

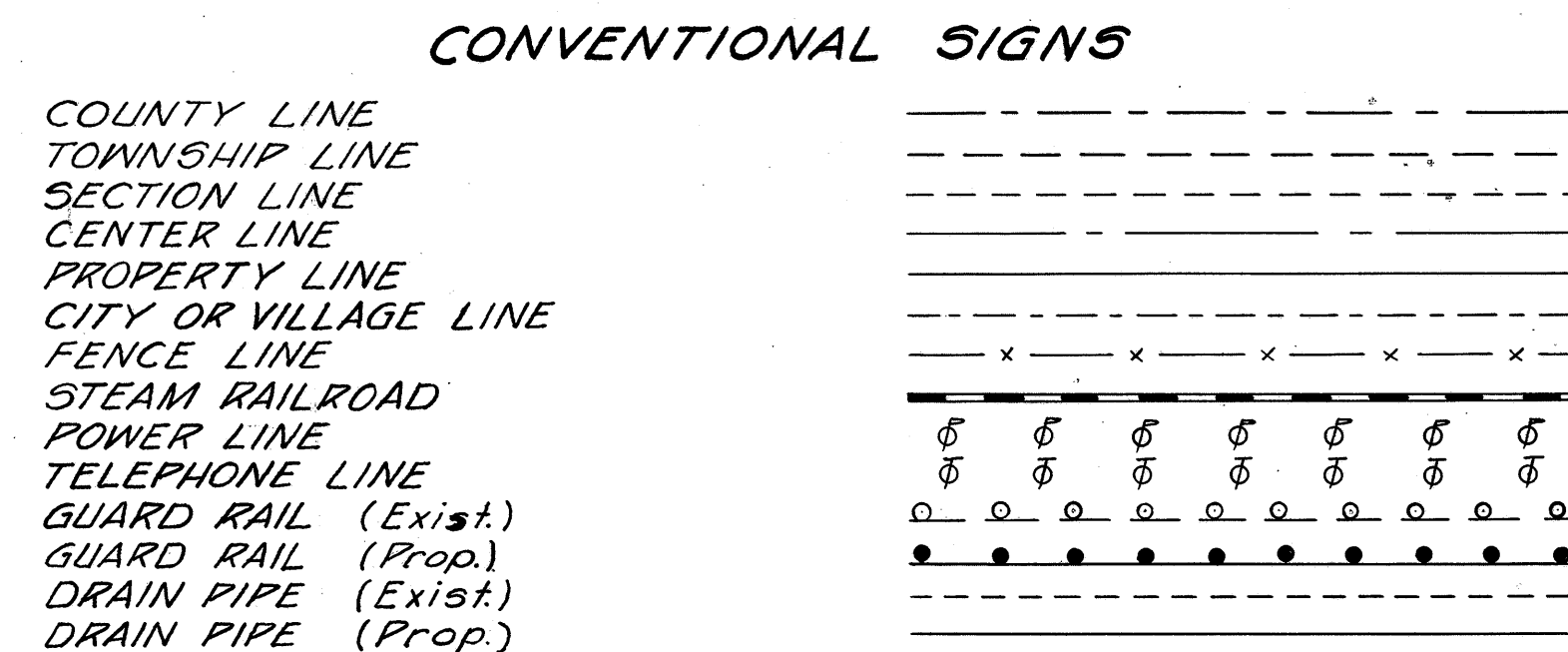
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STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LOR - 82 - 9.01
BRIDGE NO. LO - 82 - 90

LORAIN COUNTY
EATON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO	STATE	5

