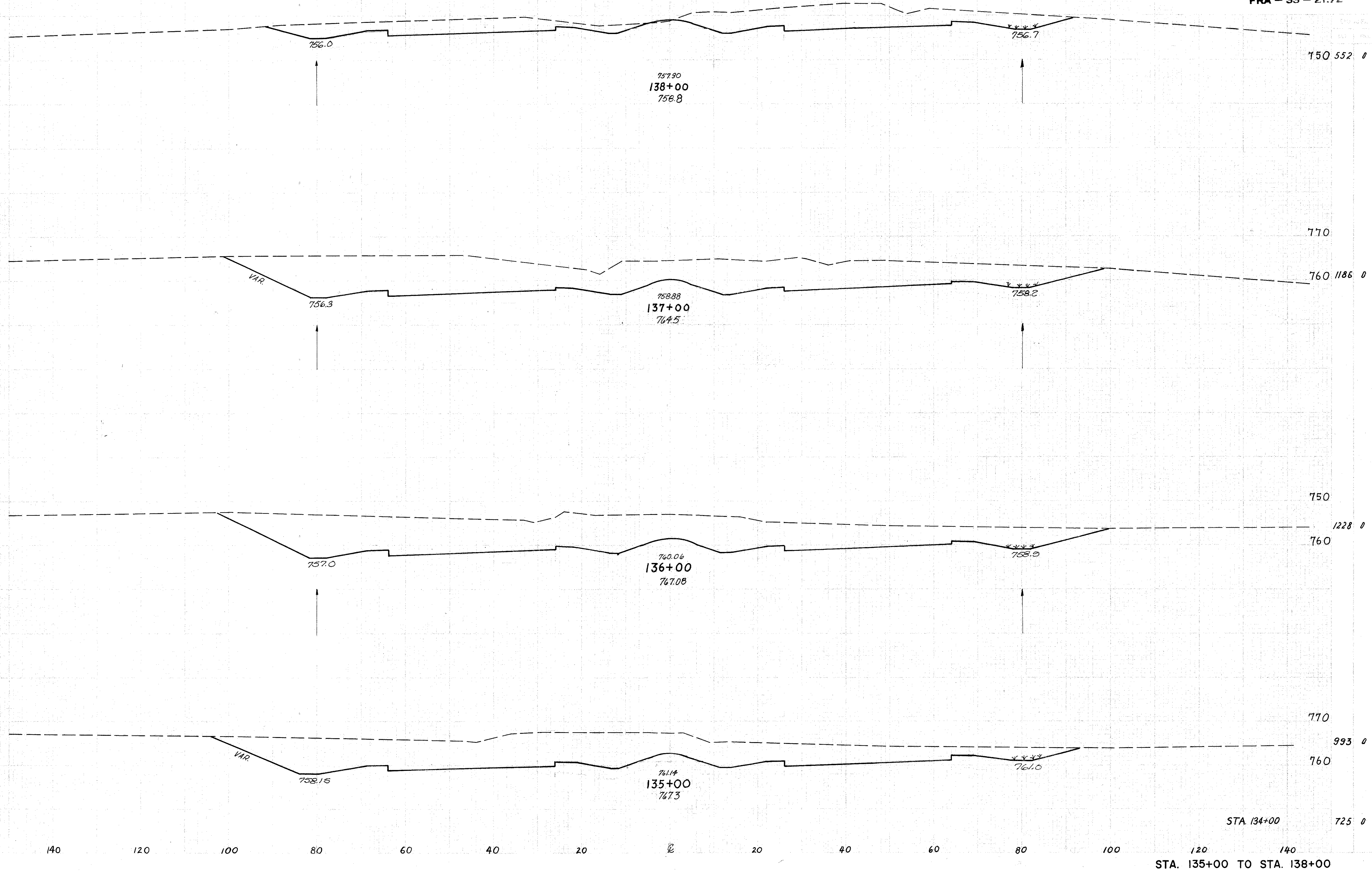


FOR SCHAAF DR PLAN & PROFILE
SEE SHEET NO. 26

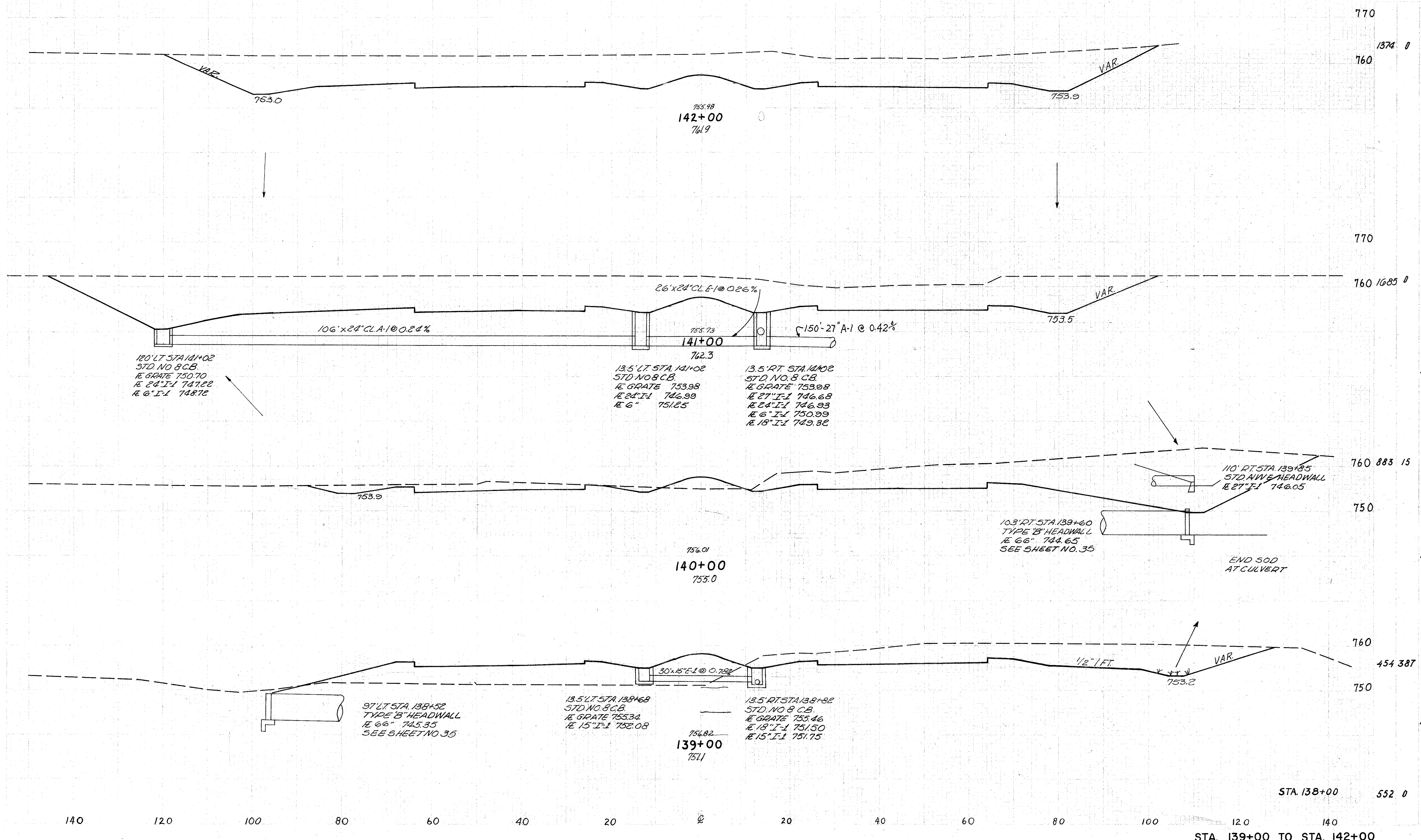
SCHAAF DRIVE CROSSOVER
SEE SHEET NO. 26

FRANKLIN COUNTY
FRA - 33 - 21.72

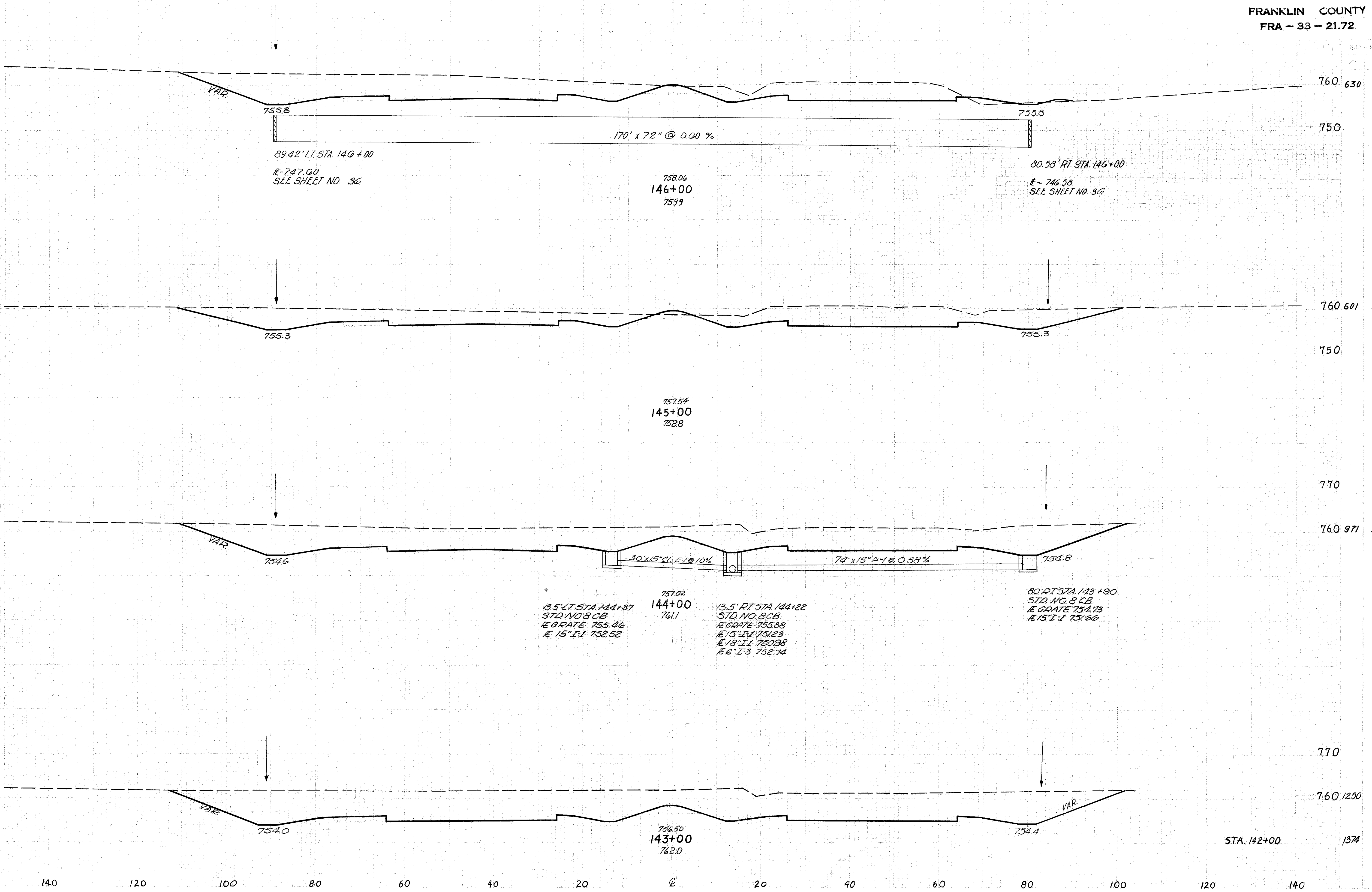
21
44



FRANKLIN COUNTY
FRA - 33 - 21.72

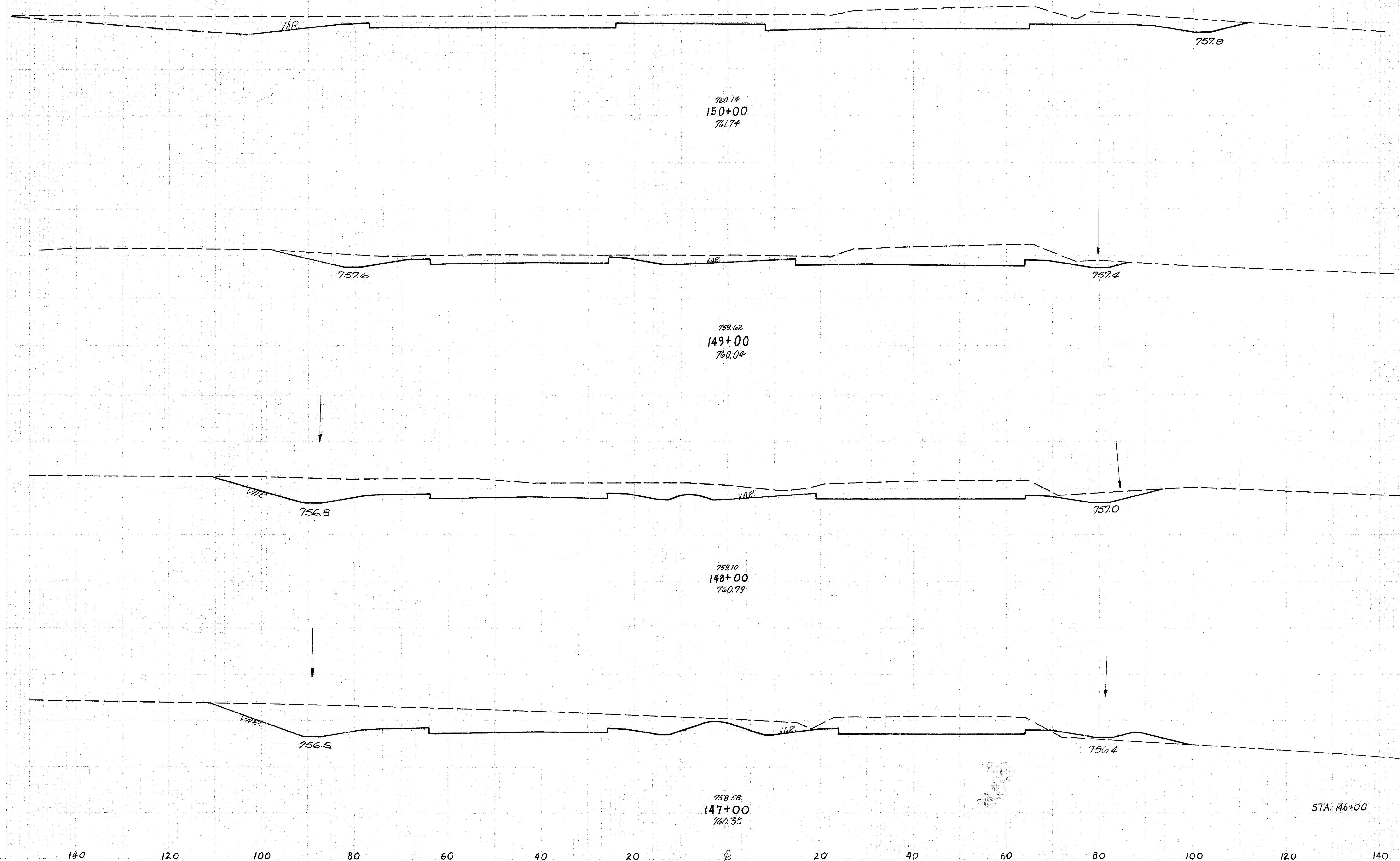


FRANKLIN COUNTY
FRA - 33 - 21.72



FRANKLIN COUNTY
FRA - 33 - 21.72

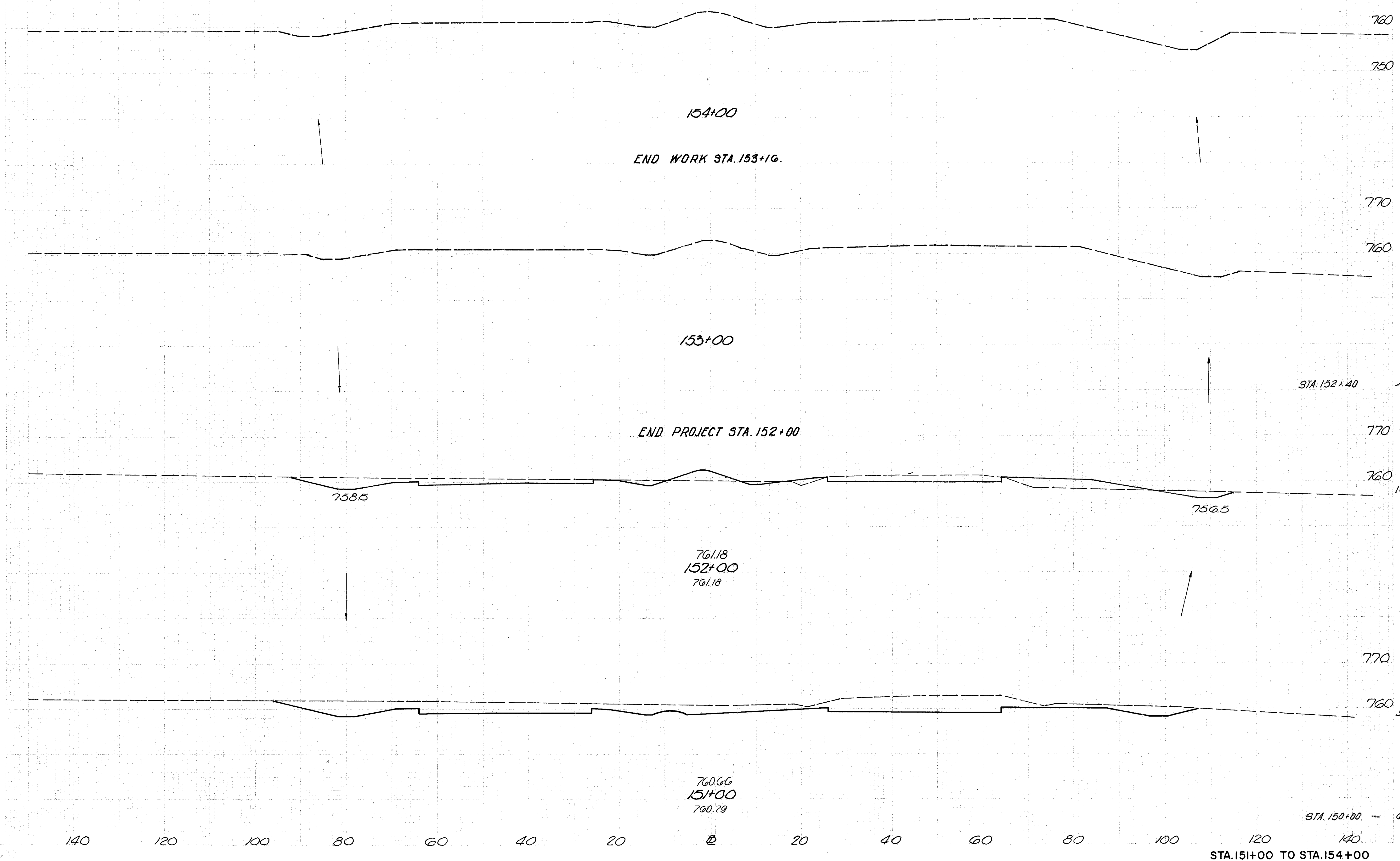
PETZINGER RD. CROSSOVER
SEE SHEET 29



STA	PA	VAR	REL
147+00	603	0	
148+00	362	0	
149+00	598	0	
150+00	681	6	
151+00	630	7	

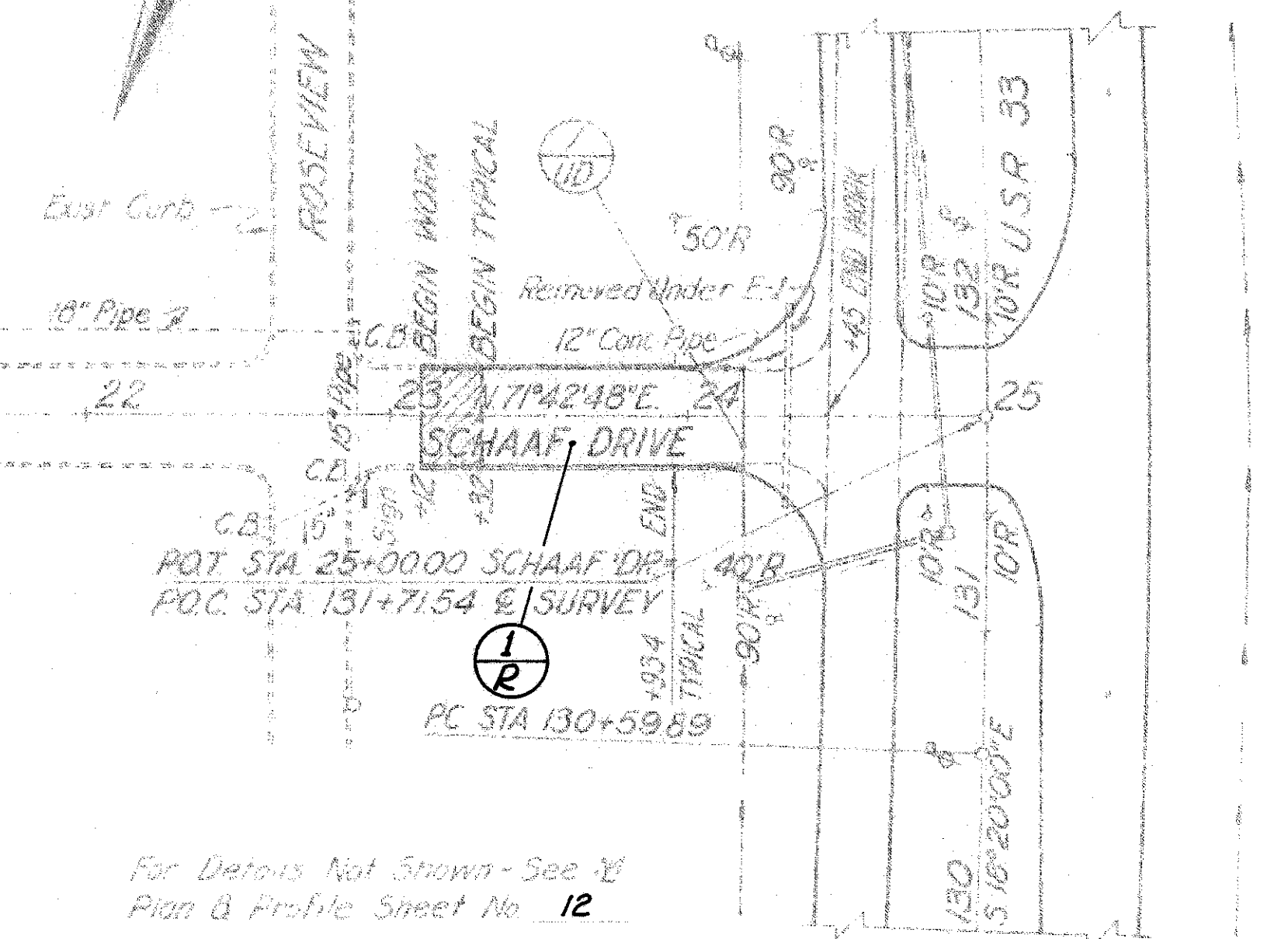
STA. 147+00 TO STA. 150+00

FRANKLIN COUNTY.
FRA.-33-21.72



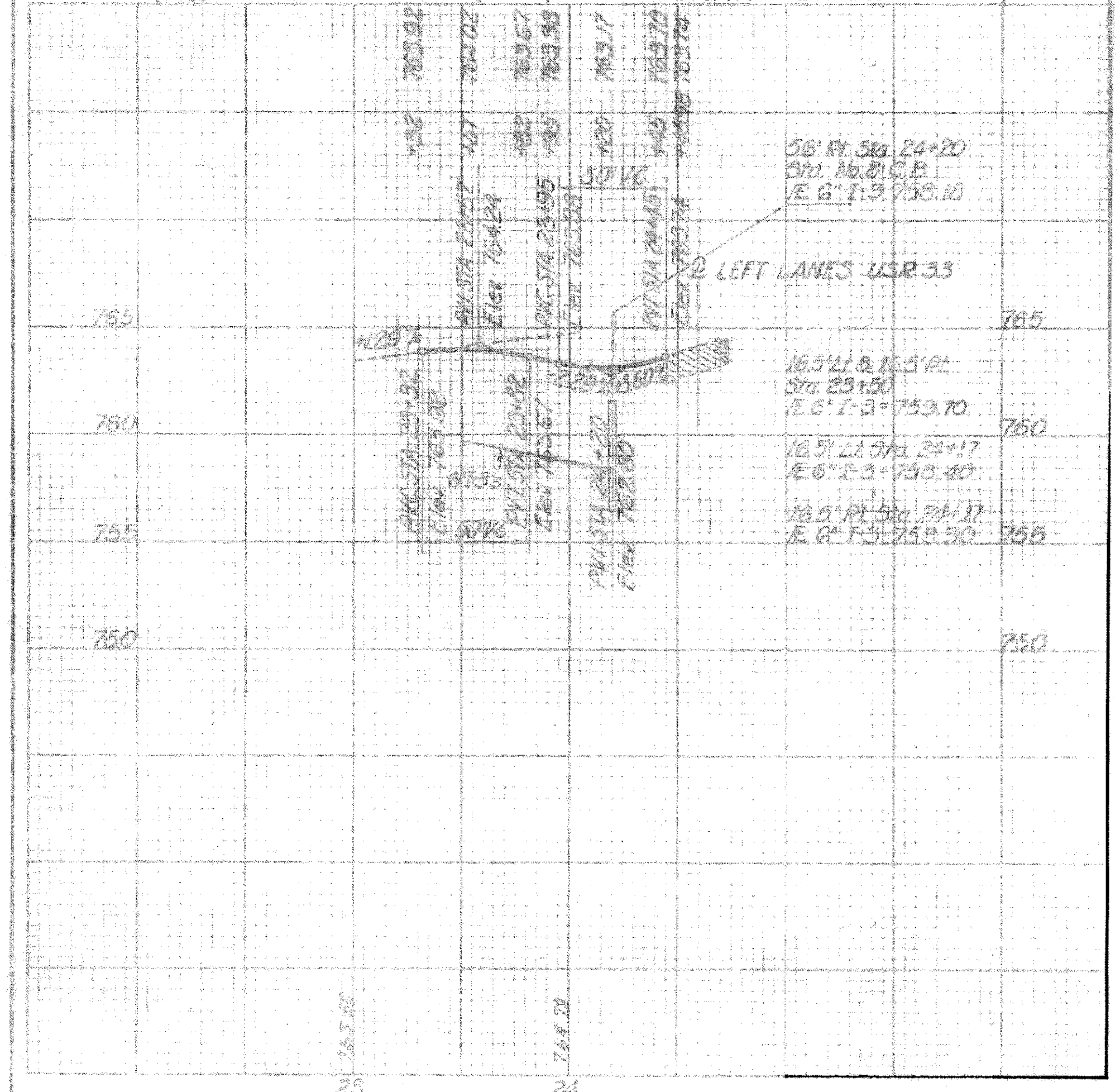
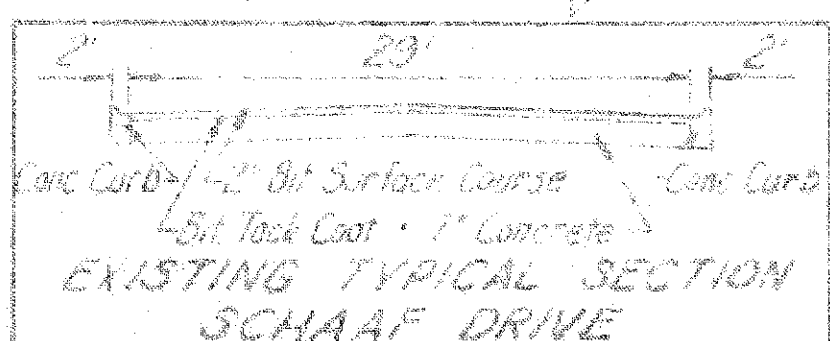
For Median Details -
See Sheet No. 31
For Pavement Details -
See Sheet No. 28
For Typical Section -
See Sheet No. 4

PK in W Edge Pav't
in Roseview Dr.
132
100' 150' 200'
Hub
Hub
Hub
REF PC STA 130+59.89



For Details Not Shown - See 10
Plan & Profile Sheet No. 12

BENCH MARK No. A-13
RR Spike in "75-B-3"
82' LT POC Sta 124+40
Elev - 771.650



ESTIMATED QUANTITIES

CLASS	ITEM	QTY	UNIT
1-4	1/2" 90° TEE	10	EA
1-5	1/2" 90° TEE	10	EA

1-8
CURB &
GUTTER
REMOVAL
SQ. YD. LIN. FT.

280 174

