





# TYPICAL SECTION

## TYPE T-35 ON B-19

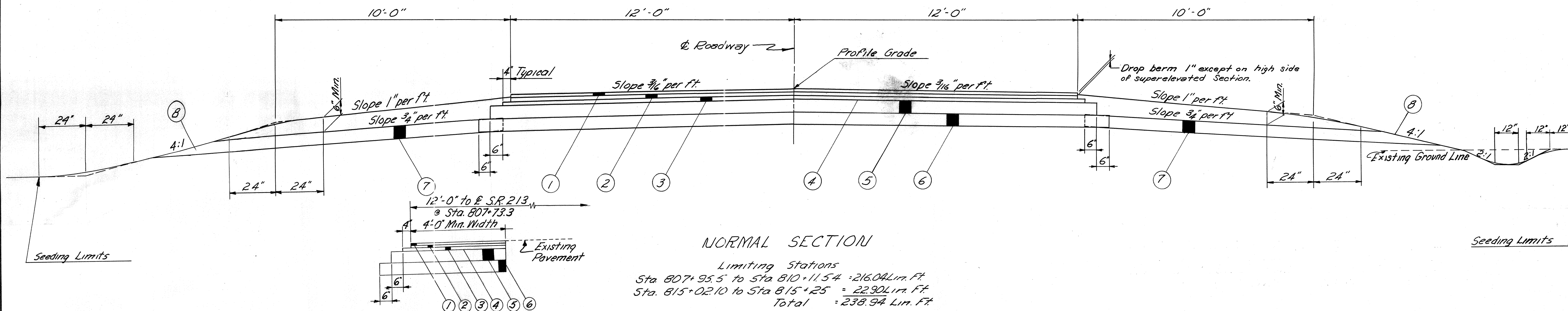
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2  
19

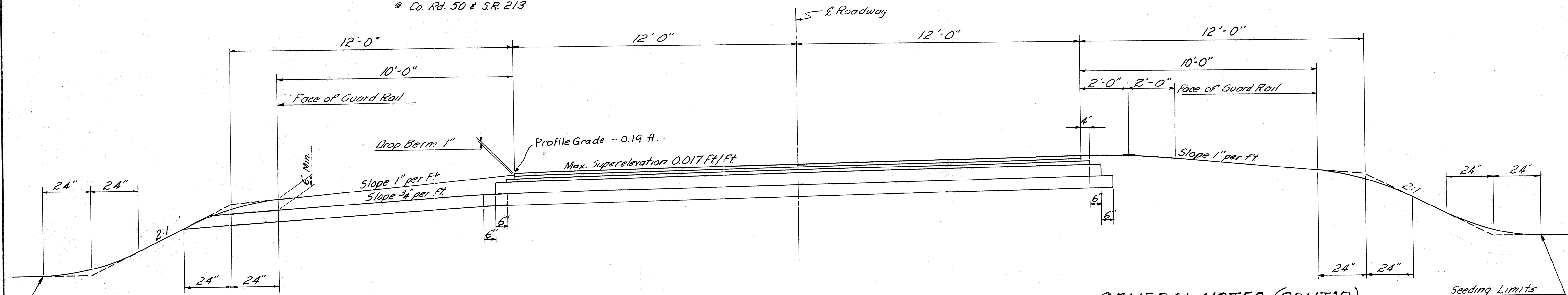
JEF-213-15.30

SCALE: 1" = 2'

CODE-6201



Widening of Intersection  
 @ Co. Rd. 50 & S.R. 213



### GENERAL NOTES (CONT'D)

**SPECIAL SEEDING PREPARATION AREAS**  
 The references in the first paragraph of Sec. L-9-11 to preparation of the seed bed in front of residences, etc., shall on this project, be considered particularly applicable in the following areas.  
 Sta. 807+95.5 to Sta. 811+50 Left & Right.

**CROWN AT RAILROAD CROSSING**  
 The crown shall be worked out of the pavement beginning 50 feet from the crossing by raising the edge of the pavement to meet the rail elevation.

**GUARD RAIL ADJACENT TO BRIDGE**  
 One (1) additional guard rail post shall be provided in the center of each panel of guard rail adjacent to the bridge, payment for which shall be included in the unit price bid for Item I-15, Guard Rail.

- LEGEND**
- ① Item T-35+ 1 1/2" Asphaltic Concrete Surface Course Type "C" (70-85).
  - ② Item B-35+ 1 1/2" Asphaltic Concrete Second Leveling Course (70-85).
  - ③ Item B-35+ 1 1/2" Asphaltic Concrete First Leveling Course (70-85).
  - ④ Item T-30 Bituminous Prime Coat Sec. M-5.7, RT-2 or RT-3 applied at the rate of 0.40 Gals. per Sq. Yd.
  - ⑤ Item B-19 6" Aggregate Base Course
  - ⑥ Item I-22 6" Subbase
  - ⑦ Item I-9 Stone Underdrains No. 2 (See Note on Sheet 3.)
  - ⑧ Item L-9 Seeding and Protecting

\*Thicknesses shown are "designed" thicknesses as described in section T-35.01 and B-35.01.



# NOTES AND COMPUTATIONS

## ALL ELEVATIONS BASED ON USGS DATUM

## ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

The rounded corners shown on Standard Drawing RI-1, as modified by the typical section, applies to all cross sections, even though otherwise shown on these plans.

## UTILITY ADJUSTMENT

Any or 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.

## 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.

## PRIVATE SEWER TAPS

This plan makes no provision for connecting, nor shall the Engineer or Contractor connect, any existing or new private drainage to the new highway drainage system when such private drains carry effluent or drainage from leaching bed outlets, cellar drains, or sink drains, or polluted water of any kind. Connections may be made to the existing or new highway drainage system when the water carried to the project drainage system does not come within the category outlined above. Acceptable water includes flow from roof drains, field drains and enclosed natural drainage sources which would reach the road through natural channels if such water was not conducted artificially. Existing sewer taps which do not carry acceptable water as defined above shall be plugged at the right-of-way line. Plugging specified shall be by means of Class "E" Concrete and payment therefor shall be included in the unit price bid for Item E-1, Roadway Excavation.

## FIELD OFFICE

The contractor shall, in accordance with Sec. 5-0.01(b), provide, for the exclusive use of the State's employees, a suitable field office having a minimum of 150 sq. ft. of floor space. 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 office and provide 110-volt alternating current to the office during the entire period of construction of this project. This office shall be provided within 10 days after work is started on the project.

## DESIGN SPEED

The geometrics for this project have been planned for a design speed of 50 miles per hour.

## SEEDING

Quantities for seeding are calculated for the soil areas between the work limits, as shown on the cross sections.

## SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT

Within the limits of construction where the existing flexible pavement will have less than six (6) inches of fill placed upon it, the pavement shall be thoroughly scarified for its full depth, mixed with sufficient soil and properly recompacted to insure the elimination of any planes of separation between it and the embankment placed thereon. Payment for scarification as described above shall be included in the unit price bid for Item E-1, Roadway Excavation.

## REMOVAL OF TREES AND STUMPS

All trees and stumps 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 estimate of the number of trees and stumps to be removed.

Sizes	12"-18"	18"-24"	24"-30"	30"-36"
Trees	6	6	1	
Stumps				

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.

FOR ADDITIONAL NOTES SEE SHEET NO. 2.

## ESTIMATED QUANTITIES

Specific location 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.

## 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.

## DRAINAGE OF BASE MATERIAL

Where the base material is drained by I-9 Stone Underdrains, the Contractor shall finish, seed, and mulch the slopes so as not to impede drainage of the base material. The actual area of the outcrop of the I-9 Stone Underdrain shall not be seeded.

## PART WIDTH CONSTRUCTION

Because of the necessity of building this project under traffic and constructing the pavement part at a time, extreme care shall be taken to prevent the construction of a butt joint on centerline in the B-19 and I-22 courses.

This shall be accomplished by building the B-19 and I-22 courses, placed with the first portion of the pavement built, at least eighteen (18) inches beyond the centerline and by surfacing no closer than eighteen (18) inches to this edge of the above courses. When the second portion of the pavement is built, at least twelve (12) inches of these projecting courses shall be broken down and thoroughly keyed in with the newly placed corresponding courses in the second portion of the pavement built. Payment for this operation shall be included in the unit price bid for the pertinent pavement items.

EXCAVATION & EMBANKMENT SUMMARY					L-9 SEEDING
Station		Exc.	Emb.	Emb. + 15%	
From	To	Cu. Yds.	Cu. Yds.	Cu. Yds.	
807+29	815+45	601	3452	3970	4845 Sq. Yds.
Totals		601	3452	3970	4845 Sq. Yds.

## E-11 WATER

Embankment using 5 Gals. per Cu. Yd. = 3452 Cu. Yds. \* 5 ÷ 1000 = 17.26 M. Gals.  
 B-19 Base using 5 Gals. per Cu. Yd. = 406 \* Cu. Yds. \* 5 ÷ 1000 = 2.04 M. Gals.  
 I-22 Subbase using 5 Gals. per Cu. Yd. = 388 \* Cu. Yds. \* 5 ÷ 1000 = 1.95 M. Gals.  
 \* From Sheet No 4  
 Total E-11 Water = 21.25 M. Gals.

L-9 Seeding and Protecting = 4845 Sq. Yds.  
 L-9 Commercial Fertilizer (12-12-12) = Pay rate 20/lbs/1000 Sq. Ft. = 4845 \* 9 \* 20 ÷ 1000 = 0.43 Tons  
 L-9 Agricultural Liming Material = Pay rate 100/lbs/1000 Sq. Ft. = 4845 \* 9 \* 100 ÷ 1000 = 2.17 Tons

PAVEMENT CALCULATIONS												
From Sheet	From Sta.	To Sta.	T-35, B-35	Sq. Yds.	B-35	Sq. Yds.	B-19, T-30	Sq. Yds.	I-22	Sq. Yds.	E-1	Sq. Yds.
5	807+95.5	811+07.75	312.25 Lin. Ft. * 24.0' ÷ 9 =	832.7	312.25 Lin. Ft. * 24.67' ÷ 9 =	855.9	312.25 Lin. Ft. * 25.67' ÷ 9 =	890.6				
5	812+92.25	815+25	232.75 Lin. Ft. * 24.0' ÷ 9 =	620.7	232.75 Lin. Ft. * 24.67' ÷ 9 =	638.0	232.75 Lin. Ft. * 25.67' ÷ 9 =	663.9				
5	807+95.5	811+30.25							334.75 Lin. Ft. * 26.67' ÷ 9 =	992.0	334.75 Lin. Ft. * 24.0' ÷ 9 =	892.7
5	812+69.75	815+25							255.25 Lin. Ft. * 26.67' ÷ 9 =	756.4	255.25 Lin. Ft. * 24.0' ÷ 9 =	680.7
Totals				1453.4		1493.9		1554.5		1748.4		1573.4

T-35 1 1/4" Thick = 1453.4 \* 1.25" ÷ 36 = 50 Cu. Yds.  
 B-35 1 1/4" Thick = 1453.4 \* 1.25" ÷ 36 = 50 Cu. Yds.  
 B-35 1 1/2" Thick = 1493.9 \* 1.50" ÷ 36 = 62 Cu. Yds.  
 T-30 @ 0.4 Gal./Sq. Yd. = 0.4 \* 1554.5 = 622 Gals.  
 E-4 Borrow = 3970 - 601 = 3369 Cu. Yds.

## TRAFFIC NOTES

The contractor shall maintain traffic at all times in accordance with the requirements of Item I-3. The length of one way traffic zones shall be kept to a minimum consistent with the requirements of the work. Maximum use shall be made of the existing pavement for traffic maintenance, holding the length and duration of use of temporary traffic lanes to a minimum.

Temporary traffic lanes shall be surfaced with T-10 material, treated with calcium chloride and the surface maintained daily in a manner satisfactory to the Engineer. Two way traffic lanes shall be surfaced with aggregate at least 20 feet wide and one way traffic lanes shall have the surfacing aggregate not less than 12 feet wide.

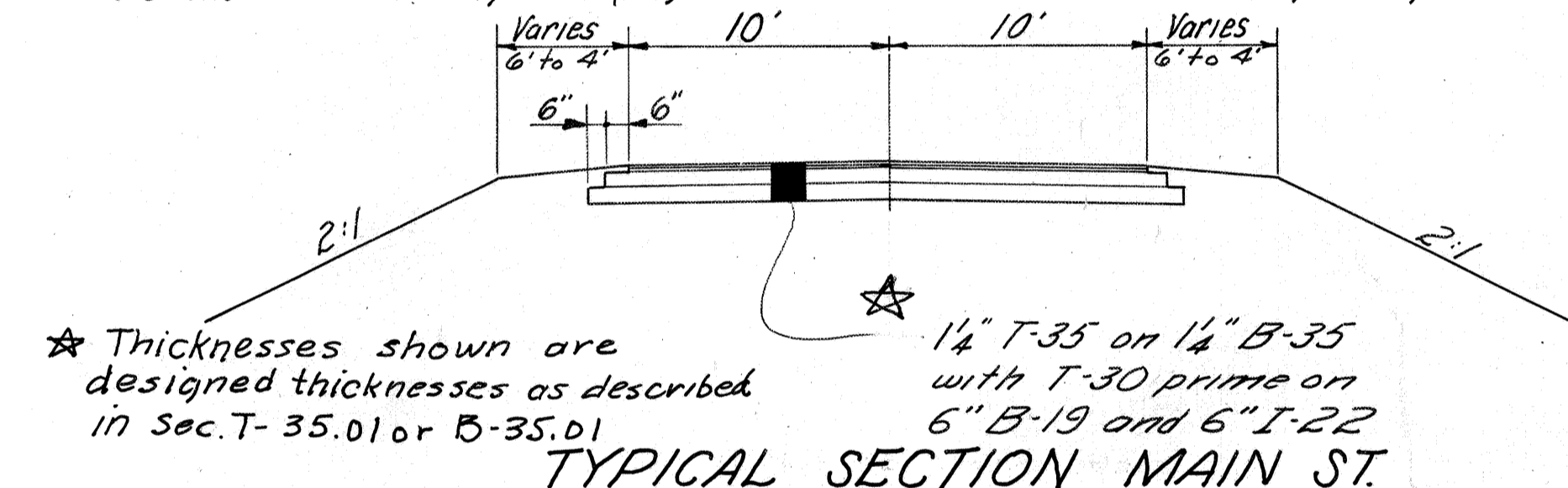
Payment for constructing, maintaining and removing traffic lanes and for all other items required for the maintenance of traffic, except furnishing and placing calcium chloride, traffic compacted surface course and temporary runaround bridge and approaches, shall be included in the lump sum bid for Maintaining Traffic, Item I-3.

## T-10 MODIFIED

This item shall consist of furnishing No 3 or No 34 aggregate, when directed by the Engineer, in lieu of the grading specified under Item T-10. All other provisions of Item T-10 shall apply. The weights to be used in calculating the yardage to be paid for under this item shall be the same as those indicated in the Construction and Material Specifications for crusher run or bank run materials.

## ITEM I-9 STONE UNDERDRAIN, NO. 2.

Stone Underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of super-elevated sections.



★ Thicknesses shown are designed thicknesses as described in Sec. T-35.01 or B-35.01  
 1 1/4" T-35 on 1 1/2" B-35 with T-30 prime on 6" B-19 and 6" I-22  
 TYPICAL SECTION MAIN ST.

## FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

The Contractor shall furnish, erect, maintain and subsequently remove Federal Aid Construction Identification Signs at each of the following locations:

- Sta. 807+60 Rt.
- Sta. 815+50 Lt.