LOR - 82 - 9.01

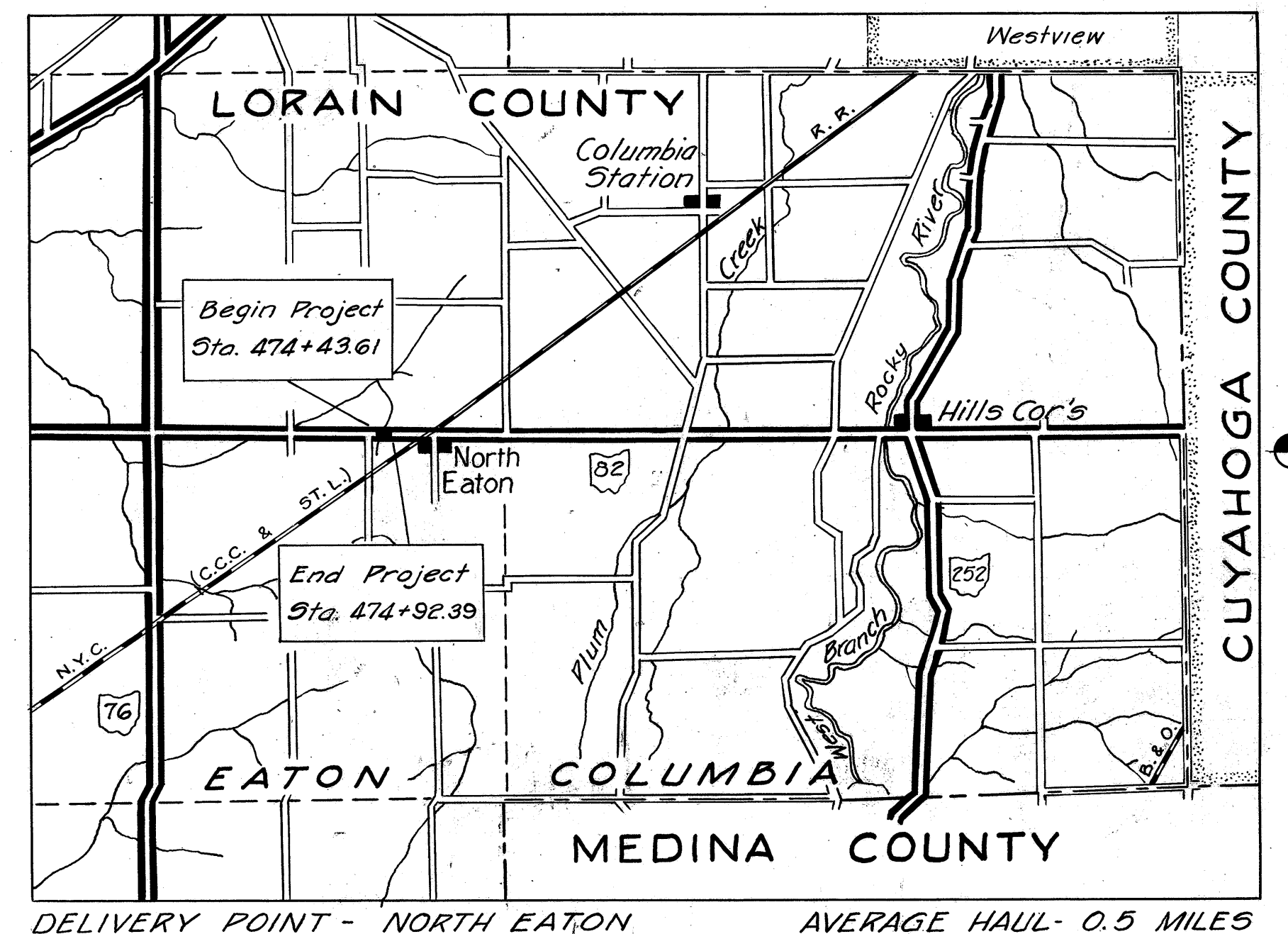


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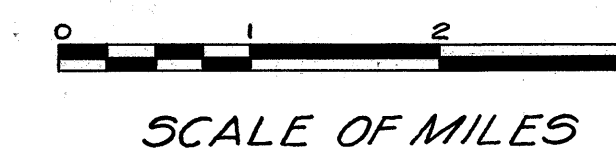
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LINE DATA

BEGIN WORK	STA. 473+00
BEGIN PROJECT	STA. 474+43.61
END PROJECT	STA. 474+92.39
END WORK	STA. 476+50
NO ADDITIONS OR DEDUCTIONS	
NET LENGTH PROJECT	48.78 LIN. FT. = 0.009 MILE
NET LENGTH WORK	350.0 LIN. FT. = 0.066 MILE



LOCATION PLAN



PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER HIGHWAYS

SCALES

PLAN 1" = 50'
PROFILE - HORIZONTAL 1" = 50'
PROFILE - VERTICAL 1" = 5'
CROSS SECTIONS 1" = 5'

SUPPLEMENTAL SPECIFICATIONS	
Number	Date
M-101.7	1-24-53
T-171.19	Rev. 3-19-53
CE-107	5-21-53

The Standard Specifications of the State of Ohio, Department of Highways, including changes and Supplemental Specifications listed in the proposal shall govern this improvement.

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 the plans and estimates.

The right-of-way necessary for this improvement will be furnished by the State of Ohio.

APPROVED
DATE 11-14-52 DEPUTY DIRECTOR OF DIVISION

APPROVED
DATE CHIEF ENGINEER BUREAU OF MAINTENANCE

APPROVED
DATE 12-14-53 CHIEF ENGINEER BUREAU OF LOCATION & DESIGN

APPROVED
DATE 12-14-53 CHIEF ENGINEER BUREAU OF BRIDGES & R.R. CROSSINGS

APPROVED
DATE 1-14-57 CHIEF ENGINEER BUREAU OF PLANNING AND PROGRAMMING

APPROVED
DATE 10-22-53 FIRST ASSISTANT DIRECTOR AND CHIEF ENGINEER

APPROVED
DATE 10-22-53 DIRECTOR OF HIGHWAYS

CONSTRUCTION
BUREAU
AUG 24 1955
GROUND PHOTOLAB

STANDARD DRAWINGS			
DRAWING	DATE	DRAWING	DATE
G-7.07	1-2-53		
SBW-41	10-26-44		
A5-3-41 A5-4-41	7-27-49		
I-15 No. 1	2-2-53		
I-15 No. 2	2-2-53		
L-3	4-1-50		
L-3-A	4-1-50		
RI-1	6-1-53		
I-1,2,3,4,5	2-20-45		

FILE LOR-82-9.01
No. DATE OF LETTING
99-1 CONTRACT NO.

LOR-82-9.01

GENERAL NOTES

TYPICAL SECTION. No pavement, except approach slabs (Type AS-4-41), is included in this project. For Grading Typical see Cross Sections - Sheet No. 4.

PAVEMENT. Pavement work outside the "Project" limits will be done by others.

TRAFFIC. Two way traffic shall be maintained at all times. The item of "Maintaining Traffic" shall include furnishing lights, signs, barricades and watchmen to secure the flow of traffic twenty-four (24) hours daily.

SEEDING AND PROTECTING:-

Seeding, Item L-9, shall be placed only on the soil areas between the construction limits. Quantities to be paid for shall be determined by final measurement.

Seeding and Protecting shall be Type "A" (See seeding formula below). Commercial fertilizer shall have a formula of 10-6-4.

Estimated Quantities:

Seeding and Protecting - Type "A" 3300 Sq. Yds.
Commercial Fertilizer - 0.30 Tons.

SEEDING FORMULA. The seeding formula for the entire area shall consist of 90% Alta Fescue and 10% Timothy, sown at the rate of 3 pounds per 1000 square feet.

UTILITY ADJUSTMENT. 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.

PAVEMENT REMOVAL. Existing pavement is non-rigid and any necessary removal of same is considered as E-1 Roadway Excavation and paid for as such.

FIELD OFFICE. The Contractor shall provide a Field Office with a minimum floor space of 150 Sq. Ft, equiped with a telephone for the exclusive use of the Engineers and Inspectors in accordance with Sec. 5-0.01 (b) of the Construction & Material Specifications.

TEMPORARY RUN-AROUND ROAD. The Temporary Run-around Road shall have a roadway width of 24 feet out to out of the shoulders and shall be surfaced a width of 20 feet.

The embankment for the run-around shall be placed in accordance with Sec. E-1.08 of the Construction & Material Specifications.

Surfacing material shall consist of "Traffic Compacted Surface Course" and Calcium Chloride, paid for as separate items.