280 174

280 174

280 174

280 174

280 174

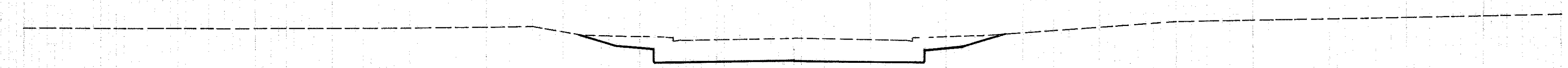
280 174

SECTION
DATE
BY

27
44

FRANKLIN COUNTY
FRA - 33 - 21.72

DATE
BY



763.27
24+00
764.79

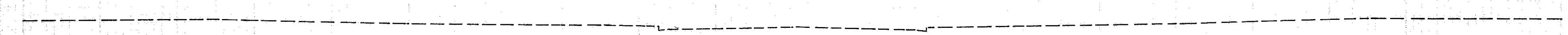
760
122 0

199 0

BEGIN NEW PAVEMENT STA. 23+32

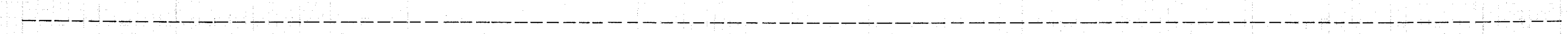
Begin Work Sta. 23+12

STA. 23+12 0 0



760

23+00
763.50

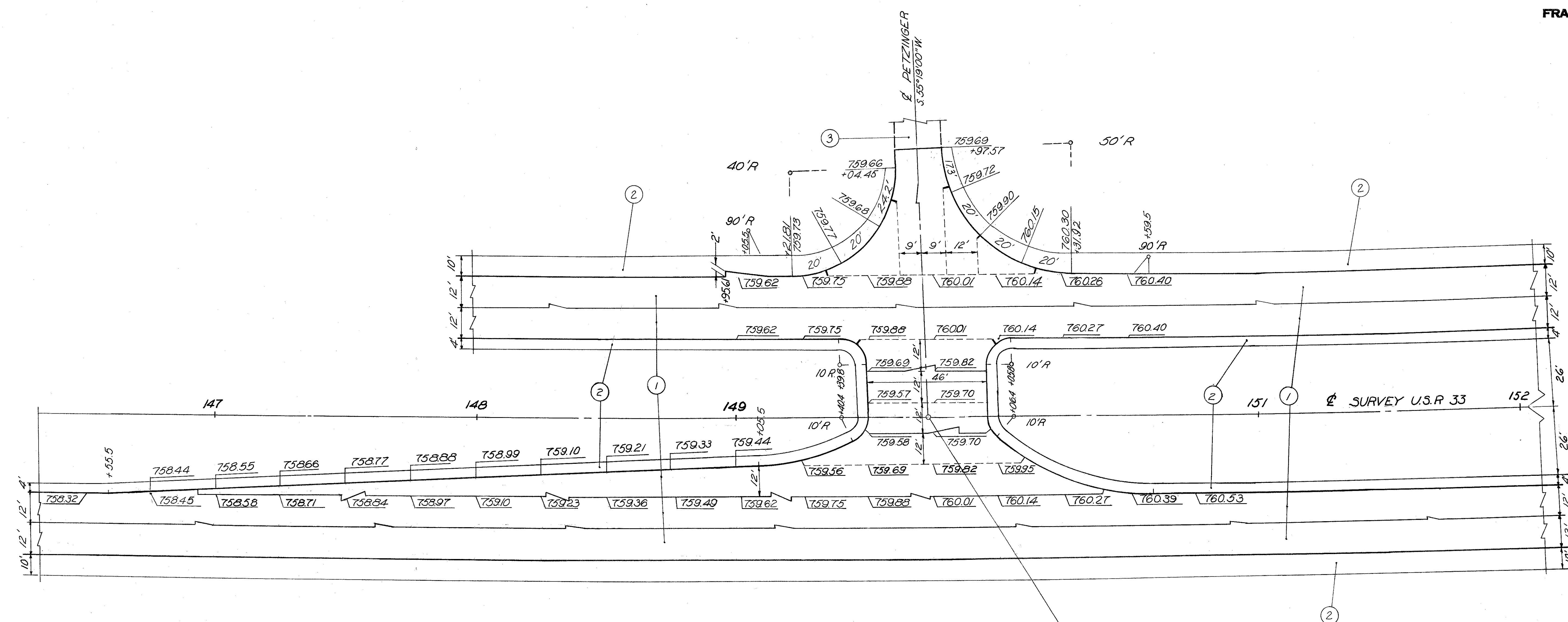


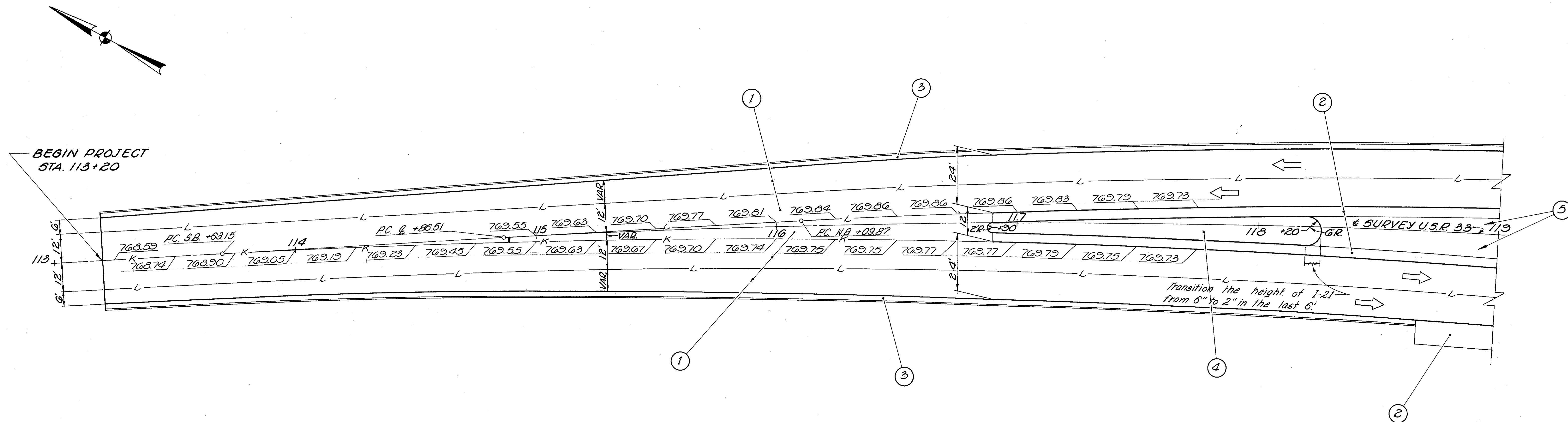
760

22+75
763.43

100 80 60 40 20 0 20 40 60 80 100

FRANKLIN COUNTY
FRA - 33 - 21.72



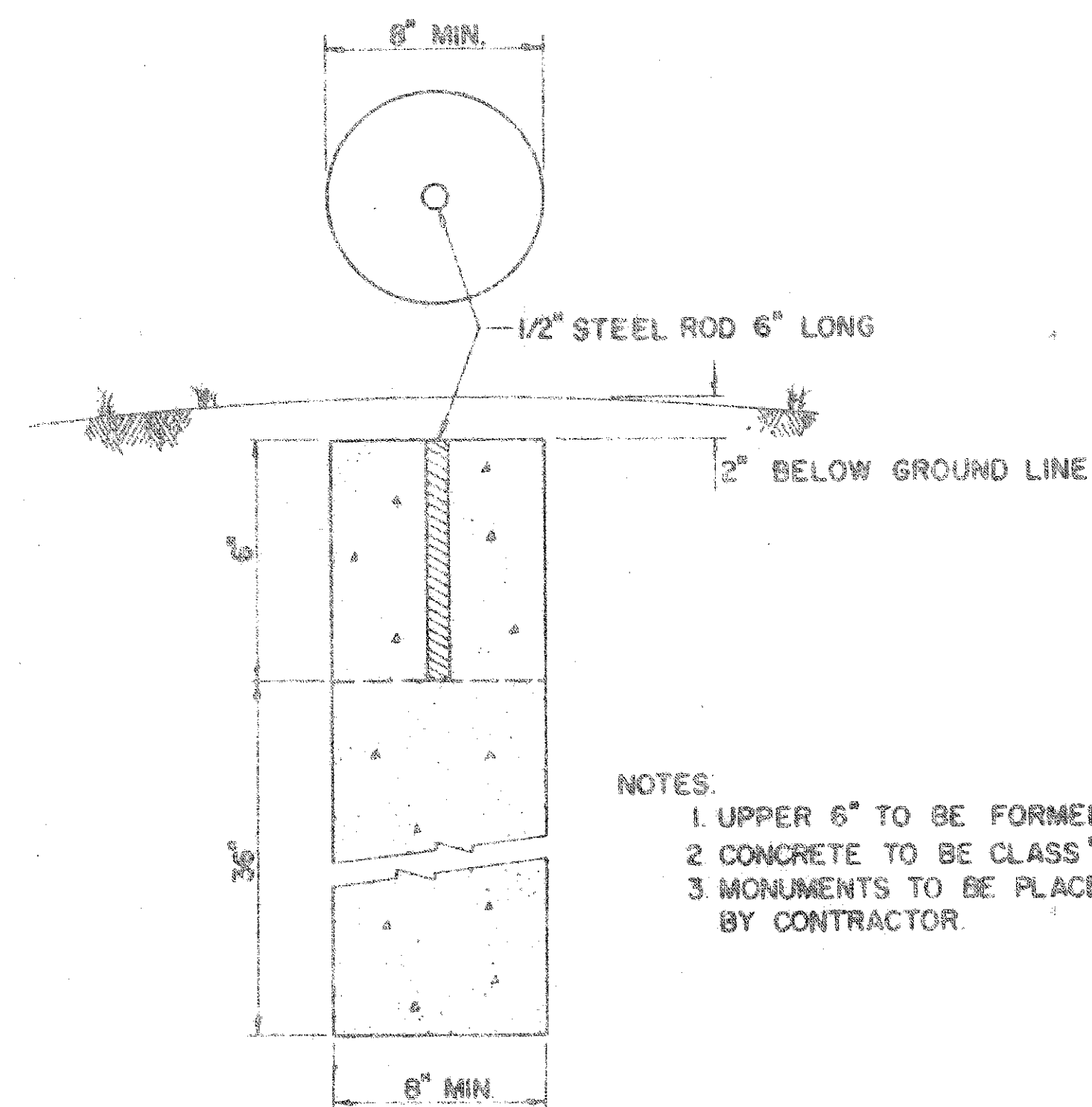


JOINT LEGEND

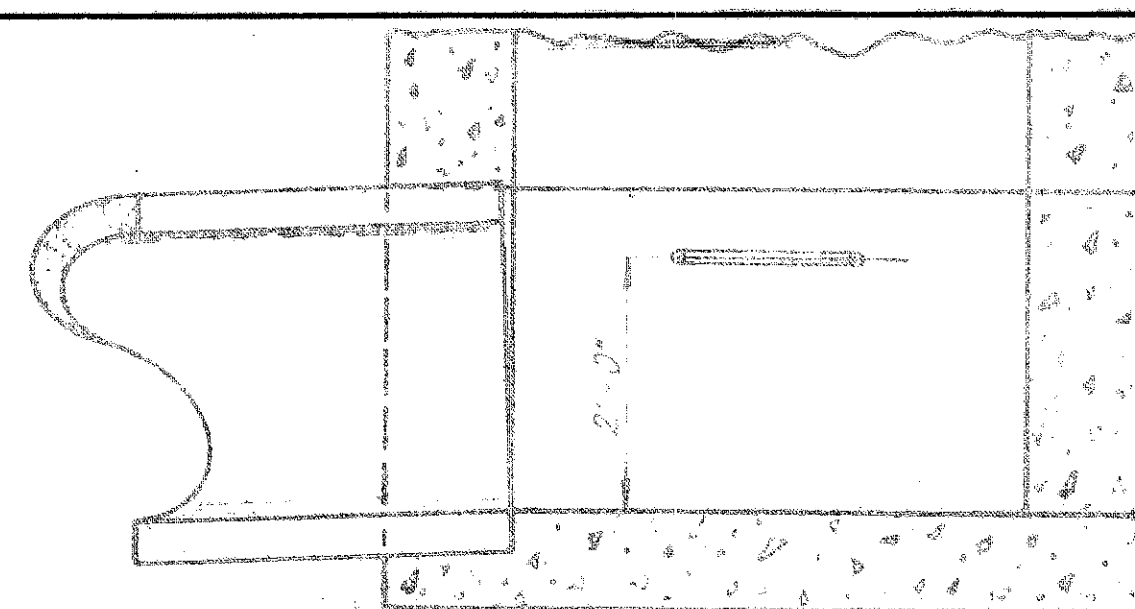
— L — L —	STANDARD LONGITUDINAL JOINT
— K — K —	STANDARD KEY JOINT WITHOUT TIE BARS
— —	STANDARD EXPANSION JOINT

ITEM DESCRIPTION

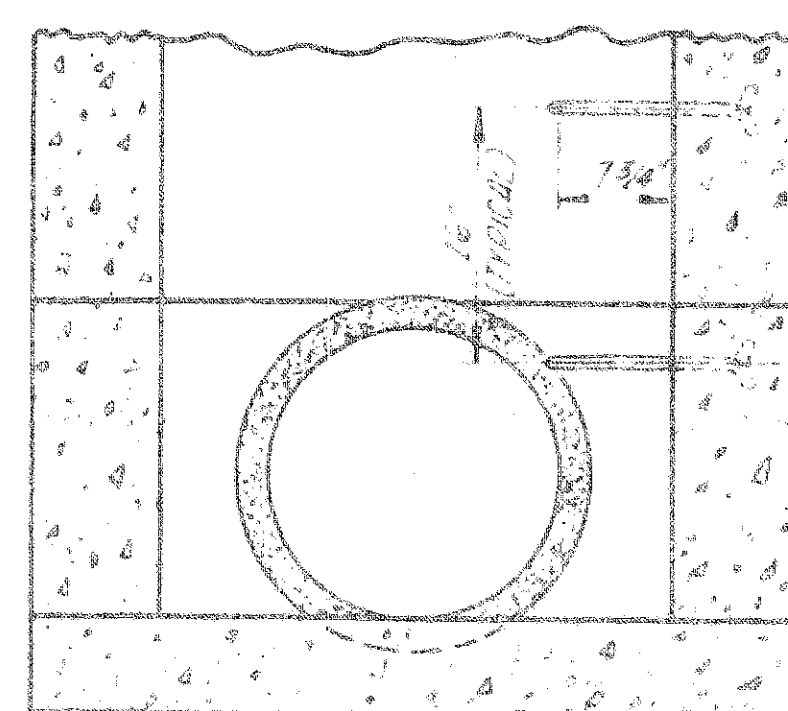
- ① 7-1 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
- ② 7-31 BITUMINOUS SURFACE TREATMENT
- ③ 1-12 COMBINATION CURB AND GUTTER, STANDARD TYPE 2
- ④ 1-21 PORTLAND CEMENT CONCRETE MEDIAN, STANDARD TYPE 2
- ⑤ L-9 SEEDING AND PROTECTING


CENTERLINE
REFERENCE MONUMENT
DETAIL

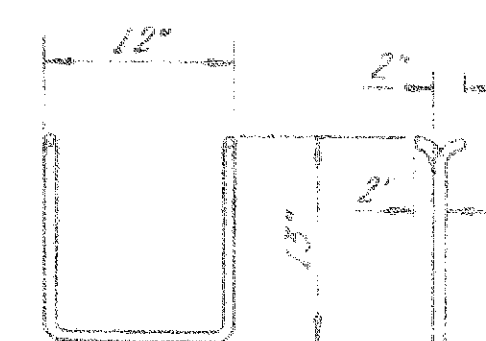
- NOTES:
1. UPPER 6" TO BE FORMED.
 2. CONCRETE TO BE CLASS "C".
 3. MONUMENTS TO BE PLACED BY CONTRACTOR.