Sign details shall be as specified on Standard Drawing F.A.C.I. 1, "Code N-54(1)-96(2)". The signs shall be erected in accordance with Standard Drawing F.A.C.I. 2. Additional requirements shall be in accordance with notes in the Proposal.

## CONSTRUCTION LAYOUT STAKES

See note in proposal describing the work included in this lump sum pay item.

I-4 For Maintaining Traffic: 300 ÷ 50 = 6 Tons.

Rev. 3-9-64



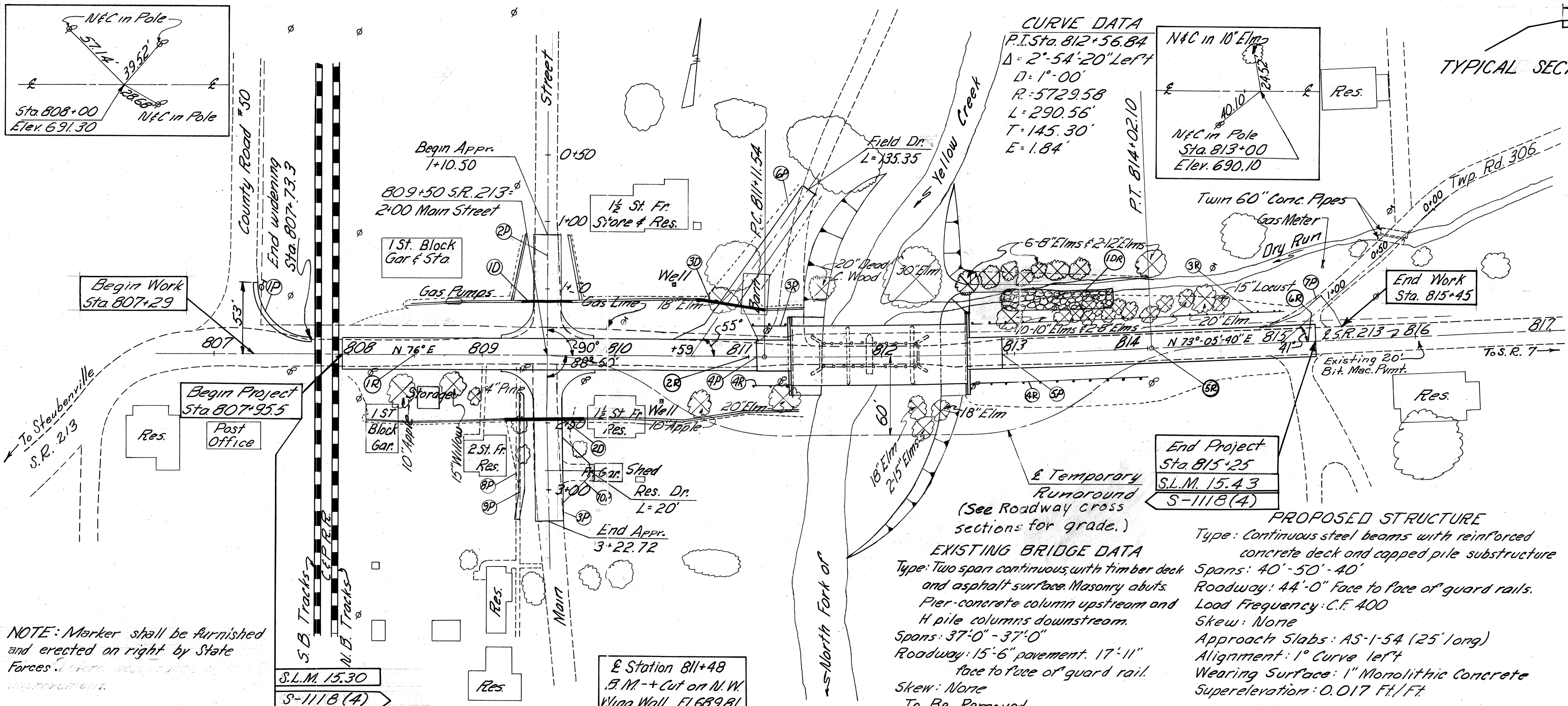
# GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	4
2	OHIO		19

JEF - 213-15.30

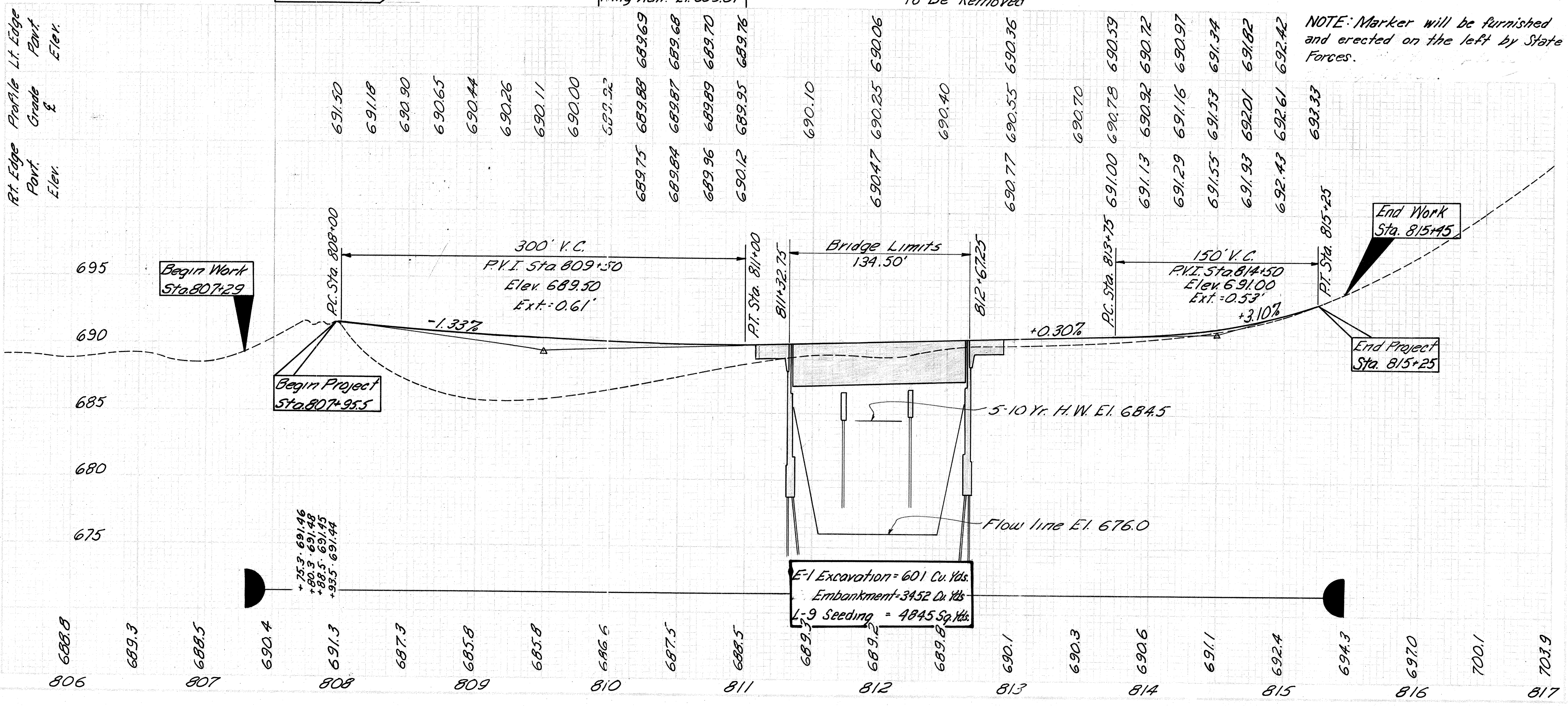
ITEM	FROM SHEET NUMBERS							ITEM	QUAN.	UNIT	CODE- 6201 DESCRIPTION
		3	5				19				
<i>ROADWAY</i>											
E-1		601						E-1	601	Cu Yds.	Roadway Excavation Method "B" as per plan.
E-4		3369						E-4	3369	Cu Yds.	Borrow.
E-1		1574		519				E-1	2093	Sq. Yds.	Compacted Subgrade
E-8				345				E-8	345	Sq. Ft.	Removal and Disposal of Existing Sidewalk
E-9		Lump						E-9	Lump	Lump	Removal of Trees and Stumps
E-11		21						E-11	21	M. Gals.	Water
<i>DRAINAGE</i>											
I-4		6						I-4	6	Tons	Calcium Chloride For Dust Control.
I-8				4				I-8	4	Each	Standard Monument Assemblies
I-13				383				I-13	383	Sq. Ft.	4" Concrete Sidewalk
I-15				443.50				I-15	443.50	Lin. Ft.	Guard Rail, Steel Beam Type (Deep) Standard
L-9		4845						L-9	4845	Sq. Yds.	Seeding and Protecting
L-9		0.43						L-9	0.43	Ton.	Commercial Fertilizer (12-12-12)
L-9		2.17						L-9	2.17	Tons	Agricultural Liming Material
T-10		75						T-10	75	Cu Yds.	Traffic Compacted Surface Course for maintaining traffic
T-10		225						T-10	225	Cu Yds.	Traffic Compacted Surface Course For Maintaining Traffic, Modified As Per Plan.
<i>PAVEMENT</i>											
I-7				134				I-7	134	Sq. Yds.	Reinforced Concrete Approach Slabs (T=13")
I-22		291		97				I-22	388	Cu. Yds.	Subbase
T-30		622		219				T-30	841	Gals.	Bituminous Prime Coat Sec. M-5.7, RT-2 or RT-3
T-35		50		24				T-35	74	Cu. Yds.	Asphaltic Concrete Surface Course Type "C" (70-85).
B-19		259		147				B-19	406	Cu. Yds.	Aggregate Base Course
B-35		112		19				B-35	131	Cu. Yds.	Asphaltic Concrete Leveling Course (70-85).
<i>STRUCTURE OVER 20' SPAN</i>											
Bridge No. JEF-213-1537      For quantities see Sheet #14.											
<i>BUILDING REMOVALS</i>											
E-10							Lump	E-10	Lump	Lump	Parcel No. 1 - Removal of one 1 - Story Concrete Block, Combination Garage And Restaurant.
E-10							Lump	E-10	Lump	Lump	Parcel No. 2 - Removal of one 1 - Story Concrete Block Garage, One Frame Shed And One 2 - Story Frame Residence
E-10							Lump	E-10	Lump	Lump	Parcel No. 4 - Removal of One 1 1/2 - Story Frame Residence
E-10							Lump	E-10	Lump	Lump	Parcel No. 3 - Removal of One Frame Barn.
<i>CONSTRUCTION LAYOUT STAKES</i>											
I-3		Lump						I-3	Lump	Lump	Construction Layout Stakes.
I-3		Lump						I-3	Lump	Lump	Maintaining Traffic.





NOTE: Marker shall be furnished and erected on right by State Forces.

NOTE: Marker will be furnished and erected on the left by State Forces.



E-1 Excavation = 601 Cu. Yds.  
 Embankment = 34.52 Cu. Yds.  
 L-9 Seeding = 4845 Sq. Yds.

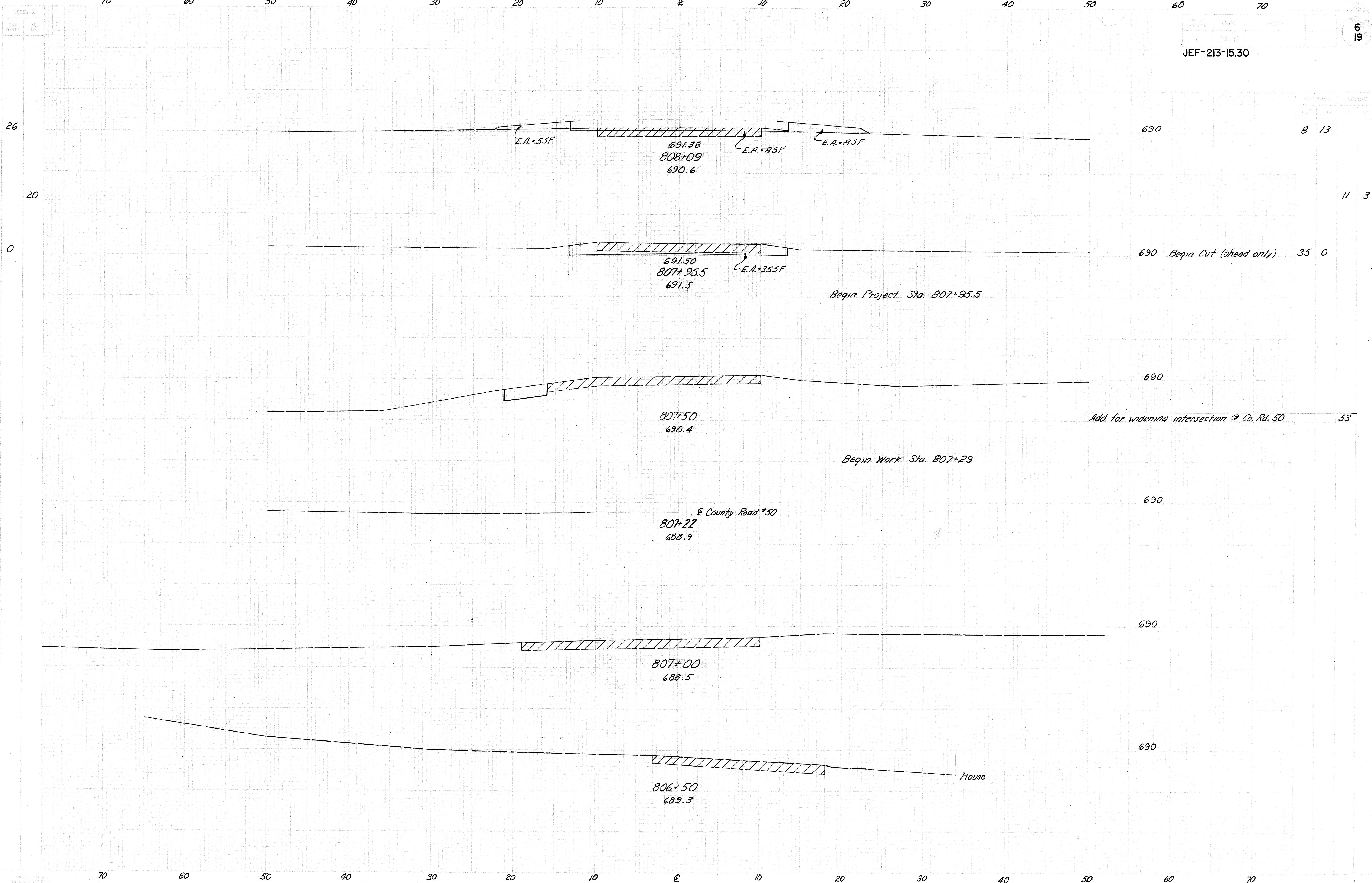
ESTIMATED QUANTITIES

ITEM	STA. FROM	TO STATION	QTY.	UNIT	
DRAINAGE	I-13 4" Concrete Subwalk (6 Miles)	809+25 → 811+25	48	Sq. Ft.	
		811+25 → 812+75	48	Sq. Ft.	
	I-8 Concrete Removal	812+75 → 814+50	40	Sq. Ft.	
		814+50 → 817+25	40	Sq. Ft.	
	I-9 Stone	809+28	30	Sq. Ft.	
		809+19	30	Sq. Ft.	
		810+00 → 811+50	30	Sq. Ft.	
	PAVEMENT	I-10 12" Pipe	812+75 → 814+50	40	Lin. Ft.
			814+50 → 817+25	40	Lin. Ft.
		I-15 12" Pipe	811+25 → 812+75	20	Lin. Ft.
812+75 → 814+50			40	Lin. Ft.	
814+50 → 817+25			40	Lin. Ft.	
817+25 → 818+00			30	Lin. Ft.	
ROADWAY	I-15 12" Pipe	811+25 → 812+75	20	Lin. Ft.	
		812+75 → 814+50	40	Lin. Ft.	
	I-10 12" Pipe	814+50 → 817+25	40	Lin. Ft.	
		817+25 → 818+00	30	Lin. Ft.	
		I-8 Concrete Removal	812+75 → 814+50	40	Sq. Ft.
			814+50 → 817+25	40	Sq. Ft.
	I-9 Stone	809+28	30	Sq. Ft.	
		809+19	30	Sq. Ft.	