Estimated Quantities:

S-15 225 Cu.Yds. Aggregate for Traffic Bound Surface Course.
S-15 4 Tons Calcium Chloride

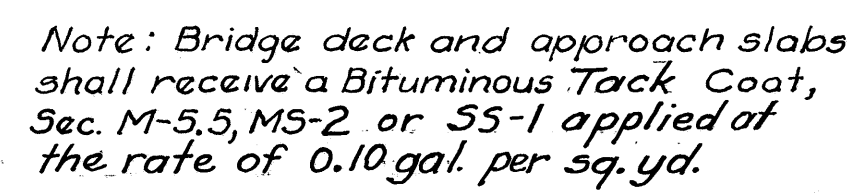
GUARD RAIL. The existing guard rail consists of Steel Beam-Type (Deep) on wood posts, and cable on wood posts. The Item "Guard Rail Removed and Stored" includes the rail & hardware only for Steel Beam Type Guard Rail. All posts and cable shall become the property of the Contractor and the cost of removal shall be included in the unit price bid for Item E-1 "Roadway Excavation".

EARTHWORK. Any portion of the run-around embankment that comes within the limits of the proposed roadway embankment shall remain in place, and shall not be included in the earthwork quantities, but shall be paid for as Item S-15 of the Construction & Material Specifications.

COMPACTED SUBGRADE: The subgrade for approach slabs shall be compacted to a depth of 12" as required in Sec. E-1.09 of the Specifications. Cost of this subgrade compaction shall be included in the unit price per square yard bid for Item I-7 Reinforced Concrete Approach Slabs.

SUMMARY

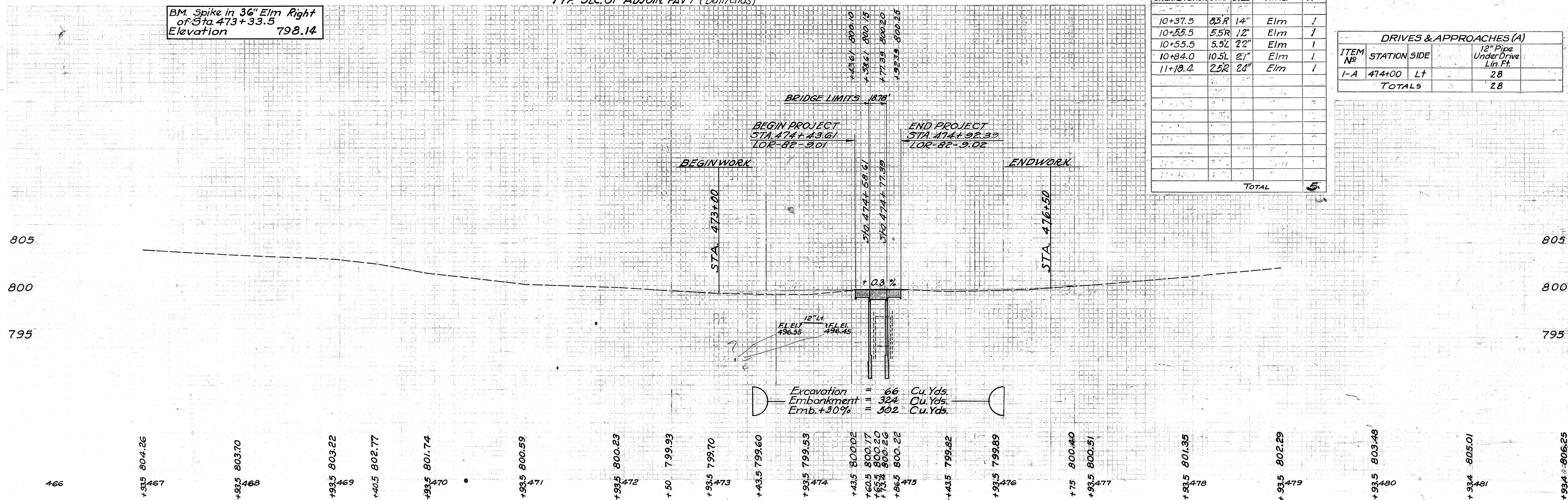
ITEM NO.	AMOUNT	UNIT	DESCRIPTION	SHEET NO.
ROADWAY				
E-1	66	Cu.Yds.	Roadway Excavation	4
E-4	184	Cu.Yds.	Borrow	4
E-8	5	Each	Removal of Trees and Stumps	
E-11	3	M-Gal.	Water	
I-15	62.5	Lin.Ft.	Guard Rail Removed and Stored As Per Plan	3
I-15	62.44	Lin.Ft.	Guard Rail - Steel Beam Type (Deep)	3
L-9	3300	Sq.Yds.	Seeding and Protecting - Type "A" as per plan	2
L-9	0.30	Ton	Commercial Fertilizer (10-6-4)	2
DRAINAGE				
I-1	28	Lin.Ft.	12" Pipe for Driveways	3
E-2	139	Cu.Yds.	Excavation for Structures	5
E-3	268	Cu.Yds.	Channel Excavation	5
S-1	31.0	Cu.Yds.	Concrete for Structures - Class "C" (Slab)	5
S-1	36.4	Cu.Yds.	Concrete for Structures - Class "E" (Walls)	5
S-1	38.2	Cu.Yds.	Concrete for Structures - Class "E" (Footings)	5
S-3	12	Sq.Yds.	Waterproofing - Type "B"	5
S-4	9750	Lbs.	Reinforcing Steel	5
S-9	25	Sq.Ft.	1/4" Premolded Expansion Joint Filler	5
S-14	37.56	Lin.Ft.	Railing (Type I-15.13 with Steel Posts)	5
S-24	Lump	Lump	Removal of Existing Structure	5
S-29	21	Cu.Yds.	Drainage for Structures, Porous Backfill	5
S-15	4	Tons	Furnishing and Applying Calcium Chloride	2
S-15	225	Cu.Yds.	Furnishing and Placing Aggregate for Traffic Bound Surface Course	2
S-15	Lump	Lump	Temporary Run-around Bridge and Approaches	5
PAVEMENT				
I-7	74	Sq.Yds.	Reinforced Concrete Approach Slabs As Per Plan	3
T-30	17	Gals.	Bituminous Tack Coat Sec M-5.5 MS-2 or MS-4	3 & 5