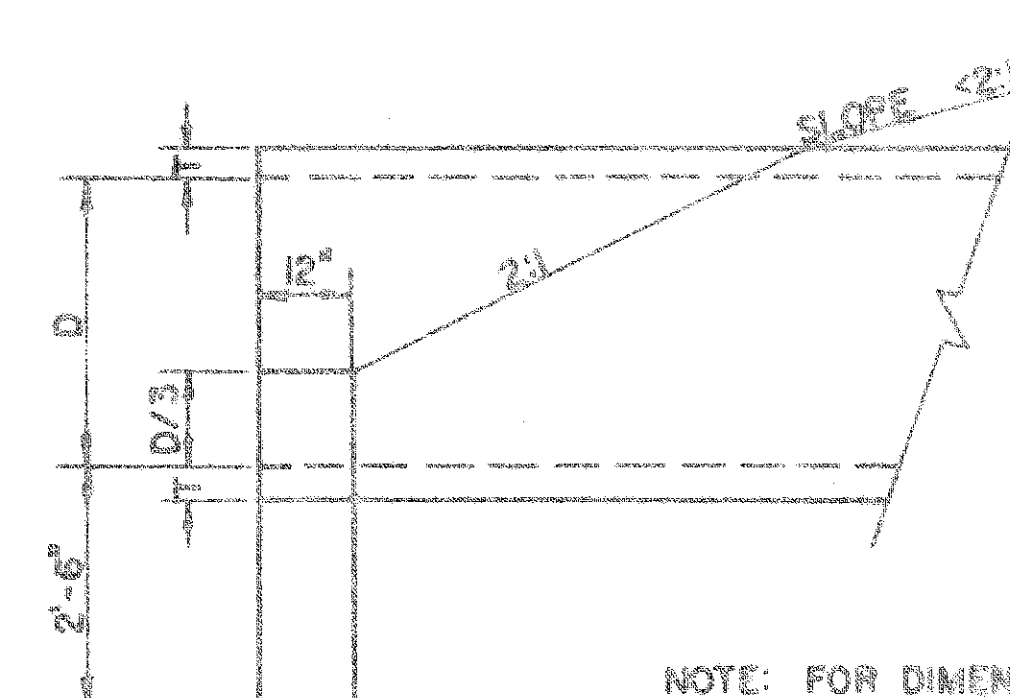


SIDE VIEW

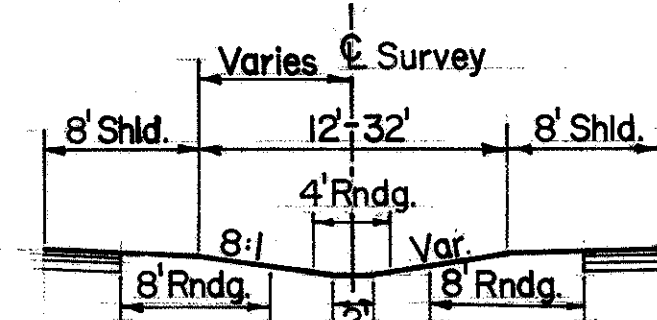
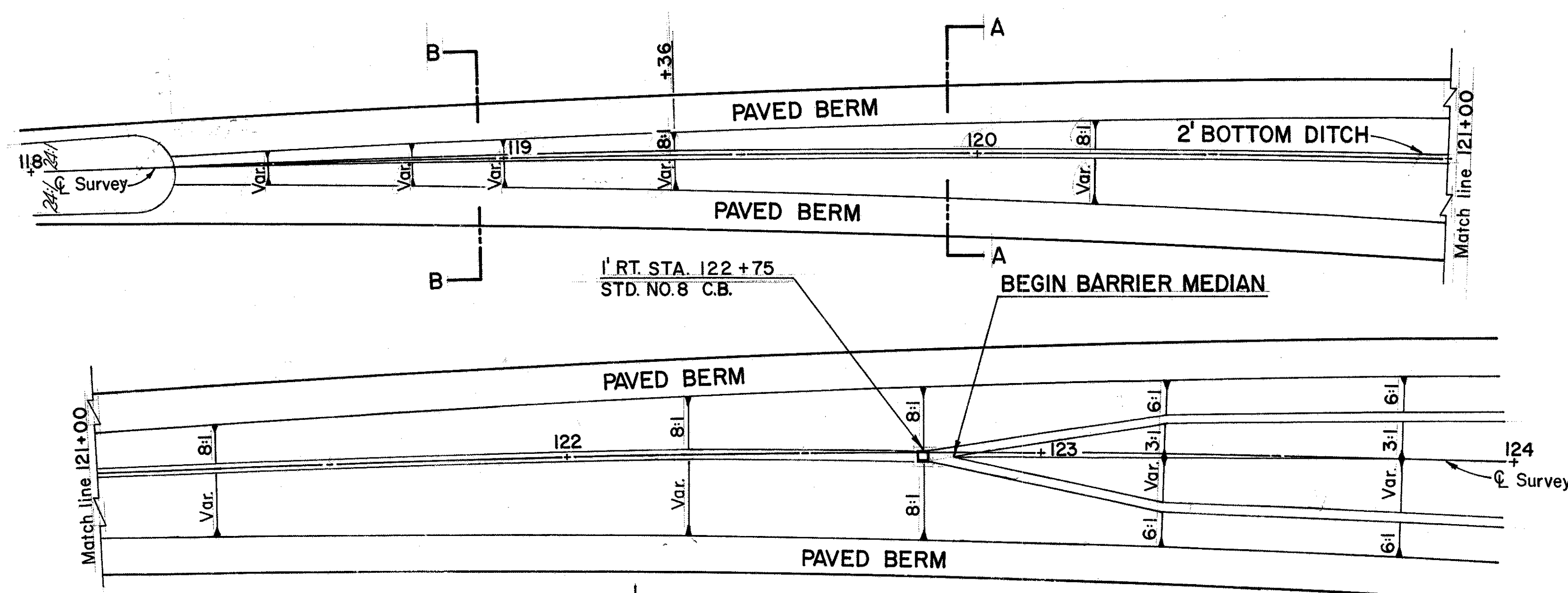


END VIEW

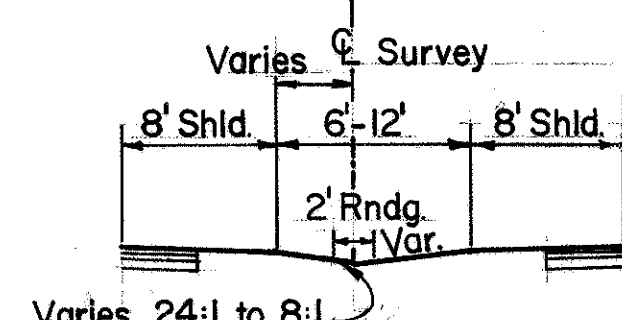

3/4" ROUND OR SQUARE
WROUGHT IRON
STEP DETAIL

STEP DETAILS FOR 1-8 NO. 8 CATCH BASIN
WITH A DEPTH MORE THAN 6'

NOTE: FOR DIMENSIONS & DETAILS
NOT SHOWN SEE STANDARD DRAW-
ING HW-E.

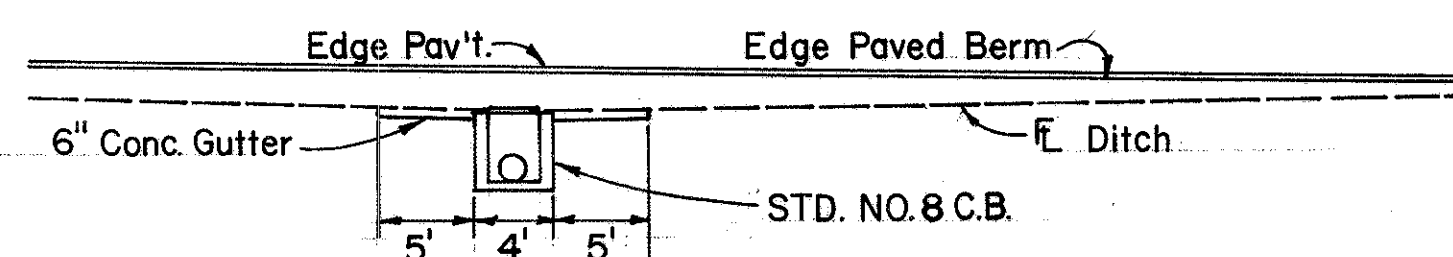
DETAIL OF SLOPE TREATMENT AT HW-E ENDWALLS



SECTION A-A

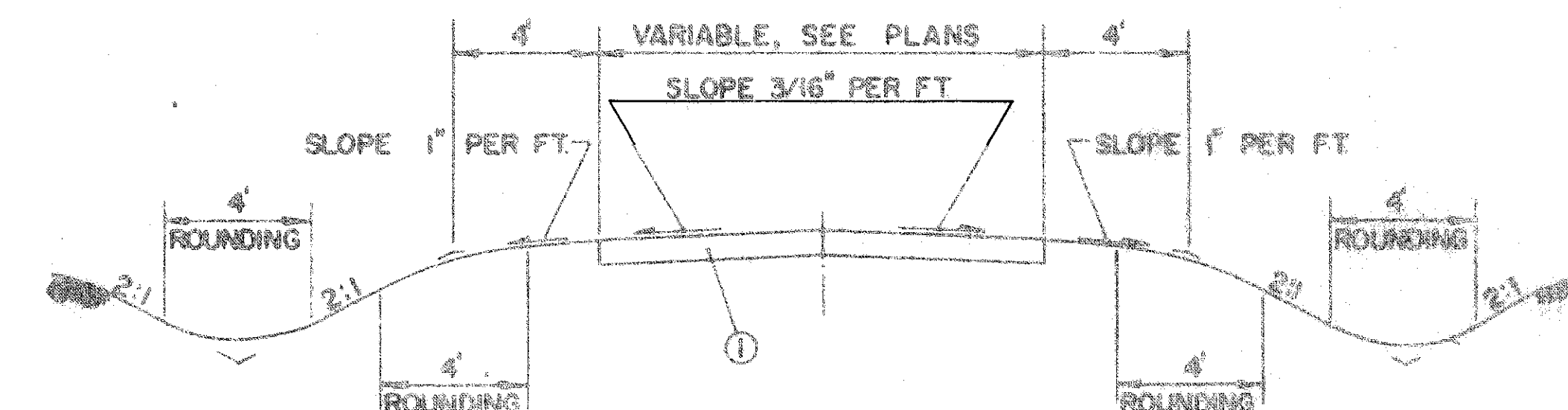


SECTION B-B



ELEVATION STA. 122+50 to STA. 123+25

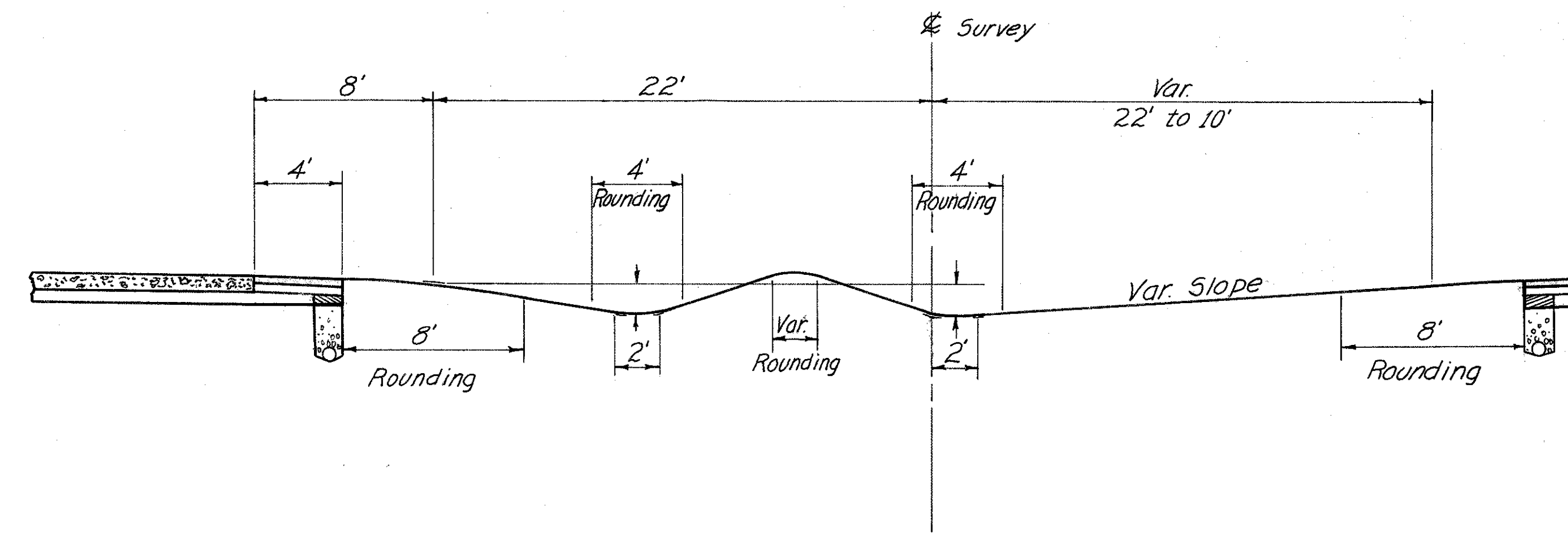
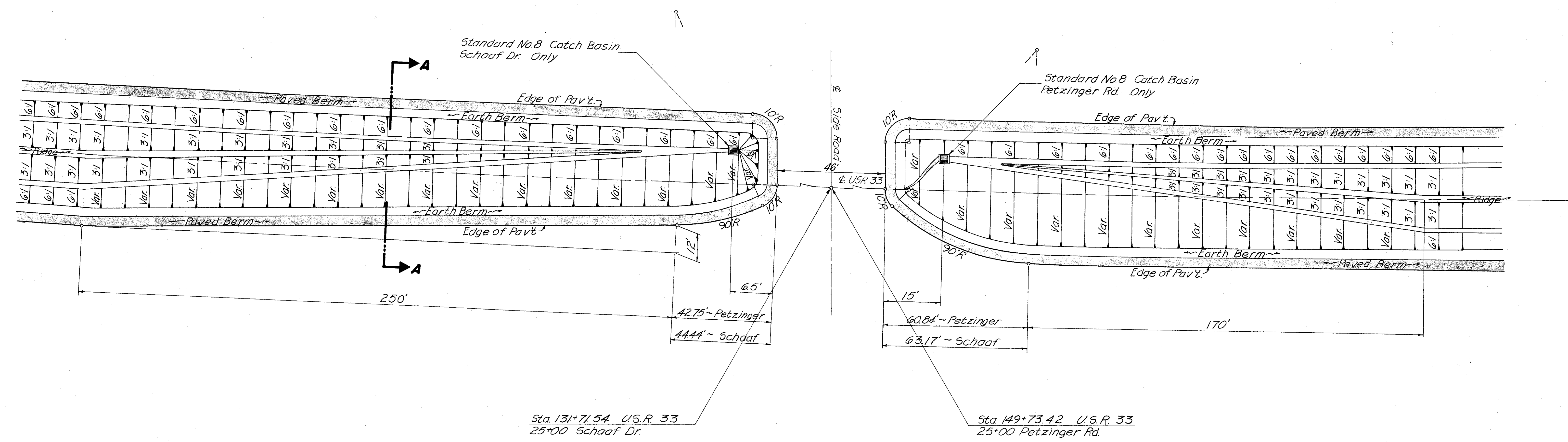
MEDIAN TRANSITION


NOTE: FOR DIMENSIONS & DETAILS NOT SHOWN
SEE STANDARD DWG. DR-1.

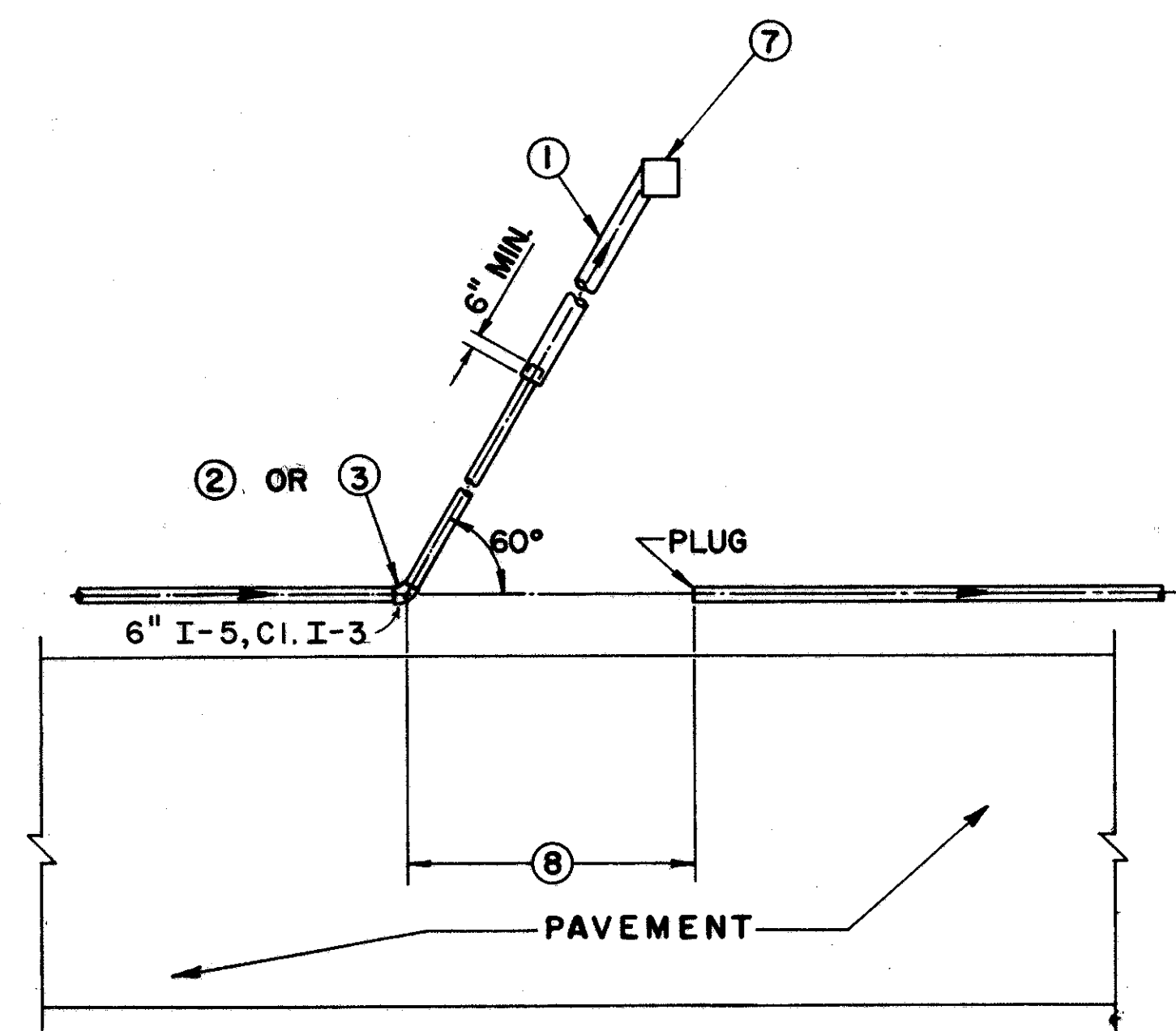
① ITEM T-70 7" PORTLAND CEMENT CONCRETE PAVEMENT FOR PRIVATE DRIVES.