(A total length of 26.9' has been deducted for the new structure.)

4 300 443.5 78 98 48





STATION	TYPE	VALUE
808+09	8	13

11 3

690 Begin Cut (ahead only) 35 0

Begin Project Sta. 807+95.5

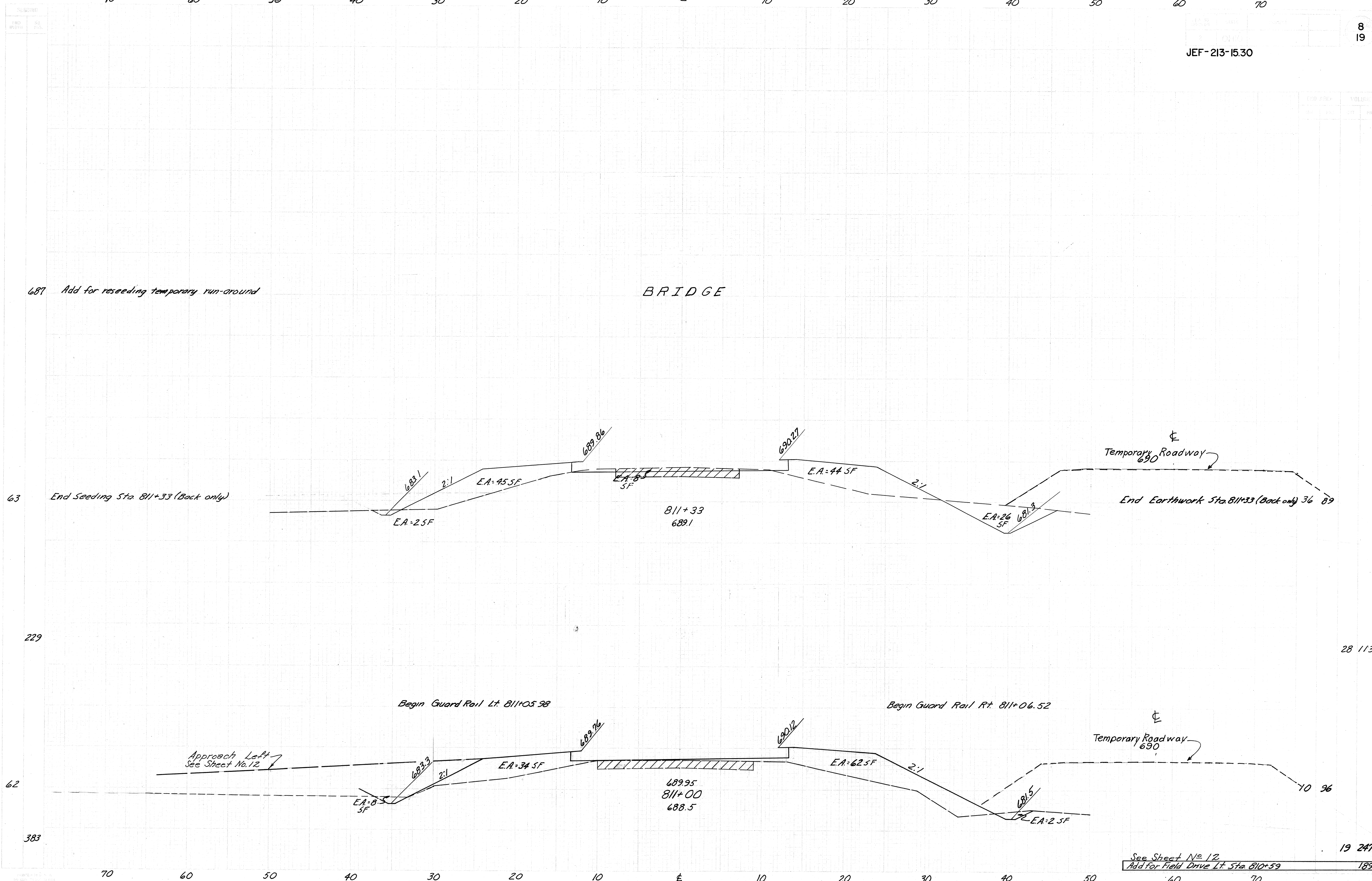
Add for widening intersection @ Co. Rd. 50 53

Begin Work Sta. 807+29

County Road #50  
807+22  
688.9

House





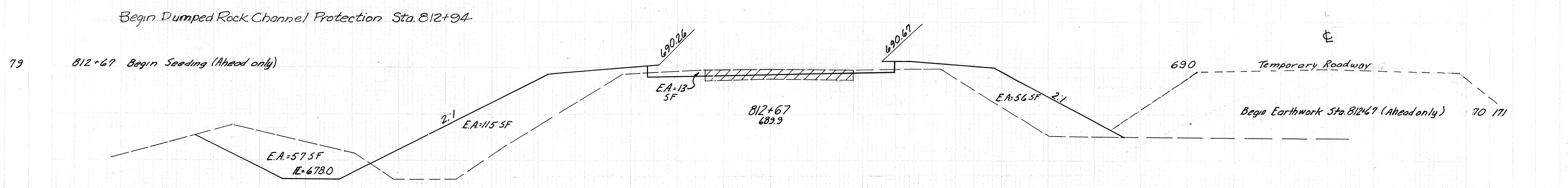
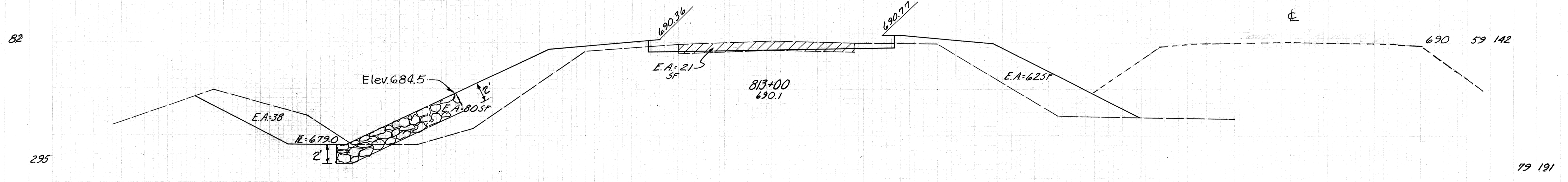
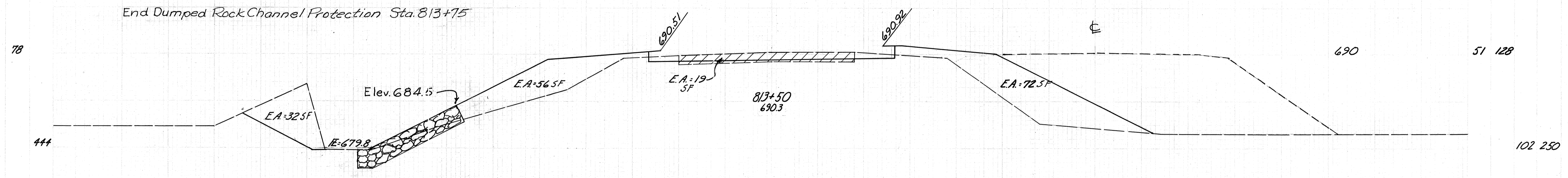
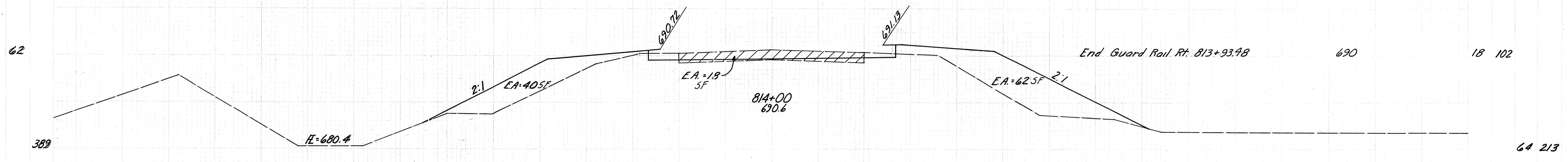


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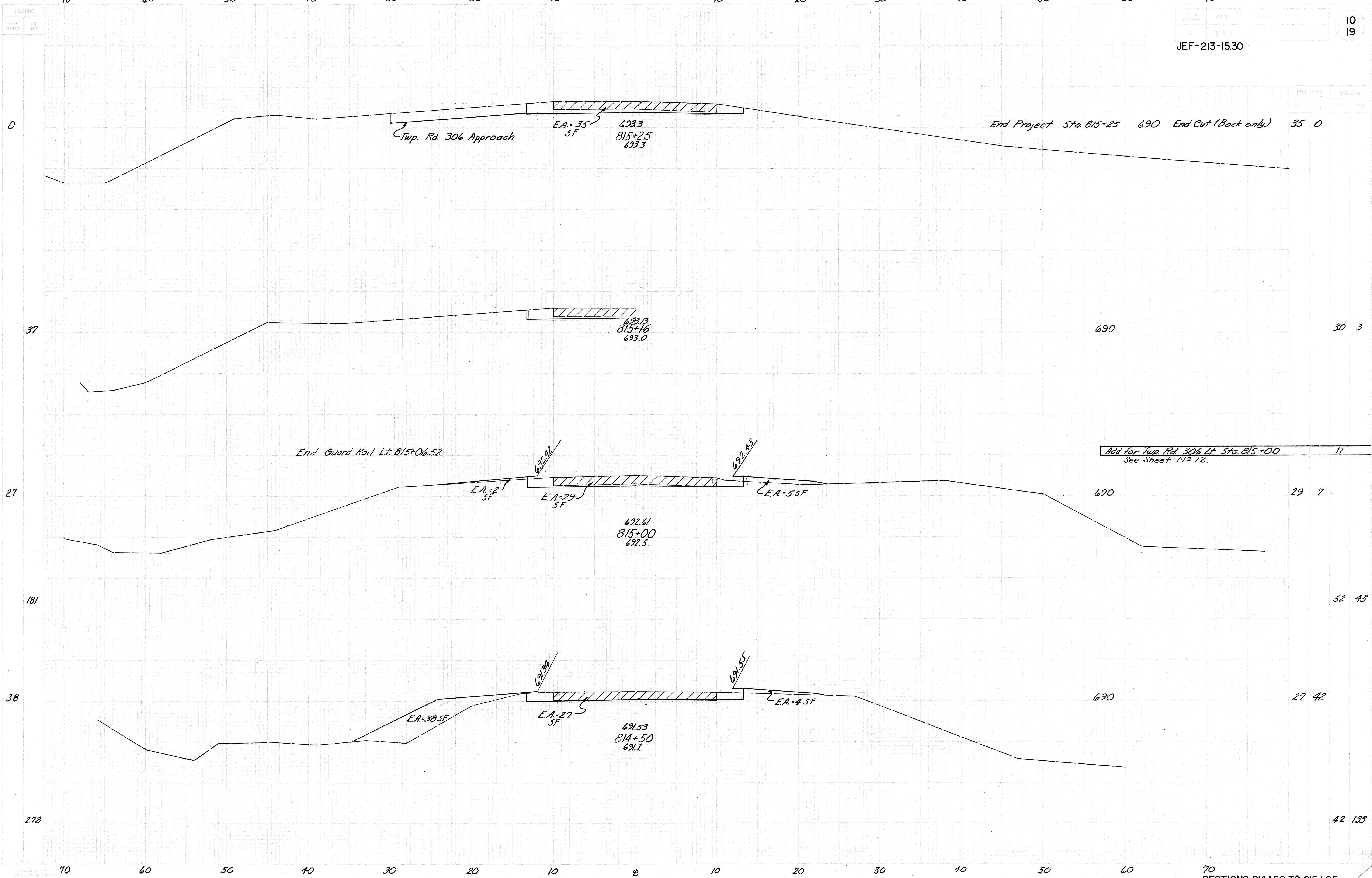


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70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

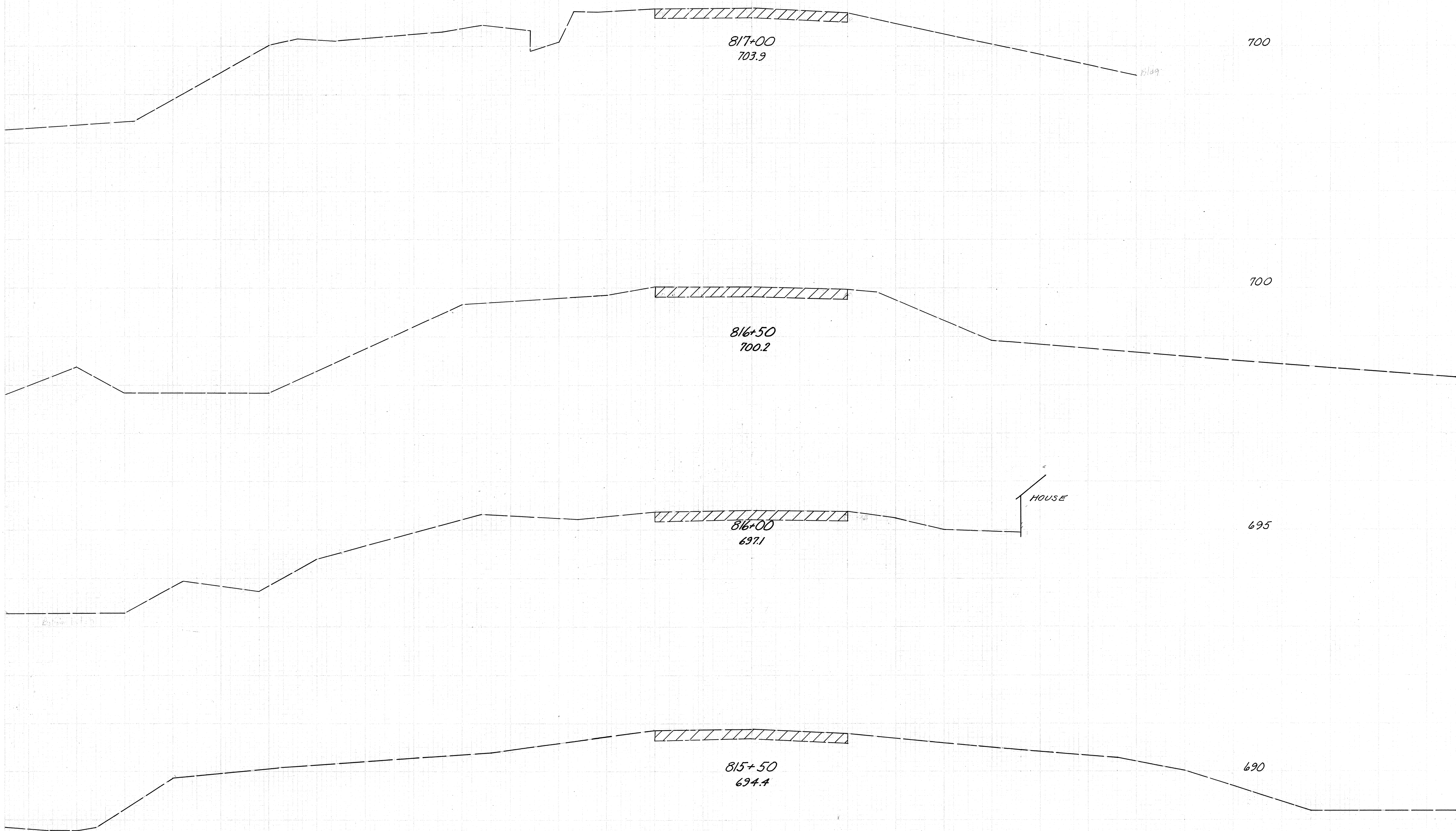




Add for Twp. Rd. 306 Lt. Sta. 815+00  
See Sheet No. 12.