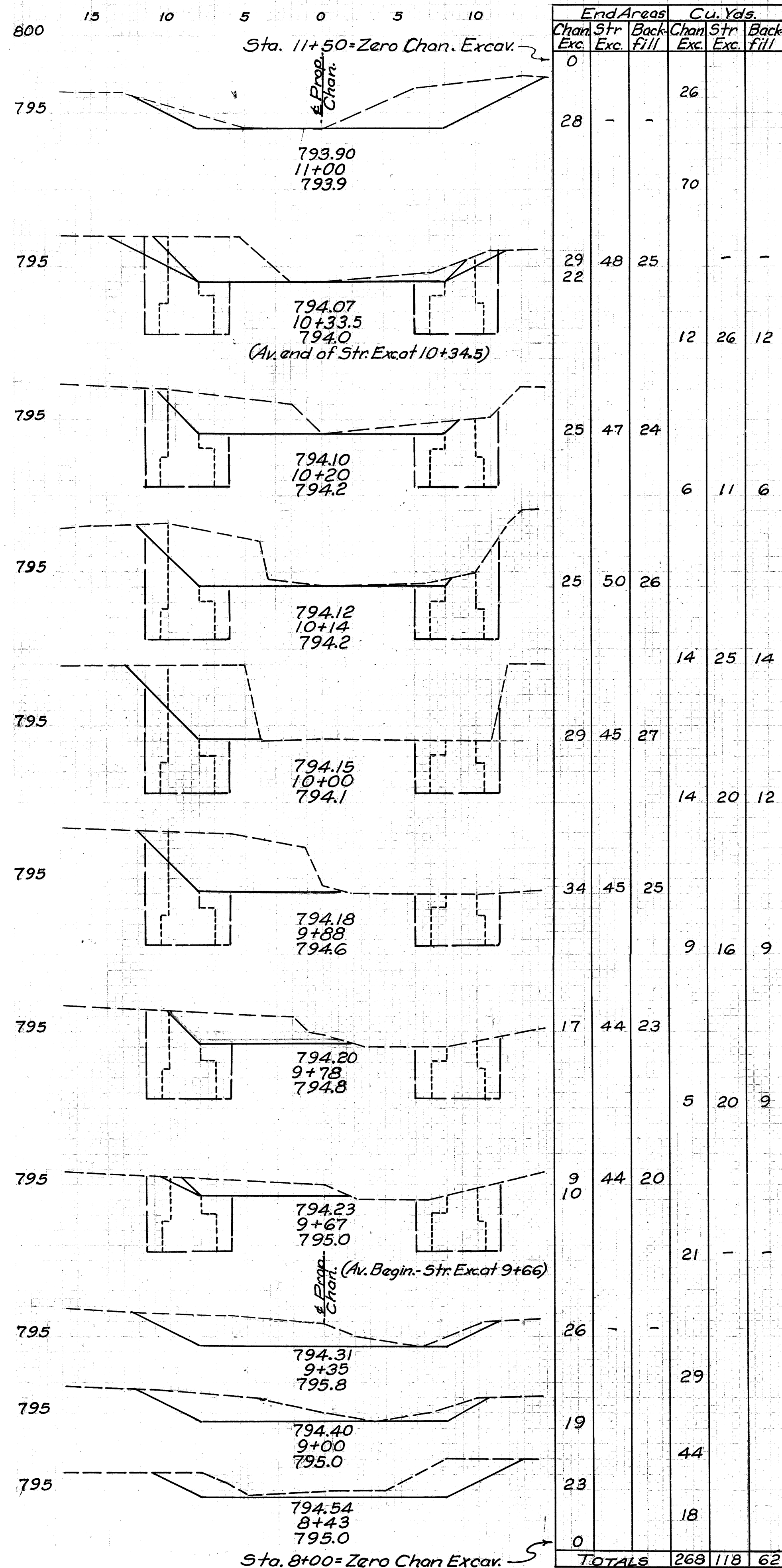
APPROACH SLABS (AS)				
ITEM No	STATIONS		9" Rein. Conc. Appr. Slabs 22" Wide Sq. Yds.	Bifurn. Incl. Coat. Total Sand Cover Gals.
	FROM	TO		
1-AS	474+43.61	474+58.61	37	4
2-AS	474+77.39	474+92.39	37	4
TOTALS			74	8

REMOVAL OF TREES & STUMPS (See Location Plan (Sh.Nº 3) for Chan Stos)					
Chan	Location	Side	Size	Kind	Nº
10+37.5	53R	14"	Elm	1	
10+53.5	55R	12"	Elm	1	
10+55.5	55L	22"	Elm	1	
10+84.0	105L	21"	Elm	1	
11+10.4	25R	24"	Elm	1	
TOTAL					5

DRIVES & APPROACHES (A)			
ITEM No	STATION	SIDE	12" Pipe Under Drive Lin. Ft.
1-A	474+00	Lt	28
TOTALS			28