TYPICAL HALF SECTION FOR DRIVEWAYS

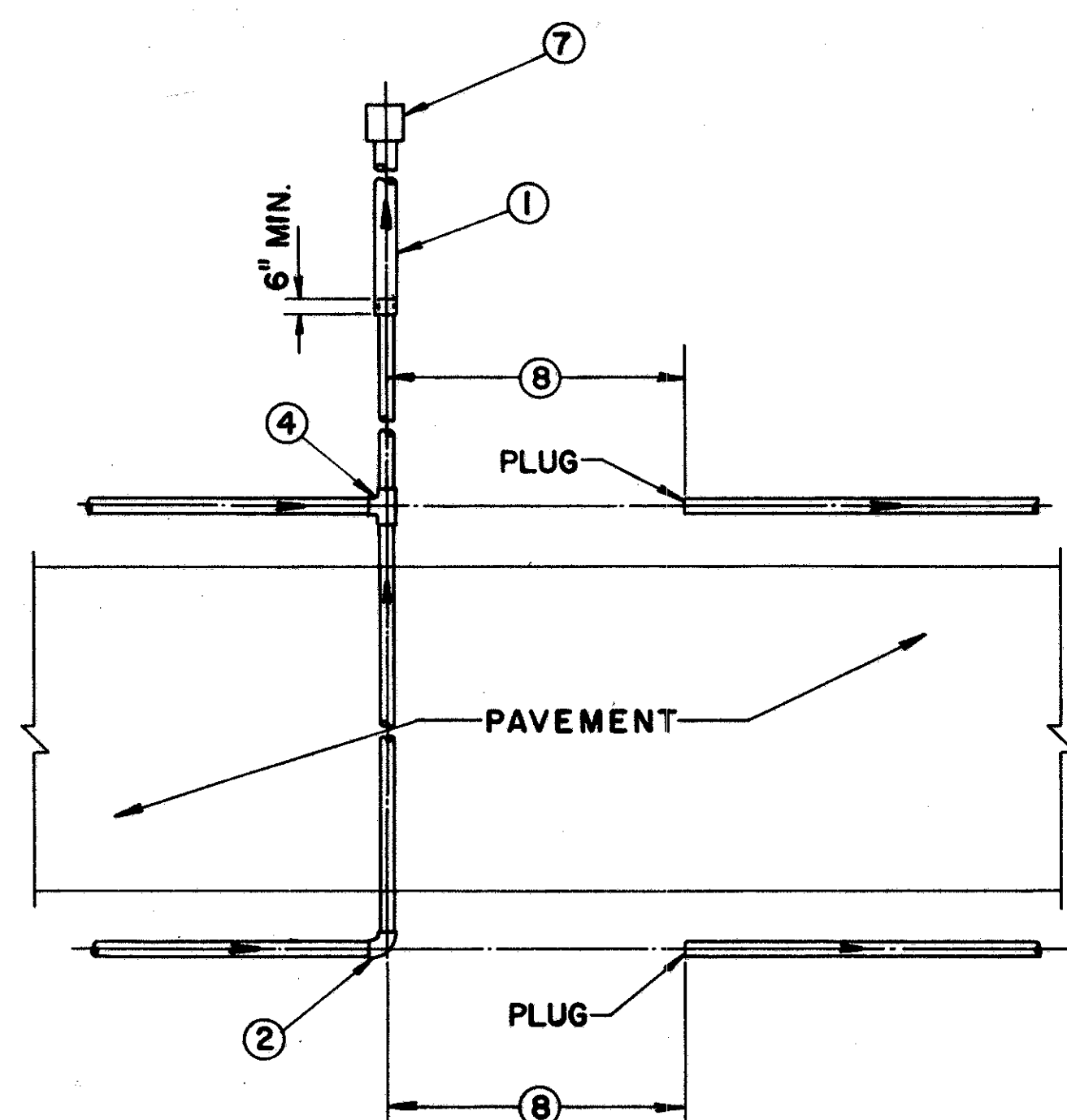
MEDIAN DETAIL AT SCHAAF DR. & PETZINGER RD.



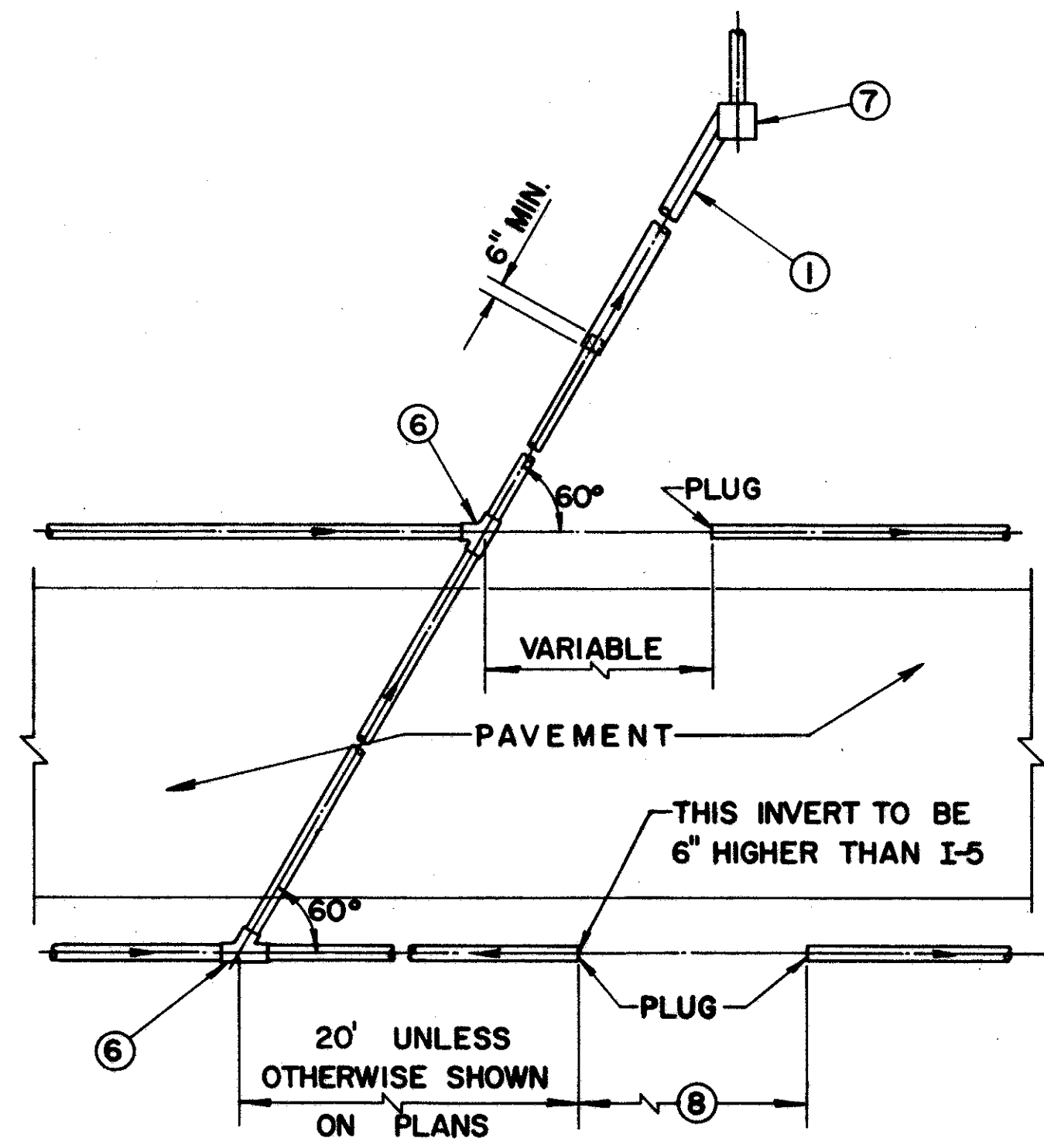
SECTION A-A



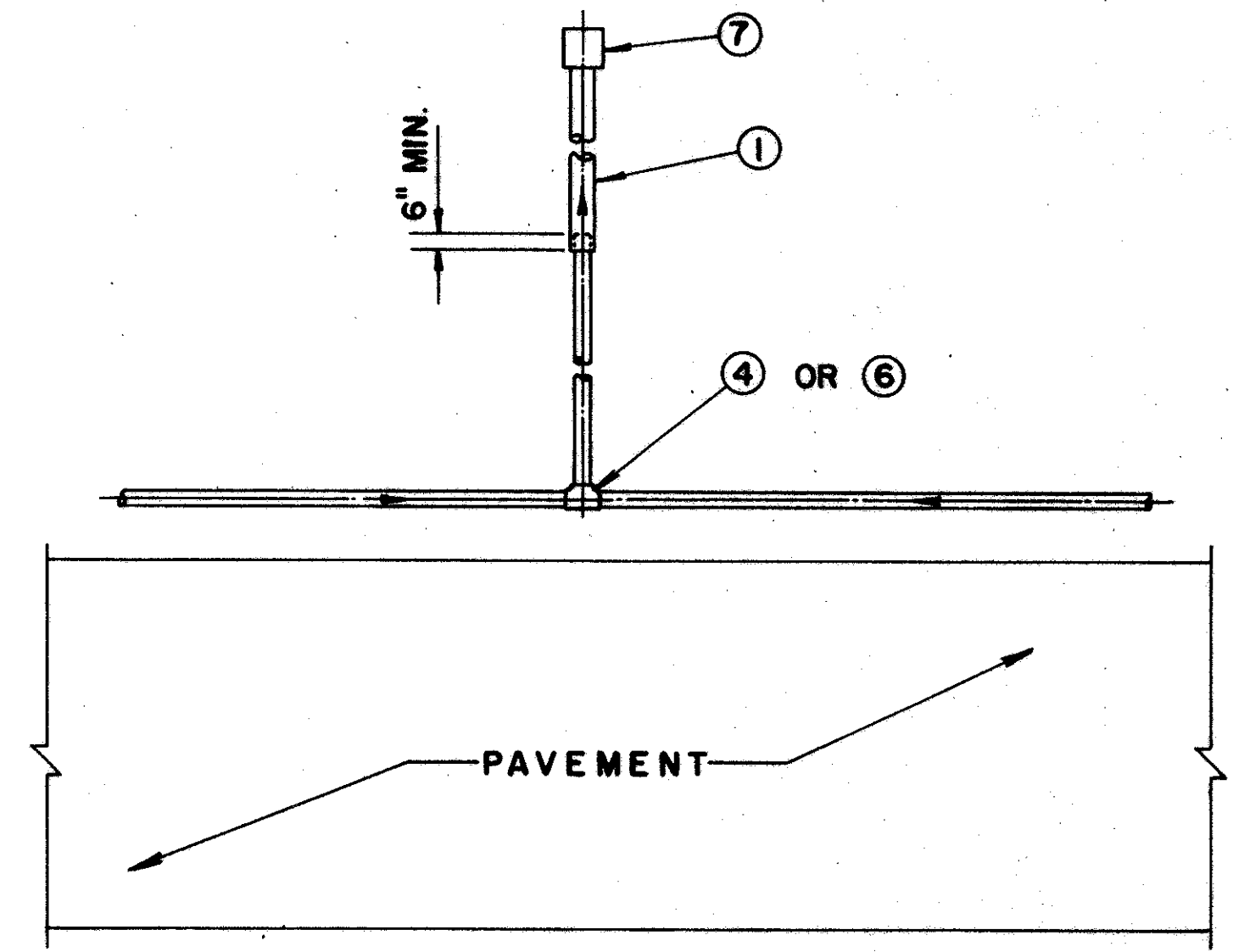
DETAIL "A"



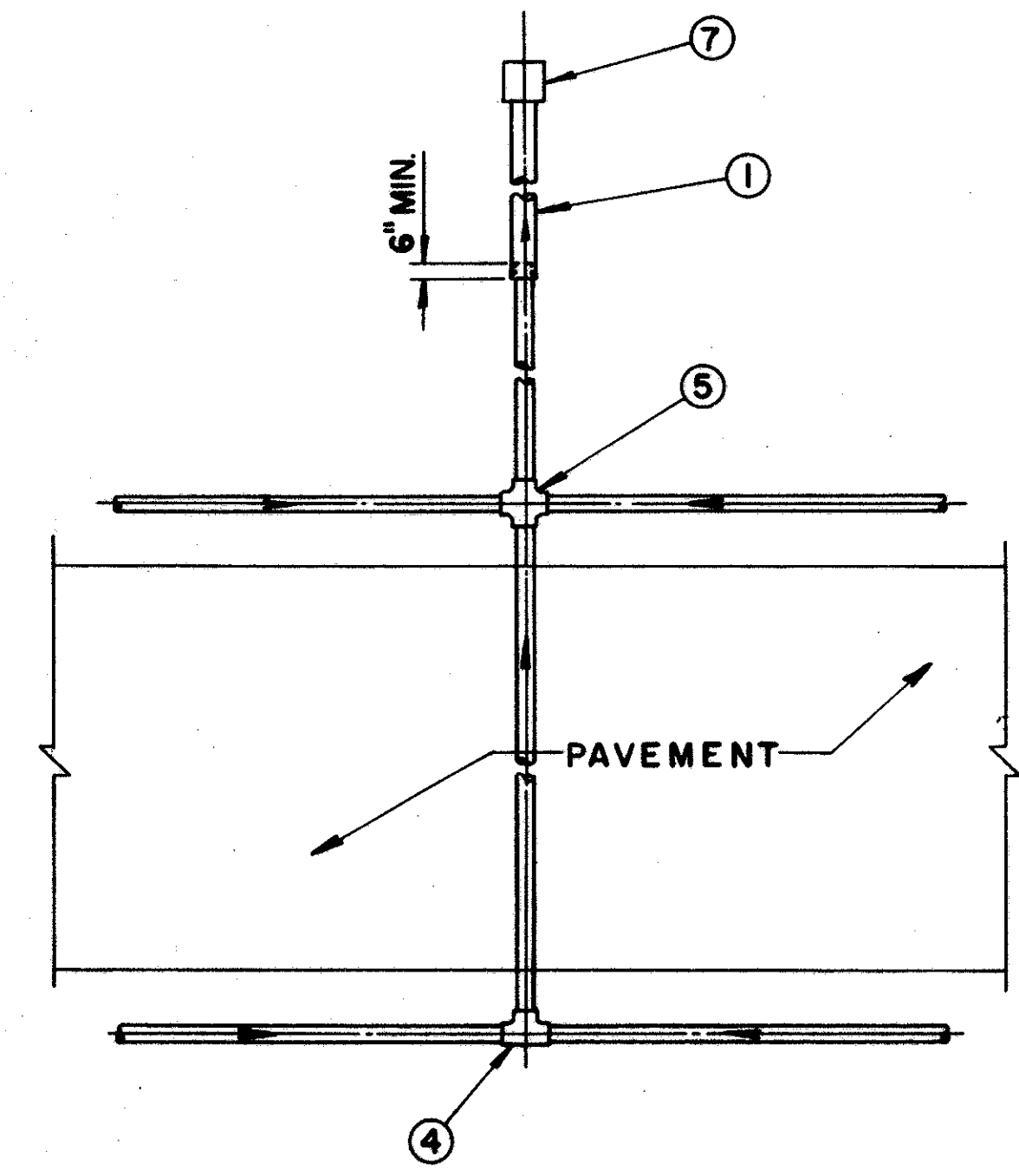
DETAIL "B"



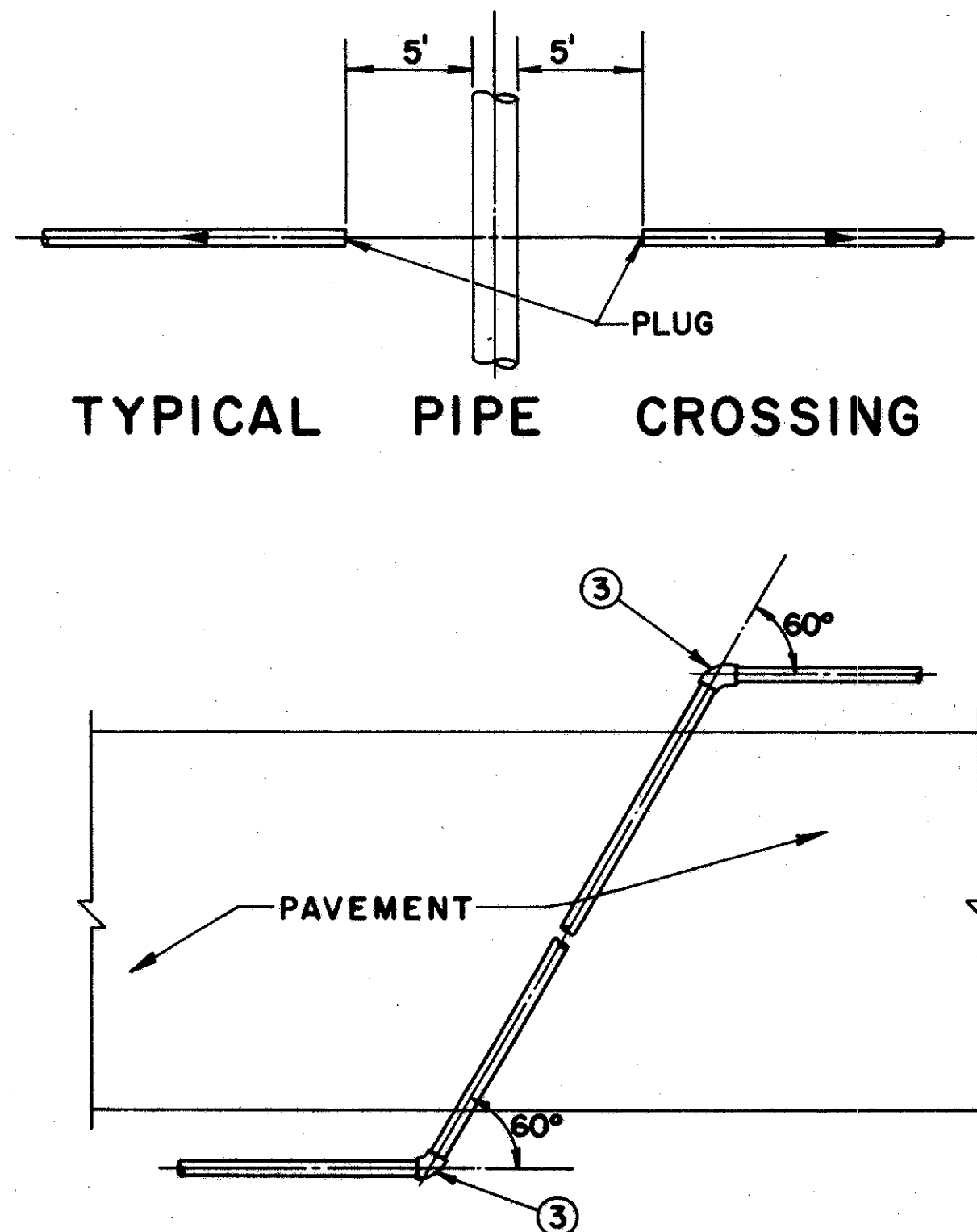
DETAIL "C"



DETAIL "D"



DETAIL "E"