70 60 50 40 30 20 10 0 10 20 30 40 50 60 70



817+00  
703.9

700

816+50  
700.2

700

816+00  
697.1

HOUSE

695

815+50  
694.4

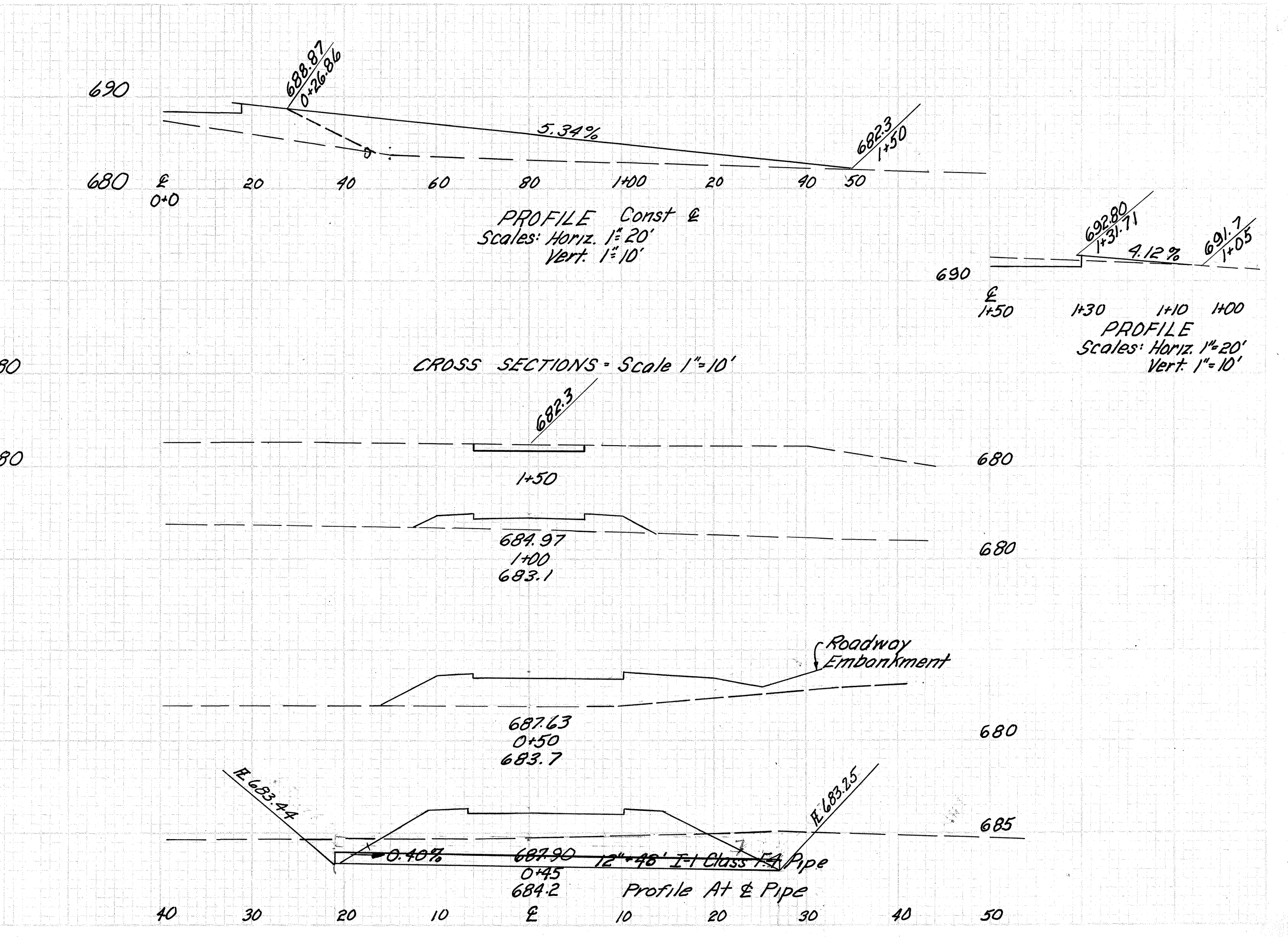
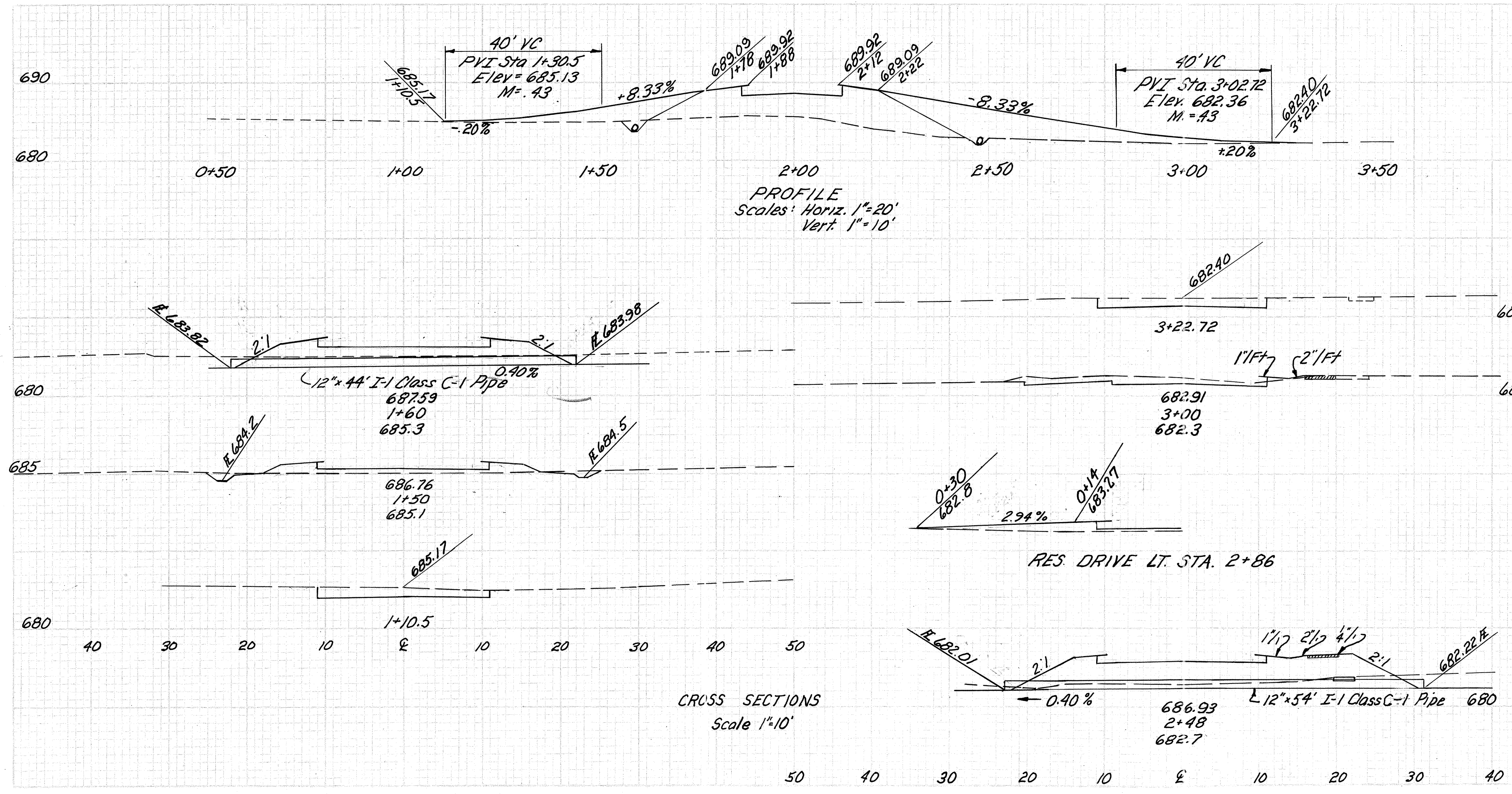
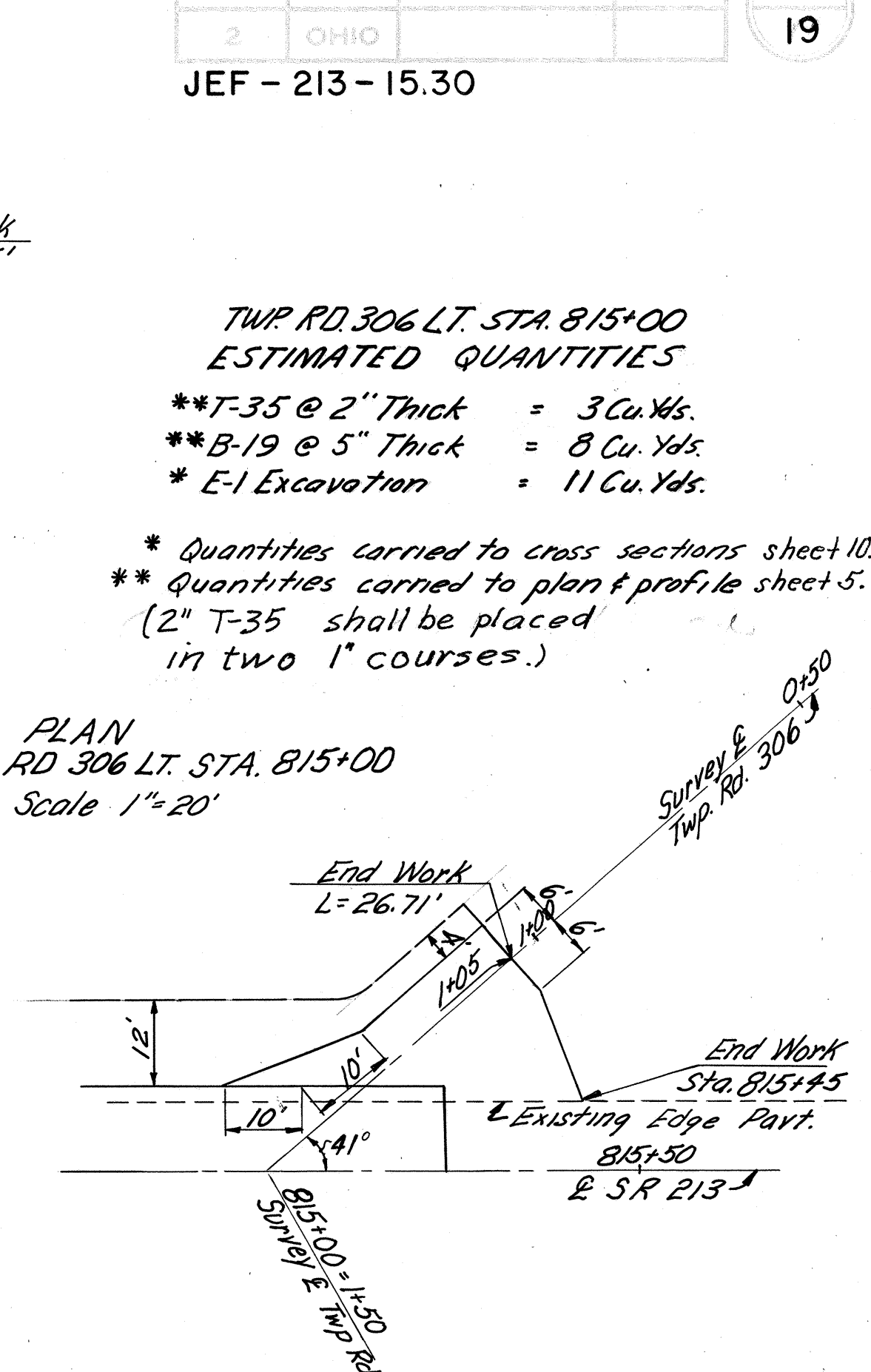
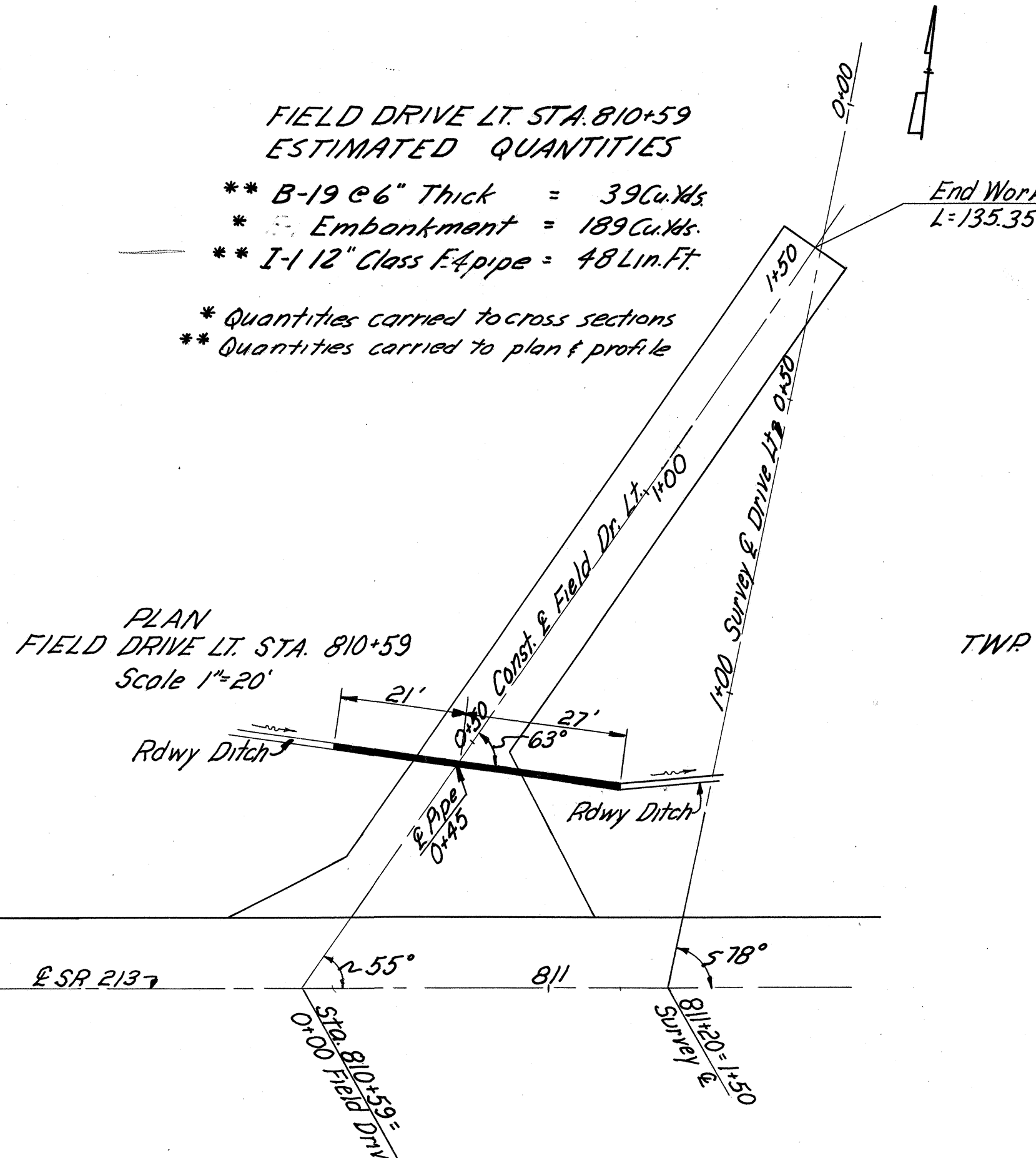
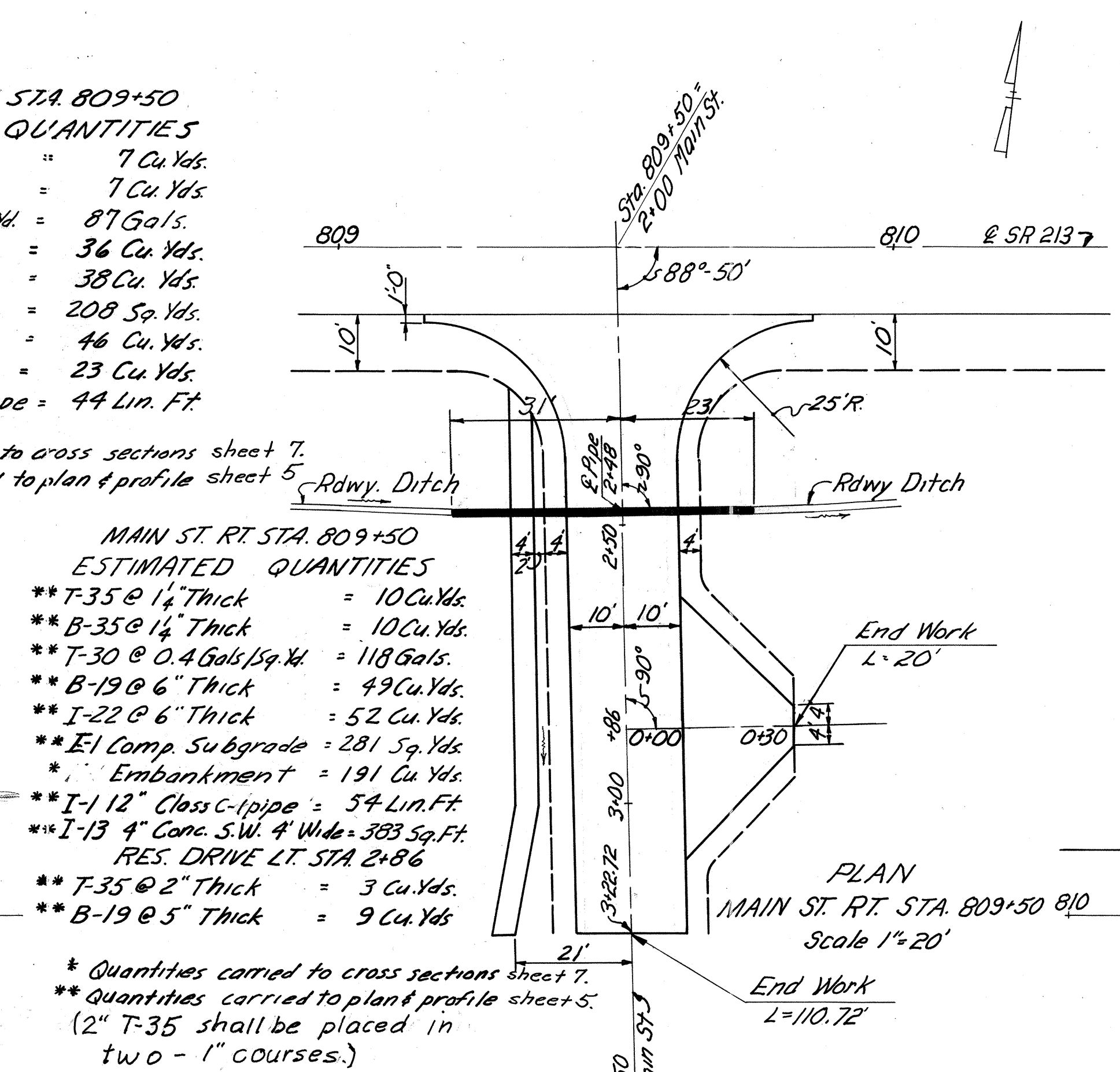
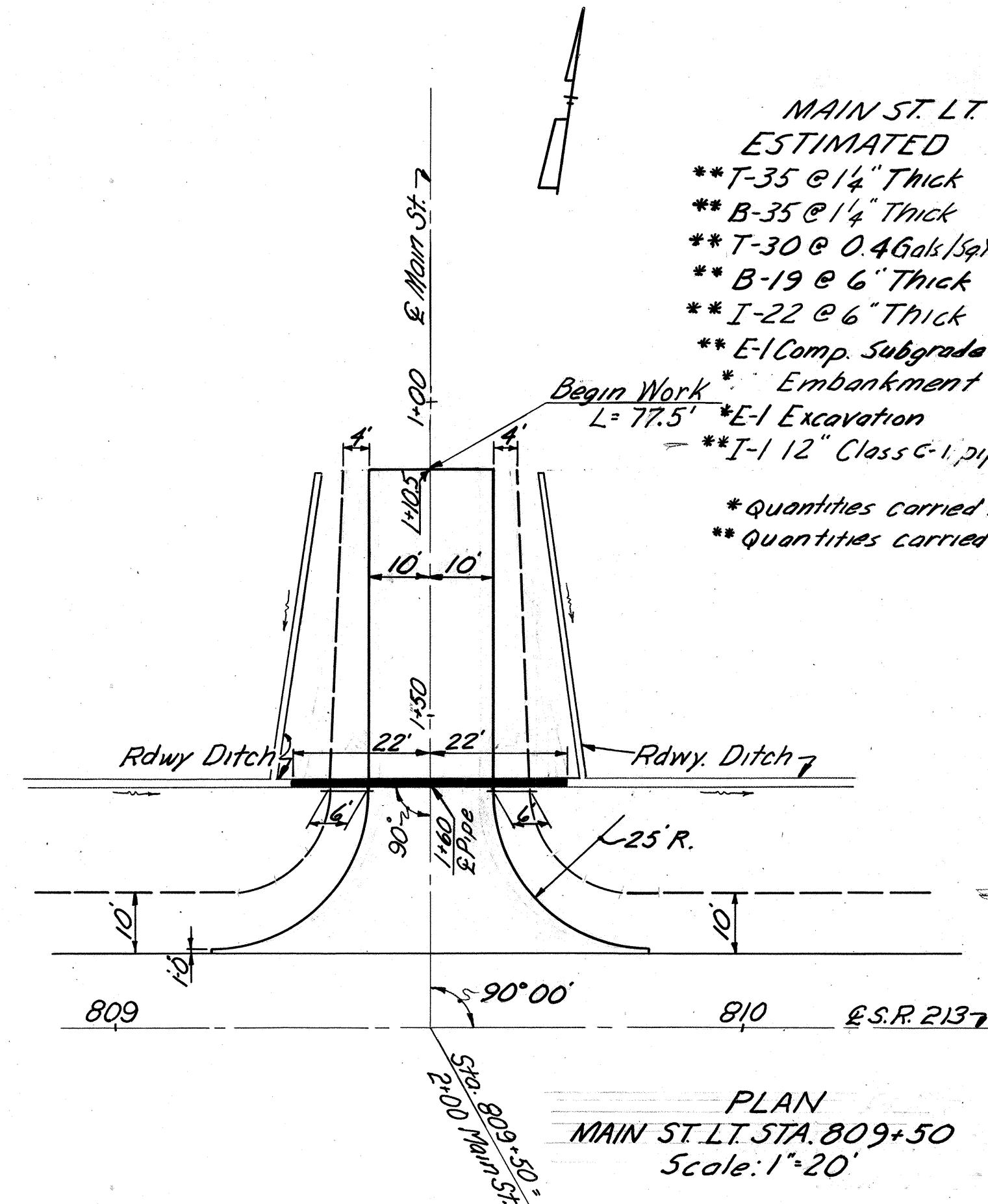
690