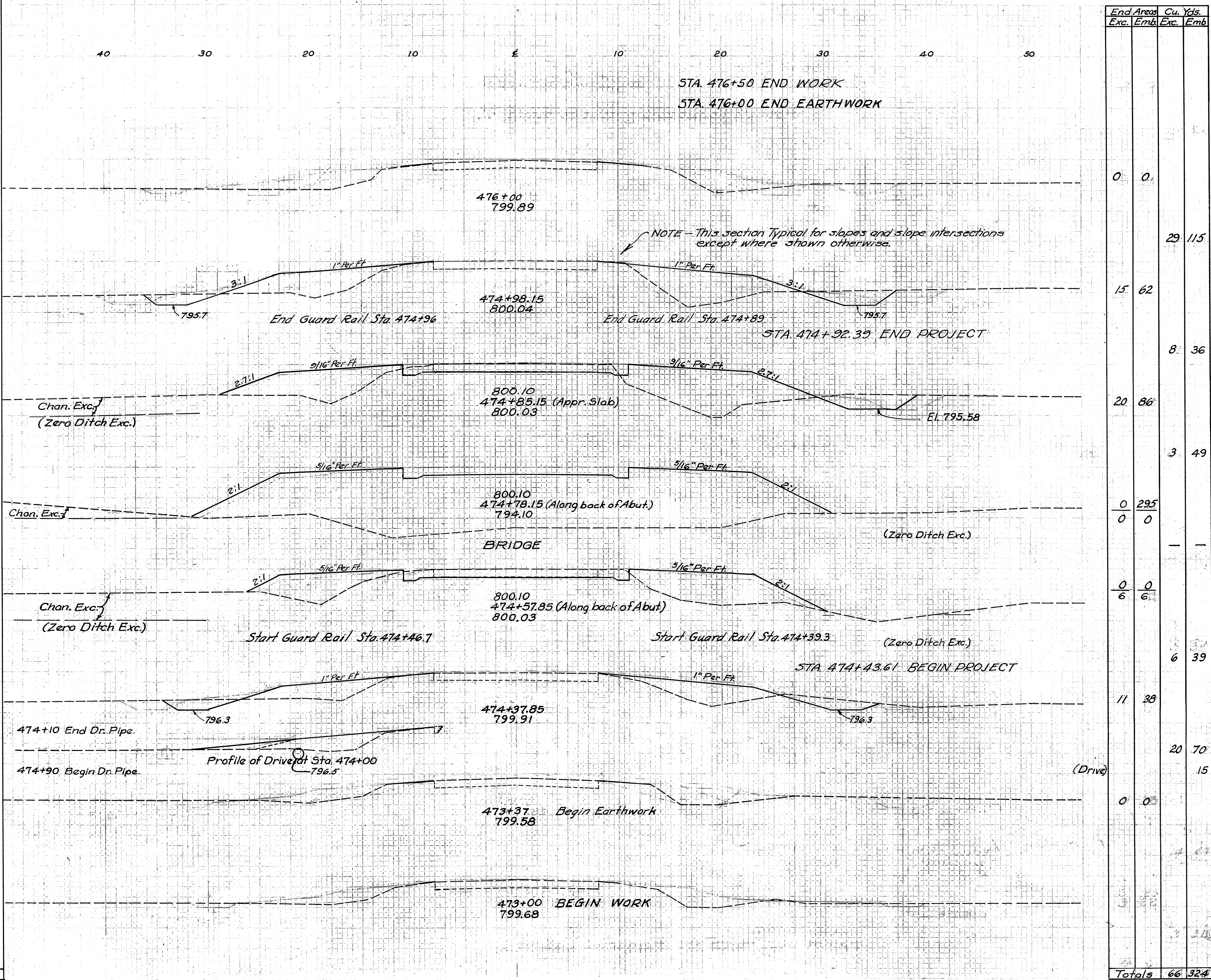
PROPOSED CHAN. SECTS.
(Ground line shows Exist. Pav. & Struct. removed)



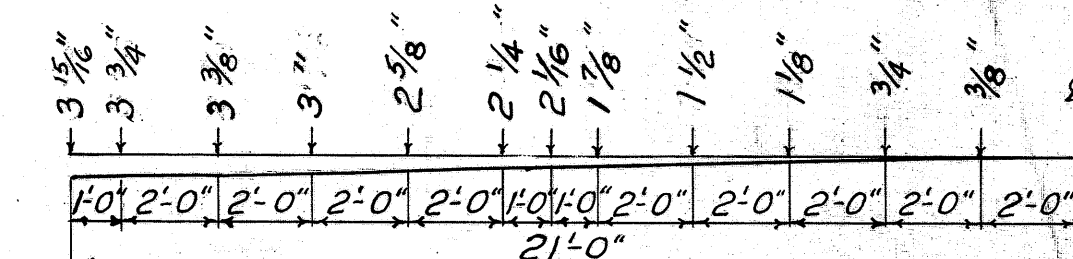
BORROW CALCULATION

50 % of Chan. Excav.	= 134 C.Y.	Rdy Emb.	= 324 C.Y.
Struct. "	= 118 C.Y.	Str. Backfill	= 62 C.Y.
Rdy. "	= 66 C.Y.	Total Fill	= 386 C.Y.
Total	= 318 C.Y.	Total Fill + 30%	= 502 C.Y.
		Total Ex. + Por. B.F.	= 318 C.Y.
		Net Borrow	= 184 C.Y.