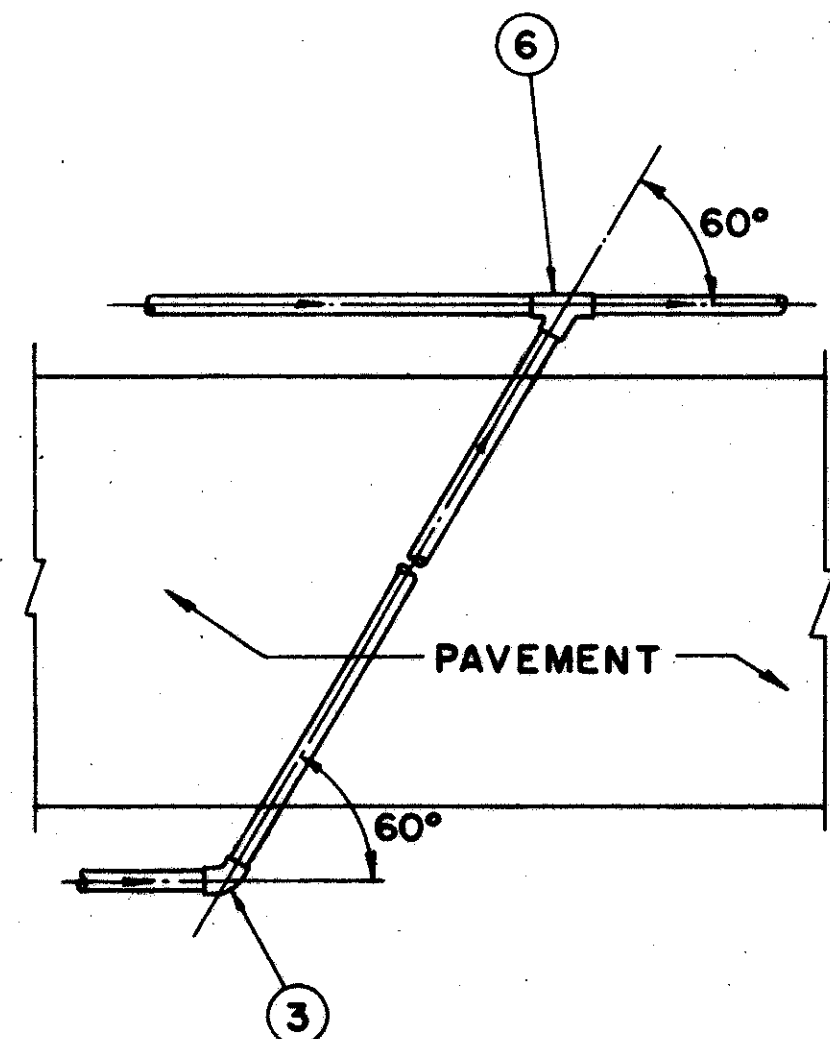
DETAIL "F"

LEGEND

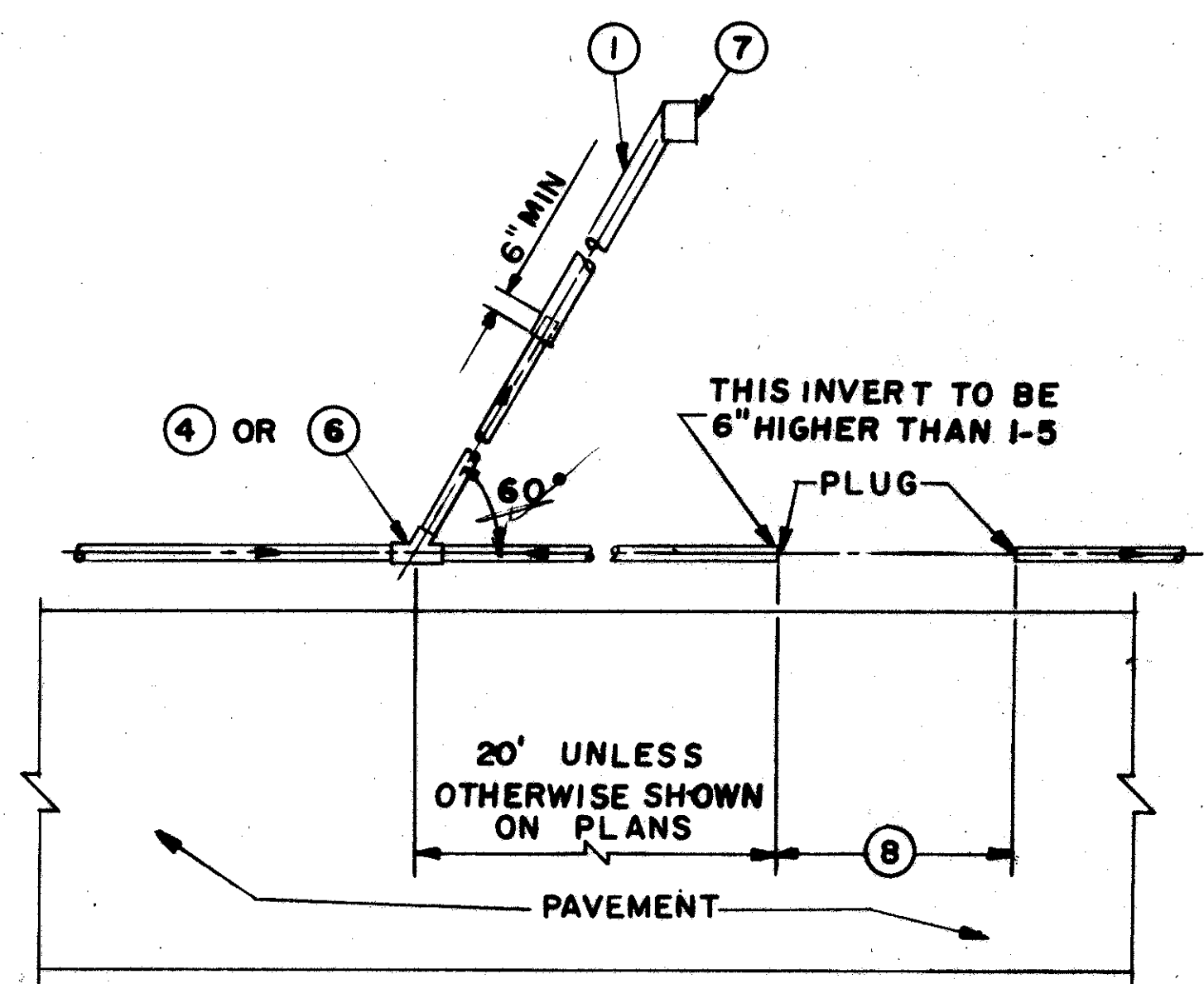
- | ITEM | DESCRIPTION |
|------|---|
| ① | I-1 10' x 6" PIPE, CLASS F-4 |
| ② | I-5 6" 90° BEND. |
| ③ | I-5 6" 60° BEND. |
| ④ | I-5 6" T-BRANCH. |
| ⑤ | I-5 6" DOUBLE T-BRANCH. |
| ⑥ | I-5 6" Y-BRANCH. |
| ⑦ | UNDERDRAIN MAY OUTLET ON STD. PIPE UNDERDRAIN CONTROL PAD OR INTO CATCH BASIN OR MANHOLE. |
| ⑧ | 4' UNLESS OTHERWISE SHOWN ON PLANS. |

NOTE:

- ALL UNDERDRAINS ARE 6" I-1, CLASS I-3 EXCEPT UNDER PAVEMENT USE 6" I-1, CLASS J-1
- FOR UNDERDRAINS LOCATIONS SEE TYPICAL SECTIONS AND PLAN SHEETS.
- ALL PIPE SPECIALS FOR UNDERDRAINS SHALL BE 6" I-5, CLASS J-1 EXCEPT AS NOTED ABOVE.



DETAIL "H"



DETAIL "G"

TYPE B HEADWALLS

FRANKLIN COUNTY
FRA-33-21.72

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

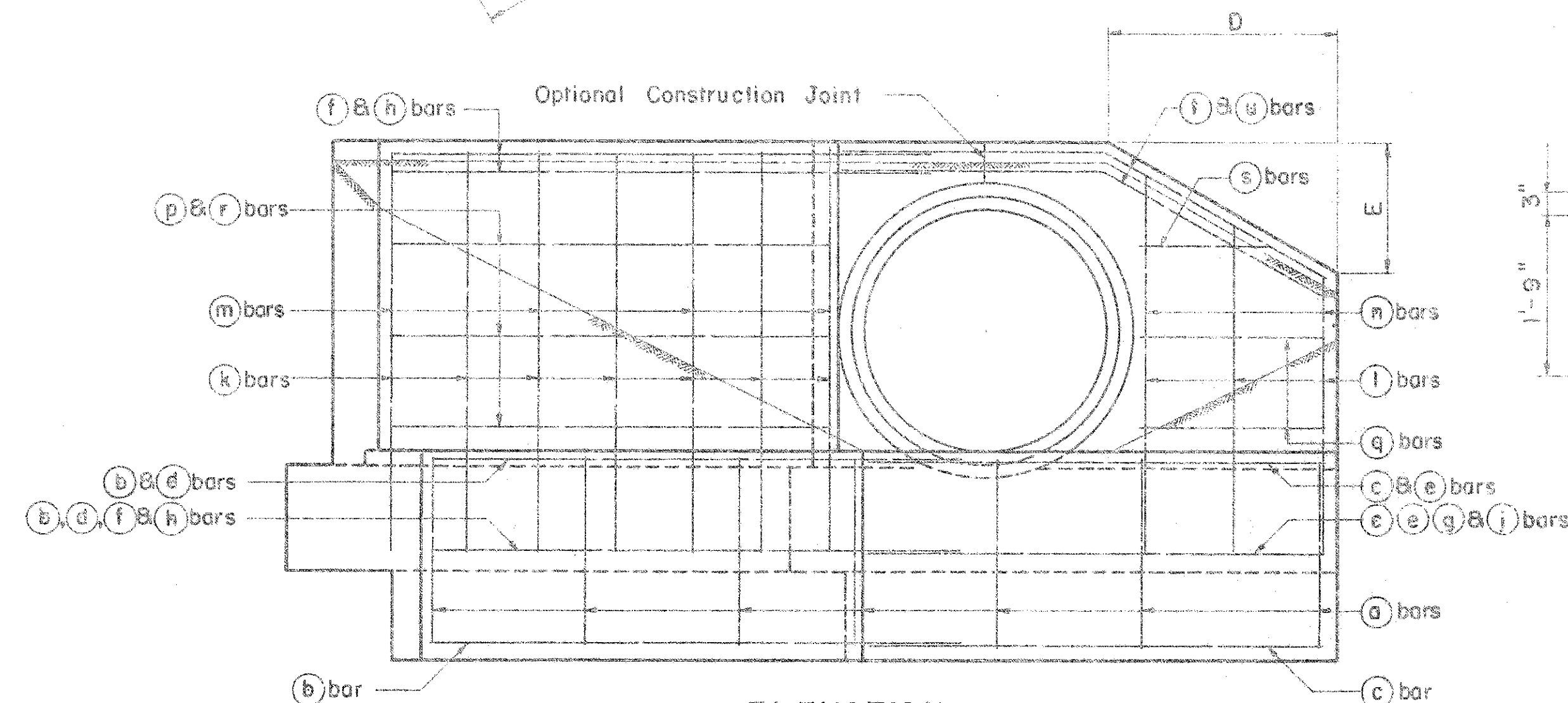
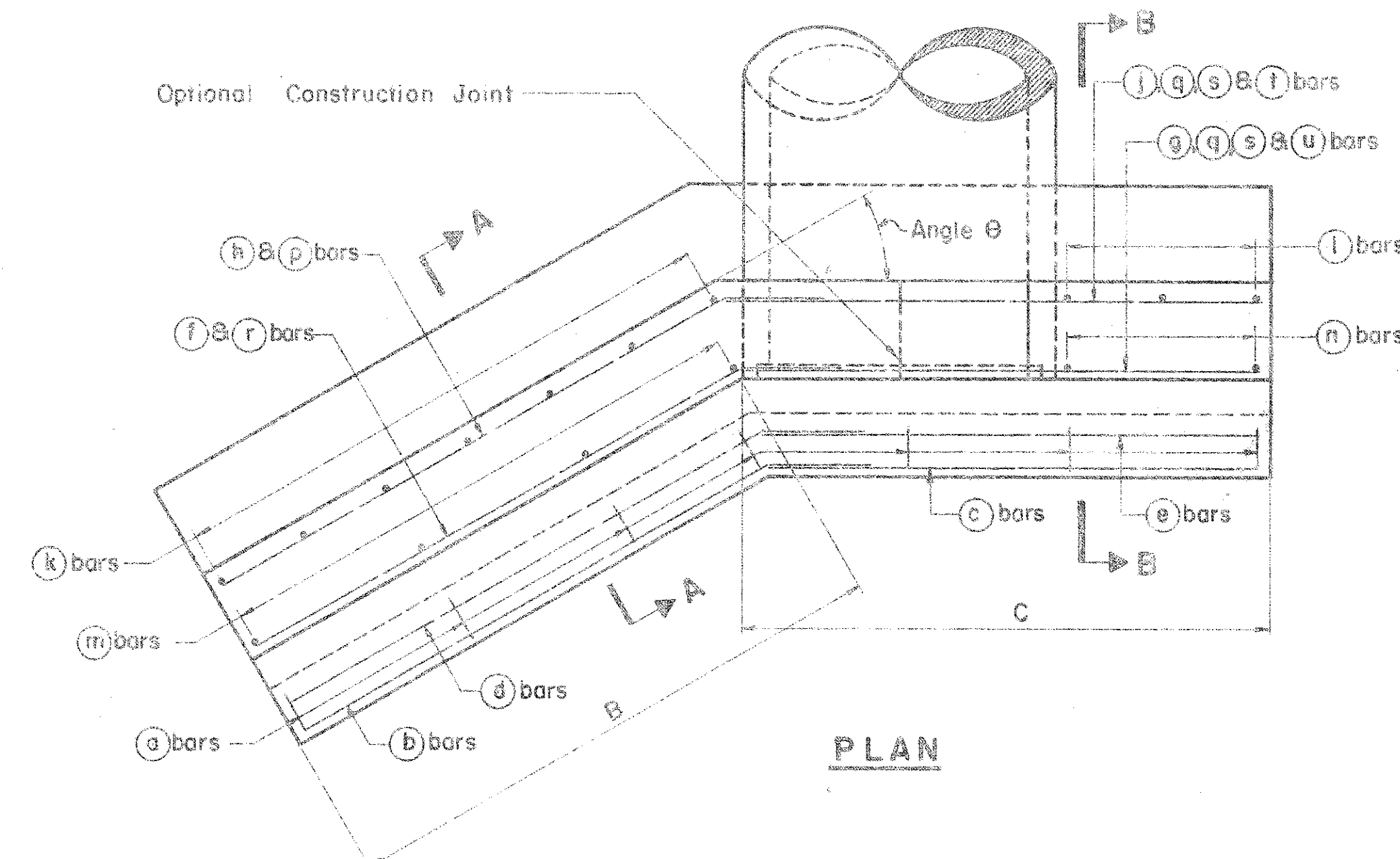
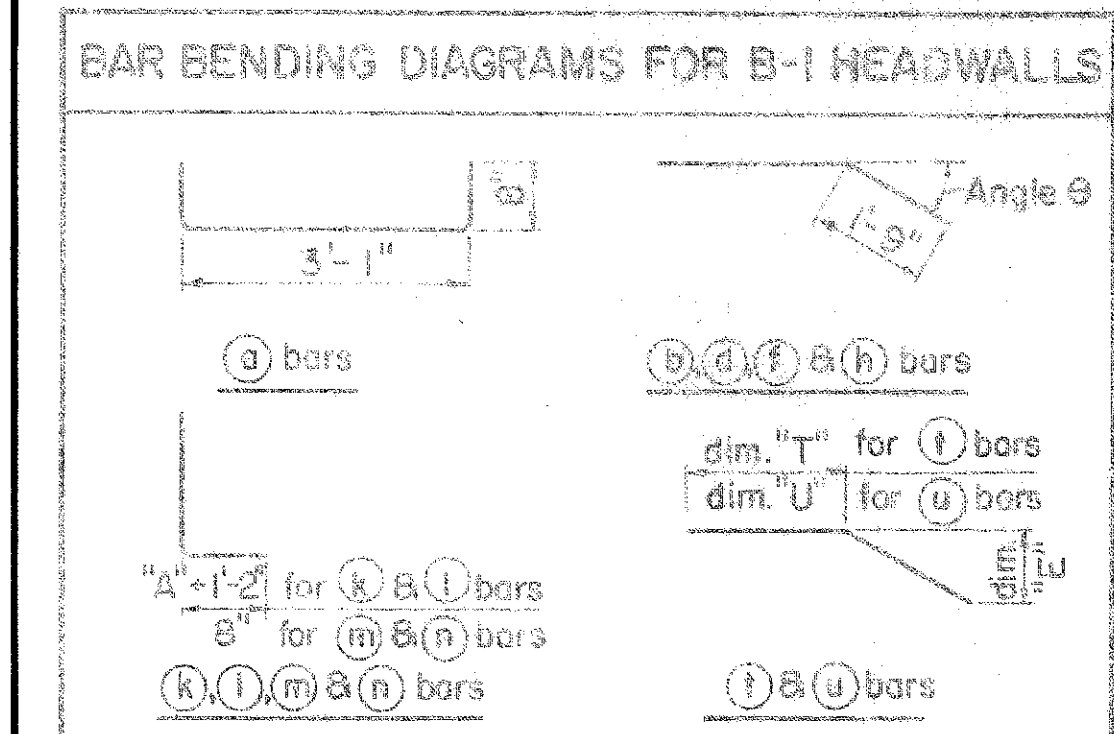
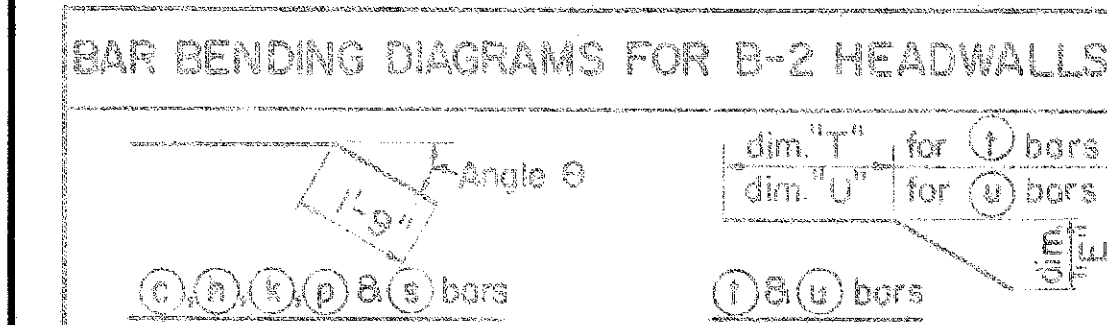
34
44

HEADWALL DIMENSIONS											REINFORCING STEEL LIST																				ESTIMATED QUANTITIES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
STATION	ANGLE θ	PIPE SIZE	TYPE	H	W	A	B	C	D	E	a bars		b bars		c bars		d bars		e bars		f bars		g bars		h bars		i bars		j bars		k bars		l bars		m bars		n bars		p bars		q bars		r bars		s bars		t bars		u bars		REINF. STEEL	CONCRETE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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139+04	26°30'	66"	B	6-9	5-3	1-10 1/2	13-10	16-0	10-0	1-3	11	4-2	3	15-0	3	15-3	2	15-2	2	15-5	3	15-6	1	15-9	3	15-9	1	16-0	10	11-3	7	10-0 to 11-0 each vary by 2		6	8-10	4	7-7 to 8-7 each vary by 4		5	14-0	8	9-1	5	13-8	2	9-1	2	16-1	6-2	2	15-9	5-10		505.5	11.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

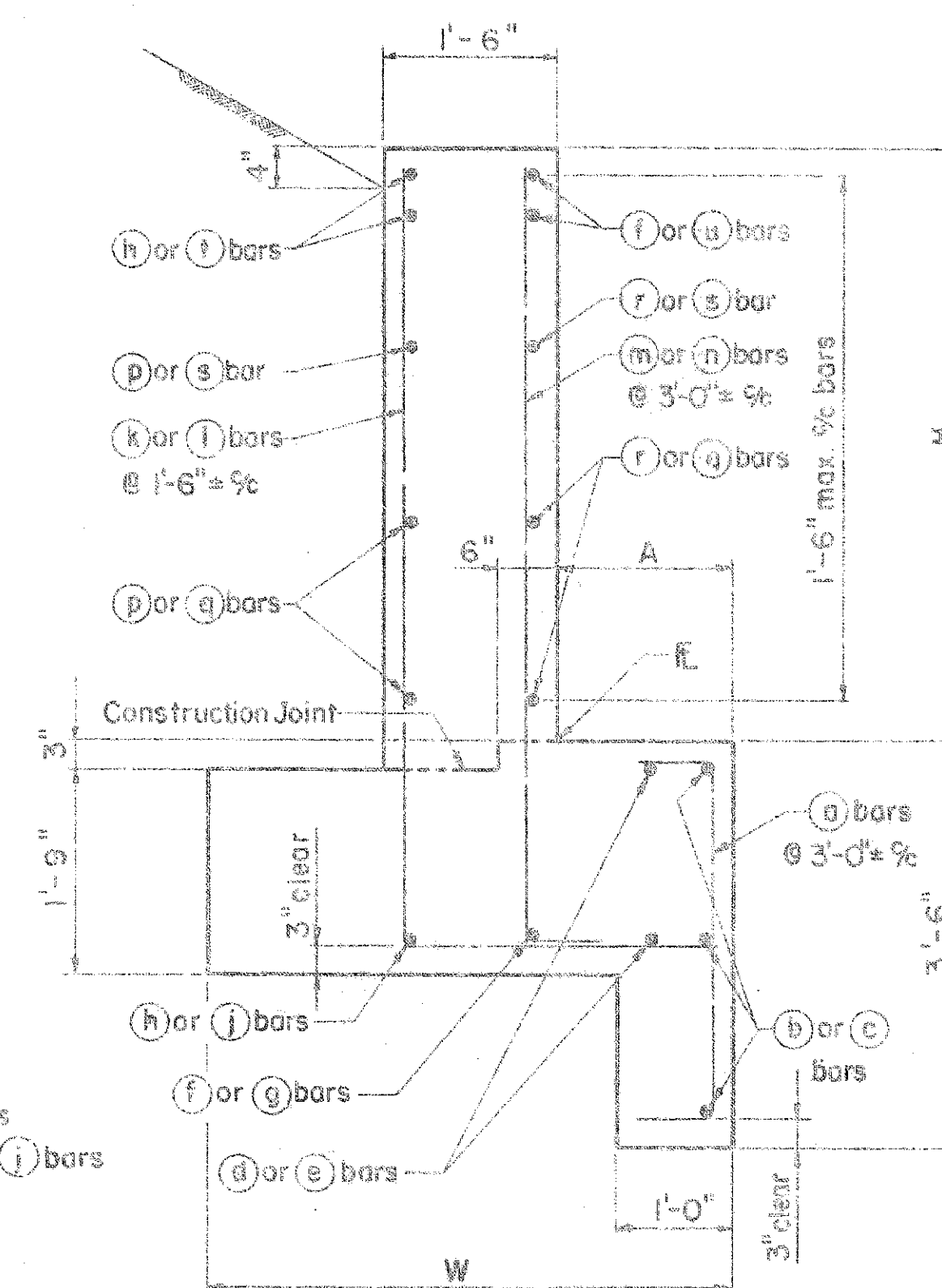
NOTE: All reinforcing steel shall be #5 bars except (k) and (l) bars for Type B-1 headwalls shall be #6 bars for "H" of 5'-9" thru 7'-6"; #7 bars for "H" of 7'-7" thru 8'-6" and #8 bars for "H" of 8'-7" thru 9'-9". Lengths given in the steel list are in feet and inches.