End Work Sta. 815+45

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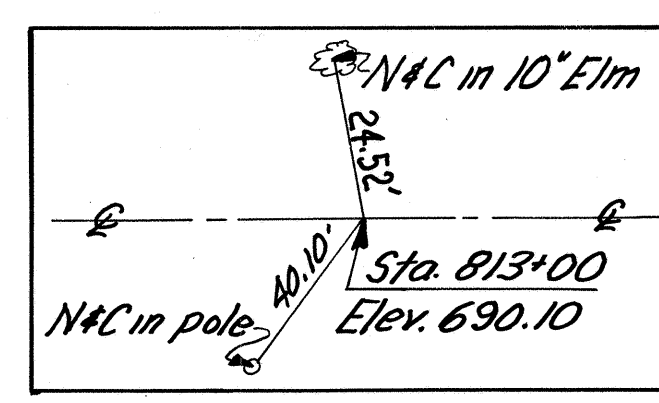


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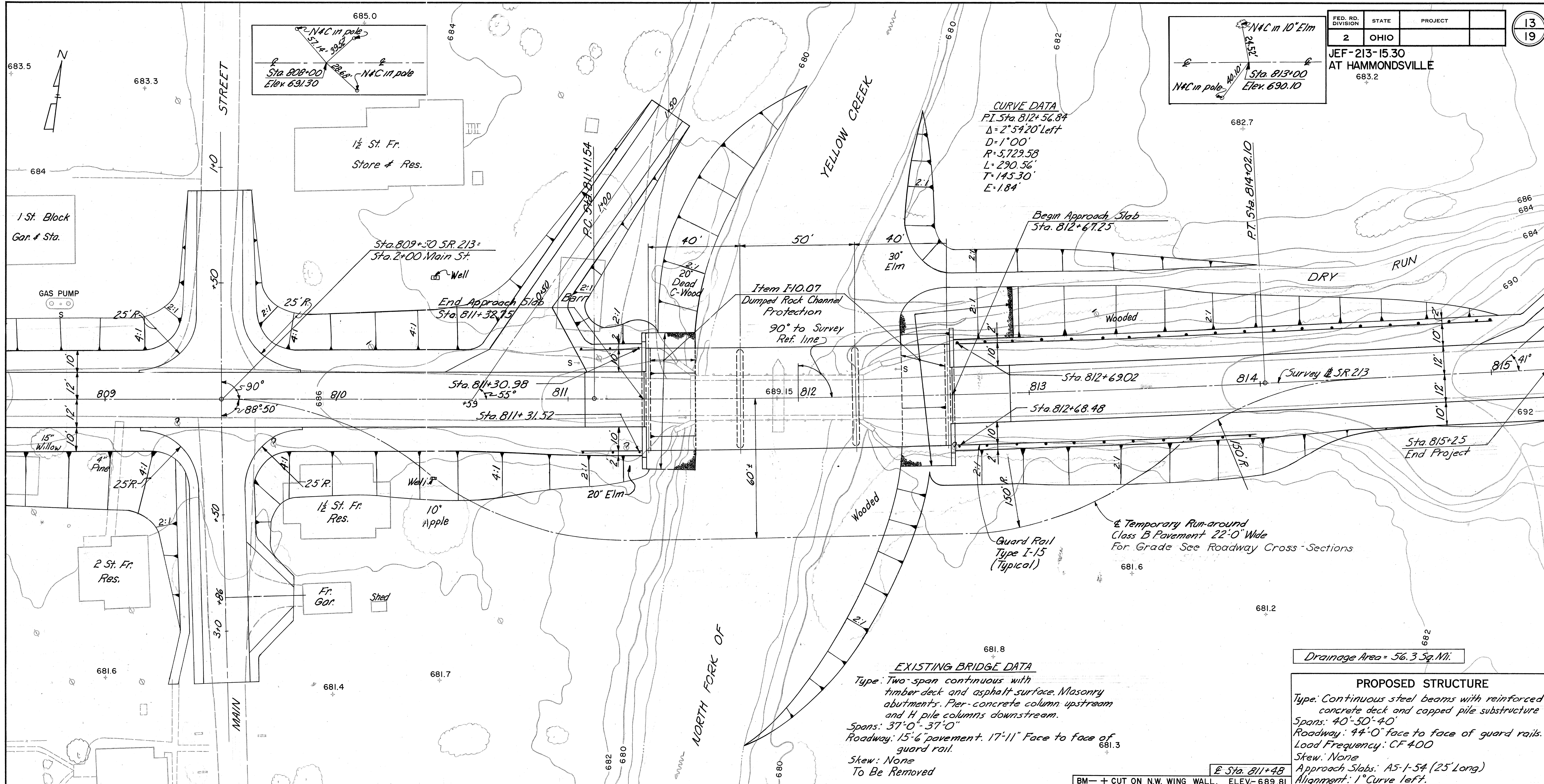




JEF-213-15.30  
AT HAMMONDSVILLE  
683.2



**CURVE DATA**  
 P.I. Sta 812+56.84  
 $\Delta = 2^{\circ}54'20''$  Left  
 $D = 1^{\circ}00'$   
 $R = 5729.58$   
 $L = 290.56'$   
 $T = 145.30'$   
 $E = 1.84'$



**EXISTING BRIDGE DATA**  
 Type: Two-span continuous with timber deck and asphalt surface. Masonry abutments. Pier-concrete column upstream and H pile columns downstream.  
 Spans: 37'-0" 37'-0"  
 Roadway: 15'-6" pavement. 17'-11" Face to face of guard rail.  
 Skew: None  
 To Be Removed

Drainage Area = 56.3 Sq. Mi.

**PROPOSED STRUCTURE**  
 Type: Continuous steel beams with reinforced concrete deck and capped pile substructure  
 Spans: 40'-50'-40'  
 Roadway: 44'-0" face to face of guard rails.  
 Load Frequency: CF 400  
 Skew: None  
 Approach Slabs: A5-1-54 (25' Long)  
 Alignment: 1" Curve left.  
 Wearing Surface: 1" Monolithic Concrete  
 Super-elevation: 0.017 Ft./Ft.

GANNETT FLEMING CORDDRY & CARPENTER  
ENGINEERS  
HARRISBURG, PA.

**SITE PLAN**

BRIDGE NO. JEF-213-1537  
OVER NORTH FORK OF YELLOW CREEK  
JEFFERSON CO. SR-213

Sta. 811+32.75 TO 812+67.25

690	-1.33%	300' VC	P.V.I. Sta. 809+50 Elev. 689.50	689.92	689.87	689.95	40'	50'	40'	689.55	690.70	690.92
680												
670												
660												
809		+50	810	+50	811	+28	+50	812	+50	813	+50	814

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Survey	Survey	GWB	DK	RFS	



JEF-213-15.30

**GENERAL NOTES**

REFERENCE shall be made to following Standard Drawing CSB-1-55 Sheet 1, 2 & 3 Dated 3-1-55 Revised 2-2-59, FSB-1-62 Dated 4-19-62 Revised 1-15-63, and Supplemental Specification S-101 Dated 7-12-62, and 5-307 dated 8-23-60.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with current revisions thereof.