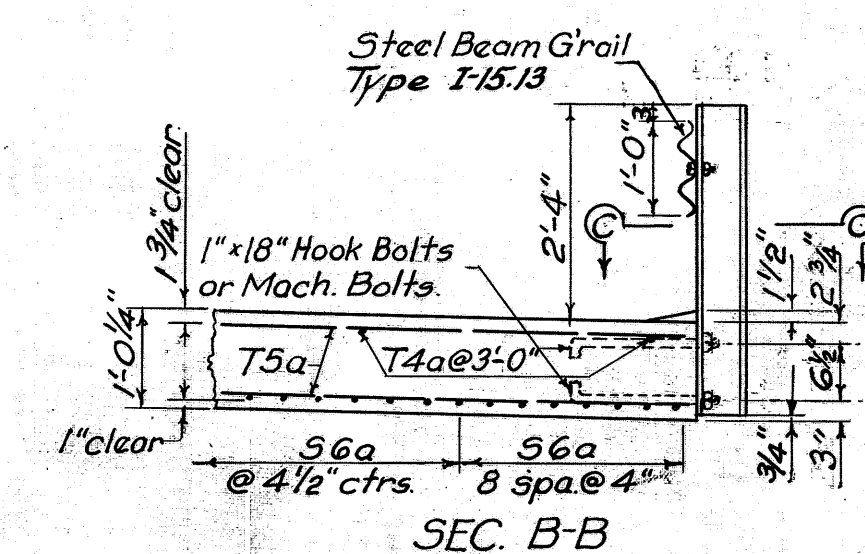
2 OHIO H.I.F. 4
LOR-82-9.01 5



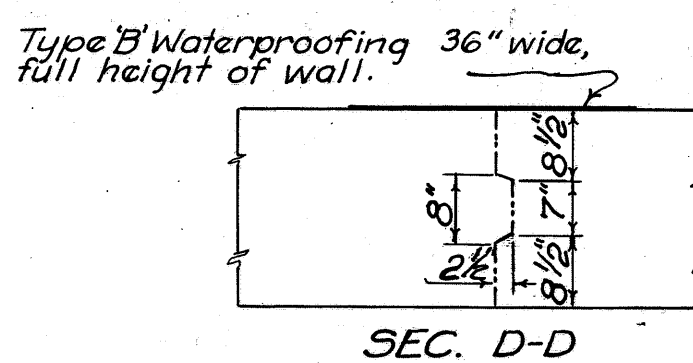
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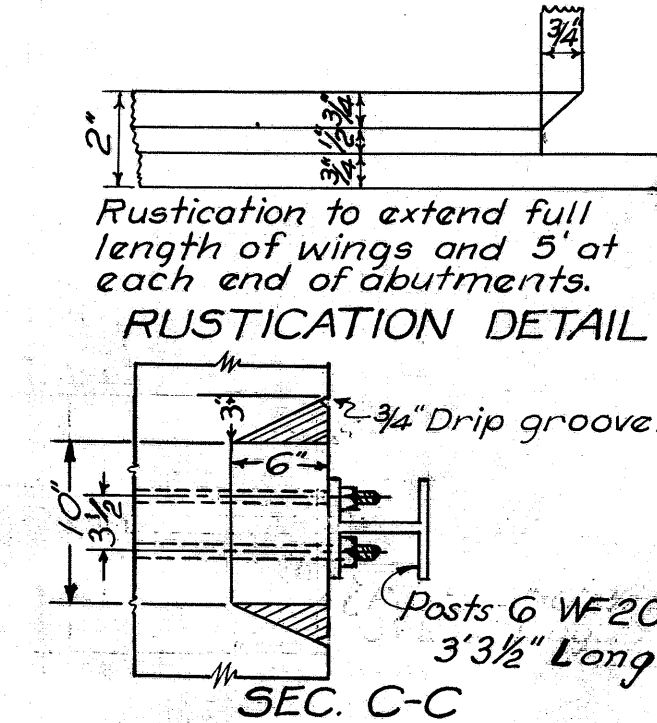
BRIDGE CROWN - $\frac{3}{16}$ INCH PER FOOT.