Quantities shown on this sheet are for one headwall.

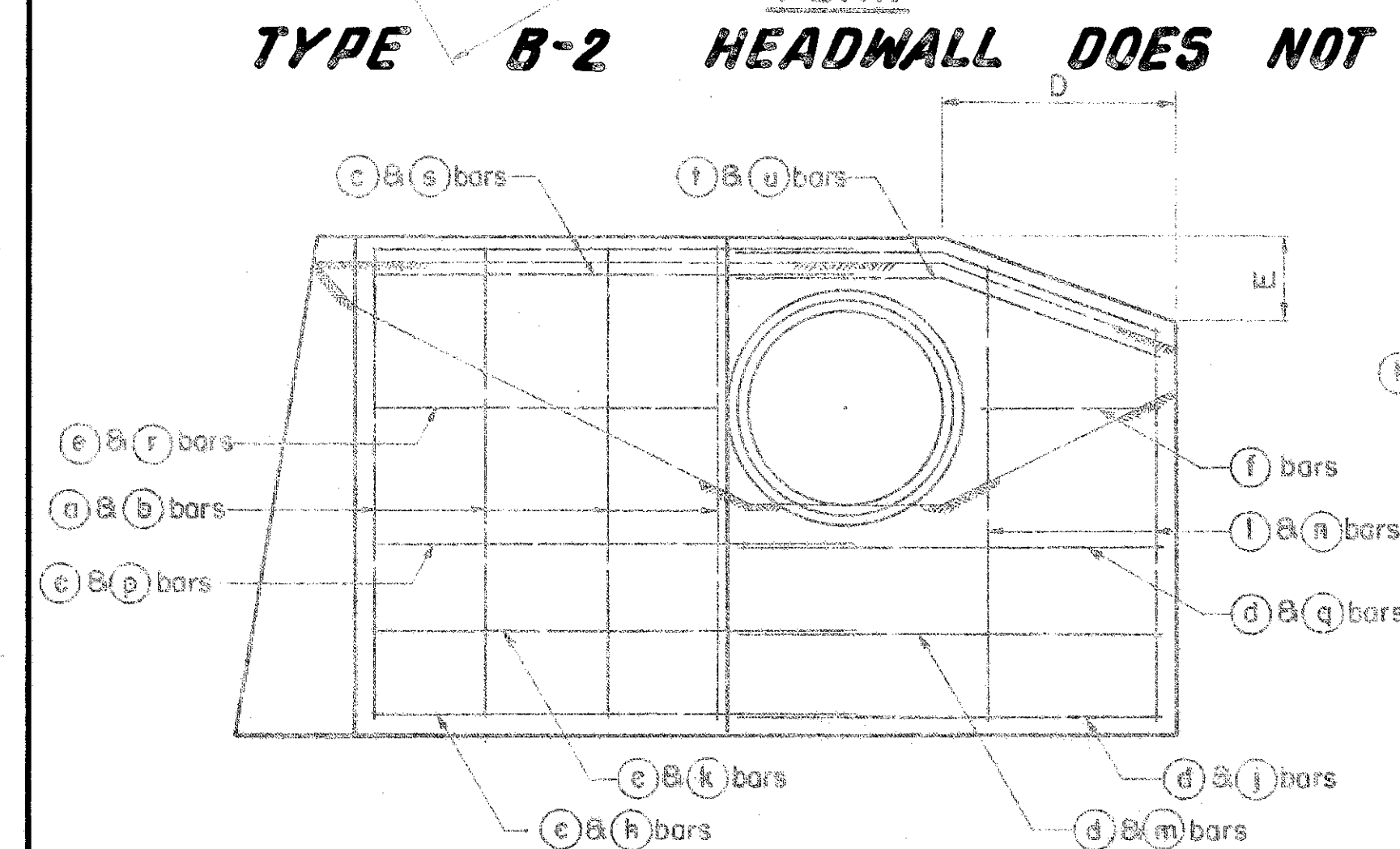
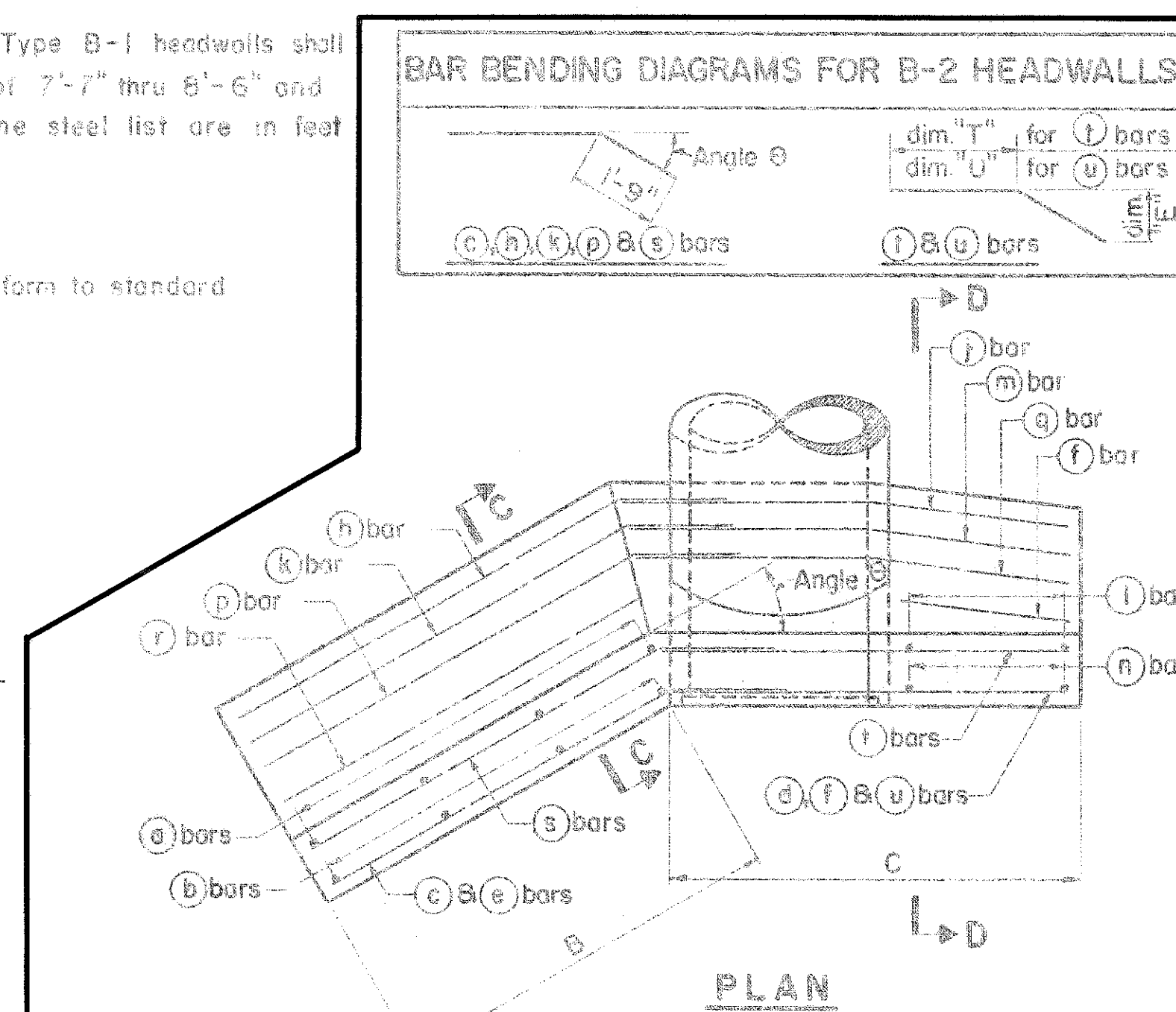
All other notes and details not shown on this sheet shall conform to standard headwalls A and C.



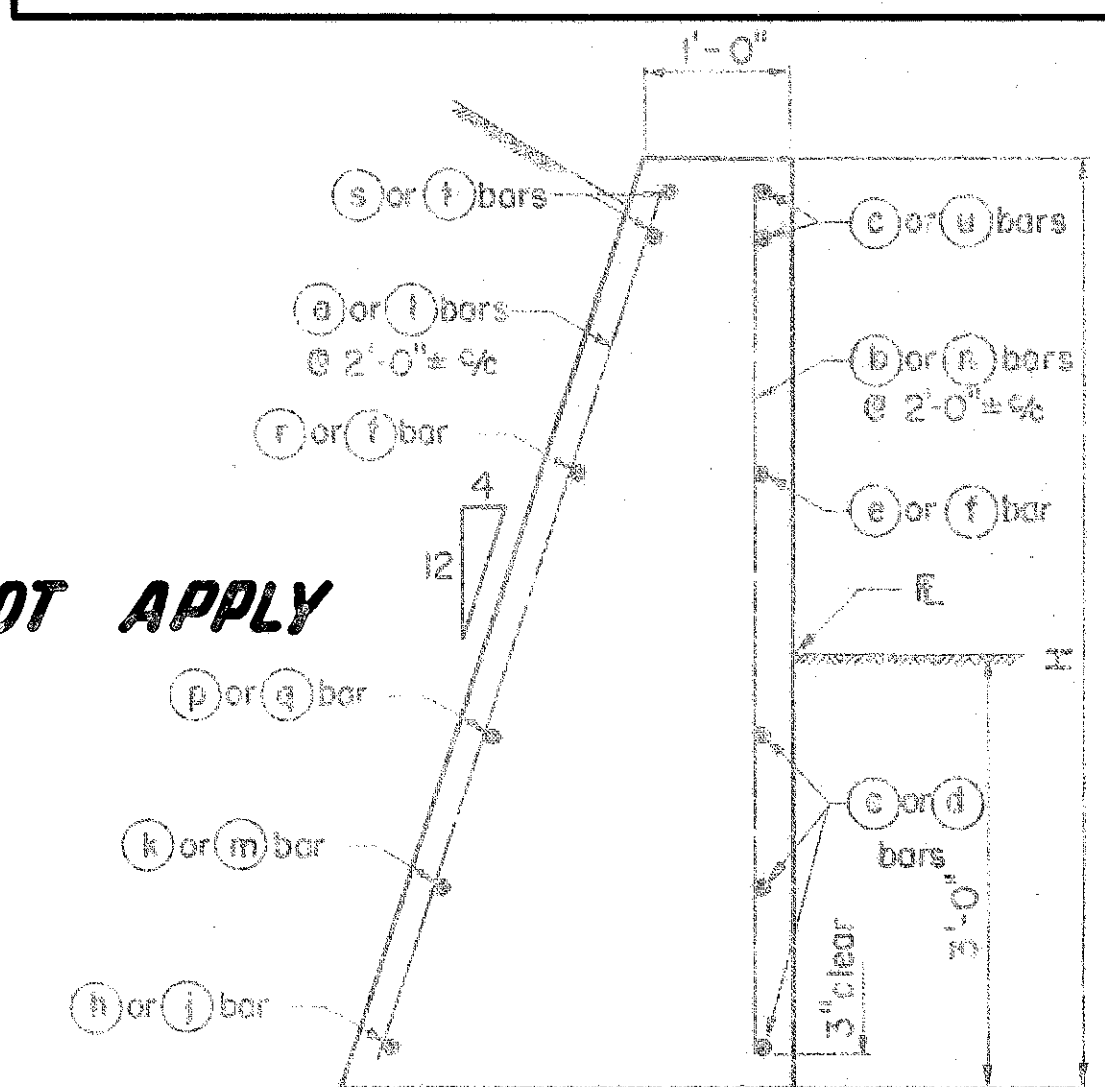
TYPE B-1 HEADWALL



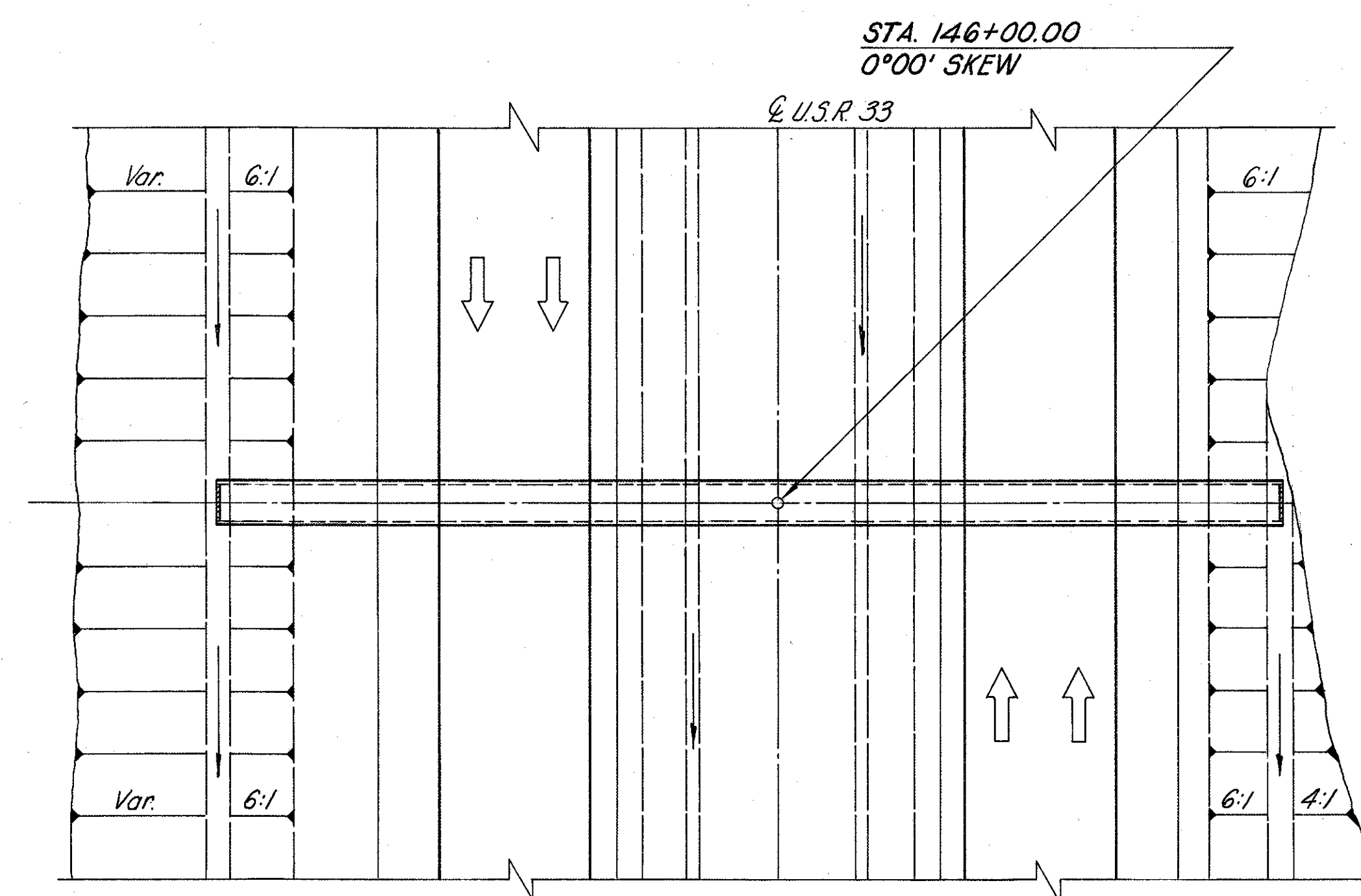
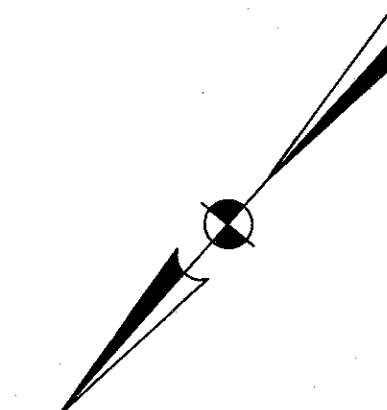
SECTION A-A & B-B



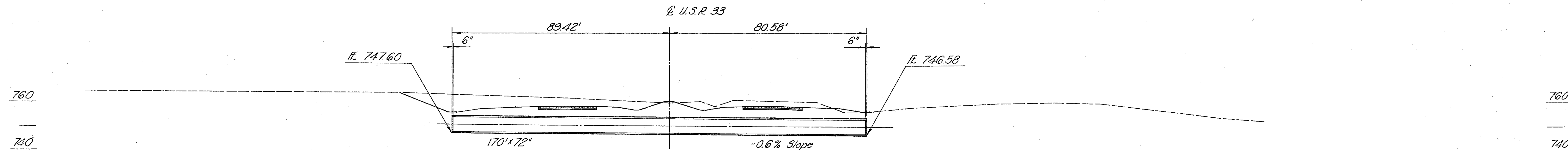
TYPE B-2 HEADWALL



SECTION C-C & D-D



D.A. = 269 Acres
Q₅₀ = 311 c.f.s.



ESTIMATED QUANTITIES

1-1 72" I-1 Pipe, Class A-1

170 Lin. Ft.

CULVERT DATA

TYPE: Circular Reinforced Concrete Pipe, Sec. M-6.6(a),
Class "A-1"
SIZE: 170' x 72"

Note: Bulkhead each end of this pipe with
two (2) layers of 12" brick. Bulkheading
to be included in the cost of the pipe.
VOTO - See sheet 310 of Part I

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

U-485(8)
I-70-3(19)103

FED. AID	STATE	PROJECT	FILE
2	OHIO	U-485(8) I-70-3(19)103	37 44

FRANKLIN COUNTY
FRA-33-21.72

37
44
1
8

FRA - 33 - 21.72
CITY OF COLUMBUS
MADISON TOWNSHIP
FRANKLIN COUNTY

CONVENTIONAL SIGNS

Existing Right of Way	-----	R/W
Existing Limited Access	-----	L A
Limited Access Only	-----	L A
Right of Way Only	-----	R/W
Limited Access and Right of Way	-----	R/W
Township Line	-----	
Section Line	-----	
Center Line	-----	
Corporation Line	-----	
Fence Line	-----	
Guard Rail (existing)	-----	
Guard Rail (proposed)	-----	
Railroads	-----	
Power Poles	-----	
Telephone Poles	-----	
Trees or Stumps (existing)	-----	
Trees or Stumps (to be removed)	-----	

INDEX OF SHEETS

Title Sheet	1	Cross Sections	15-25
Typical Sections	2-4	Schaaf Drive	26-27
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Calculation Sheets	8	Structures 20' Span & Under	35-36
Superelevation Charts	9	Right of Way	37-44
Plan & Profile	10-14		

LINE DATA

U-485(8) Begin Project Sta. 113+20.00
End Project Sta. 132+00.00
Net Length of Project = 1880.00 Lin. Ft. or 0.356 Miles
Add For Work
Sta. 112+80.00 To Sta. 113+20.00 = 40.00 Lin. Ft.