TEMPORARY RUN-AROUND, BRIDGE, APPROACH EMBANKMENT AND PAVEMENT: Load frequency for bridge, CF-30 with unit stresses increased 25% as per the provisions for temporary bridges in the "Design Specifications for Highway Structures". Bridge width, 22'-0". Approach width, out-to-out of shoulders, 28'-0". Approach pavement shall be Class B, 22'-0" wide.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed.

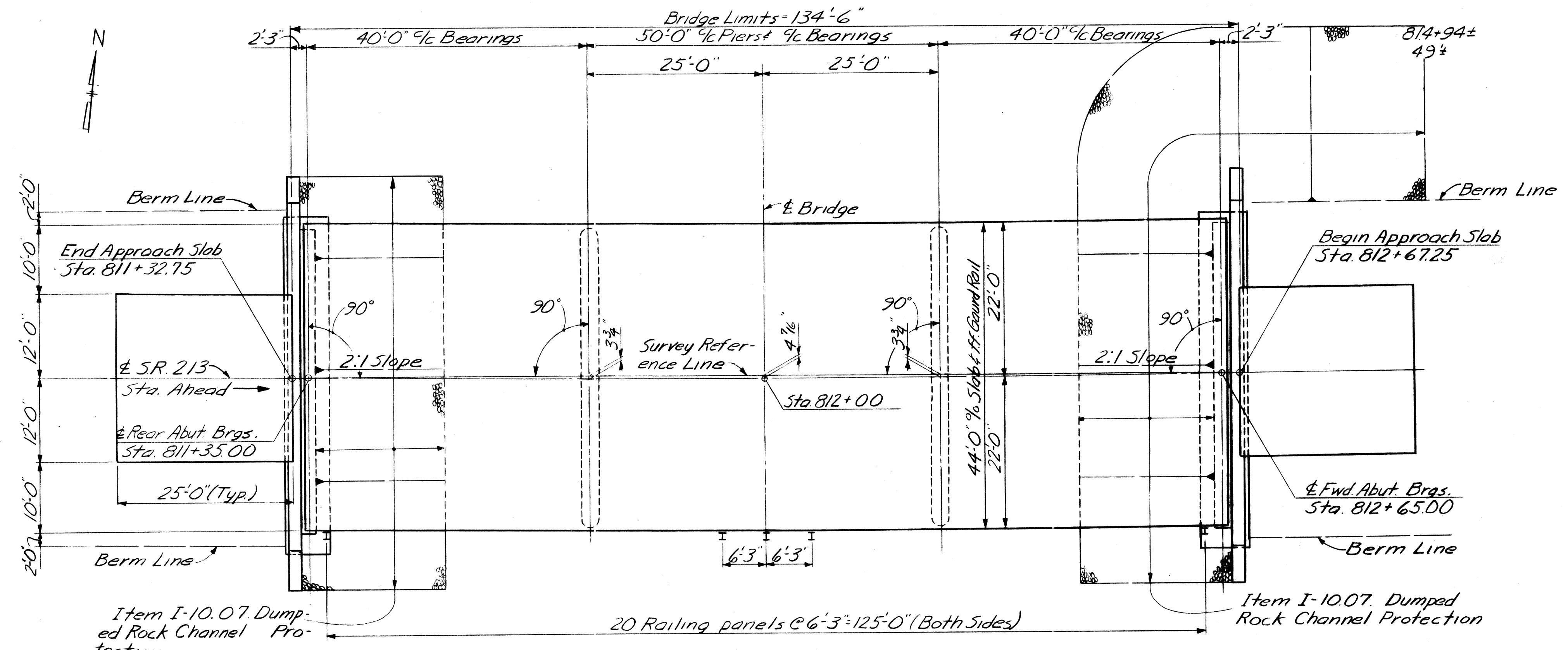
EXCAVATION QUANTITY for the abutments, in addition to that outlined in Section E-2.09 includes the removal of material bounded by the front vertical plane described in E-2.09 and by the finished slope of the cut.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock, according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

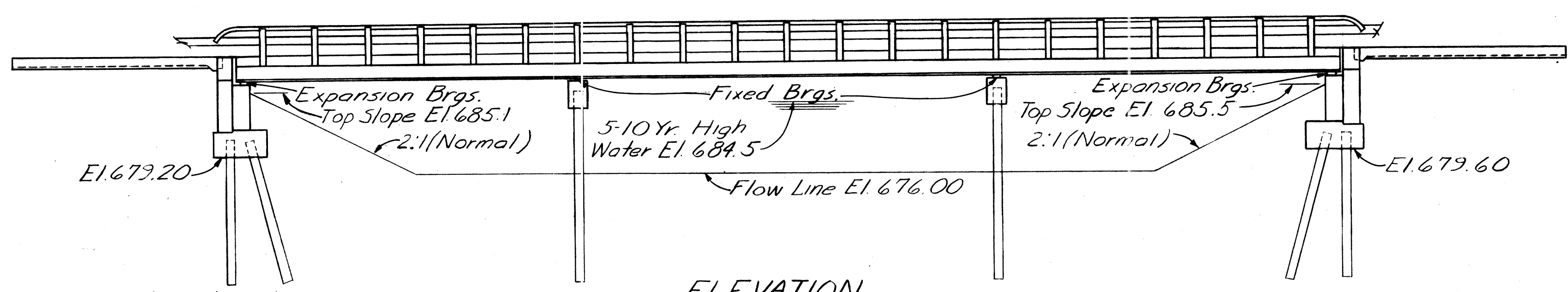
For the abutment piles.  
 40 tons per pile using a 7,000 ft. lb. hammer.  
 35 tons per pile using a 11,000 ft. lb. hammer.  
 30 tons per pile using a 15,000 ft. lb. or greater hammer.

For the pier piles.  
 55 tons per pile using a 7,000 ft. lb. hammer.  
 50 tons per pile using a 11,000 ft. lb. hammer.  
 45 tons per pile using a 15,000 ft. lb. or greater hammer.

If the energy rating of the hammer is between the ratings shown above, the required formula capacity shall be determined by interpolation. The design load is 22 tons per pile for the abutment piles and 31 tons per pile for the pier piles.



PLAN



ELEVATION

Note: 12 BP53 Steel Piles in abutments and piers.

Item	Total	Unit	Description	Super.	Abuts.	Piers	Gen'l.
E-2	257	Cu.Yds.	Unclassified excavation		257		
E-3	2250	Cu.Yds.	Channel excavation			29	2250
5-1	29	Cu.Yds.	Class C Concrete, pier caps.				
5-1	161	Cu.Yds.	Class C Concrete, superstructure.	161			
5-1	156	Cu.Yds.	Class E Concrete, abutments		156		
5-3	13	Lin.Ft.	Waterproofing, pre moulded sealing strip		13		
5-4	59,754	Lbs.	Reinforcing steel	44,248	10,529	4,796	121
5-7	120,000	Lbs.	Structural steel				120,000
5-8	120,000	Lbs.	Field painting of structural steel				120,000
5-14	269	Lin.Ft.	Railing (Type I-15.11, handrail, galvanized steel posts and bolts)	269			
5-15	Lump	Sum	Temporary run-around, bridge, approach, embankment and pavement.				Lump
5-16	Lump	Sum	First test pile				Lump
5-18	960	Lin.Ft.	Steel piles, 12BP53		540	420	Lump
5-24	Lump	Sum	Removal of existing structure				Lump
5-29	31	Cu.Yds.	Porous backfill		31		
1-10	244	Cu.Yds.	Dumped rock channel protection		244		
5-101	161	Each	Water reducing, set retarding admixtures for concrete	161			

**SUPERSTRUCTURE NOTES**

SUPERSTRUCTURE CONCRETE shall be Class C.

SLAB THICKNESS is 8 1/4" which includes 1" for monolithic wearing surface.

DECK SLAB HAUNCH: The haunch in the superelevated deck slab adjacent to the top of steel beams which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side and between 9" and 12" on the high side. Except on the high, the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.

DECK SLAB DEPTH: The distance shown from top of deck slab to top of steel beam is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

CONTINUOUS BEAM SPlice: See Beam Splice Detail, sheet 15, for welding beams having depths differing by more than 1/8".

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. 5-7.12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct, unloaded positions. All beams shall be assembled and match marked.

**Design Data**

Design Loading - CF \* (57). (\* = 130,400 or 2000)

Concrete Class C - basic unit stress 1,333 psi.

Concrete Class E - basic unit stress 1,133 psi.

Structural Steel (Except Piling) - ASTM A36 - basic unit stress 20,000 psi. (ASTM A7 and A373 steel not permitted)

Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 psi. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 psi.

GANNETT FLEMING CORDDRY & CARPENTER  
ENGINEERS  
HARRISBURG, PA.

**GENERAL PLAN & ELEVATION**  
ESTIMATED QUANTITIES & NOTES

BRIDGE NO. JEF-213-1537  
OVER NORTH FORK OF YELLOW CREEK  
JEFFERSON COUNTY SR- 213  
STA. 811+32.75 TO 812+67.25

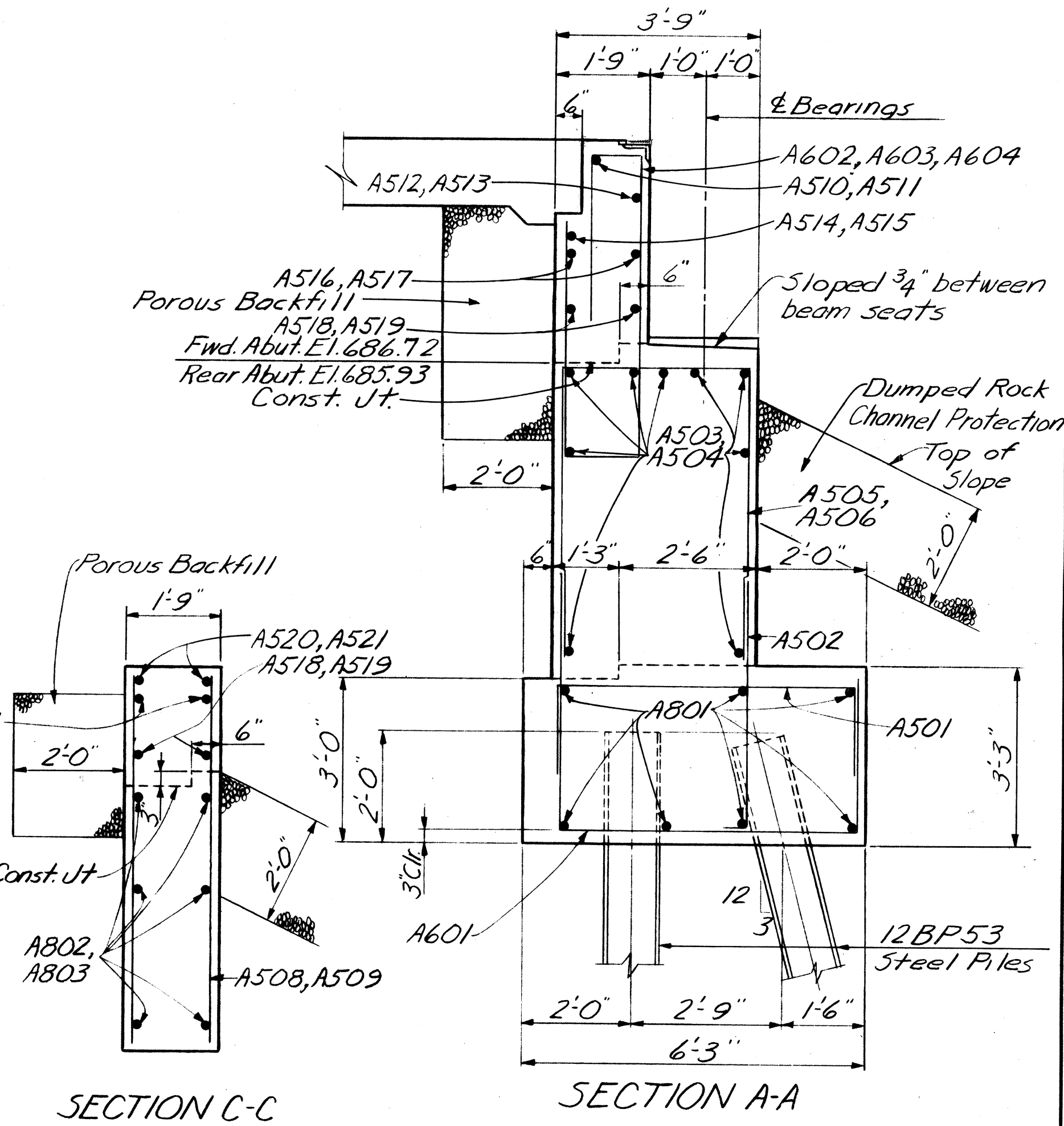
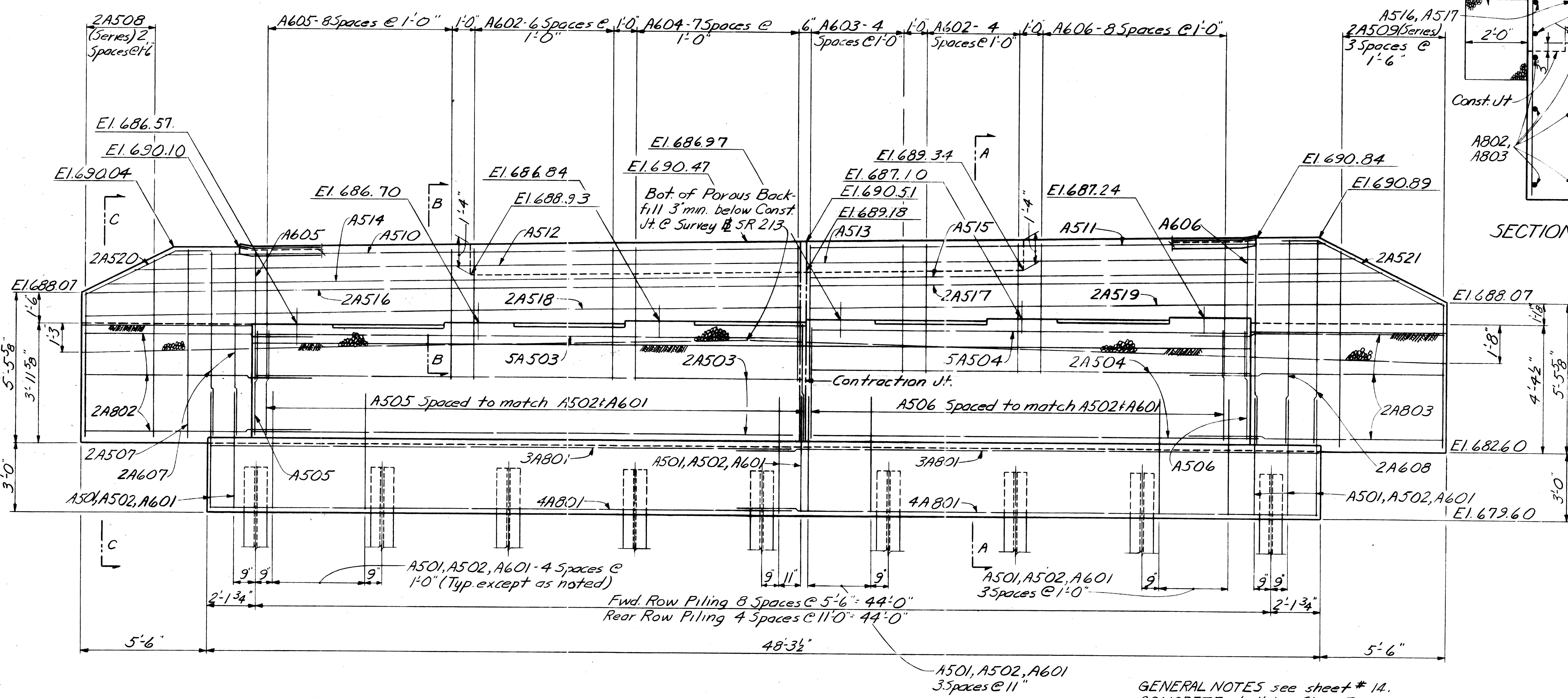
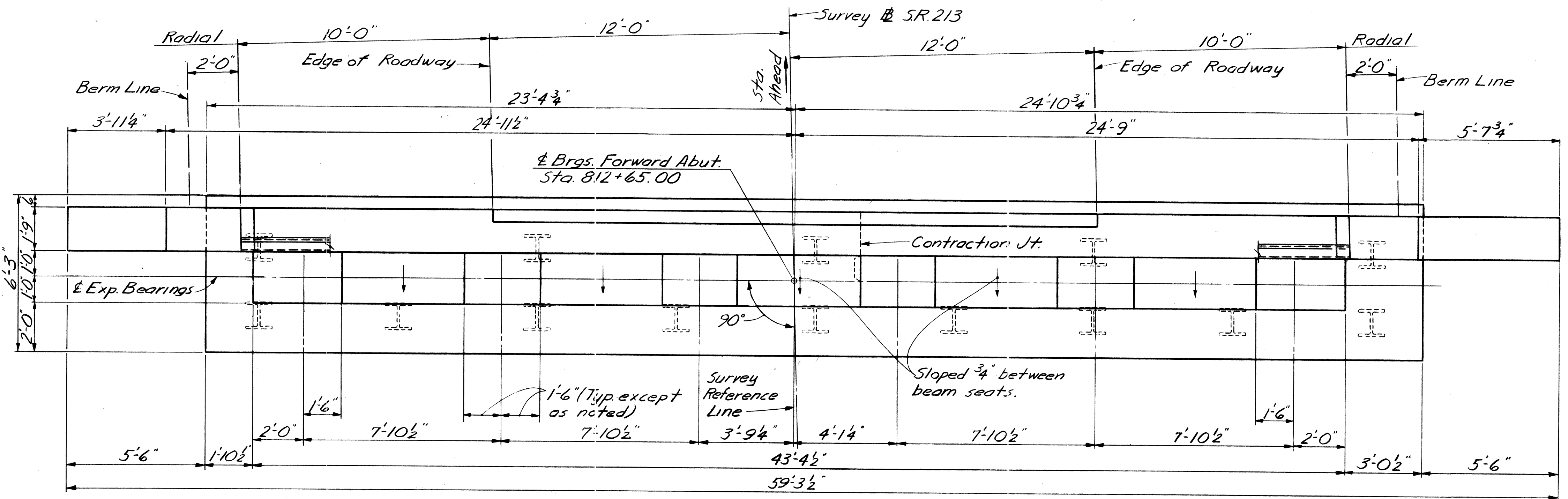
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GWB	E.O.W.	D.W.R.	R.F.S.			