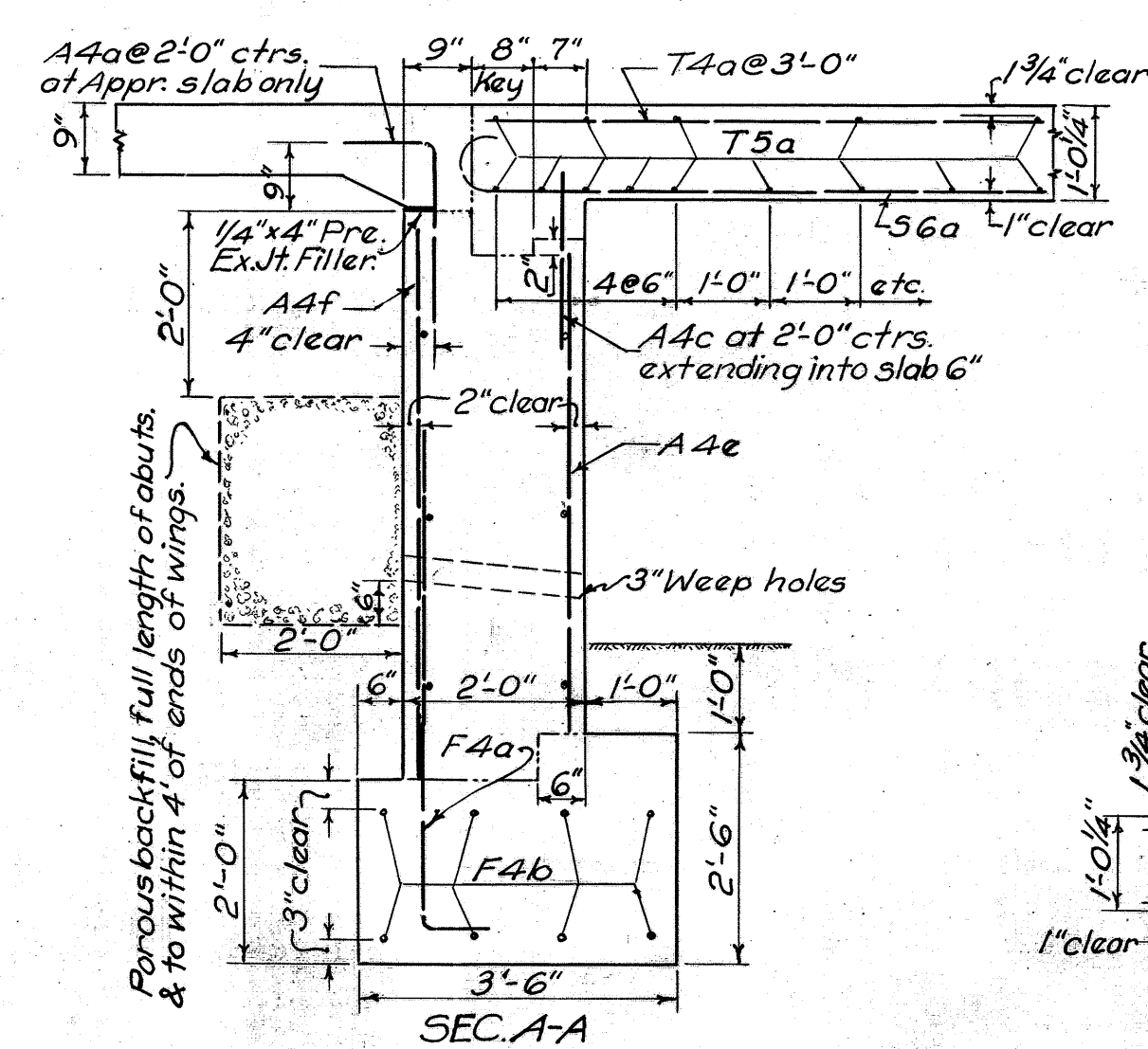
ELEV. OF POST



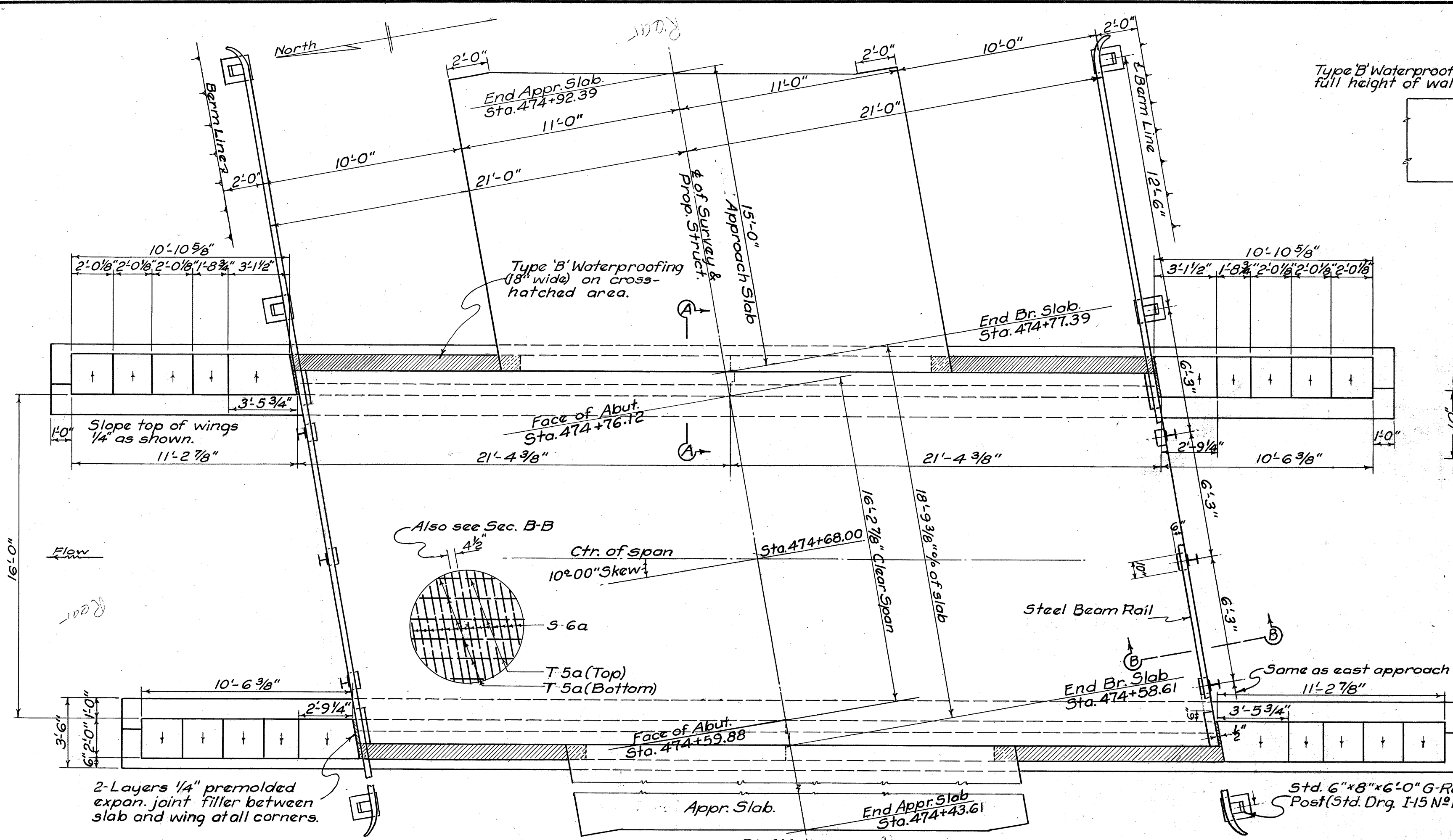
SEC. D-D



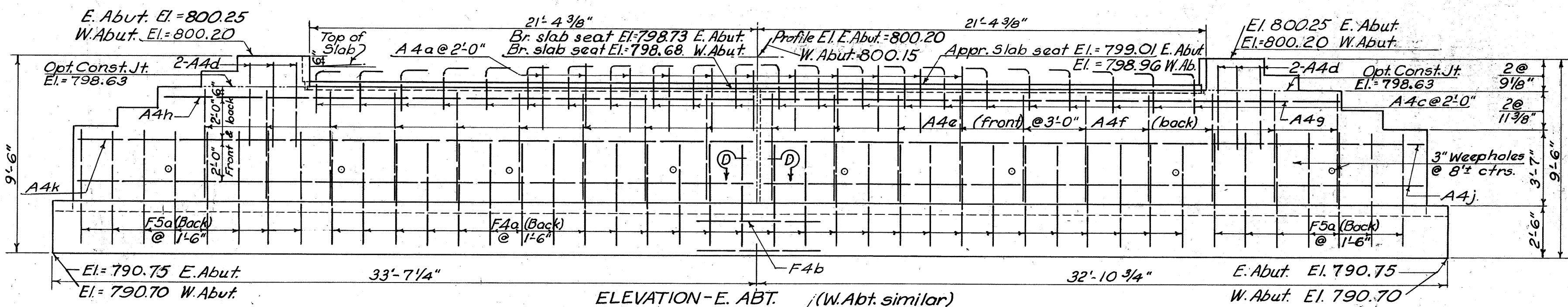
"SEC.



SEC. A-A



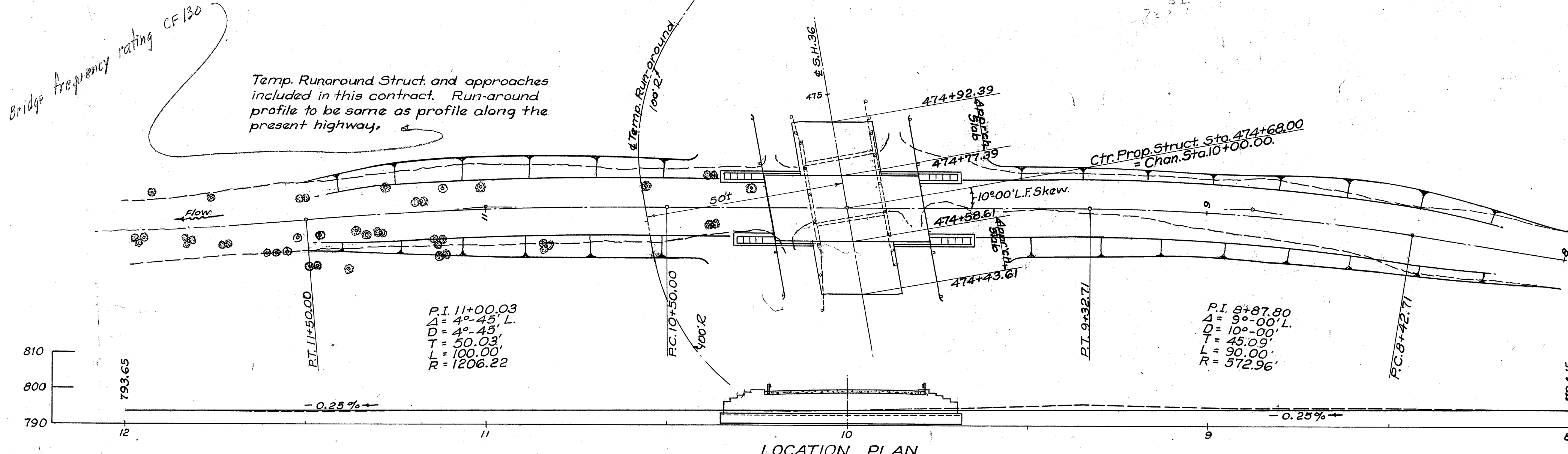
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ELEVATION-E. ABT.

Bridge frequency rating CF130

Temp. Runaround Struct. and approaches included in this contract. Run-around profile to be same as profile along the present highway.



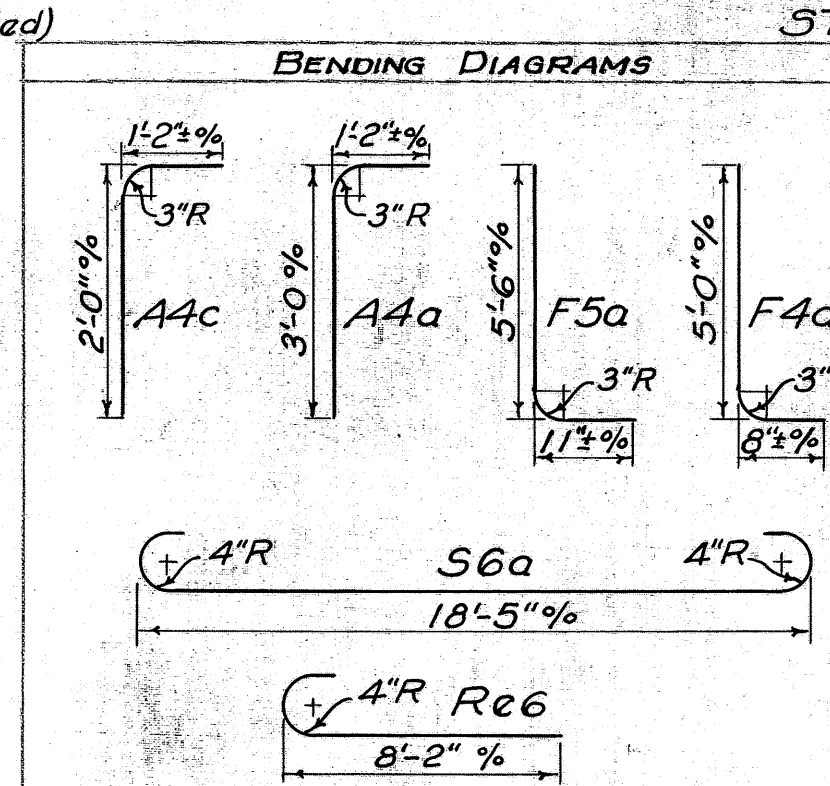
LOCATION PLAN

EXISTING STRUCTURE (To be Removed)

Concrete slab bridge with pipe rails;
16'± clear span; 3'± clear height waterway;
4 wingwalls, each 6'± long & 1'± thick at top
20'3"± wide; 18'6"± clear roadway.
2'-10"± from bot. of slab to top of wear. sur
Condition: Poor.

PROPOSED STRUCTURE
Type: Conc. Slab Br. Std. SBW-44 (Re-10-26-44)
Dr. Area: 480'±4c. plus overflow from
stream 3/4 mile south. (flat-cultivated,
Loading: 3-15
Clearspan: 16'-2 3/8" (16'-0" normal)
Skew: 10°-00' L.F.
Roadway: 41'-6" f/f Guard/Rail
Wear Surf: 3/4" monolith. conc. & bit. seol.
Approach Slabs: A5-4-47

ANCHOR BOLTS 1" ϕ x 18" with ultimate shear value of not less than 24,000 lbs. Thread 6" length of bolt and provide additional nuts. Fasten bolts rigidly to form during placing of concrete. Holes in post $\frac{1}{16}$ " larger than bolt.



STEEL LIST

MARK	SIZE	SHAPE	NUMBER	LENGTH	WEIGHT
A4a	3/4"	Bent	22	4'-0"	92 #
A4c	"	"	44	3'-0"	138
A4d	"	Str.	24	4'-0"	100
A4e	"	"	38	5'-3"	208
A4f	"	"	38	6'-0"	288
A4g	"	"	4	27'-3"	114
A4h	"	"	4	28'-0"	117
A4j	"	"	8	31'-6"	263
A4k	"	"	8	32'-0"	267
F4a	"	Bent	56	5'-6"	322
F4b	5/8"	Str.	16	6'-0"	100
F5a	3/4"	Bent	30	6'-3"	282
G6a	7/8"	"	114	20'-6"	4782
T4a	5/8"	Str.	15	18'-6"	290
T5a	3/4"	"	70	22'-9"	2394
Replacement Steel					
Re4	5/8"	Str.	1	6'-6"	7
Re5	3/2"	"	1	7'-0"	11
Re6	1/8"	Bent	1	9'-3"	19
TOTAL					9744 #

ESTIMATED QUANTITIES (Carried to Sheet 2)			
ITEM	DESCRIPTION	TOTALS	UNITS
E - 2	Excavation for Structures	139	Cu. Yds.
E - 3	Channel Excavation	268	Cu. Yds.
S - 1	Concrete for Structures - Class 'C' (Slab)	360	Cu. Yds.
S - 1	Concrete for Structures - Class 'E' (Walls)	564	Cu. Yds.
S - 1	Concrete for Structures - Class 'E' (Footings)	38.2	Cu. Yds.
S - 3	Waterproofing - Type 'B'	12	Sq. Yds.
S - 4	Reinforcing Steel	9750	Lbs.
S - 9	1/4" Premolded Expansion Joint Filler	23	Sq. Ft.
S - 14	Bridge Railing (Steel Beam - Type (Deep) (I-15/B G.R. with steel posts)	37.56	Lin. Ft.
S - 15	Temporary Run-around Road & Bridge	Lump	
S - 24	Removal of Existing Structure	Lump	
S - 29	Drainage for Structures, Porous Backfill	21	Cu. Yds.
T - 30	Bituminous Tack Coat, Sec. M-5.5, M5-2 or 55-1	9	Gals.

STA. 494+68.0 STR. NO. LO-82-90

L. B. Farrow