Net Length of Work = 1920.00 Lin. Ft. or 0.364 Miles

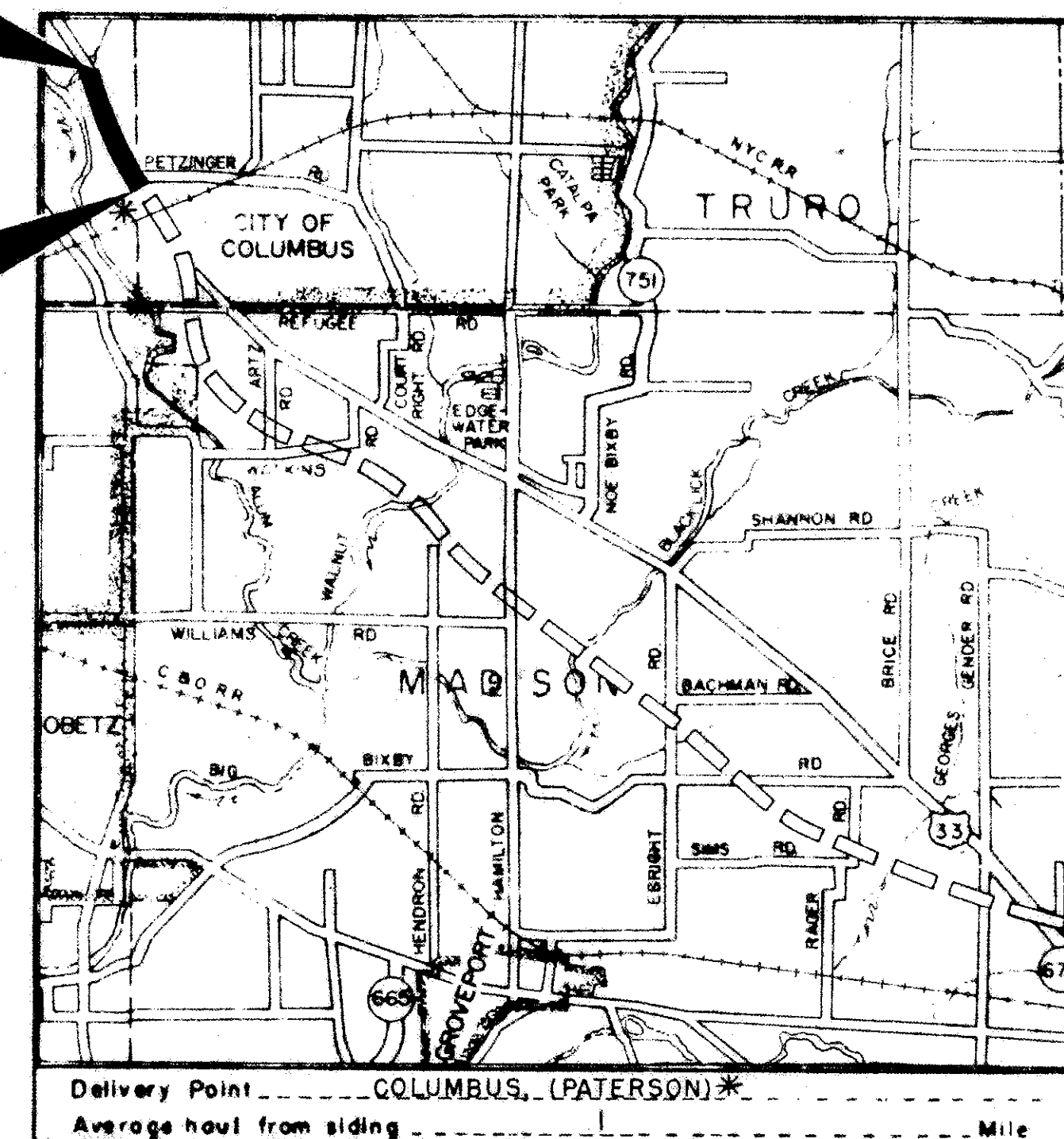
I-70-3(19)103 Begin Project Sta. 132+00.00
End Project Sta. 152+00.00
Net Length of Project = 2000.00 Lin. Ft. or 0.379 Miles
Add For Work
Sta. 152+00.00 to Sta. 153+16.00 = 116.00 Lin. Ft.

Net Length of Work = 2116.00 Lin. Ft. or 0.401 Miles

NET LENGTH OF PROJECT = 1880.00 + 2000.00 = 3880.00 Lin. Ft. or 0.735 Miles
NET LENGTH OF WORK = 1920.00 + 2116.00 = 4036.00 Lin. Ft. or 0.764 Miles

BEGIN PROJECT STA.
113+20.00
FRA-33-21.72

END PROJECT STA.
152+00
FRA-33-21.72



LOCATION MAP

SCALE IN MILES

Portion to be improved
State Roads
Construction Under Another Contract
Other Roads

SCALES

Plans
Profile (Vertical)
Profile (Horizontal)
Cross Sections

Supplemental Prints of Standard Construction Drawings									
B-1-70-71	11-15-60	18 C.B. NO. 83-15-60	L-3A	4-1-55					
B-1-71R	3-2-53	18 M.H. NO. 11-26-59	L.J. NO. 1	7-1-55					
DR-1	1-3-55	112	7-1-54	RI 1	7-15-58				
G-707	6-1-56	115 NO. 1	11-15-60	T-35	1-2-56				
HW-A&B	7-15-57	115 NO. 2A	8-17-60	T.J.	9-12-60				
HW-E	11-15-60	121-23	8-1-56	F-2	10-1-59				
I-1	11-15-60	L-1	4-1-50	FACI-1	12-27-61				
18 C.B. 2-2-A&B	3-2-59	L-3	4-1-50	FACI-2	12-27-61				

Approved _____ Date _____
Superintendent, Division of Water, Columbus, Ohio
Approved _____ Date _____
Chief Engineer, Division of Sewerage & Drainage, Columbus, Ohio
Approved _____ Date _____
Chief Engineer, Division of Engineering & Construction, Columbus, Ohio
Approved _____ Date _____
Director of Public Service, Columbus, Ohio
Approved _____ Date _____
Superintendent, Division of Electricity, Columbus, Ohio

Supplemental Specifications	
B-112	8-21-61
CE 101.04 REV. 2-62	
I-128	7-3-58
I-129 REV. 4-5-61	
M-10718 REV. 6-30-59	
M-10928 REV. 8-12-59	

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio. Sta. 137+44.77 to Sta. 152+00 Lt. and Sta. 140+98.84 to Sta. 152+40 Rt.

1963 SPECIFICATIONS

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

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

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

Approved _____ Date _____
Division Deputy Director
Approved _____ Date _____
Engineer of Bridges
Approved _____ Date _____
Engineer of Location and Design
Approved _____ Date _____
Deputy Director of Design and Construction
Approved _____ Date _____
Deputy Director of Right of Way
Approved _____ Date _____
Deputy Director of Planning and Programming
Approved _____ Date _____
First Assistant Director
Approved _____ Date _____
Director of Highways

PLANS PREPARED BY
RACKOFF ASSOCIATES
ENGINEERS
COLUMBUS, OHIO

MELVIN RACKOFF

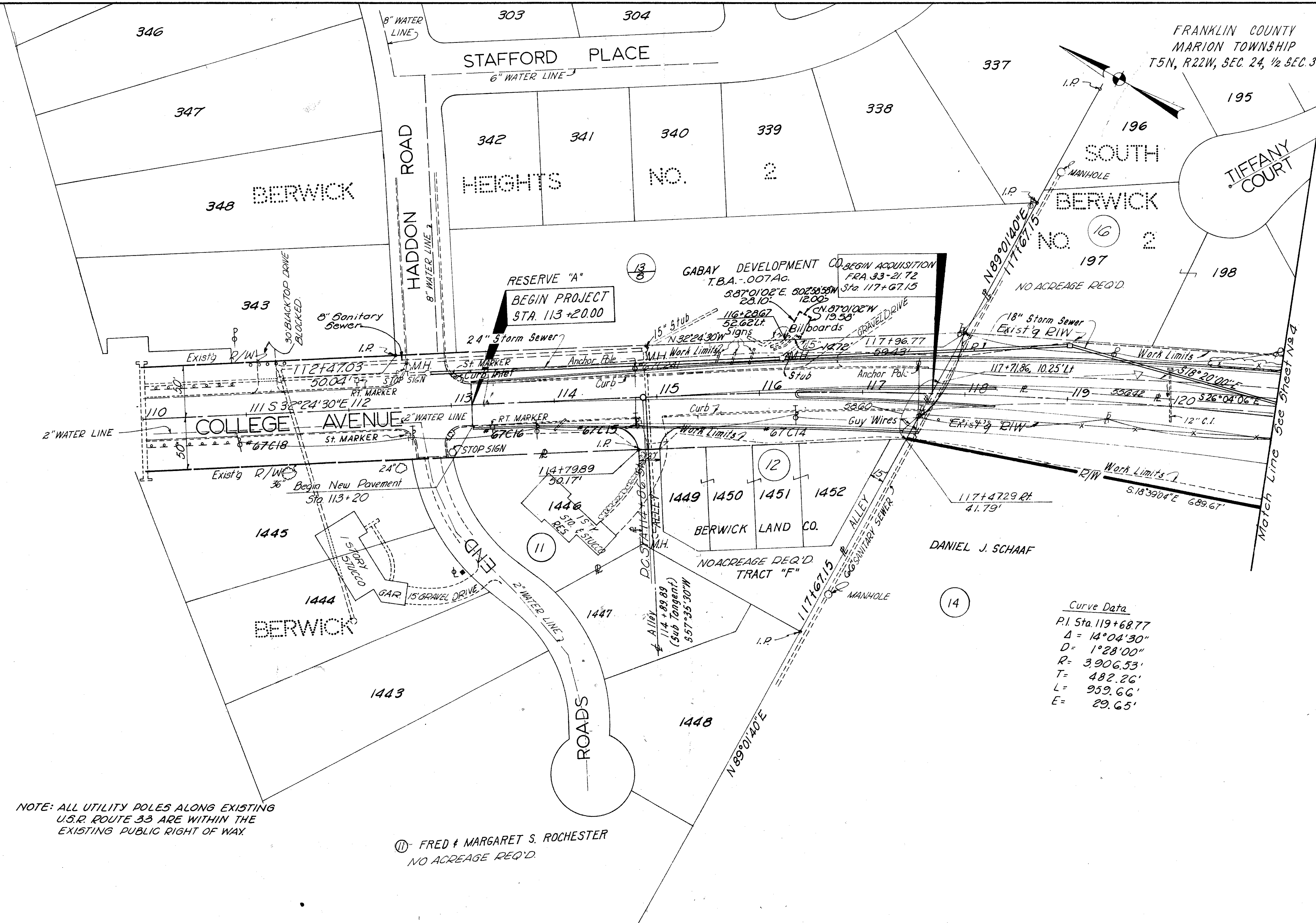
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER

DATE

File No.	FRANKLIN COUNTY	USR 33	FRA-33-2172
Date of Letting	19		
Contract No.			



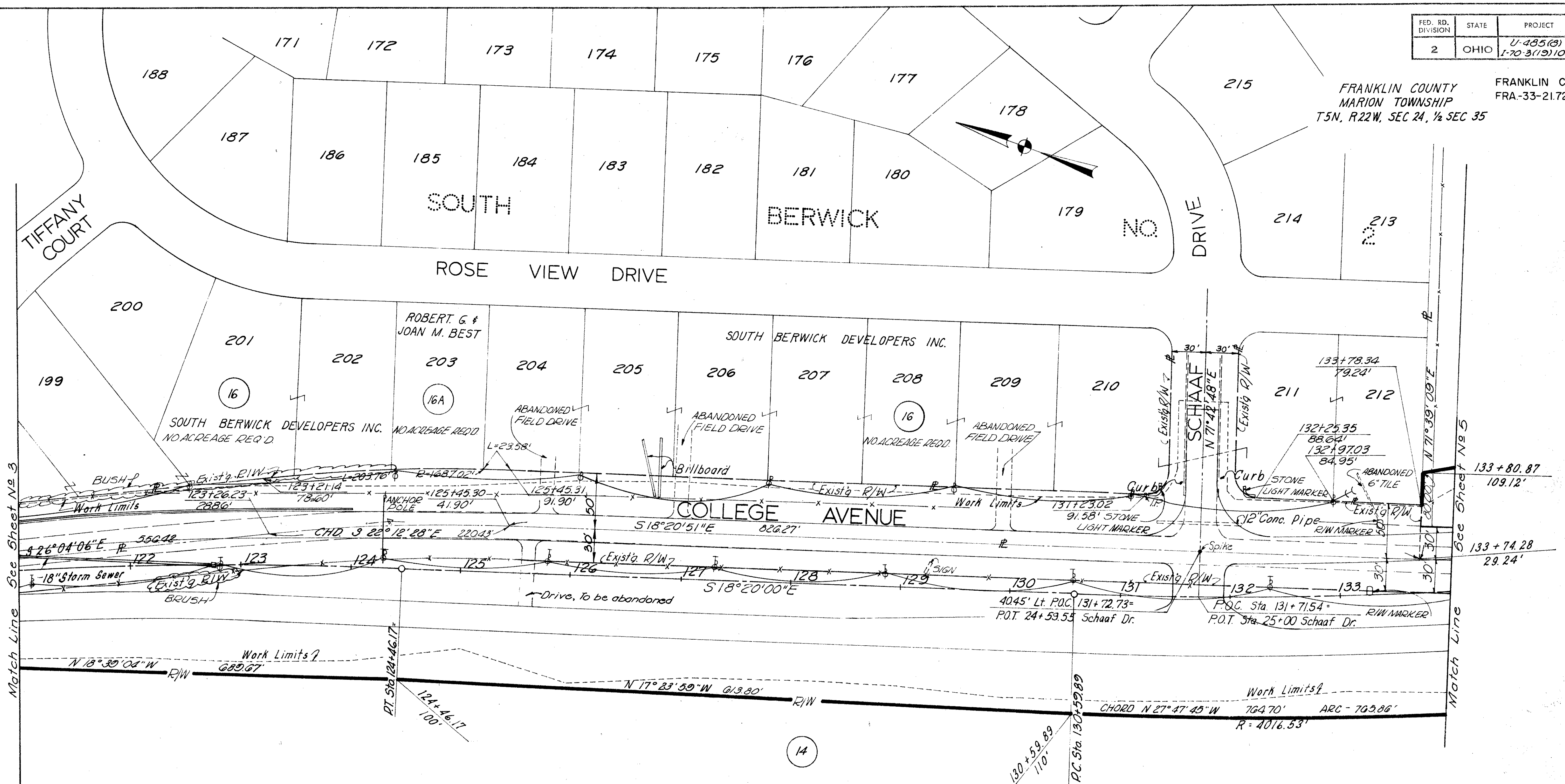
NOTE: ALL UTILITY POLES ALONG EXISTING U.S.R. ROUTE 33 ARE WITHIN THE EXISTING PUBLIC RIGHT OF WAY.

⑪ FRED & MARGARET S. ROCHESTER
NO ACREAGE REQ'D.

Curve Data
 P.I. Sta. 119+68.77
 $\Delta = 14^{\circ}04'30''$
 $D = 1^{\circ}28'00''$
 $R = 3,906.53'$
 $T = 482.26'$
 $L = 959.66'$
 $E = 29.65'$

Scale 1"=50'

COMPLETION DATE 3-8-1963	
REV.	DESCRIPTION



Curve Data
 P.I. Sta. 119+68.77
 $\Delta = 14^\circ 04' 30''$
 $D = 1^\circ 28' 00''$
 $R = 3,906.53'$
 $T = 482.26'$
 $L = 959.66'$
 $E = 29.65'$

Exist'g Curve Data
 $\Delta = 7^\circ 43' 15''$
 $D = 3^\circ 30' 00''$
 $R = 10,370.21'$
 $T = 110.47'$
 $L = 220.60'$

DANIEL J. SCHAAF

Curve Data
 P.I. Sta. 134+83.99
 $\Delta = 12^\circ 23' 30''$
 $D = 1^\circ 28' 00''$
 $R = 3,906.53'$
 $T = 424.10'$
 $L = 844.89'$
 $E = 22.95'$

Scale 1"=50'

COMPLETION DATE		3-8-1963
REV.	DATE	DESCRIPTION

LEGEND

- IAPA - Intermediate Anchor Post Assembly - Shall be used at points of deflection where the fence changes alignment in excess of four degrees and less than thirty degrees.
- CRA - Corner Post Assembly - Shall be used at points of deflection where the fence changes alignment thirty degrees or more.
- EPA - End Post Assembly - Shall be used at all terminal points in fence

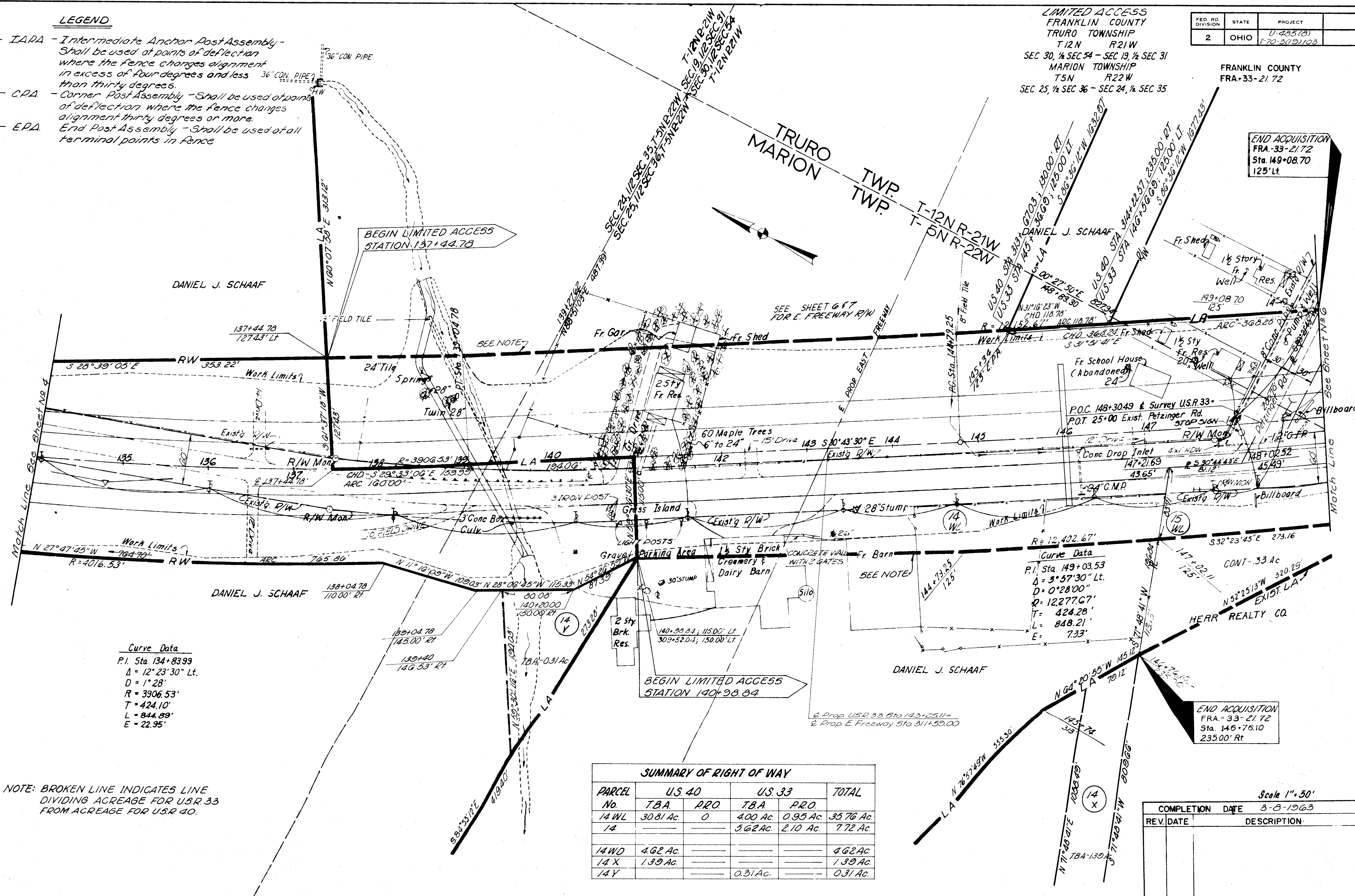
LIMITED ACCESS
FRANKLIN COUNTY
TRURO TOWNSHIP
T 12N R 21W
SEC 30, 1/4 SEC 54 - SEC 19, 1/4 SEC 31
MARION TOWNSHIP
T 5N R 22W
SEC 25, 1/4 SEC 36 - SEC 24, 1/4 SEC 35

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	U-485(8) F-70-30(2)103

FRANKLIN COUNTY
FRA-33-21.72

END ACQUISITION
FRA-33-21.72
Sta. 149+08.70
125' Lt.

41
44
5
8



Curve Data
P.I. Sta. 134+83.99
Δ = 12° 23' 30" Lt.
D = 1° 28'
R = 3906.53'
T = 424.10'
L = 844.89'
E = 22.95'

NOTE: BROKEN LINE INDICATES LINE DIVIDING ACREAGE FOR U.S.R. 33 FROM ACREAGE FOR U.S.R. 40.

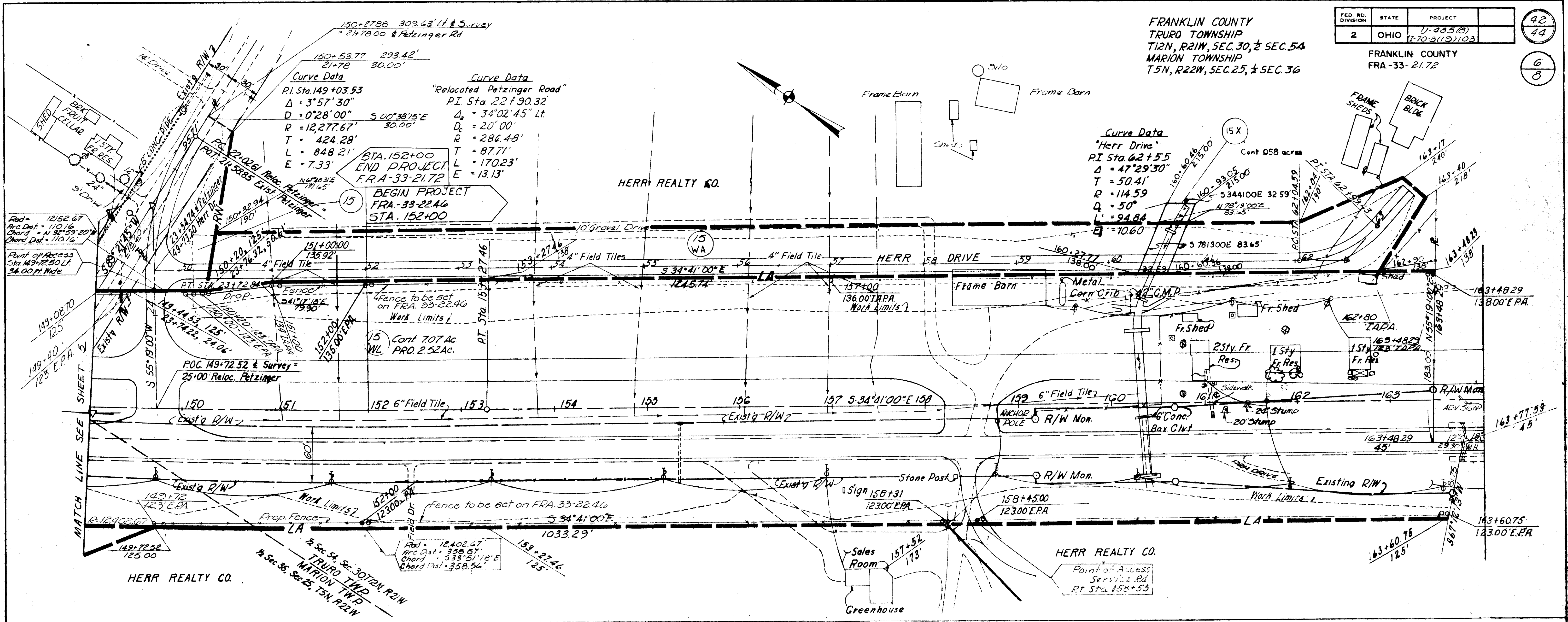
SUMMARY OF RIGHT OF WAY					
PARCEL No.	U.S. 40		U.S. 33		TOTAL
	T.B.A.	P.R.O.	T.B.A.	P.R.O.	
14 WL	30.81 Ac.	0	400 Ac.	0.95 Ac.	35.76 Ac.
14			562 Ac.	2.10 Ac.	7.72 Ac.
14 WD	4.62 Ac.				4.62 Ac.
14 X	1.39 Ac.				1.39 Ac.
14 Y			0.31 Ac.		0.31 Ac.

Curve Data
P.I. Sta. 149+03.53
Δ = 3° 57' 30" Lt.
D = 0° 28' 00"
R = 12277.67'
T = 424.28'
L = 848.21'
E = 7.33'

END ACQUISITION
FRA-33-21.72
Sta. 146+76.10
235.00' Rt.

COMPLETION DATE		3-8-1963	
REV.	DATE	DESCRIPTION	

R/W STA. 134+00 TO STA. 149+00



QUANTITIES

R/W Sh No	ITEM	TOTAL	UNIT	DESCRIPTION	PARCEL No
1	I-8	5*-4	Each	Centerline Monuments As Per Plan	
4	E-10	Lump	Lump	Removal of One 1 1/2 Story Frame Residence, One Outhouse, One Frame shed, and One Frame School House (abandoned)	14 WL

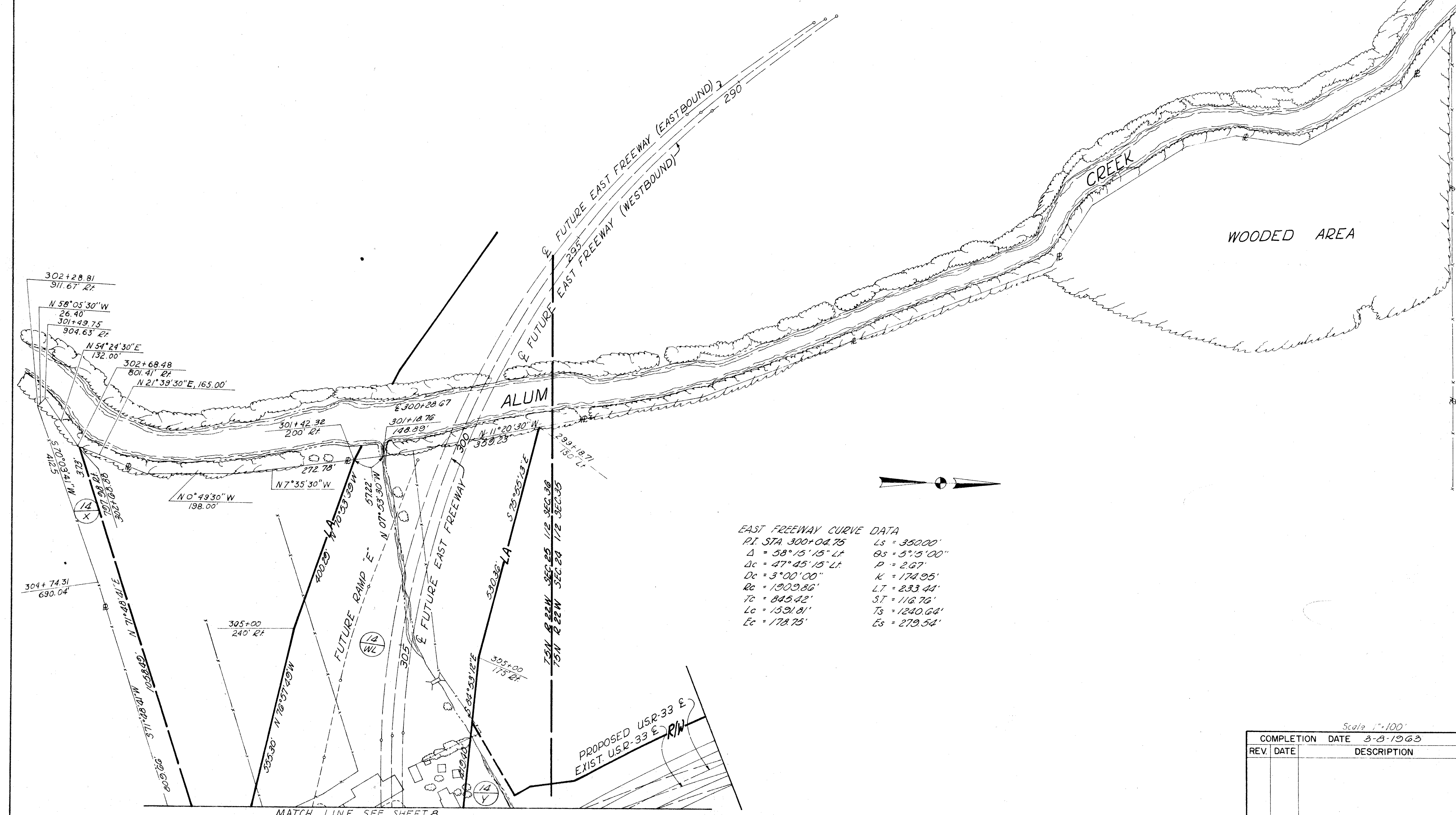
*U-435 (B)

ITEM-25

STATION TO STATION	TYPE AT
145+34 - 149+40 LT	406 LF
150+00 - 152+00 LT	200 LF
149+72 - 152+00 RT	228 LF
Total to General Summary	834 LF

COMPLETION DATE 3-8-1963	
REV DATE	DESCRIPTION

R/W STA. 149+00 TO STA. 164+00



EAST FREEWAY CURVE DATA

P.I. STA 300+04.75	LS = 350.00'
$\Delta = 58^{\circ}15'15''$ LT	OS = 5'5'00"
$\Delta c = 47^{\circ}45'15''$ LT	P = 2.67'
$Dc = 3^{\circ}00'00''$	K = 174.95'
$Rc = 1909.86'$	LT = 233.44'
$Tc = 845.42'$	ST = 116.76'
$Lc = 1591.81'$	Ts = 1240.64'
$Ec = 178.75'$	Es = 279.54'

Scale 1"=100'

COMPLETION DATE 3-8-1963	
REV.	DESCRIPTION



GENERAL INFORMATION

INTRODUCTION

The project consists of the major relocation of 1.6 miles of USR 33 and an associated intersecting road, beginning within the City of Columbus along existing USR 33 (College Avenue); approximately 3500 feet north of Petzinger Road, and extending generally southward, first paralleling existing USR 33 for approximately one mile, then separating into southbound lanes and northbound lanes, and converging 500 feet from the project terminus (Refugee Road - the southern corporation limit of Columbus). From the point where the survey centerline separates into the southbound and northbound lanes, southward to Refugee Road, the existing grade of College Avenue is to be altered in order to accommodate future proposed extensions of James Road.

The proposed grades indicate the following:

Survey Centerline (Station 113+00 to 165+92, and 198+00 to 203+00) - cut, generally 0 to 10 feet in depth, maximum 20 feet; fill embankment, maximum 6 feet in height.

Southbound Lanes (Station 166+66 to 198+00) - cut, maximum 10 feet in depth; fill embankment, maximum 20 feet in height.

Northbound Lanes (Station 164+75 to 198+00) - cut, maximum 16 feet in depth; fill embankment, maximum 7 feet in height.

College Avenue - cut, maximum 11 feet in depth; fill embankment, maximum 27 feet in height.

GEOLOGY OF THE PROJECT

The alignment traverses a slightly dissected portion of the glacial Till Plain, where morainal deposits, occasionally combined with alluvial deposits (in the final 0.5 mile of the project), are in excess of 51 feet in thickness. Deeply-buried local bedrock consists of shales, of Devonian age.

EXPLORATION

Exploratory roadway profile borings were made by means of truck mounted mechanical earth auger between July 10 and 12, 1961, and supplemented by structure foundation investigation borings made between July 10 and 13, 1961, in conjunction with the proposed New York Central Railroad and Refugee Road grade separation structures.

INVESTIGATIONAL DISCLOSURES

Survey Centerline

Materials immediately below grade consist predominantly of silts and silty clays, in the A-4 and A-6 classifications. Frost susceptible silts were encountered within 3 feet below grade at stations 132+00 - 72' Lt., 135+00, and between stations 143+00 and 150+00.

In the embankment foundation areas, soils are comprised of sandy silts and silt clays, in the A-4a and A-6a classifications. Wet silts, ranging from 2 to 5 feet in thickness, were encountered from ground surface to nine-foot depth at stations 123+00, 139+40, and 199+55.

Southbound Lanes

Materials immediately below grade consist predominantly of sandy silt, in the A-4a classification. Frost susceptible silt was encountered within 3 feet below grade at stations 170+00 and 174+00.

Embankment foundation materials consist of silt clay and clay, in the A-6a and A-7-6 classifications. Wet gravels and silts, in the A-2-4 and A-4a classifications, were encountered at stations 180+00, 191+00, and 197+00, at depths ranging from 3 to 12 feet below ground surface, maximum 6 feet in thickness.

Northbound Lanes

Materials immediately below grade consist predominantly of sandy silt, in the A-4a classification. Frost susceptible silts were encountered at grade at stations 169+00, 177+00, 181+00 and 185+00.

In the embankment foundation areas, soils consist of silts and silt clays, in the A-4b and A-6 classifications.

College Avenue

Materials immediately below grade and in the embankment foundation areas consist of sandy silt and silt clay, in the A-4a and A-6a classifications. Frost susceptible silt was encountered at grade between stations 169+00 and 179+10, and at station 202+00.

In the embankment foundation area in the poorly-drained area left of centerline between stations 189+60 and 191+00, wet silts, in the A-4a classification, were encountered at station 190+60 - 50' Lt., from ground surface to 2.5 feet depth, and, at station 190+60 - 21' Lt., 2 feet of silt, in the A-4a classification, was encountered between 5 and 7 feet below ground surface.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 176 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Gravel and stone fragments	A-1-a (0)	A-1-a	61	26	8	-	5	NP	NP	17	21
Gravel and stone fragments with sand	A-1-b (0)	A-1-b	42	33	12	-	13	NP	NP	15	17
Coarse and fine sand	-----	A-3a	13	39	21	15	12	NP	NF	22	4
Gravel and stone fragments with sand and silt	A-2-4 (0)	A-2-4	43	17	12	19	9	NP	NP	15	5
Gravel with sand, silt and clay	A-2-6 (1)	A-2-6	13	40	12	16	19	35	13	26	4
Sandy silt	A-4a (4)	A-4a	18	11	17	32	22	24	6	16	75
Silt	A-4 (7)	A-4b	9	8	14	53	16	26	5	17	6
Silt and clay	A-6 (8)	A-6a	9	10	17	34	30	33	13	19	29
Silty clay	A-6b (11)	A-6b	2	7	15	36	40	39	17	20	12
Clay	A-7-6 (12)	A-7-6	2	14	15	31	33	45	22	24	6
Various other materials.											
Berm material.											
Auger boring - plan view.											
Drive sample boring - plan view.											
Auger boring plotted to vertical scale only.											
Drive sample boring plotted to vertical scale only.											
Number of blows for "Standard Penetration" test. X=number of blows for the first 6 inches. Y=number of blows for the second 6 inches.											
Water content nearly equal to or greater than liquid limit.											
Indicates a non-plastic material with high water content.											
Free water.											

NOTE: Figures beside borings indicate water content in percent. e.g./5

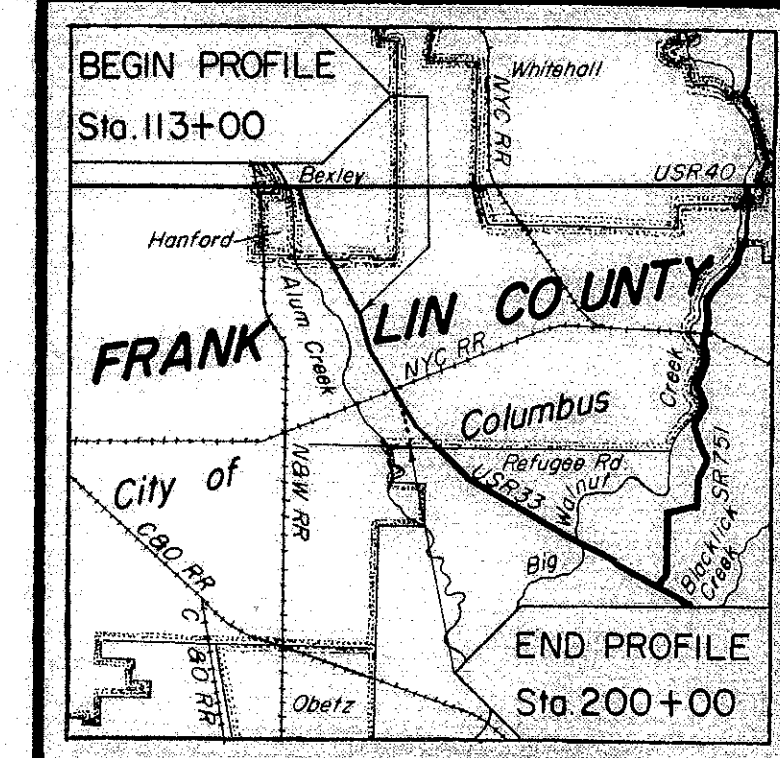
SOIL PROFILE FRANKLIN COUNTY

FRA-33-21.72

OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

U-485(B)
Fed No. I-70-3(19)103

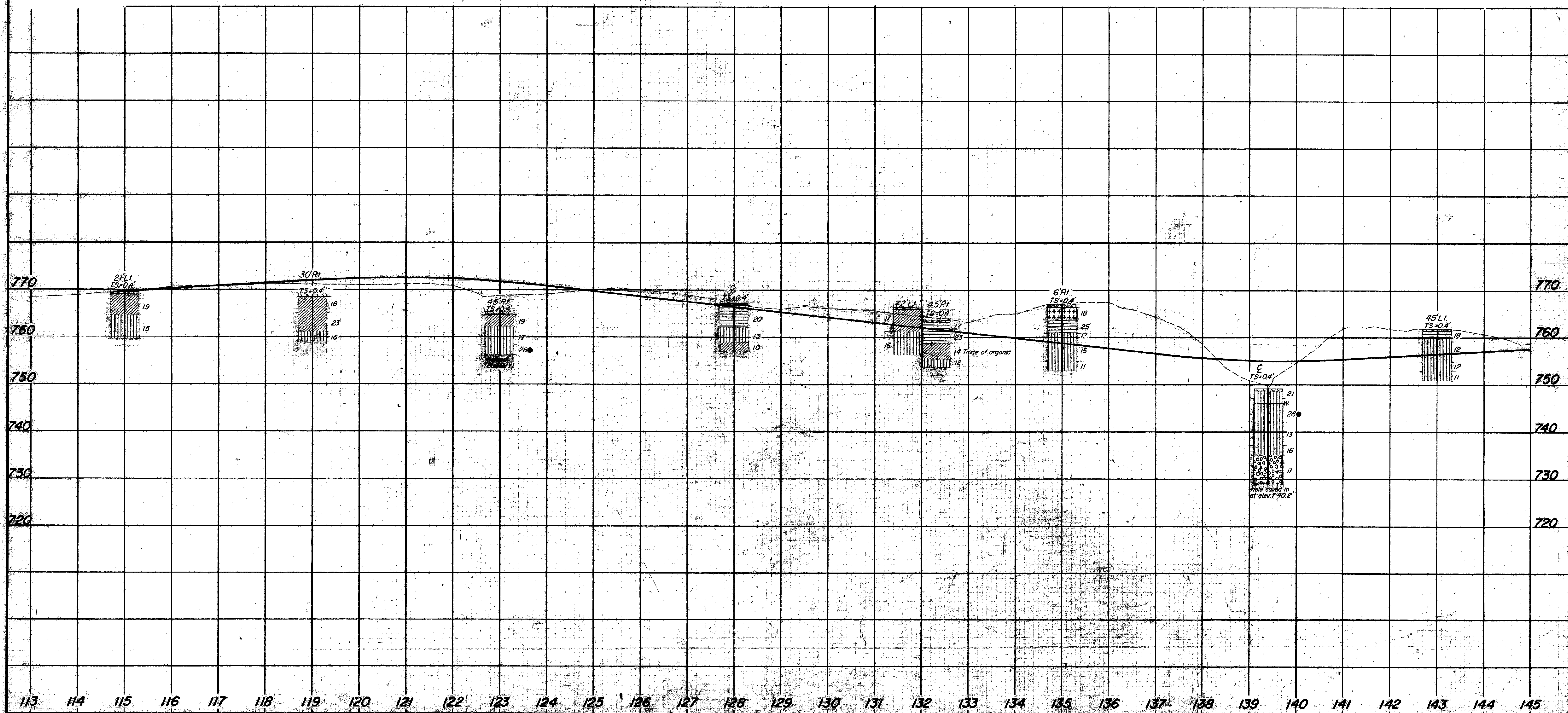
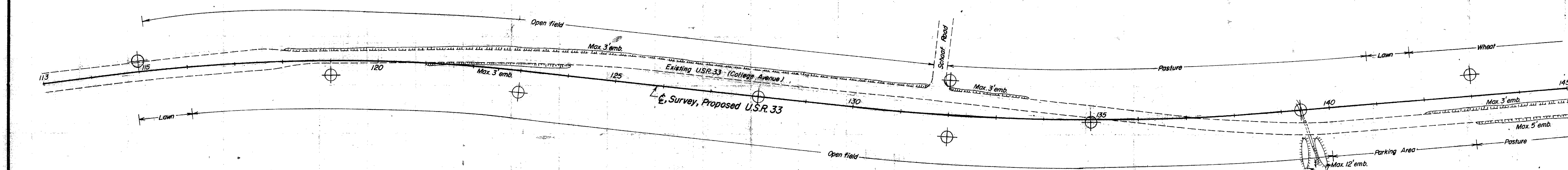


LOCATION MAP

Recon. - J.T.B. - 6/20/61 to 6/22/61 incl.

Drilling - Auger - J.M.M., L.M.D. - 7/10/61 to 7/12/61 incl.
Core - J.H.S. - 7/10/61 to 7/13/61 incl.

Drafting - F.H.S., L.N.L., C.F.H. - 8/8/61.



INTERCHANGE INDEX	
Alignment	Profile Sheet
Survey Centerline	
Stas. 144+00 - 166+00	5
Stas. 198+00 - 203+00	5
Southbound Lanes	5
Northbound Lanes	6
College Avenue	6