JEF-213-1530



GENERAL NOTES see sheet # 14.  
 CONCRETE shall be Class E.  
 POROUS BACKFILL see sheet # 15.  
 BRIDGE SEAT REINFORCING see sheet # 15.  
 CONTRACTION JOINT DETAILS see sheet # 15.

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 ENGINEERS  
 HARRISBURG, PA.

**FORWARD ABUTMENT**

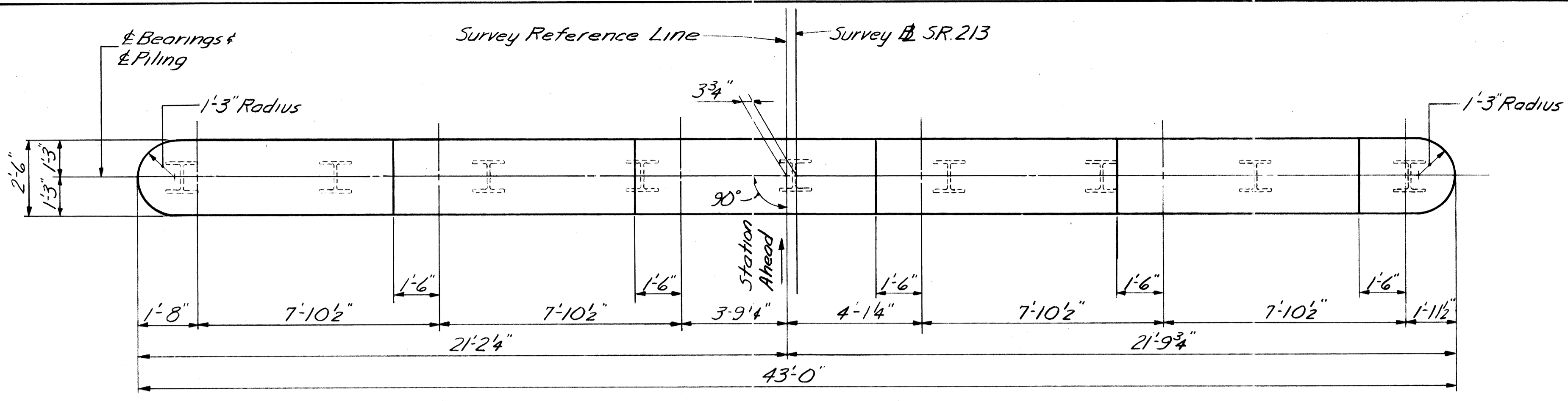
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 OVER NORTH FORK OF YELLOW CREEK  
 JEFFERSON COUNTY SR-213

STA 811+32.75 TO 812+67.25

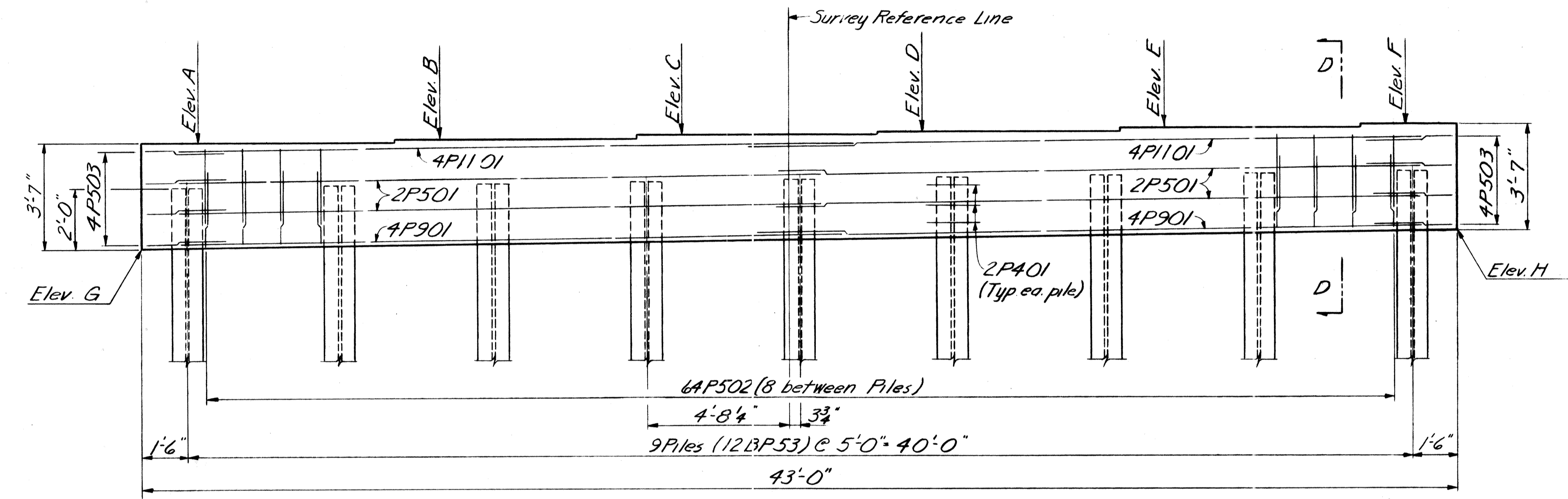
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JWB	EDW	DWR	RFS			



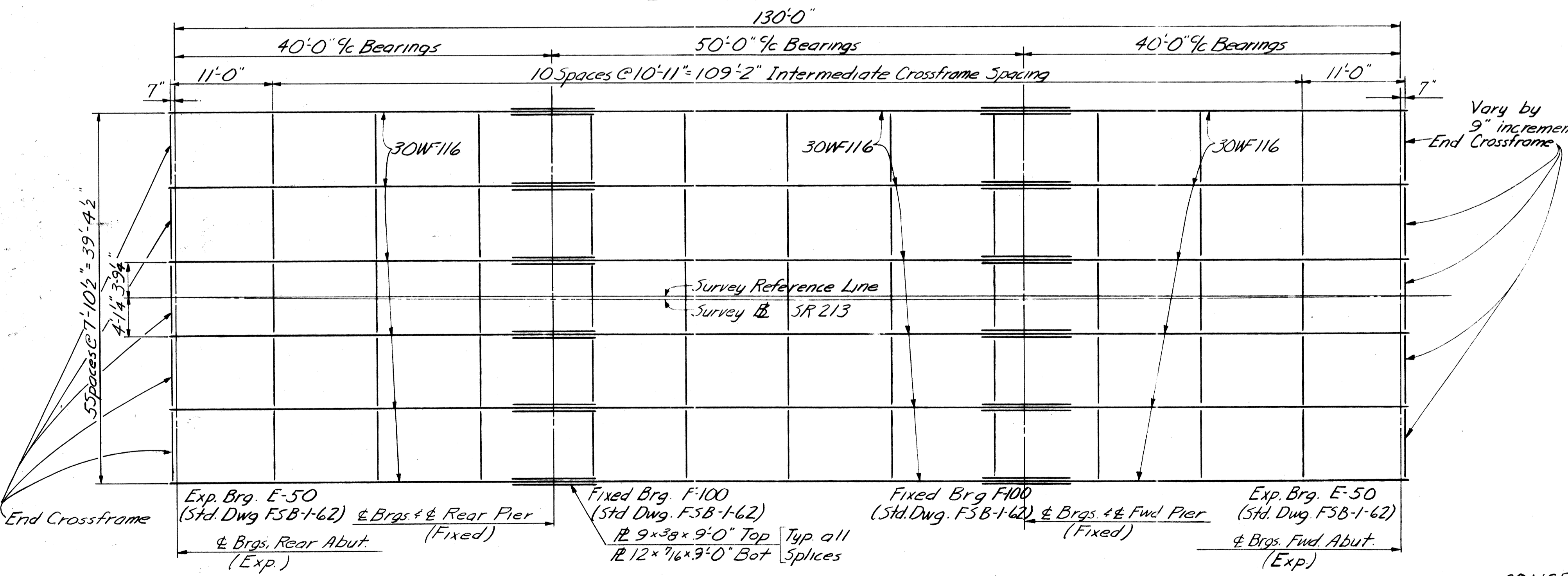
JEF-213-1530



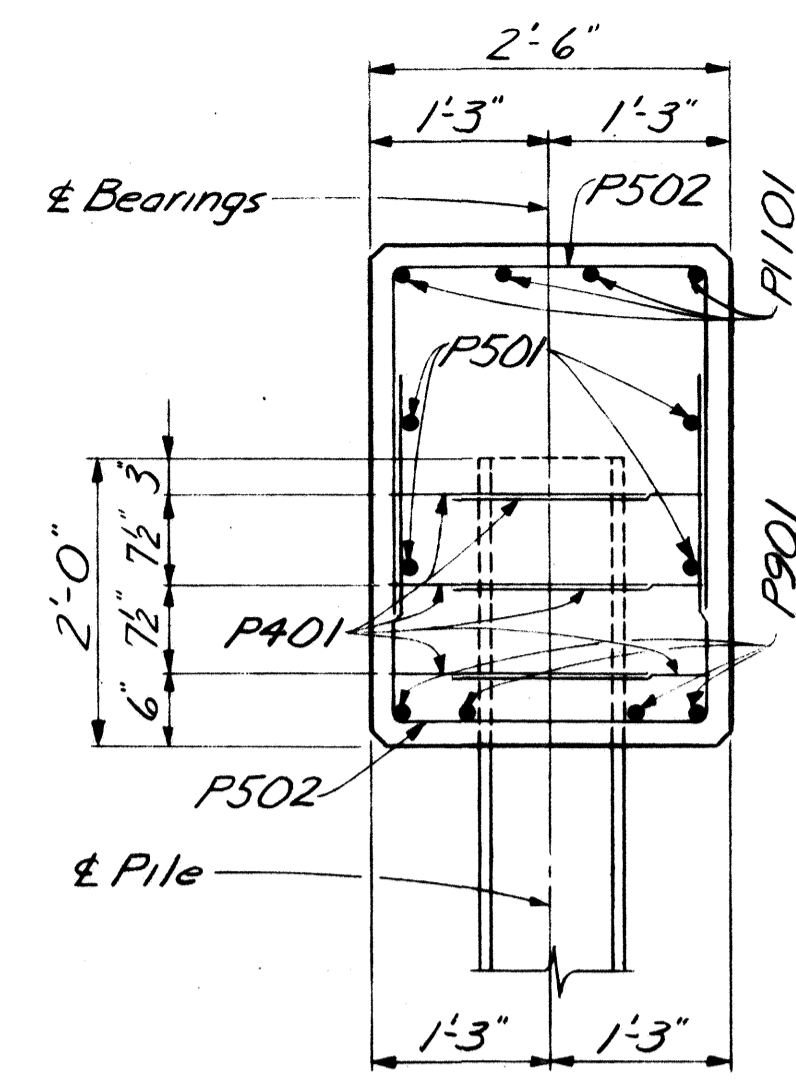
PLAN



ELEVATION



STRUCTURAL STEEL FRAMING PLAN



SECTION D-D

DEFLECTION & CAMBER

	Outside Beams		Inside Beams	
	End	Middle	End	Middle
Span	Span	Span	Span	Span
Deflection due to Wt. of steel	0"	0"	0"	0"
Deflection due to remaining dead load	8"	8"	8"	8"
Sum of deflections	8"	8"	8"	8"
Required camber	0"	0"	0"	0"

GENERAL NOTES: See Sheet #14.  
 REFERENCE shall be made to Std. Dwg. FSB-1-62 for bearing details.  
 REFERENCE shall be made to Standard Dwg. CSB-1-55 for details not shown such as crossframes, end finish, welds, etc.  
 BEAM SPLICE WELDING PROCEDURE:  
 1. Raise the abutment ends of the beams 3/8".  
 2. Butt-weld the beam flanges and web, using the following sequence: make one pass on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.  
 3. Weld the bottom and top moment plates.  
 4. Lower beam ends to final position.  
 For BEAM SPLICE DETAIL, see sheet #15.

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.
<b>ABUTMENTS</b>				
A801	28	25'-3"	1,888	5
A802	12	9'-10"	315	5
A803	12	11'-0"	352	5
A601	90	13'-1"	1,769	B
A602	24	15'-10"	571	B
A603	10	15'-4"	230	B
A604	16	16'-4"	393	B
A605	20	12'-11"	388	B
A606	20	13'-3"	398	B
A607	8	7'-0"	84	5
A608	8	7'-10"	94	5
A501	90	8'-7"	806	B
A502	90	5'-4"	501	B
A503	18	23'-9"	446	5
A504	18	18'-11"	355	5
A505	46	10'-3"	492	B
A506	38	11'-1"	439	B
A507	4	7'-1"	30	5
A508	Series of 3	5'-2"	74	5
A509	Series of 4	5'-2"	105	5
A510	2	27'-5"	57	5
A511	2	22'-0"	46	5
A512	2	28'-9"	60	5
A513	2	23'-3"	48	5
A514	2	30'-0"	63	5
A515	2	24'-6"	51	5
<b>BENDING DIAGRAMS</b>				
A601				
A502				
A520				
A521				
P503				
<b>PIERS</b>				
P1101	16	22'-0"	1,870	5
P901	16	21'-8"	1,179	5
P501	16	21'-0"	350	5
P502	128	6'-10"	912	B
P503	16	6'-4"	106	B
P401	108	5'-3"	379	B
<b>SUPERSTRUCTURE</b>				
S701	175	43'-8"	15,620	5
S601	175	43'-8"	11,478	5
S602	296	34'-3"	15,227	5
S603	64	20'-0"	1,923	5
<b>REPLACEMENT</b>				
RE1101	1	7'-7"	-	5
RE901	1	6'-10"	-	5
RE801	1	6'-6"	-	5
RE701	1	6'-3"	-	5
RE601	2	5'-11"	-	5
RE501	1	5'-7"	-	5
RE401	1	5'-3"	-	5

Elevation	A	B	C	D	E	F	G	H
Rear Pier	686.15	686.29	686.42	686.55	686.69	686.82	682.57	683.24
Forward Pier	686.30	686.44	686.57	686.70	686.84	686.97	682.72	683.39

CONCRETE shall be Class C.  
 BRIDGE SEAT REINFORCING: See Sheet #15.  
 BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example A501 is a No. 5 size bar and P1101 is a No. 11 size bar.

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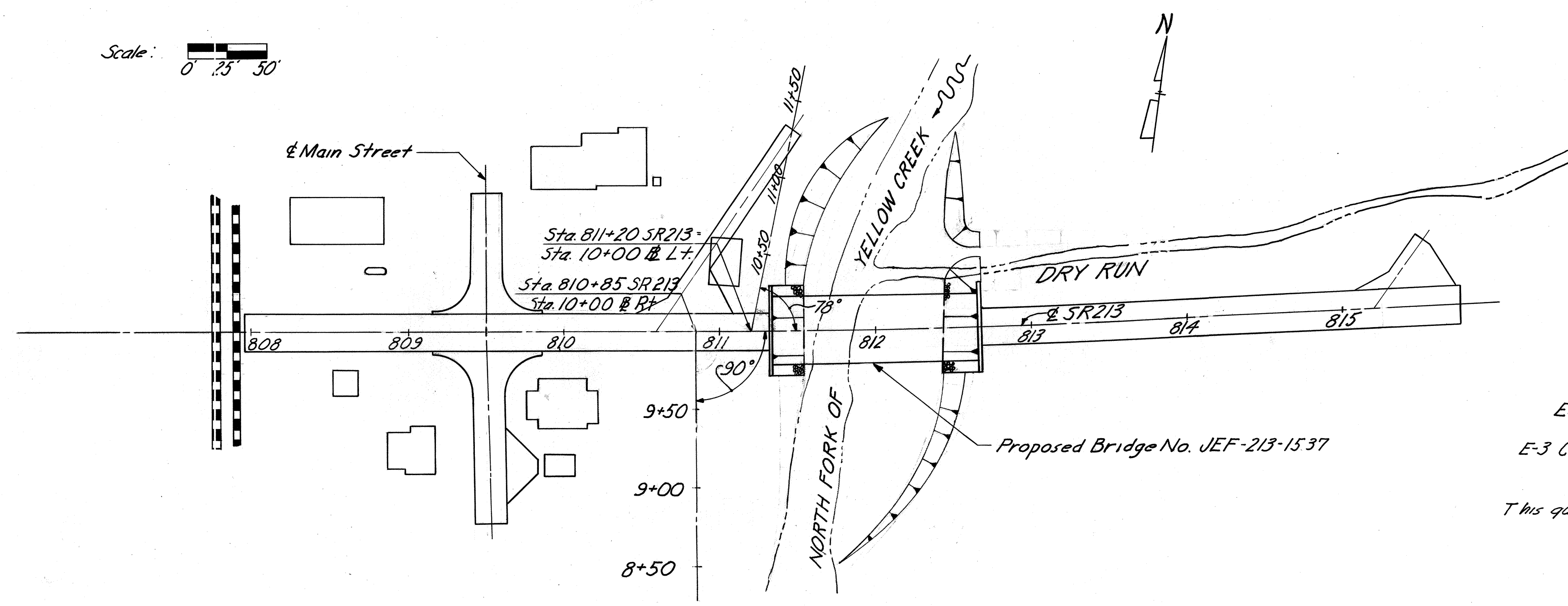
**PIERS, STEEL FRAMING PLAN & BAR SCHEDULE**

BRIDGE NO. JEF-213-1537  
 OVER NORTH FORK OF YELLOW CREEK  
 JEFFERSON COUNTY SR-213  
 STA. 81+32.75 TO 81+67.25

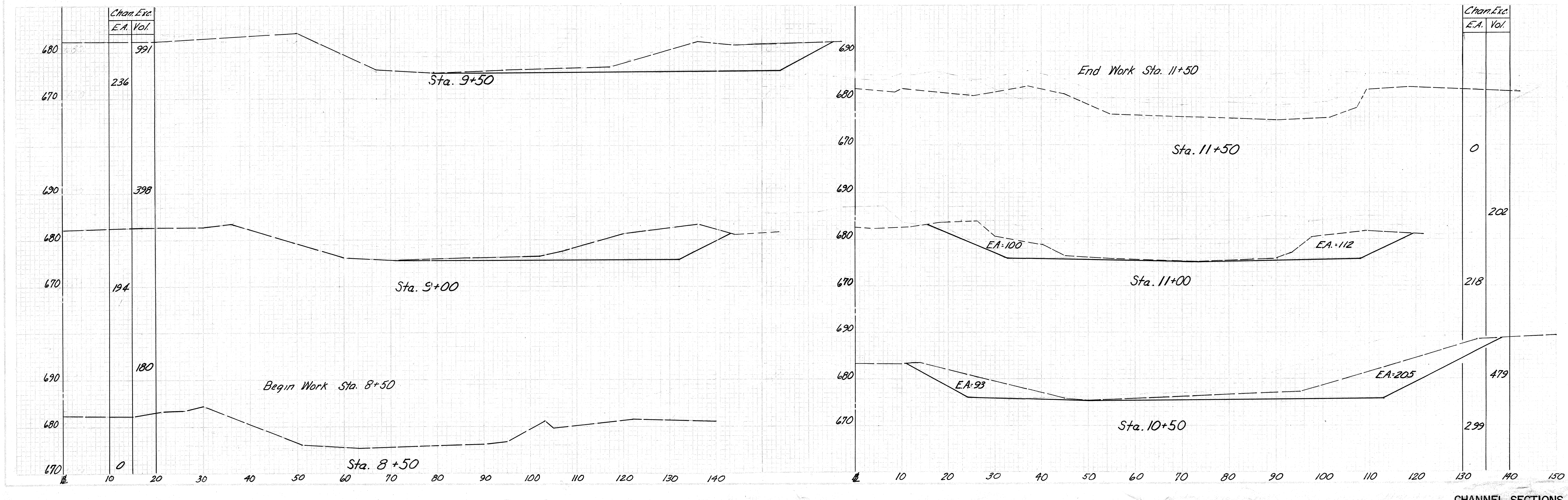
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.B.	F.O.W.	D.W.R.	E.T.S.			



Scale: 0' 25' 50'



**ESTIMATED QUANTITY**  
 E-3 Channel Excavation = 2250 Cu. Yds.  
 This quantity carried to bridge plans - Sheet No. 14.





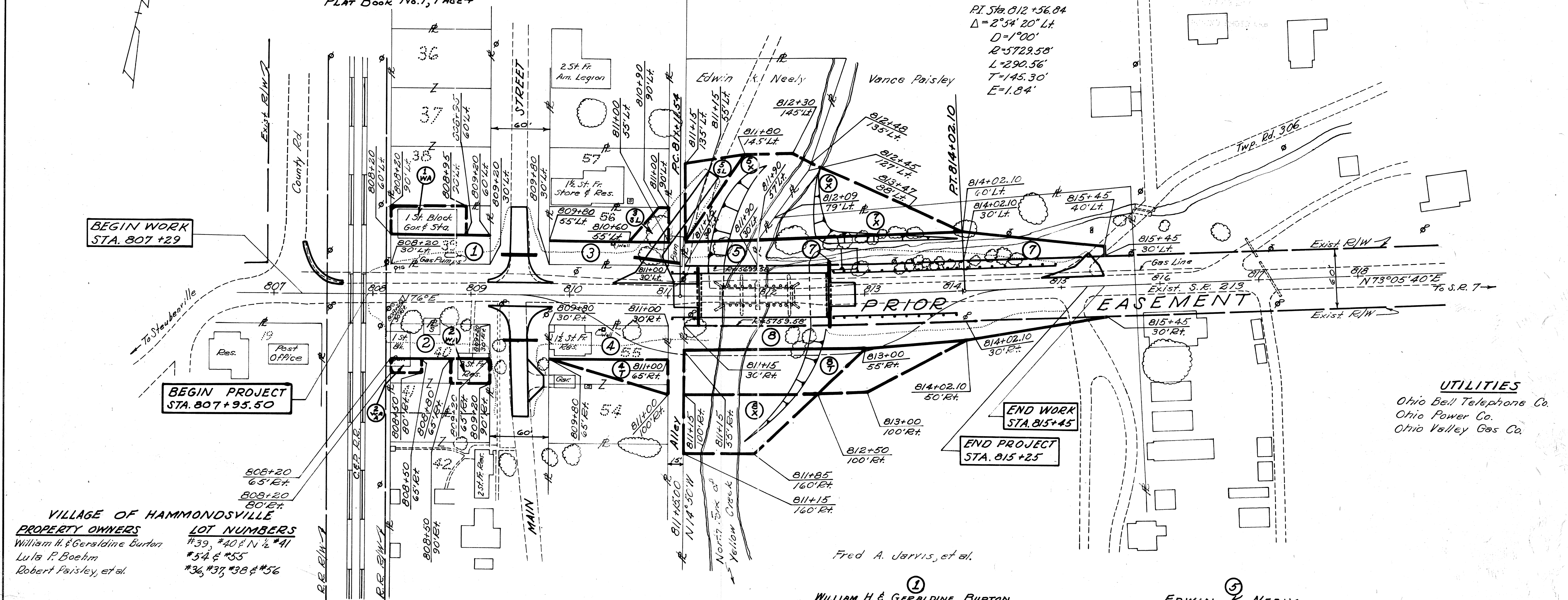
# SALINE TOWNSHIP SEC. 19-TWP. 9-N-RANGE 2-W

FED. RD. DIVISION	STATE	PROJECT	19 19
2	OHIO		

JEF-213-15.30

**VILLAGE OF HAMMONDSVILLE**  
(UNINCORPORATED)  
PLAT Book No. 1, PAGE 4

RIGHT OF WAY PLAN 1  
1



BEGIN WORK  
STA. 807+29

BEGIN PROJECT  
STA. 807+95.50

END WORK  
STA. 815+45

END PROJECT  
STA. 815+25

**UTILITIES**  
Ohio Bell Telephone Co.  
Ohio Power Co.  
Ohio Valley Gas Co.

**VILLAGE OF HAMMONDSVILLE**

PROPERTY OWNERS	LOT NUMBERS
William H. & Geraldine Burton	#39, #40 & N 1/2 #41
Lula P. Boehm	#54 & #55
Robert Paisley, et al.	#36, #37, #38 & #56

<p>① <b>WILLIAM H. &amp; GERALDINE BURTON</b> 1-T.B.A. ———— 0.07 A<sup>2</sup> 1-W.A.</p> <p>② <b>WILLIAM H. &amp; GERALDINE BURTON</b> 2-T.B.A. ———— 0.08 A<sup>2</sup> 2-W.A. 2-A-WA.</p> <p>③ <b>ROBERT PAISLEY, ET AL.</b> 3-T.B.A. ———— 0.07 A<sup>2</sup> 3-S.L. ———— 0.02 A<sup>2</sup></p> <p>④ <b>LULA P. BOEHM</b> 4-T.B.A. ———— 0.10 A<sup>2</sup> 4-T ———— 0.05 A<sup>2</sup></p>	<p>⑤ <b>EDWIN K. NEELY</b> 5-T.B.A. ———— 0.04 A<sup>2</sup> 5-X ———— 0.15 A<sup>2</sup> 5-S.L. ———— 0.06 A<sup>2</sup></p> <p>⑥ <b>VANCE PAISLEY</b> 6-X ———— 0.08 A<sup>2</sup></p> <p>⑦ <b>FRED A. JARVIS, ET AL.</b> 7-T.B.A. ———— 0.23 A<sup>2</sup> 7-X ———— 0.11 A<sup>2</sup></p> <p>⑧ <b>FRED A. JARVIS, ET AL.</b> 8-T.B.A. ———— 0.19 A<sup>2</sup> 8-X ———— 0.31 A<sup>2</sup> 8-T ———— 0.24 A<sup>2</sup></p>
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SUMMARY OF ADDITIONAL RIGHT OF WAY REQ'D.										
Parcel N <sup>o</sup>	OWNERS	Deed Record		Deed Area	To Be Acquired		Residue		Sheet N <sup>o</sup>	REMARKS
		Volume	Page		Land	Bldg's	Left	Right		
1	William H. & Geraldine Burton	403	540	0.14 A <sup>2</sup>	0.07 A <sup>2</sup>	Yes	0.07 A <sup>2</sup>		1	
1-WA	"								1	Bldg. Rmvl.
2	"	403	540	0.14 A <sup>2</sup>	0.08 A <sup>2</sup>	Yes	0.06 A <sup>2</sup>		1	
2-WA	"								1	Bldg. Rmvl.
2-A-WA	"								1	Bldg. Rmvl.
3	Robert Paisley, Et Al.	216	112	0.16 A <sup>2</sup>	0.07 A <sup>2</sup>		0.09 A <sup>2</sup>		1	
3-SL	"				0.02 A <sup>2</sup>				1	
4	Lula P. Boehm	246	182	0.33 A <sup>2</sup>	0.10 A <sup>2</sup>	Yes	0.23 A <sup>2</sup>		1	
4-T	"				0.05 A <sup>2</sup>				1	
5	Edwin K. Neely	325	582	0.33 A <sup>2</sup>	0.04 A <sup>2</sup>		0.29 A <sup>2</sup>		1	
5-X	"				0.15 A <sup>2</sup>				1	
5-SL	"				0.06 A <sup>2</sup>				1	
6-X	Vance Paisley	291	304	3.65 A <sup>2</sup>	0.08 A <sup>2</sup>		3.65 A <sup>2</sup>		1	
7	Fred A. Jarvis, Et Al.	193	305	6.42 A <sup>2</sup>	0.23 A <sup>2</sup>		0.31 A <sup>2</sup>		1	
7-X	"				0.11 A <sup>2</sup>				1	
8	"				0.19 A <sup>2</sup>		5.69 A <sup>2</sup>		1	
8-X	"				0.31 A <sup>2</sup>				1	
8-T	"				0.24 A <sup>2</sup>				1	

**COMPLETION DATE:**

Revisions: