

STATE OF OHIO DEPARTMENT OF HIGHWAYS

FRA-665~(13.97~14.20)

FRANKLIN COUNTY

JACKSON & HAMILTON TOWNSHIPS

LINE DATA

Begin Project Station 735+00
End Project Station 748+50
Gross Length 1350 Feet
No Additions or Deductions
Net Length of Project 1350 Feet
or 0.255 Miles

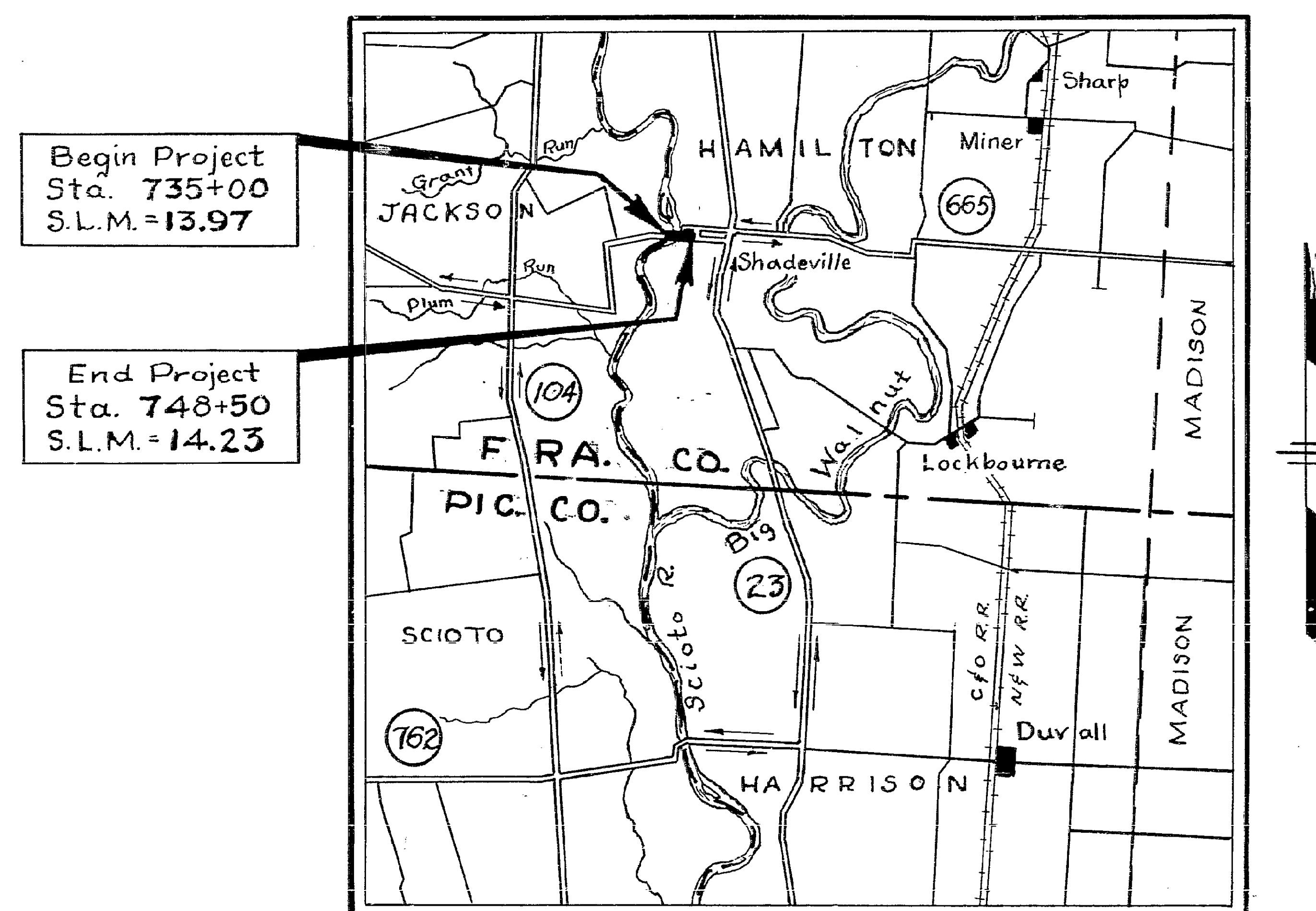
Begin Work Station 734+30
End Work Station 749+65
Gross Length 1535 Feet
No Additions or Deductions
Net Length of Work 1535 Feet
or 0.290 Miles

CONVENTIONAL SIGNS

County Line _____
Township Line _____
Section Line _____
Center Line _____
Property Line _____
City or Village Line _____
Fence Line _____
Steam Railroad _____
Pole Line _____

INDEX OF SHEETS

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Delivery Point Lockbourne
Average Haul 3.5 Miles

LOCATION PLAN
0 1 2 3 4
Scale 1" = 1 Mile

LEGEND: Portion to be Improved
State Highways
County Roads
Detours

SCALES: Plan 1" = 50'
Profile, Vertical 1" = 5'
Profile, Horizontal 1" = 50'
Cross Sections, Horizontal 1" = 5'
Cross Sections, Vertical 1" = 5'

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 require the closing to traffic of the highway and that detours will be provided as indicated on the plans.

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

Approved E. L. Shelley
Date 3-31-59 Division Deputy Director

Approved Henry P. Neppa
Date 4-22-59 Deputy Director of Planning & Programming

Approved W. J. German
Date 4-16-59 Engineer of Bridges

Approved Warren J. Haman
Date 4-17-59 Engineer of Location & Design

Approved C. W. McCarry
Date 4-17-59 Deputy Director of Design & Construction

Approved W. J. Berry
Date 4-22-59 First Assistant Director

Approved E. L. Shelley
Date 4-22-59 Director of Highways

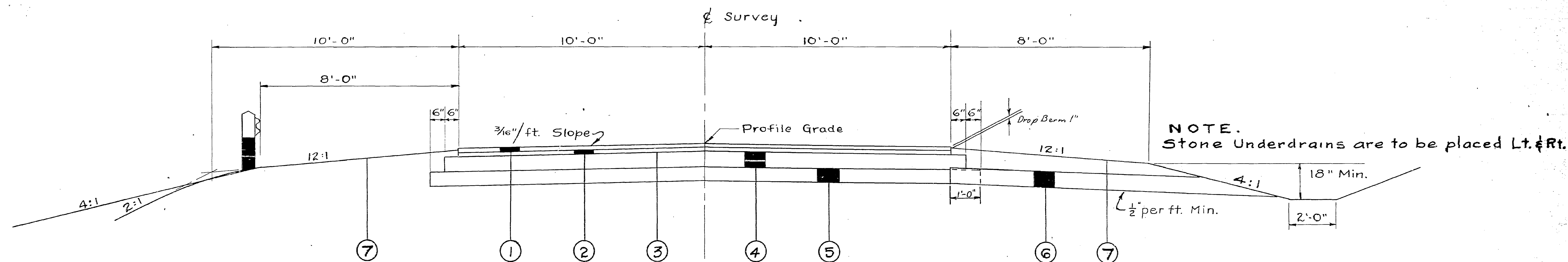
File No. FRANKLIN CO. FRA-665-(13.97-14.20)
Date of Letting _____
Contract No. _____

| SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS | | | |
|---|---------|--------|---------|
| I-1, 2, 3, 4 & 5 | 4-24-58 | G-7.07 | 6-1-56 |
| I-15 No. 1 | 8-1-55 | T-35 | 1-2-56 |
| I-15 No. 2 | 6-1-57 | R1-1 | 7-15-58 |
| I-15 No. 2A | 6-1-57 | DR-1 | 1-3-55 |
| L-1 | 4-1-50 | | |
| L-3 | 4-1-50 | | |
| L-3-A | 4-1-50 | | |

| SUPPLEMENTAL SPECIFICATIONS |
|-----------------------------|
| |
| |
| |
| |
| |
| |
| |
| |
| |

TYPICAL SECTION

T-35 ON B-19



LIMITING STATIONS
 From Sta. 735+00 To Sta. 738+19 = 319.00 Lin. Ft.
 From Sta. 746+54.75 To Sta. 748+50 = 195.25 Lin. Ft.
 Total = 514.25 Lin. Ft.

Refer to Standard Drawings
 RI-1 & T-35

- ① T-35 1½" Asphaltic Concrete Surface Course, Type A or C (85-100)
- ② B-35 1½" Asphaltic Concrete Leveling Course (85-100)
- ③ T-30 Bituminous Prime Coat, using 0.35 Gal./Sq. Yd., Sec. M-5.7, RT-2 or RT-3; or Sec. M-5.3, MC-0 or MC-1
- ④ B-19 6" Aggregate Base Course
- ⑤ I-22 6" Subbase
- ⑥ I-9 Stone Underdrains N° 2
- ⑦ L-9 Seeding and Protecting

CALCULATIONS

T-35 1 1/2" ASPHALTIC CONCRETE SURFACE COURSE TYPE A or C (85-100)

From Typical Section Sta. 735+00 to Sta. 738+19 319.00 Lin. Ft.
From Typical Section Sta. 746+54.75 to Sta. 748+50 195.25 Lin. Ft.
Total 514.25 Lin. Ft.

514.25 x 20 ÷ 9 1142.78 Sq. Yds.
1142.78 x 1 1/2 ÷ 36 47.62 Cu. Yds.

B-35 1 1/2" ASPHALTIC CONCRETE LEVELING COURSE (85-100)

From Typical Section 514.25 Lin. Ft.
514.25 x 20 ÷ 9 1142.78 Sq. Yds.
1142.78 x 1 1/2 ÷ 36 47.62 Cu. Yds.

B-19 6" AGGREGATE BASE COURSE

From Typical Section 514.25 Lin. Ft.
514.25 x 21 ÷ 9 1199.92 Sq. Yds.
1199.92 x 6 ÷ 36 199.99 Cu. Yds.

I-22 6" SUBBASE

From Typical Section 514.25 Lin. Ft.
514.25 x 22 ÷ 9 1257.06 Sq. Yds.
1257.06 x 6 ÷ 36 209.51 Cu. Yds.

T-30 BITUMINOUS PRIME COAT

From Typical Section 514.25 Lin. Ft.
514.25 x 21 ÷ 9 1199.92 Sq. Yds.
1199.92 x 0.35 419.97 Gals.

E-1 COMPACTED SUBGRADE

From Typical Section 514.25 Lin. Ft.
514.25 x 20 ÷ 9 1142.78 Sq. Yds.

E-11 WATER

Compacted Subgrade in Cuts 444 Cu. Yds.
Embankment 4861 Cu. Yds.
B-19 211 Cu. Yds.
I-22 218 Cu. Yds.

Total 5734 Cu. Yds.

5734 x 0.005 = 28.67 M. Gals.

GENERAL SUMMARY

| SHEET NUMBER | | | | | | ITEM | QUAN. | UNIT | DESCRIPTION |
|--------------|------|-------|------|--------|------|--------|----------|------|--|
| 12 | 6 | 5 | 4 | Calc. | | | | | |
| | | | | | | | | | ROADWAY |
| | 84 | 90 | | | E-1 | 174 | Cu. Yd. | | Roadway Excavation, Method "A", as per plan. |
| | 1513 | 3348 | | | E-1 | 4861 | Cu. Yd. | | Embankment, Method "A", as per plan. |
| | | | | 1142.8 | E-1 | 1143 | Sq. Yd. | | Compacted Subgrade. |
| | 4 | 25 | | | E-9 | 29 | Each | | Removal of Trees and Stumps. |
| | | | | 28.67 | E-11 | 29 | M. Gal. | | Water. |
| | 350 | 68750 | | | I-15 | 103750 | Lin. Ft. | | Guard Rail, Steel Beam Std. Type (Deep) as per Std. Dwg. I-15 No-2-A, as per plan. |
| | 504 | 675 | | | I-15 | 1179 | Lin. Ft. | | Guard Rail Removed and disposed of |
| | 1979 | 3379 | | | L-9 | 5358 | Sq. Yd. | | Seeding and Protecting |
| | 0.2 | 0.3 | | | L-9 | 0.48 | Ton | | Commercial Fertilizer (12-12-12) |
| | 5 | | | | L-10 | 5 | Sq. Yd. | | Sodding. |
| | | | 10 | | T-10 | 10 | Cu. Yd. | | Traffic Compacted Surface Course for Maintaining Local Traffic |
| | | | | | | | | | DRAINAGE |
| | 10 | | | | I-3 | 10 | Lin. Ft. | | 10" Outlets for Roadway Drainage, Sec. M-6.4 (c) |
| | 110 | | | | I-3 | 110 | Lin. Ft. | | 10" Roadway Drainage. |
| | 118 | | | | E-12 | 118 | Lin. Ft. | | Pipe Removed, 15" and Under. |
| | | | 144 | | I-9 | 144 | Lin. Ft. | | Stone Underdrains, No. 2 |
| | | | | | | | | | Pavement |
| | 4.6 | | 1.71 | 47.62 | T-35 | 54 | Cu. Yd. | | Asphaltic Concrete Surface Course, Type "A" or "C" (85-100) |
| | 4.5 | | | 47.62 | B-35 | 53 | Cu. Yd. | | Asphaltic Concrete Leveling Course (85-100) |
| | 6.1 | | 4.28 | 199.99 | B-19 | 211 | Cu. Yd. | | Aggregate Base Course. |
| | 7.6 | | | 209.5 | I-22 | 218 | Cu. Yd. | | Subbase. |
| | 14.6 | | | 419.97 | T-30 | 435 | Gals. | | Bituminous Prime Coat: Sec. M-5.3, MC-0 or MC-1; or Sec. M-5.7, Rt. 2 or Rt. 3. |
| | | | | | | | | | Quantities for Structures over 20' Span: Str. No. Fra-665-1403, See Sheet No. 13. |

GENERAL NOTES

| | | | |
|-------------------|-------|---------|----|
| FED. RD. DIVISION | STATE | PROJECT | 4 |
| 2 | OHIO | | 21 |

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FIELD OFFICE

The Contractor shall provide a suitable field office in accordance with Section S-0.01 having a minimum floor area of 150 Sq. Ft.

The Contractor shall have a telephone installed and maintained during the construction of the project.

DESIGN SPEED

The geometrics for this project have been planned for a design speed of 50 M.P.H.

ROUNDING OF CORNERS ON CROSS-SECTIONS

The rounded corners, shown on the Standard Drawing RI-1, apply to all cross-sections even though otherwise shown in these plans.

REMOVAL OF TREES AND STUMPS

Trees and stumps shall be removed or preserved as indicated on the plans by the following symbols:

Trees or stumps to be removed:

Trees to be preserved:

The number of trees or stumps to be removed as indicated by the above symbols is approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps even though these trees or stumps are not indicated on the plans or are indicated to be preserved.

Payment for the removal of these additional trees or stumps shall be at the unit price bid for the removal of trees and stumps.

STONE UNDERDRAINS

The stone underdrains shall be placed at approximately 100' intervals along each side of the pavement and shall be staggered at approximately 50' intervals on opposing sides of the pavement or as directed by the Engineer.

In the final finishing of the slopes and ditches, care shall be exercised by the Contractor to assure that the exposed edge of the stone underdrains will be left free of earth cover that would impede drainage.

ESTIMATED QUANTITIES

12 Lin. Ft. x 12 = 144 Lin. Ft.

Quantities carried to General Summary Sheet No. 3

SEEDING AND PROTECTING

Quantities for seeding are calculated for the soil area within the construction limits as shown on the cross-sections.

COMMERCIAL FERTILIZER (12-12-12)

Commercial fertilizers shall be applied to all areas having seeding or sodding at the rate of 20 lbs. per 1000 Sq. Ft.

UTILITIES

Any and all work required for private or public utilities will be done by and at the expense of the respective owners unless otherwise noted in the plans.

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 sewer. The cost of this operation shall be included in the price bid for the pertinent Item I-3 pipe.

TRAFFIC

The Contractor shall, before beginning work, submit to the Director for approval a schedule of operations.

The highway will be closed to traffic and a detour provided as shown on Sheet No. 1. Local traffic shall be maintained at all times in accordance with the provisions of Sec. G-4.05.

An estimated quantity of Item T-10 aggregate, to be placed as directed by the Engineer, has been included in the General Summary for use in the maintenance of local traffic.

MAIL BOX TURNOUTS

Where feasible, mailbox turnouts will be combined with drives and quantities adjusted by the Engineer.

ESTIMATED Quantities

2" T-35

5" B-19

1 Mail Box

171 Cu. Yds.

428 Cu. Yds.

See Standard Drawing DR-1

Quantities carried to Sheet No. 3.

UTILITY OWNERS

The Ohio Bell Telephone Company

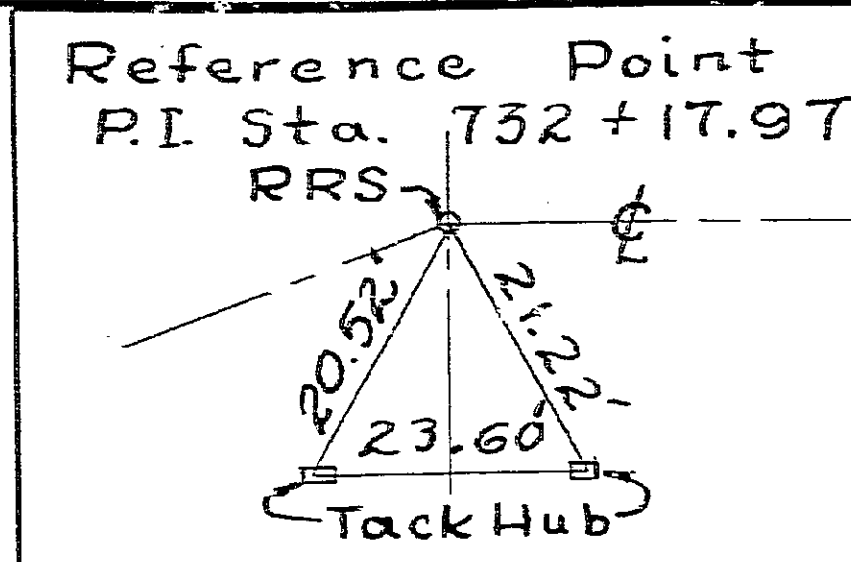
The Columbus & Southern Ohio Electric Company

COMPACTED SUBGRADE UNDER B-19 MATERIAL

The subgrade under mail box turnouts shall be compacted to a depth of six(6) inches to the density requirements in Table III, Item E-1, Roadway Excavation.

Payment for compaction of subgrade areas as specified above shall be included in the unit price bid for Item E-1, Roadway Excavation.

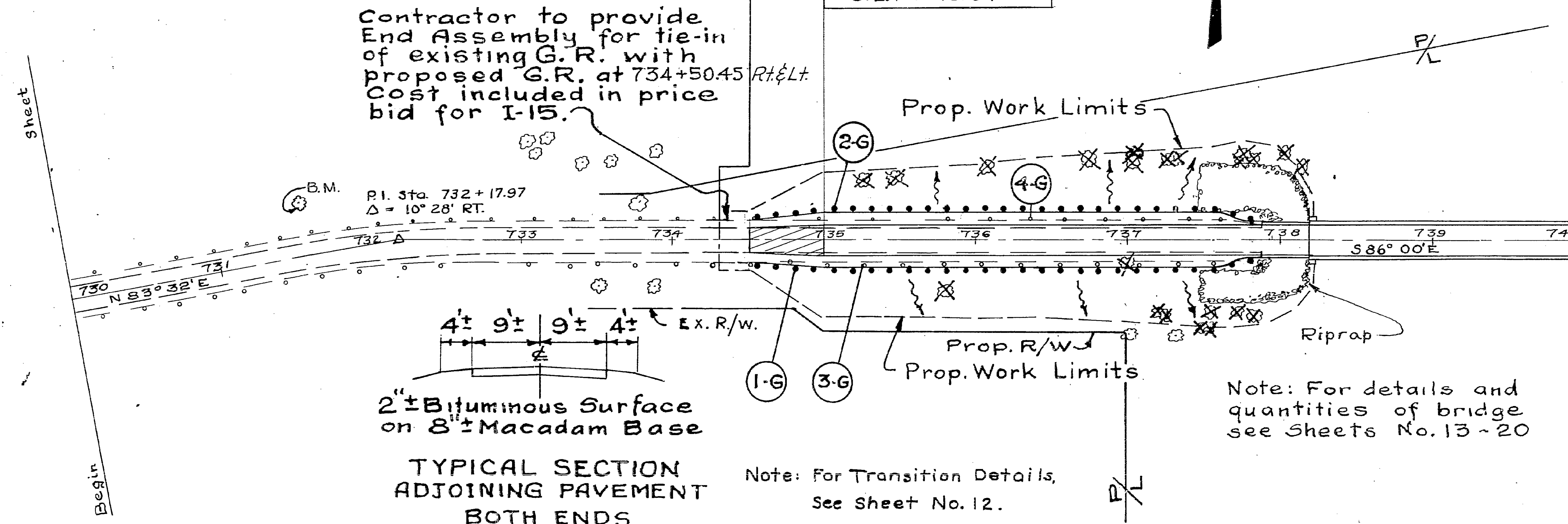
FRA-665-(13.97-14.50)



Begin Work
Sta. 734+30

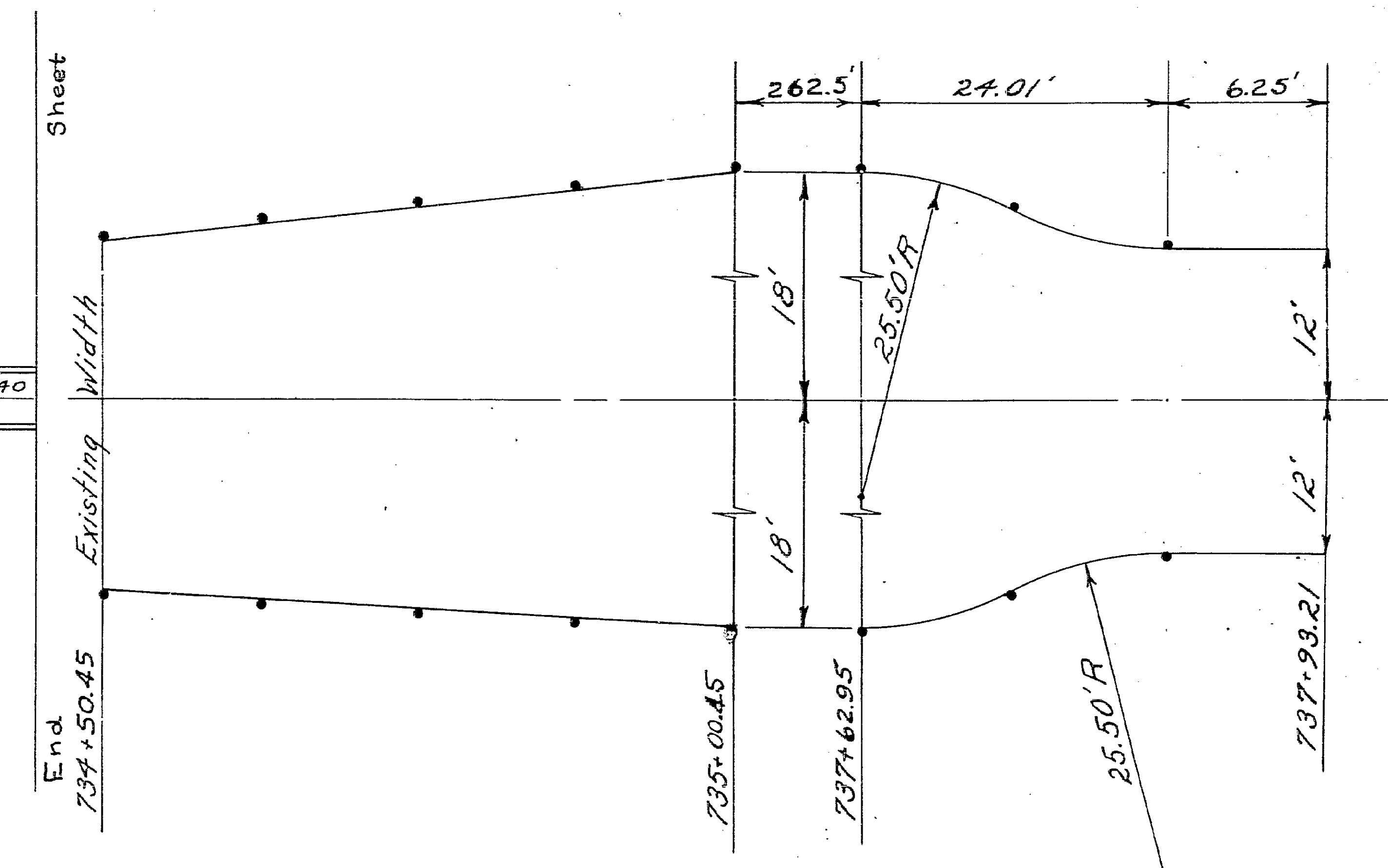
Begin Project
Sta. 735+00
S.L.M. = 13.97

Contractor to provide
End Assembly for tie-in
of existing G.R. with
proposed G.R. at 734+5045 *RI<*
Cost included in price
bid for I-15.)



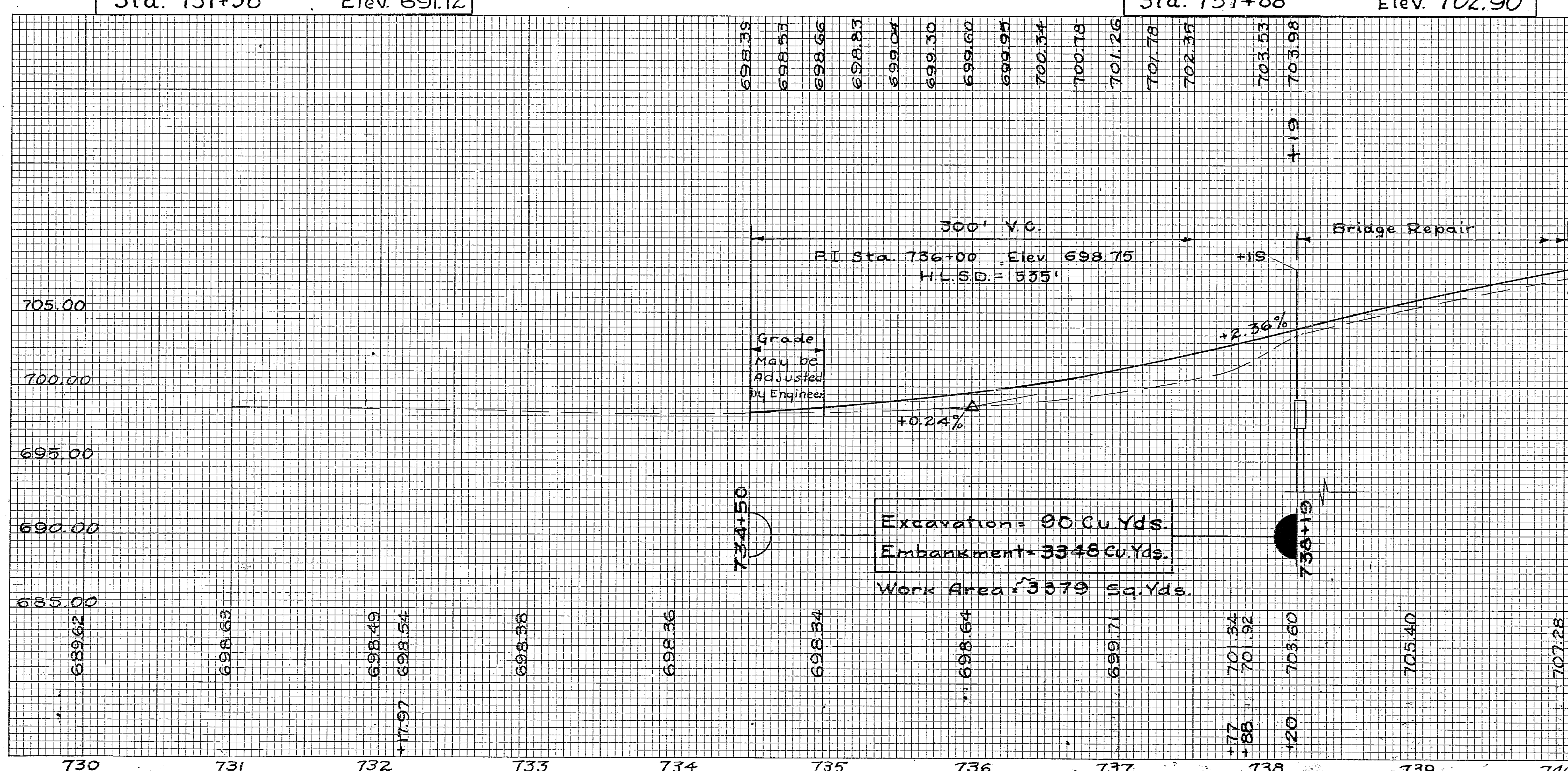
B.M. - R.R.S. 4' above ground
in S. Side of 30" Maple 34.5' Lt.
Sta. 731+58 Elev. 691.72

B.M. - Chiseled ☐ on N.W. Corner
of S.W. Parapet Wall - 10' Rt.
Sta. 737+88 Elev. 702.90



GUARD RAIL DETAIL

| ROADSIDE IMPROVEMENT | | | | |
|----------------------|-----------------------|---------------------|---------------------|-----------------------|
| Section | Work Area Sq. Yds. | Sodding Sq. Yds. | Seeding Sq. Yds. | Com'l. Fert Pounds |
| 734+50 ~ 736 +19 | 3379 | | 3379 | 608.22 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Totals | 3379 | | 3379 | 608.22 |

$$\text{Com'l. Fert.} = 608.22 / 2000 = 0.3 \text{ Ton}$$


| GUARD RAIL "G" | | | | | |
|----------------|-----------|-----------|------|-----------------------------------|--|
| Ref. No. | Station | | SIDE | I-15 G.R. Rem. & Dispose | I-15 G.R. Steel Beam (Deep |
| | From | To | | L.F. | L.F. |
| 1-G | 734+50.45 | 737+93.21 | Rt. | | 343.7 |
| 2-G | 734+50.45 | 737+93.21 | Lt. | | 343.7 |
| 3-G | 734+50.45 | 737+88 | Rt. | 337.55 | |
| 4-G | 734+50.45 | 737+88 | Lt. | 337.55 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Totals | | | | 675.00 | 687.50 |

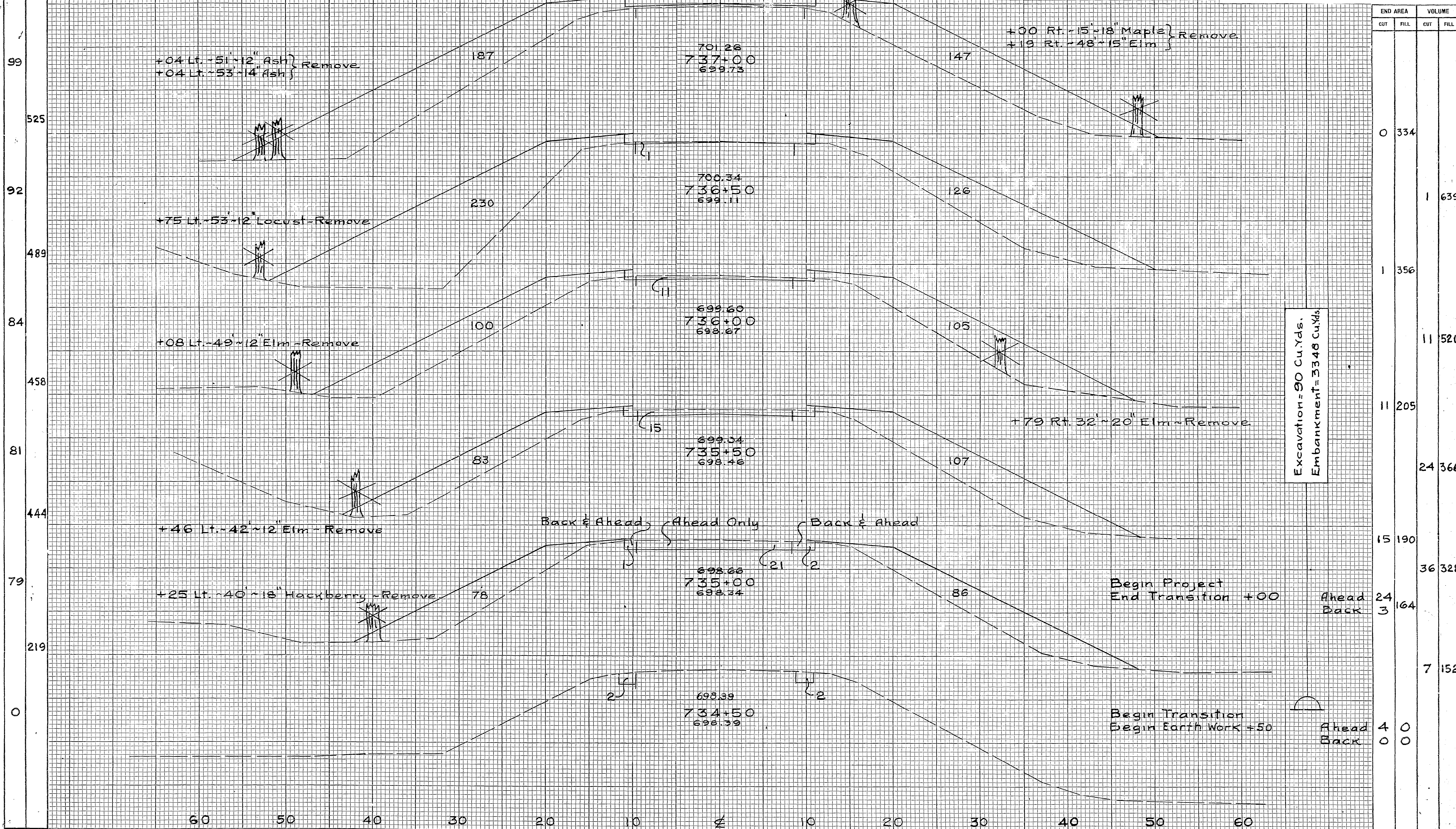
| F-9 Removal of Trees & Stumps | | |
|-------------------------------|-----------|--------|
| Size | Trees | Stumps |
| 12" - 18" | 10 | |
| 18" - 24" | 4 | |
| 24" - 30" | | |
| 30" - 36" | 1 | |
| 36" - 42" | | |
| 42" - 48" | 1 | |
| Totals | 25 | |

SEEDING
END
WIDTH
SQ.
YDS.

| FED. RD. DIVISION | STATE | PROJECT |
|----------------------|-------|---------|
| 2 | OHIO | |

7
21


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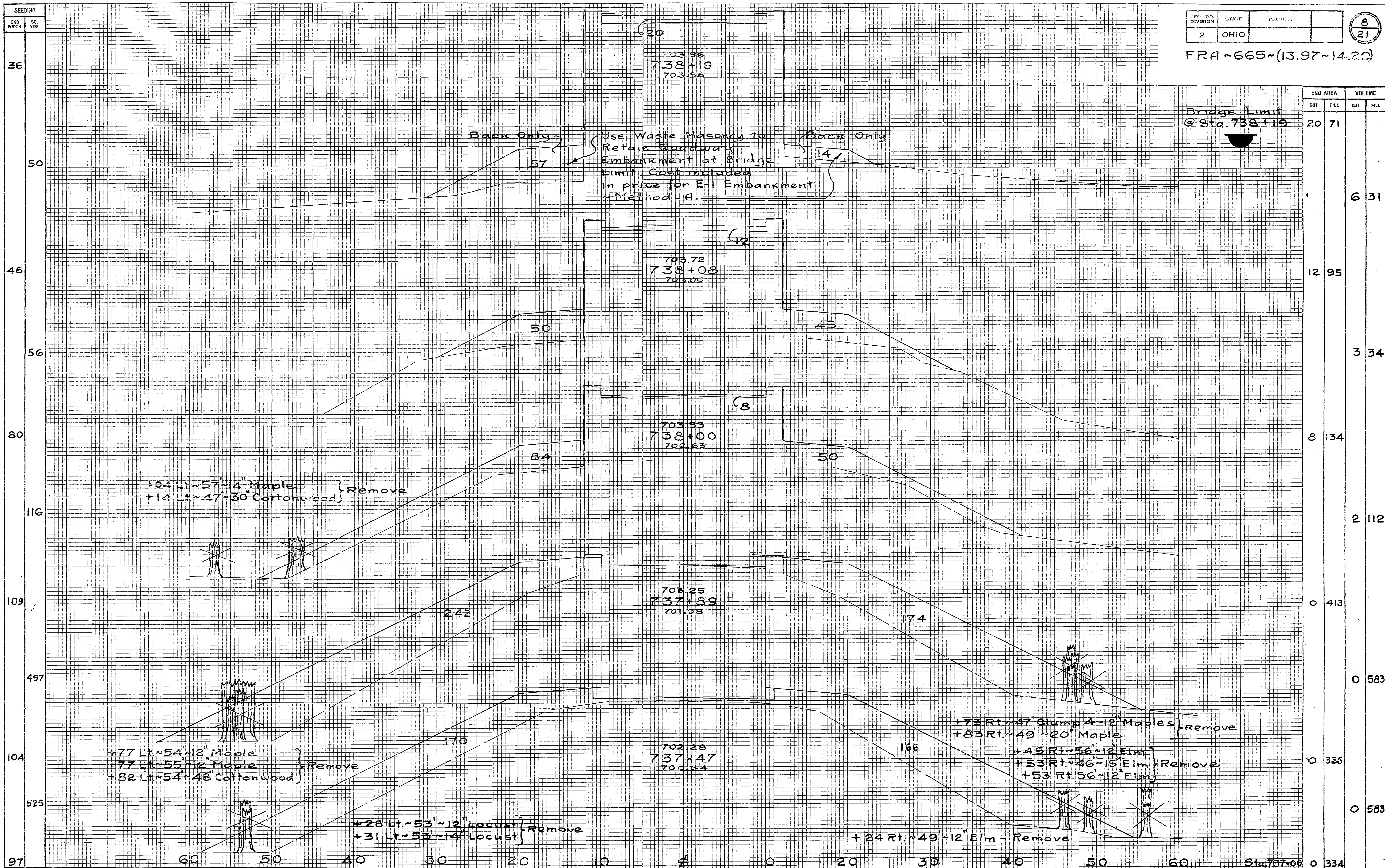
2530 070 734+50 70 737+00 X-SEC 1959 0070 070

STA. 734+50 TO 737+00

| | | | |
|----------------------|-------|---------|--|
| FED. RD. DIVISION | STATE | PROJECT | |
| 2 | OHIO | | |



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| | | | | | | | | | | | | | | | |
|------|-----|--------|----|--------|--|--|--|--|--|--|--|-------|------|------|-----|
| 2530 | 010 | 737+47 | To | 738+19 | | | | | | | | X-SEC | 1959 | 0080 | 010 |
|------|-----|--------|----|--------|--|--|--|--|--|--|--|-------|------|------|-----|

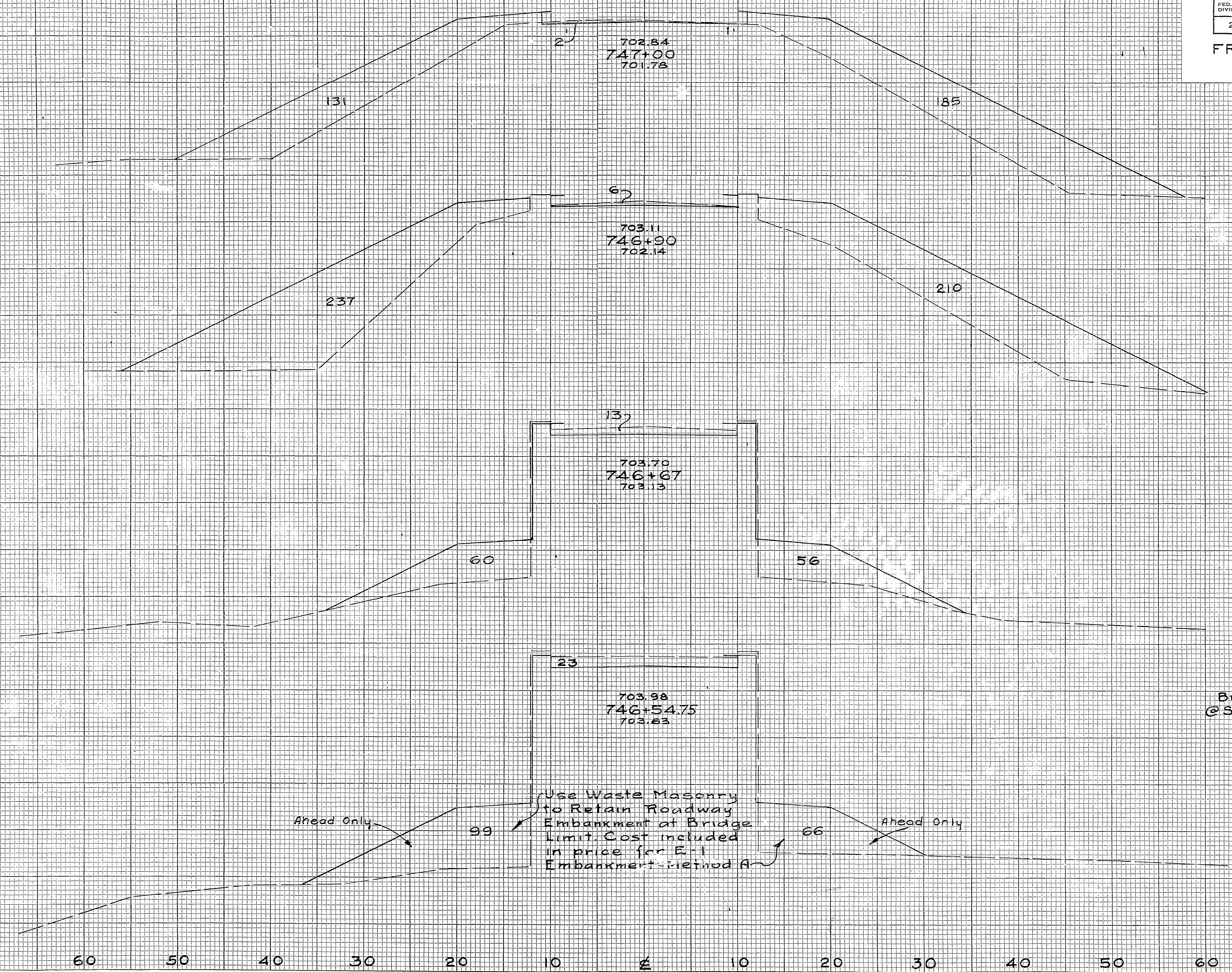
STA. 737+47 TO 738+19

| SEEDING | |
|-----------|----------|
| END WIDTH | SQ. YDS. |
| 99 | |
| 114 | |
| 106 | |
| 202 | |
| 52 | |
| 71 | |
| 50 | |

| | | | |
|-------------------|-------|---------|--|
| FED. RD. DIVISION | STATE | PROJECT | |
| 2 | OHIO | | |

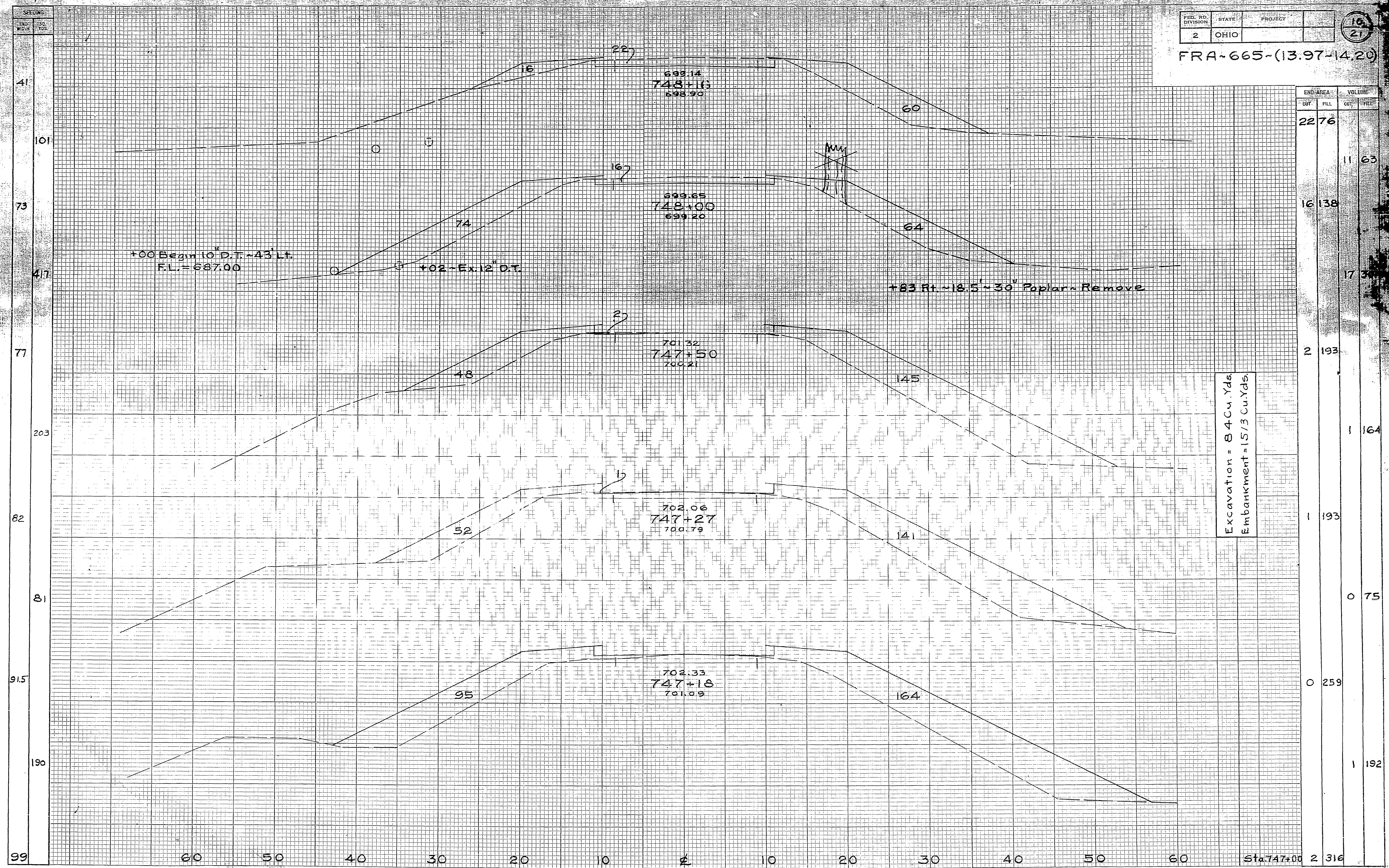
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| END AREA | | VOLUME | |
|----------|------|--------|------|
| CUT | FILL | CUT | FILL |
| 2 | 316 | | |
| | | 2 | 141 |
| 6 | 447 | | |
| | | 8 | 240 |
| 13 | 116 | | |
| | | 8 | 64 |
| 23 | 165 | | |

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| END AREA | VOLUME | |
|------------|--------|-------|
| | CUT | FILL |
| 2276 | | 11 63 |
| 16138 | | 17 3 |
| 2193 | | 1 164 |
| 1193 | | 0 75 |
| 0259 | | 1 192 |
| Sta 747+00 | 2 316 | |

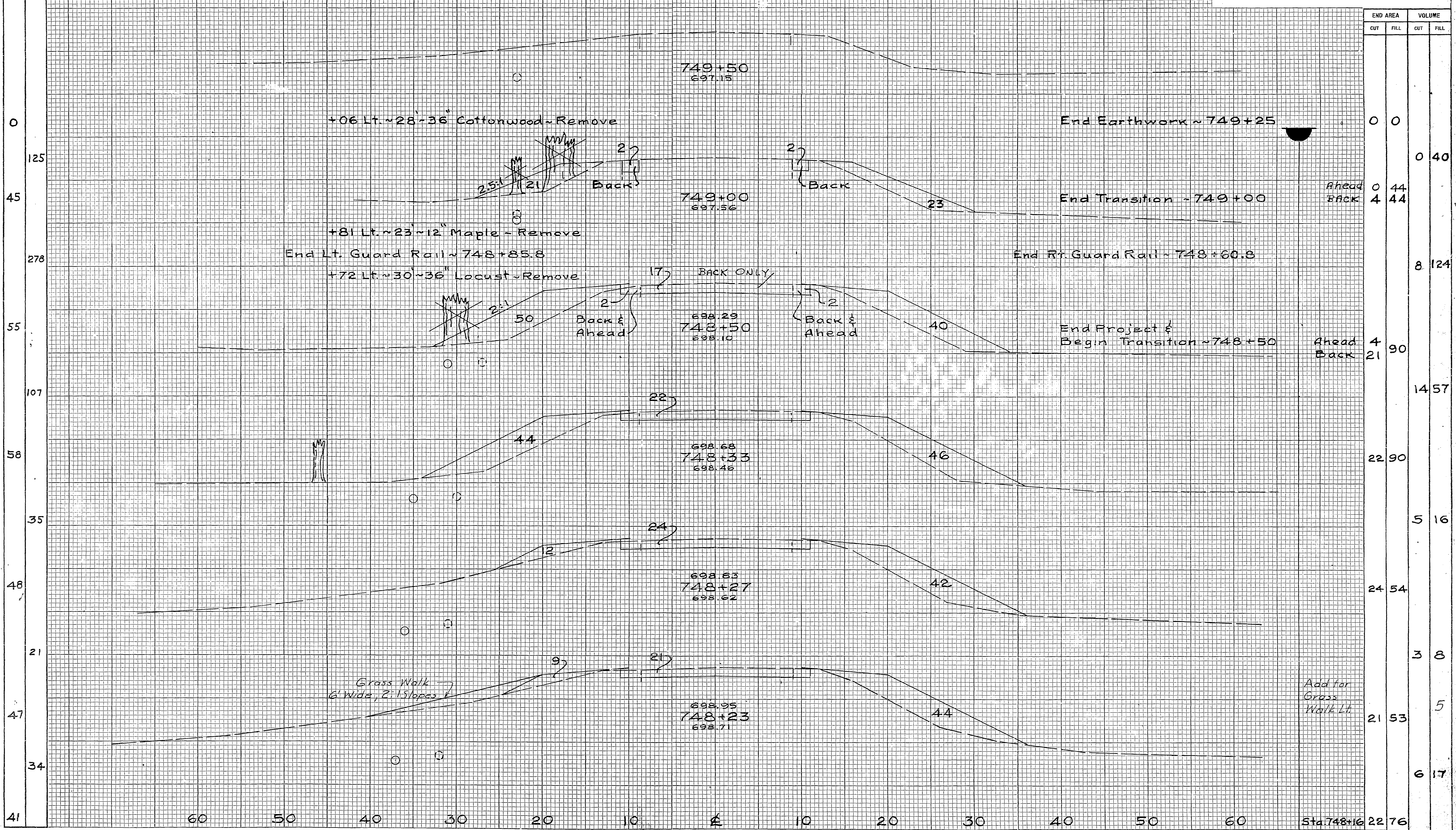
STA. 747+18 TO 748+16

SEEDING
END WIDTH
50 YDS.

| FED. RD. DIVISION | STATE | PROJECT | |
|-------------------|-------|---------|--|
| 2 | OHIO | | |

11
21

FRA-665-(13.97-14.20)

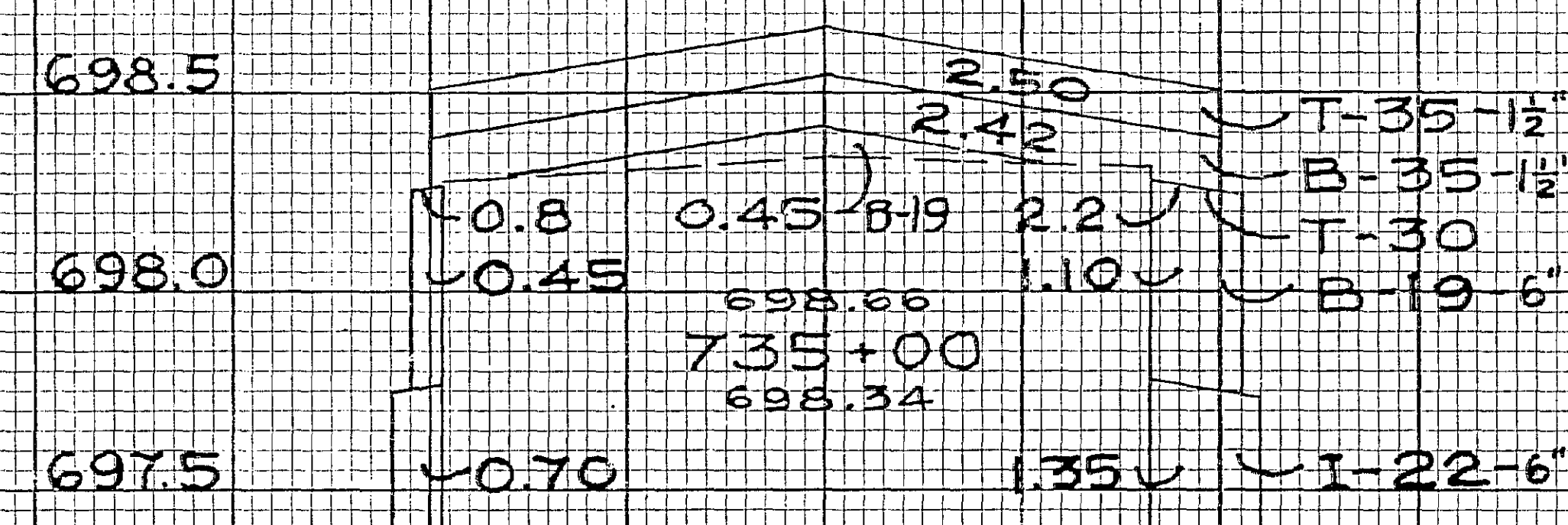
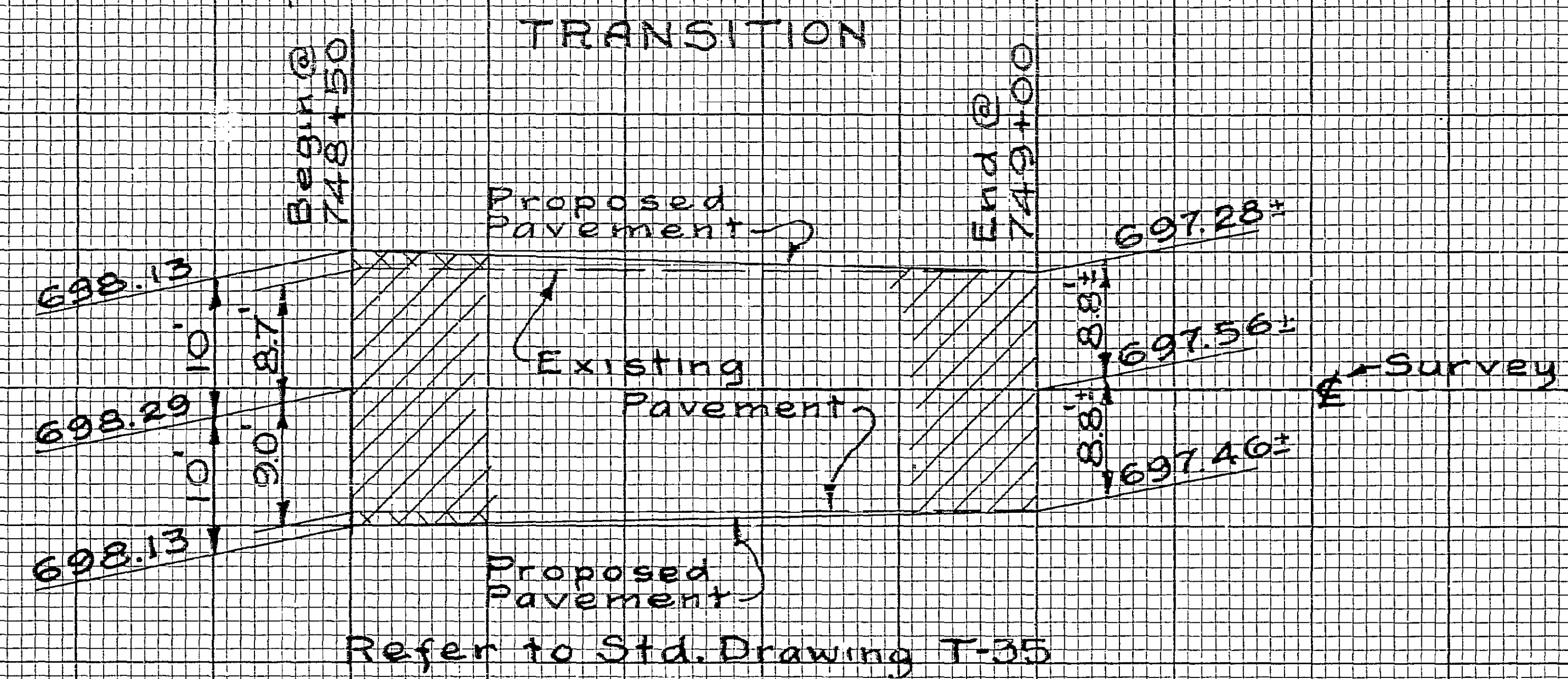
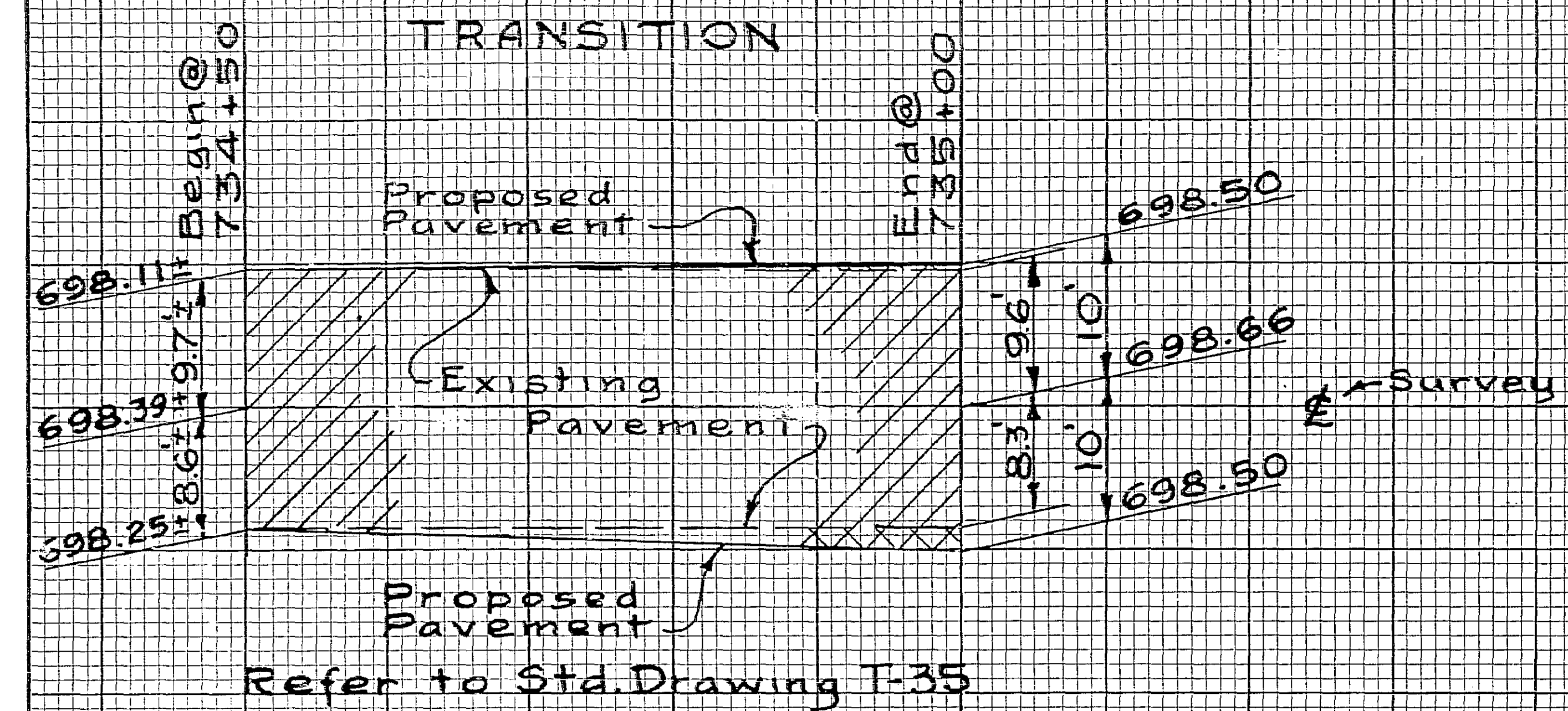


2530 010 748+23 TO 749+50 X-SEE 1959 0110 010

STA. 748+23 TO 749+50

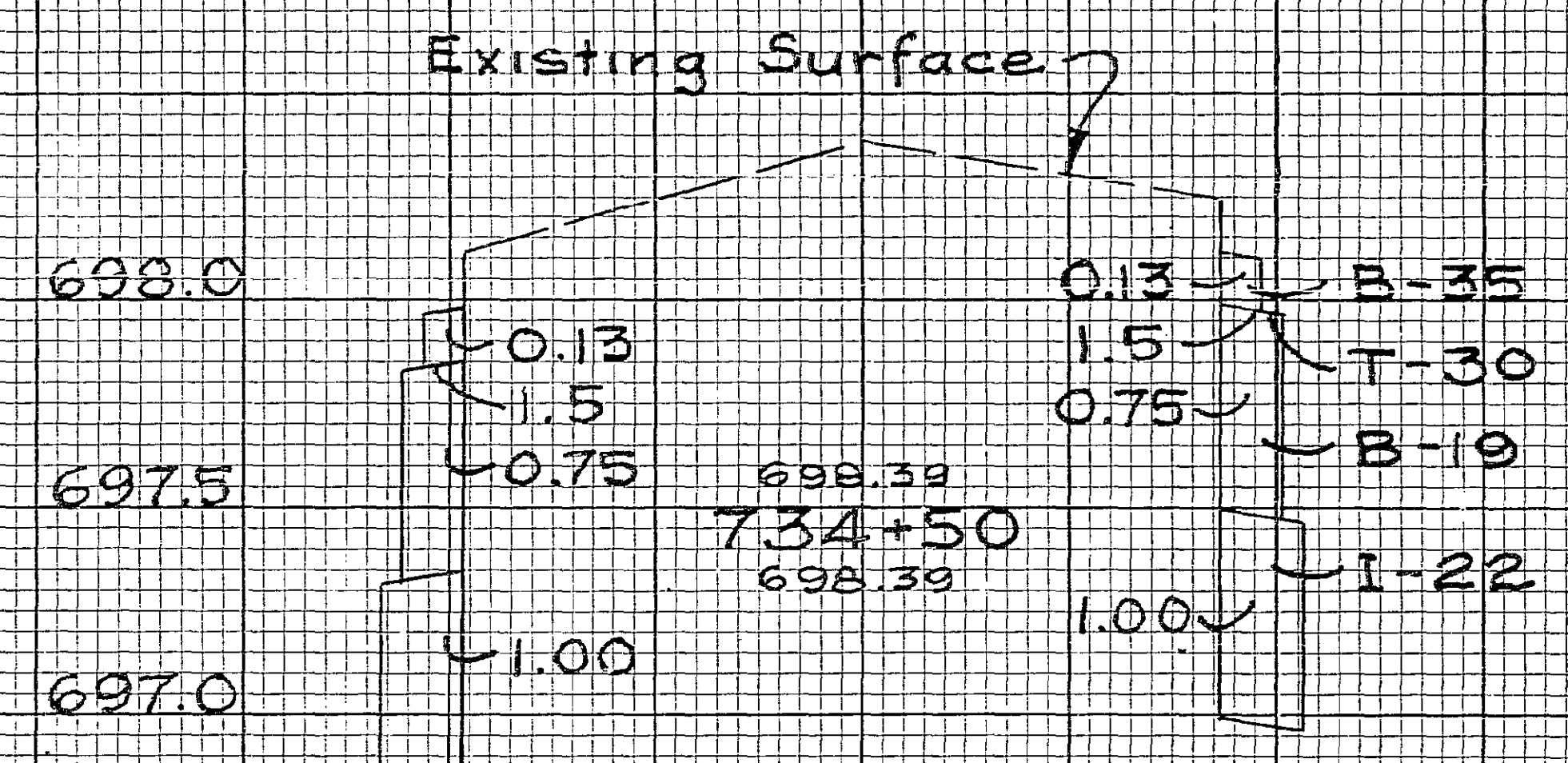
SEEDING
END WIDTH SQ. YDS.

FRA-665-(13.97-14.20)

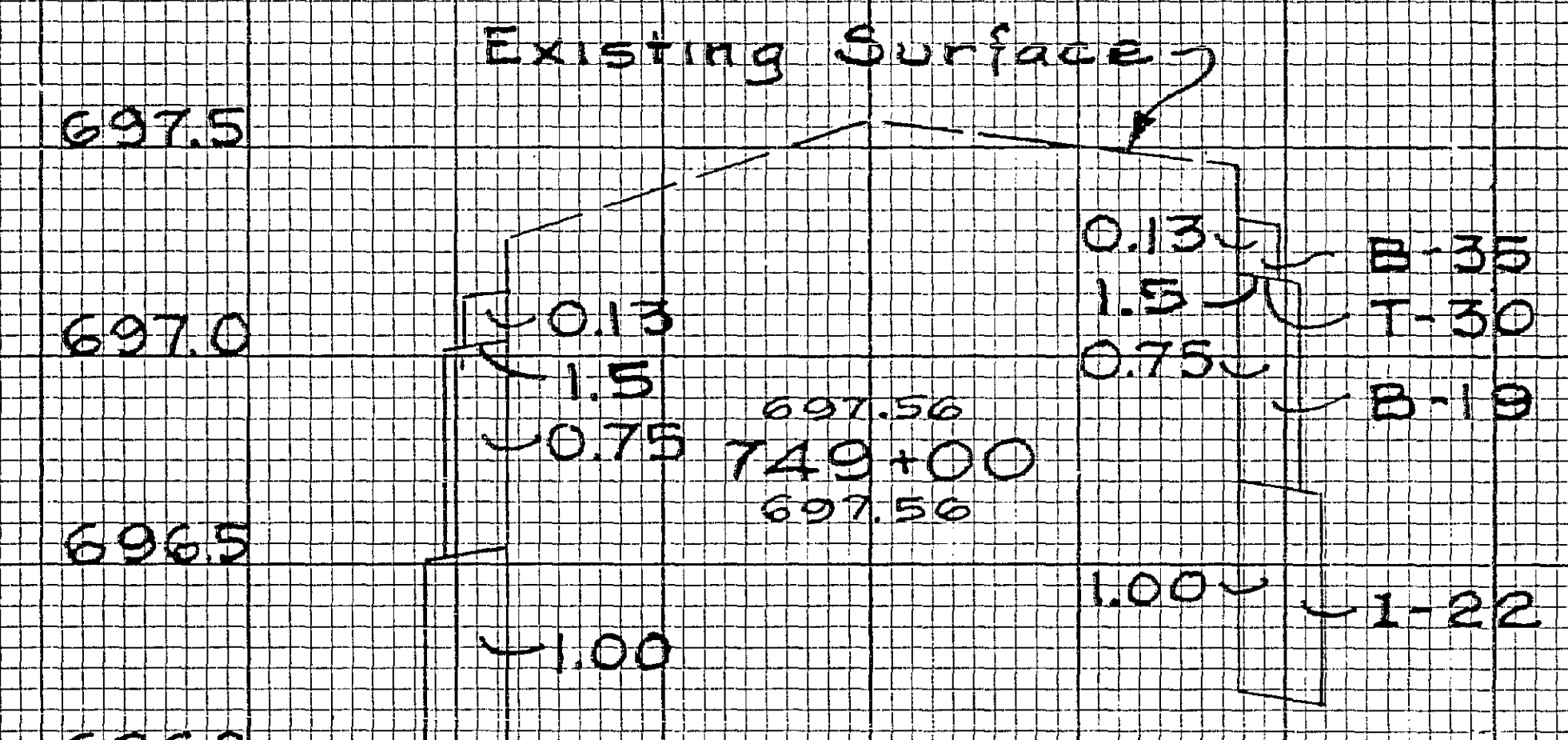


QUANTITIES

| | T-35 | B-35 | T-30 | B-19 | I-22 |
|--------|------|------|------|------|------|
| 735+00 | 2.50 | 2.42 | 3.00 | 2.00 | 2.05 |
| 734+50 | 0.00 | 0.26 | 3.00 | 1.50 | 2.00 |
| TOTALS | 2.3 | 2.5 | 16.7 | 3.2 | 3.8 |

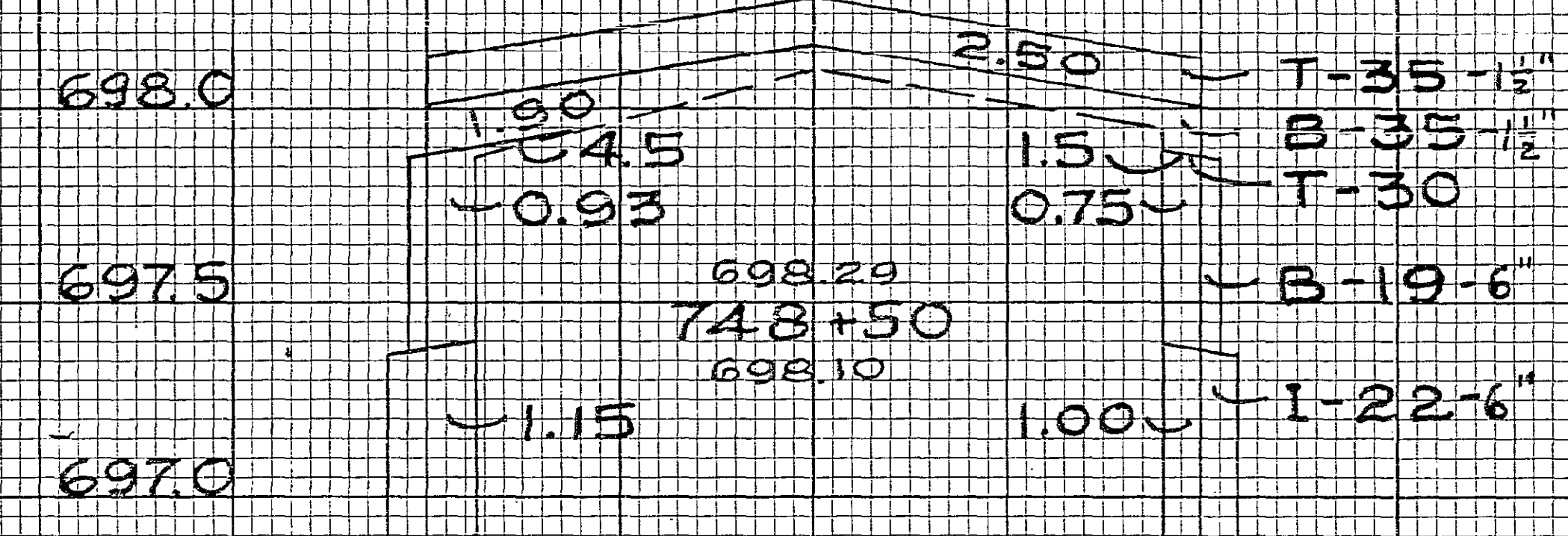


$T-30 = 16.7 \times 0.35 = 5.85 \text{ Gals.}$



QUANTITIES

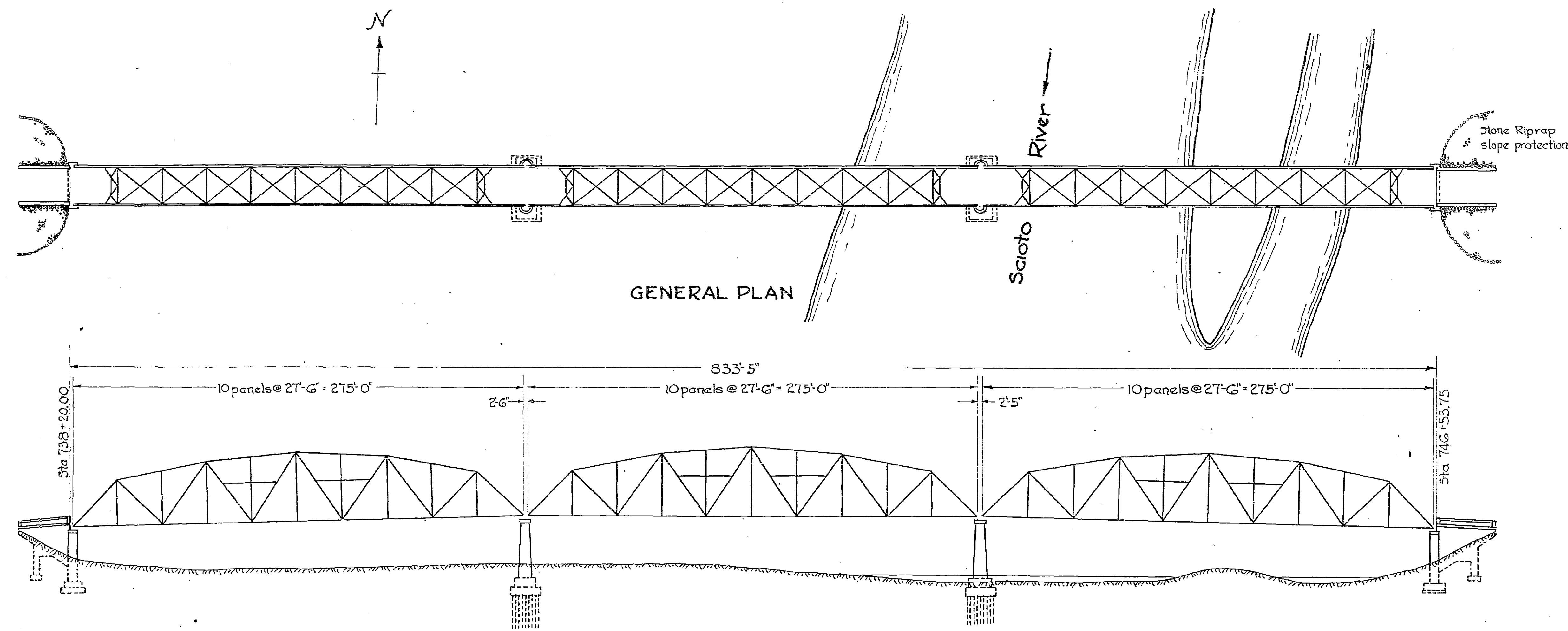
| | T-35 | B-35 | T-30 | B-19 | I-22 |
|--------|------|------|------|------|------|
| 749+00 | 0.00 | 0.26 | 3.00 | 1.50 | 2.00 |
| 748+50 | 2.50 | 1.30 | 6.00 | 1.68 | 2.15 |
| TOTALS | 2.3 | 2.0 | 25.0 | 2.9 | 3.8 |



$T-30 = 25.0 \times 0.35 = 8.75 \text{ Gals.}$

Quantities Carried To Sheet No. 3.

| ESTIMATED QUANTITIES | | | | | | |
|----------------------|---------|---------|---|---------|--------|-------|
| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER. | ABUTS. | PIERS |
| E-2 | 156 | Co.Yds. | Excavation for structure, as per plan | | 156 | |
| S-1 | 264 | Co.Yds. | Class "E" concrete, abutments and piers repair | | 217 | 47 |
| S-3 | 940 | Sq.Yds. | Waterproofing, Type "A" | | 829 | 111 |
| S-4 | 21568 | lbs. | Reinforcing steel | | 19122 | 2446 |
| S-4 Special | 387 | Sq.Ft. | Reinforcing steel, 3"x3", 10 gage, welded wire mesh | | | 387 |
| S-7 | Lump | Sum | Lifting and supporting existing trusses. | Lump | | |
| S-7 | 174,000 | lbs. | Structural steel (new) | 172,034 | 1966 | |
| S-8 | 174,000 | lbs. | Field painting new structural steel | 172,034 | 1966 | |
| S-8 | Lump | Sum | Spot cleaning and painting of existing structural steel | Lump | | |
| S-14 | 4840 | Lin.Ft. | Railing, Type I-15.13, as per plan | 4687 | 153 | |
| S-22 | Lump | Sum | Removal of portions of existing superstructure | Lump | | |
| S-22 | 319 | Co.Yds. | Removal of portions of existing piers and abutments | | 266 | 53 |
| S-23 | 319 | Each | Dowel holes | | 21 | 248 |
| T-30 | 185 | Gal. | Bituminous tack coat, Sec. M-5.5, MS-2 or RS-1 or Sec. M-5.2, RC-1, RC-2, or RC-3 as per Sec. T-30.02 | 185 | | |
| T-35 | 74 | Co.Yds. | Asphaltic concrete surface course, Type "C" (85-100) | 74 | | |
| B-35 | 62 | Co.Yds. | Asphaltic concrete leveling course, (85-100), as per plan. | 62 | | |
| Special | 16,634 | Sq.Ft. | Corrugated sheet steel bridge flooring | 16,634 | | |
| E-2 | Lump | Sum | Cofferdams, Crips, and Sheet piling | | | |



ESTIMATED EXISTING WEIGHT (15Span)

| | |
|-------------------------|----------------|
| Steel Trusses | 302,774 lbs. |
| Floor beams & Joist | 118,000 lbs. |
| Total Steel | 420,774 lbs. |
| Floor & Wearing surface | 597,665 lbs. |
| Total Weight | 1,018,439 lbs. |

GENERAL ELEVATION

EXISTING STRUCTURE DATA

Type: High Steel Truss
Length: 833'-5"
Width: 23'-10" x 20'-0" clear
Floor: 7" Reinforced Concrete
Wearing Surface: 1" Bituminous
Loading: S-8, 16-46
Condition: Good to Poor

GENERAL NOTES

PROPOSED WORK-

Substructure - Replace areas of disintegrated concrete as shown with Class "E" reinforced concrete and waterproof new concrete with Type "A" waterproofing.
Superstructure - Remove existing floor and wearing surface. Replace existing roller nests with new. Install new transverse sub-joists and place corrugated steel floor. Place asphaltic concrete wearing surface. Replace existing steel rail with new steel beam railing. Revise portals. Paint new steel and spot clean and paint existing steel.

ASPHALT CONCRETE WEARING SURFACE-

The asphaltic concrete wearing surface shall consist of an application of 0.1 gallon per square yard of T-30, Bituminous tack coat, sufficient B-35, Asphaltic concrete leveling course, to fill the corrugations of the steel floor and extend 1/4" above the tops after compaction, and a surface course of T-35, Asphaltic concrete surface course. The leveling course, after initial rolling, shall be further densified by running a loaded truck, equipped with pneumatic tires, over the floor enough times to contact every part of the surface of the leveling course.
Item T-35, Asphaltic concrete surface course, Type "C", may be used in place of Item B-35, Asphaltic concrete leveling course at the Contractor's option. Payment however, will be at the unit price bid for Item B-35, Asphaltic concrete leveling course.

LIFTING AND SUPPORTING TRUSSES-

Approval of the Contractor's plan for lifting and supporting trusses while repairs are being made shall be obtained from the Director of Highways before this work is begun. Three blue print copies of said plan shall be submitted at least 15 days prior to truss raising.

LOADING CAPACITY-

The new floor system is based on a frequency rating of CF-30. All truss members are generally of a greater capacity and of sufficient strength to permit the use of this bridge by vehicles of a maximum legal weight without posting for reduction of loads.

VERIFICATION-

The Contractor shall verify all dimensions and conditions at the site.

WELDING-

All welding shall be Class "A".

S-4, SPECIAL, REINFORCING, 3"x3" 10 gage, Welded Wire Mesh-

This item shall consist of furnishing and placing welded wire mesh of the type, size and quantity designated in S-4, Class "E" concrete, as required by Item S-4 of the Specifications and as shown on the plans.
The number of square feet to be paid for shall be the actual number of square feet incorporated in the concrete as shown on the plans, or as directed by the Engineer.
The number of square feet determined as above provided, shall be paid for at the contract unit price per square foot bid for "Item S-4, Special, Reinforcing steel", which price and payment shall constitute full compensation for furnishing preparing and placing all materials, and all necessary labor, tools and equipment.

PAINTING-

New structural steel - both shop and field coats shall be applied by brushing. Spray application will not be permitted.
Existing structural steel - The areas of the existing steel where the paint is damaged by the contractors operations, and the tops of the existing floor beams and stringers shall be thoroughly spot cleaned in accordance with Item S-8, and one spot coat of prime paint applied by brushing, and one spot coat of field paint applied by brushing. Spray application will not be permitted.

STONE RIP-RAP-

Removal of the stone rip-rap slope protection along the abutments required to facilitate the replacement of portions of the abutments shall be included with structure excavation. The stone shall be carefully removed and replaced when the work on the abutments is completed. Payment for the removal and replacement of the rip-rap shall be considered as part of Item E-2 Structure excavation for payment.

S-3, WATERPROOFING-

This item shall consist of covering all surfaces of new concrete placed with Type "A" waterproofing. This shall include the face, top, and back of abutments, the pier caps and other areas of concrete replaced by this contract.

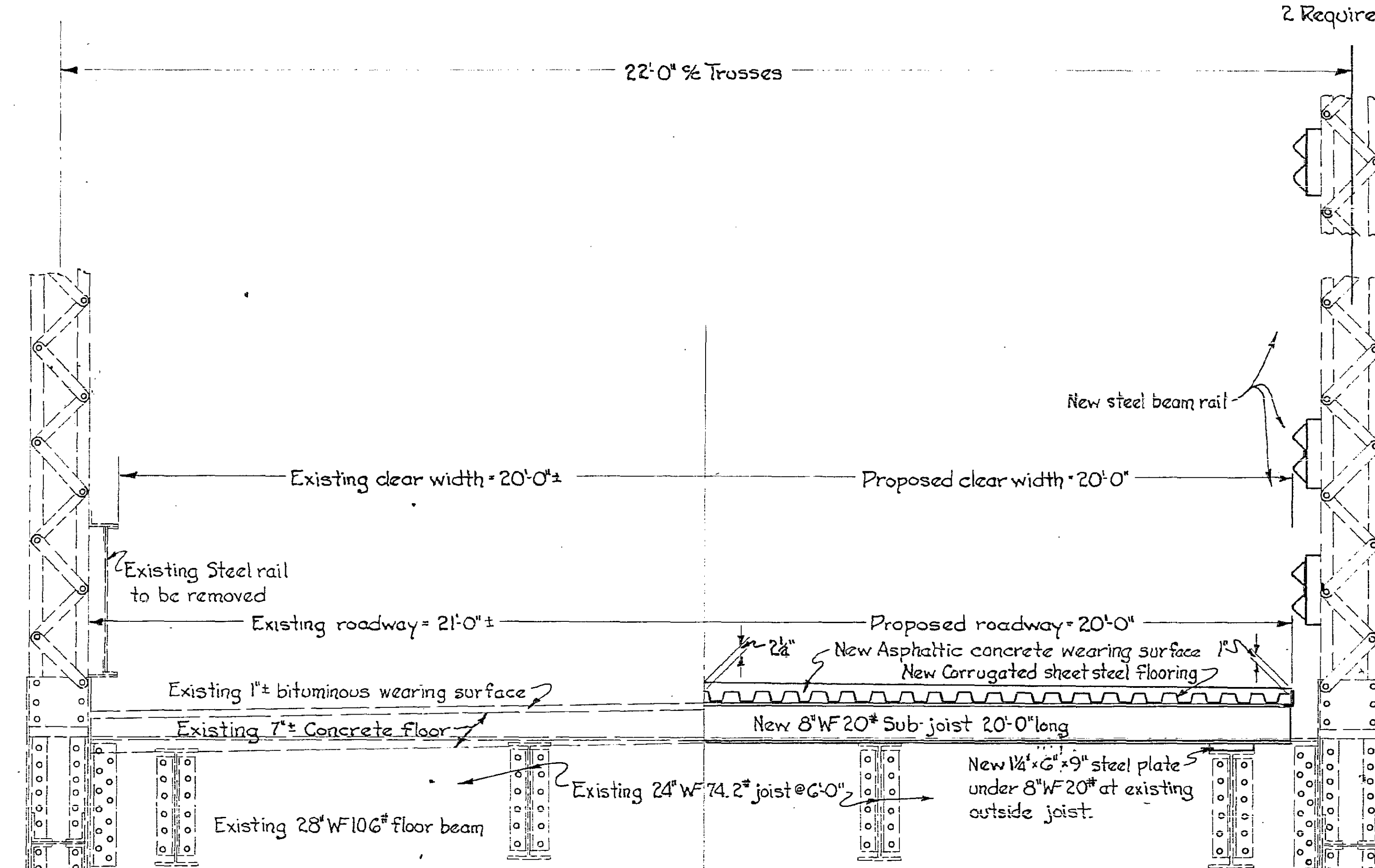
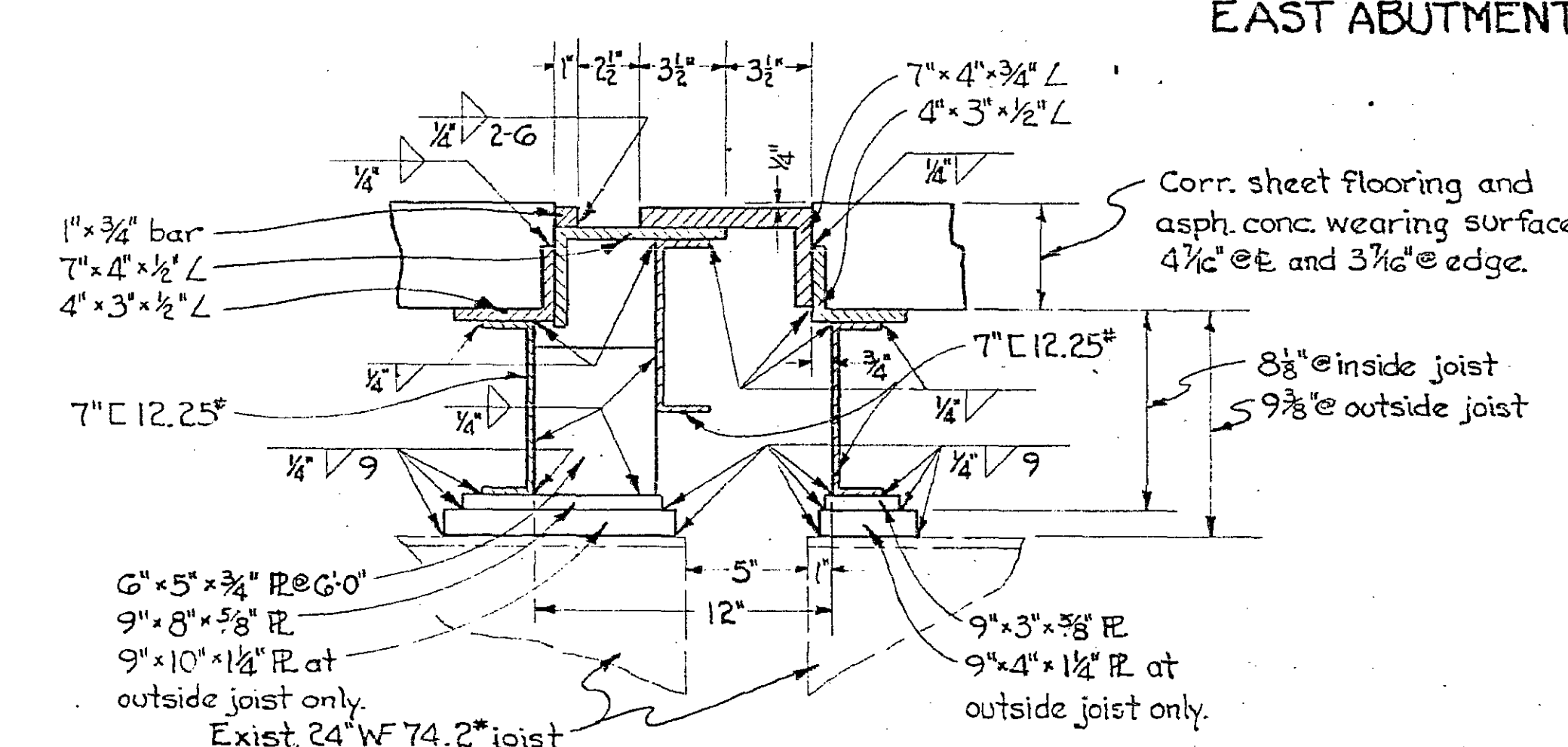
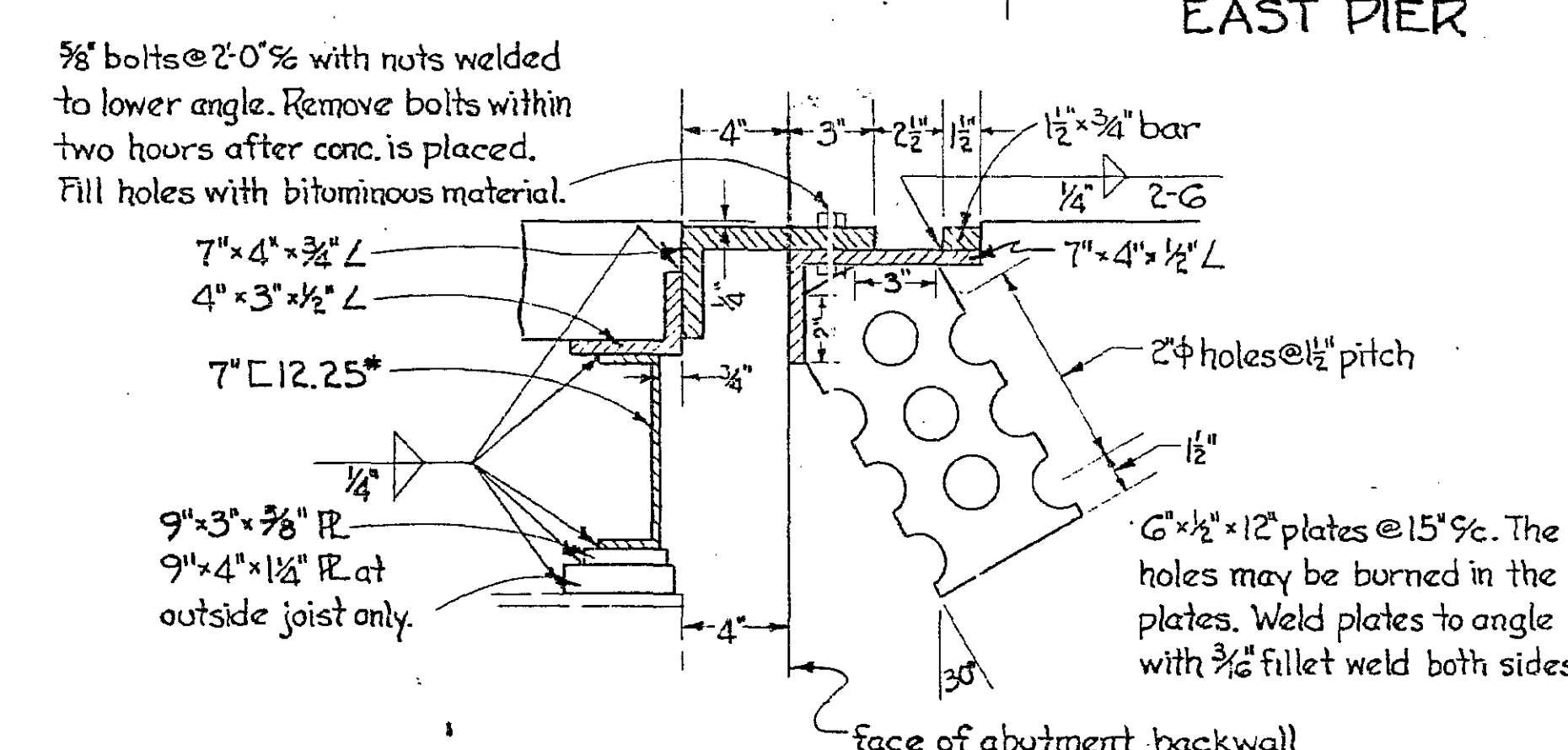
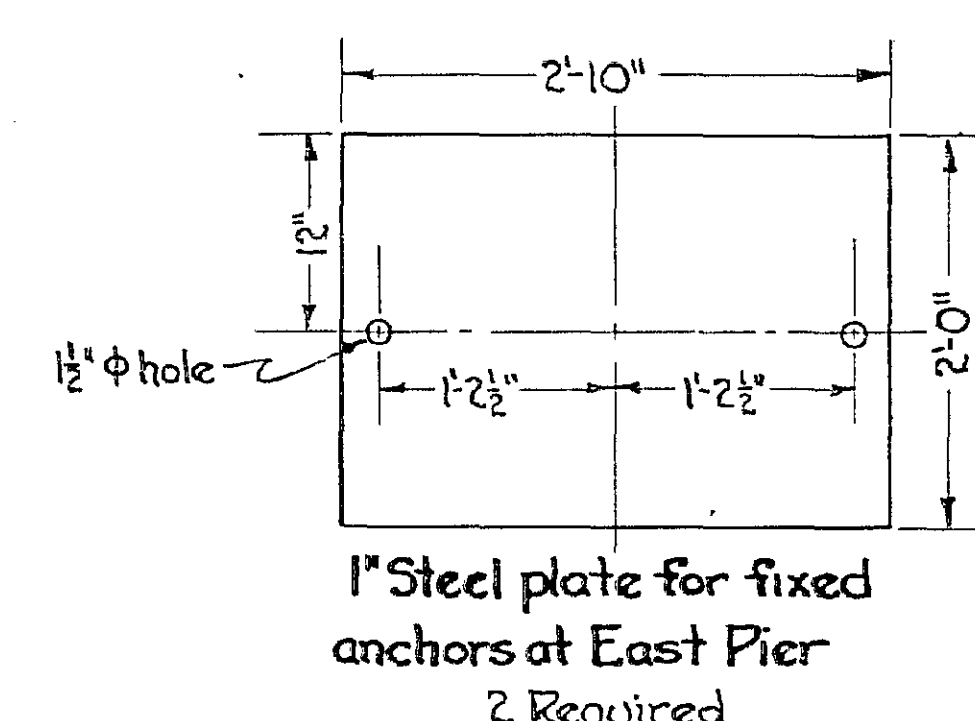
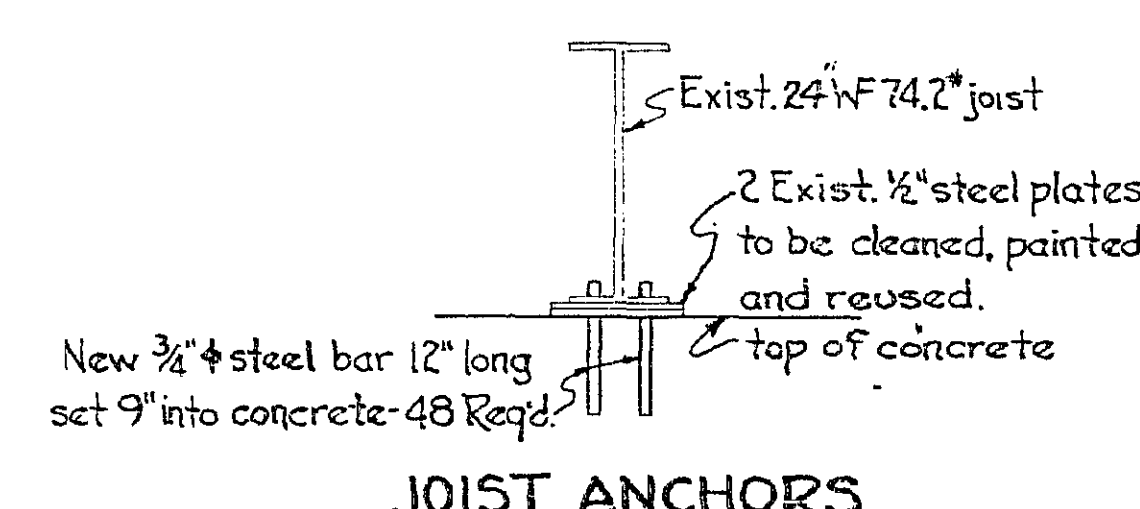
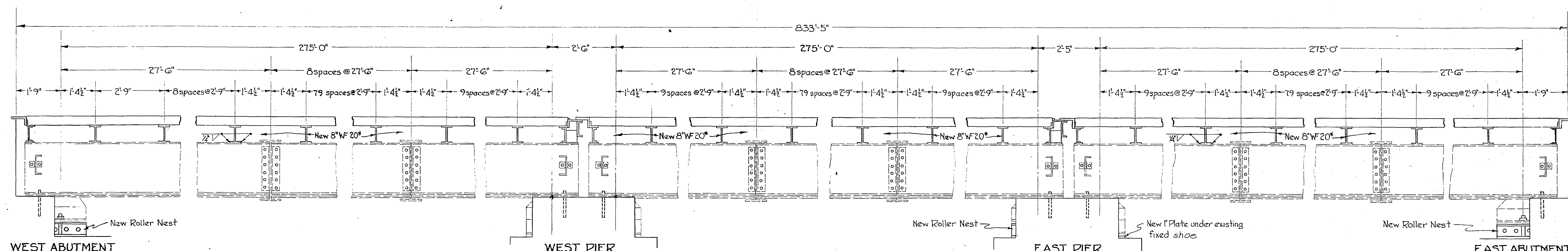
REMOVAL OF PORTIONS OF EXISTING SUPERSTRUCTURE-

All removed materials shall become the property of the Contractor and removed from the site. Included in this item shall be the removal of the existing reinforced concrete floor and bituminous wearing surface, existing roller nest, existing steel railing and portions of the existing portals.

REMOVAL OF PORTIONS OF EXISTING PIERS AND ABUTMENTS-

The removed masonry materials may be used as bank protection as directed by the Engineer. This item shall include the removal of the piers and abutments to the lines indicated on the plans or as directed by the Engineer.

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|--|-------|---------|----------|------|---------|
| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | | |
| GENERAL PLAN & ELEVATION GENERAL NOTES ESTIMATED QUANTITIES HAM-924-14.03 London Groveport Rd. FRA-GG5-1403 over Scioto River FRANKLIN COUNTY | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| WMC | WMC | | | | |

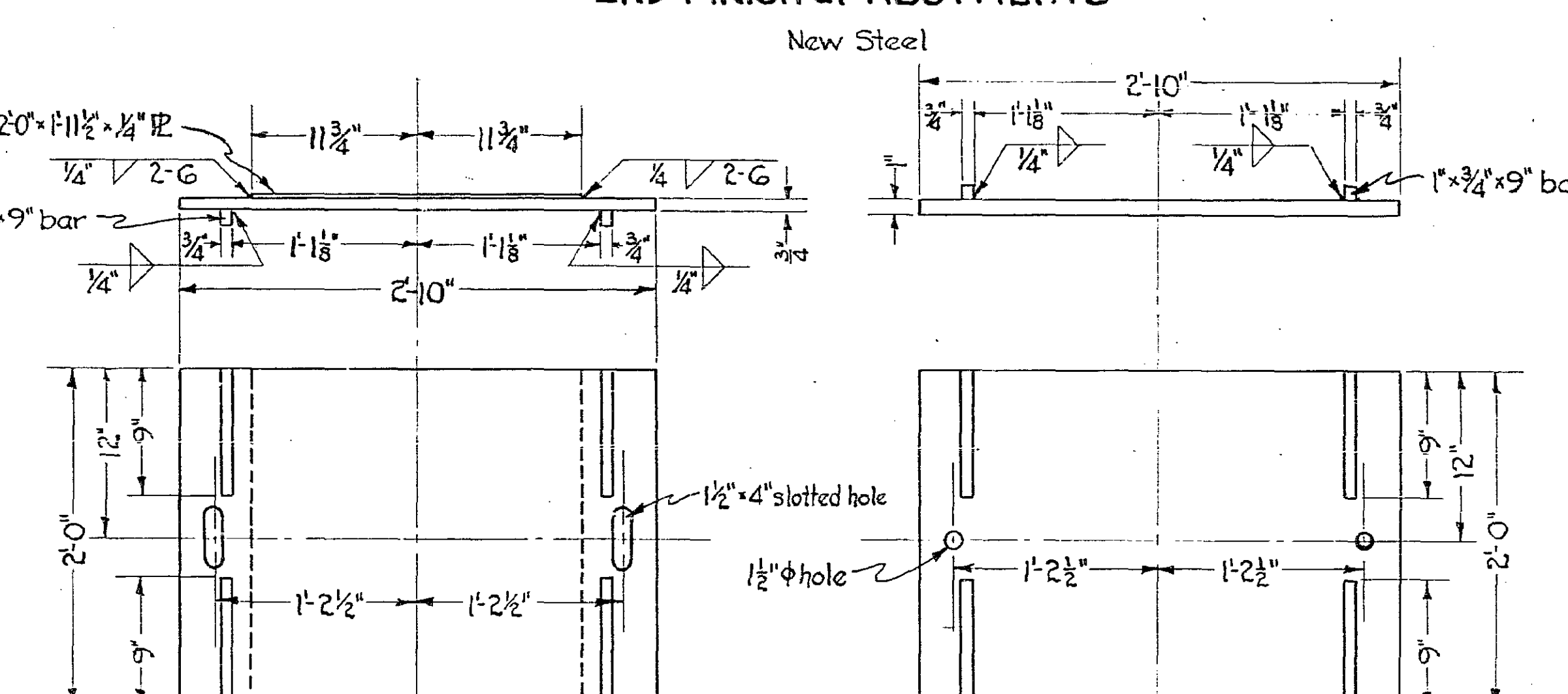


EXISTING HALF-SECTION

PROPOSED HALF-SECTION

TRANSVERSE SECTION

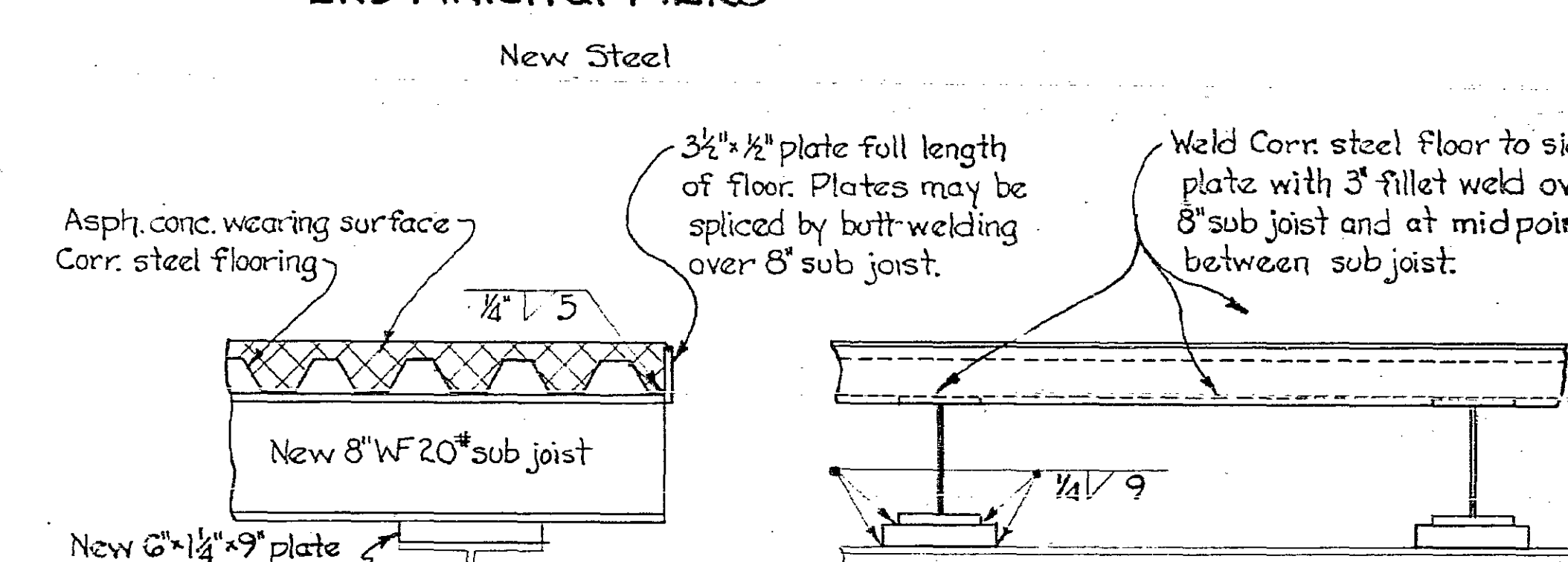
END FINISH at ABUTMENTS



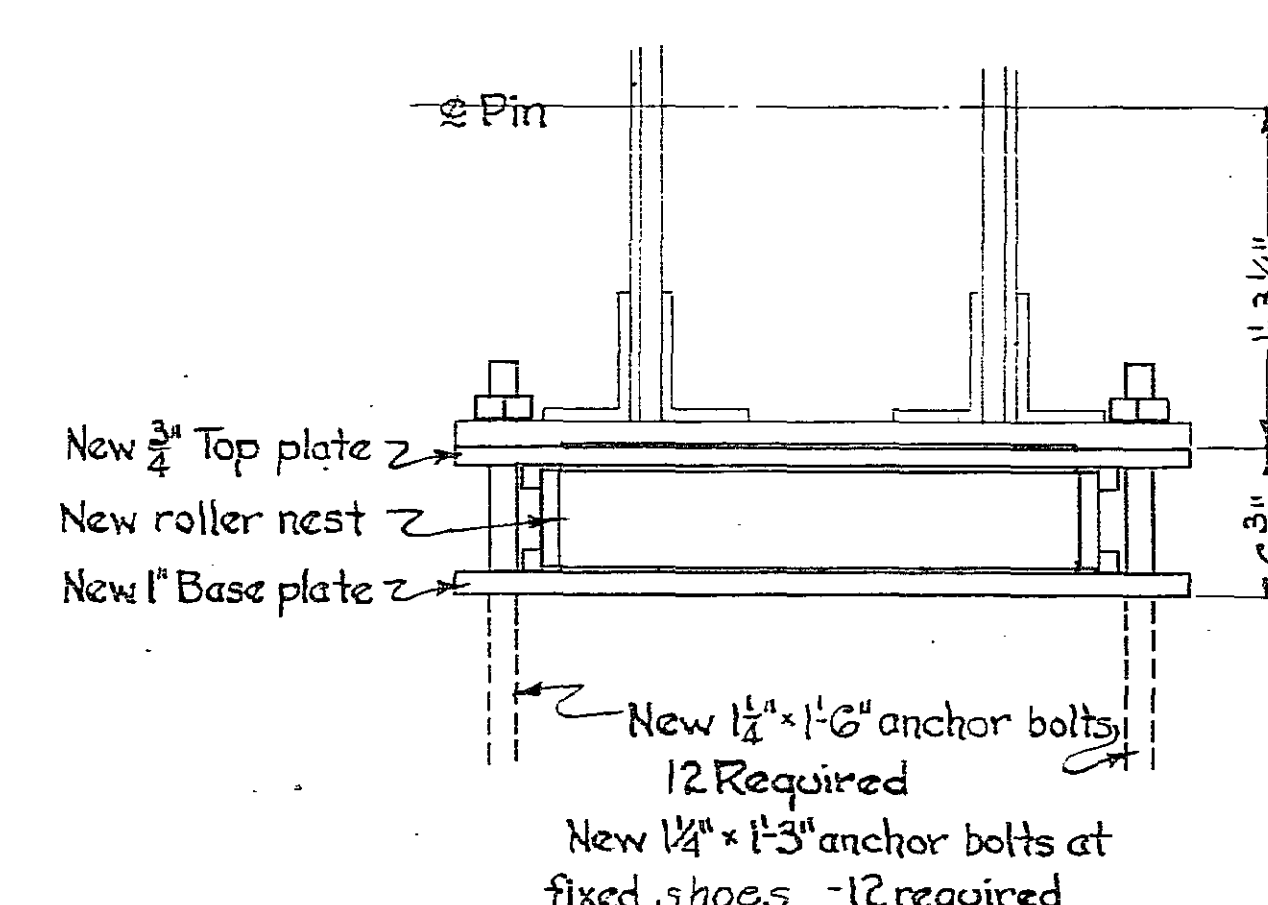
TOP PLATE

BASE PLATE

END FINISH at PIERS

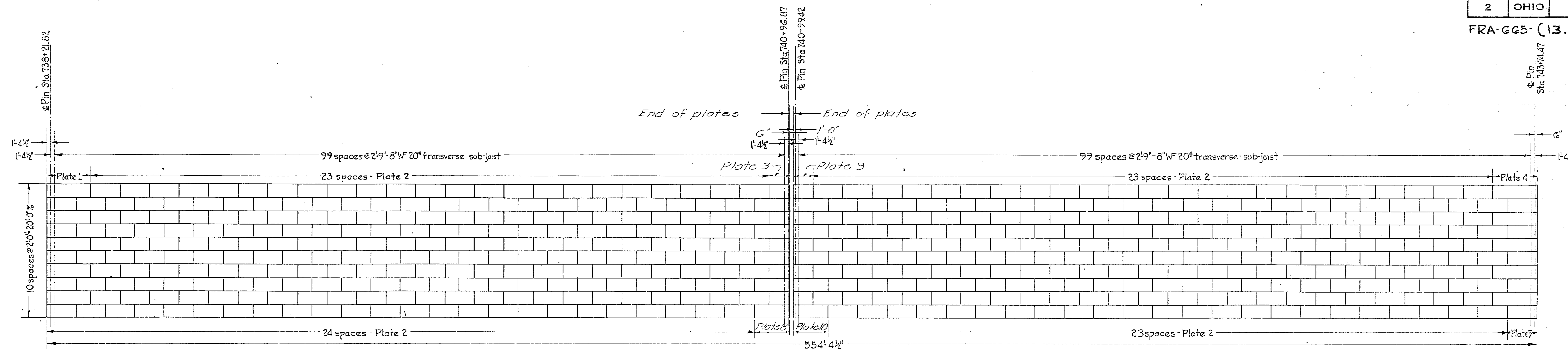


STEEL FLOOR SIDE PLATE



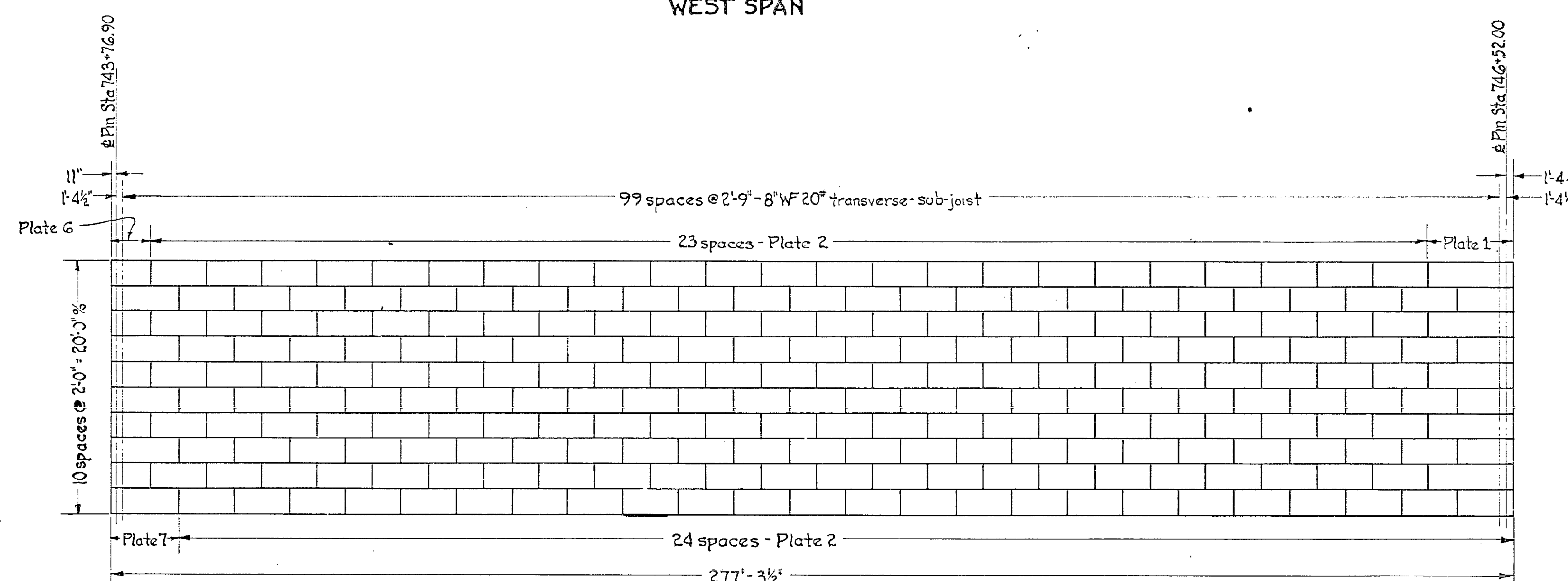
ROLLER NEST
6 Required

| | | | | |
|---|-------|---------|----------|------|
| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | |
| SUPERSTRUCTURE DETAILS | | | | |
| FRA-GG5-1403 over Scioto River FRANKLIN COUNTY | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE |
| WMC | WMC | | | |



WEST SPAN

CENTER SPAN



EAST SPAN

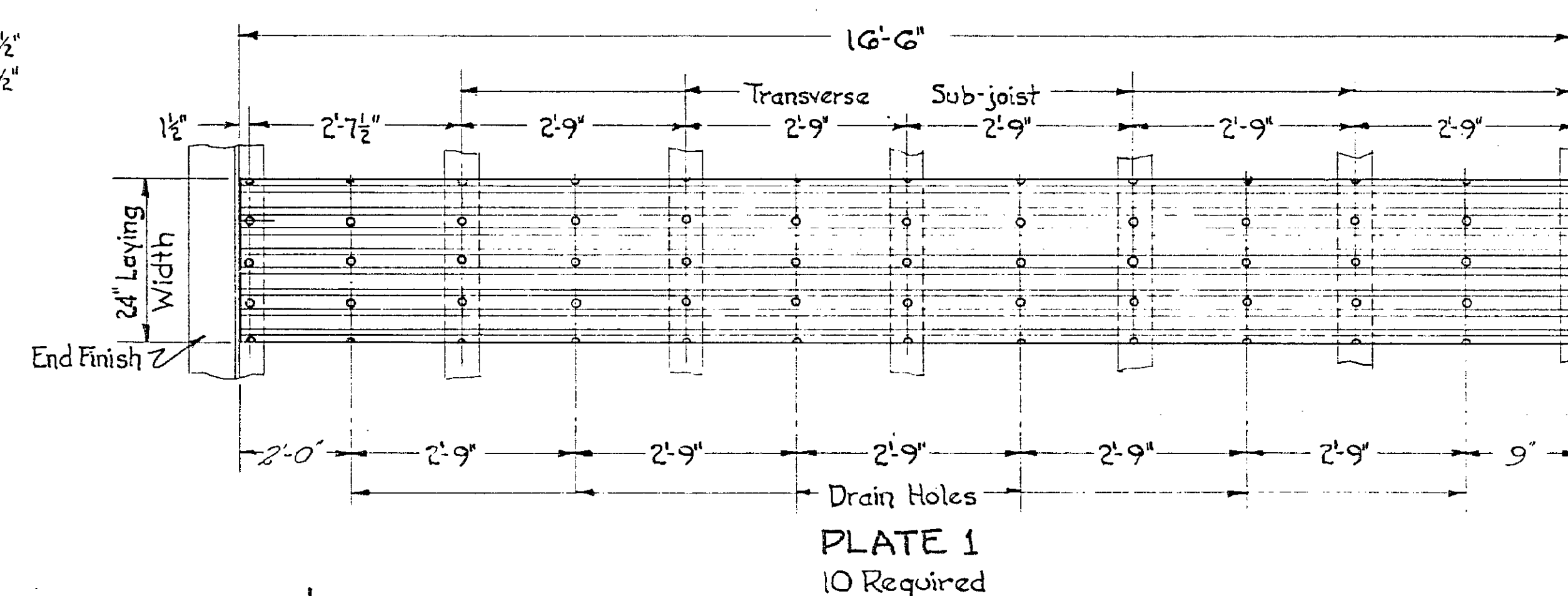


PLATE 1
10 Required

CORRUGATED SHEET STEEL BRIDGE FLOORING—

The flooring shall be of the type manufactured by "Armco Drainage and Metal Products, Inc." "The United Steel Fabricators, Inc." or an approved equivalent.

The materials shall be open-hearth or electric furnace steel sheets with a minimum thickness of 7 gage, subject to the standard mill tolerance. The carbon content shall not exceed 0.3%.

The sheets shall be fabricated into plates of the size and dimensions shown. Plate may be fabricated from two sheets butt welded end to end with a continuous shop butt weld both sides. Corrugations shall be not less than 2" deep spaced not more than 8" center to center and have a minimum section modulus of 0.162 inches cubed per inch. Oval holes approximately 3/4" x 1 1/4" shall be provided in every corrugation valley for welding to the transverse sub-joist, and in every corrugation valley as shown for drainage.

Plates shall be attached to every transverse sub-joist at every corrugation valley with two 3/8"x1" fillet welds while being held tight against the top of the sub-joist. The plates shall be welded end to end with a continuous field butt weld on the top side only. Where the sides of adjacent plates come together they shall be connected by a 3" bead weld on the upper side midway between each pair of sub-joist.

Painting of the floor plates shall be in accordance with provisions of Item 5-8 of the Specifications. The two aluminum field coats need be applied to the underside only of the plates. One field coat shall be applied to the top of the transverse-sub-joist before erection of the floor plates and included with Item 5-8 for payment.

Payment for the corrugated sheet steel bridge flooring shall be the actual number of square feet of flooring completed in place, painted, and accepted including all necessary material, labor, tools and equipment.

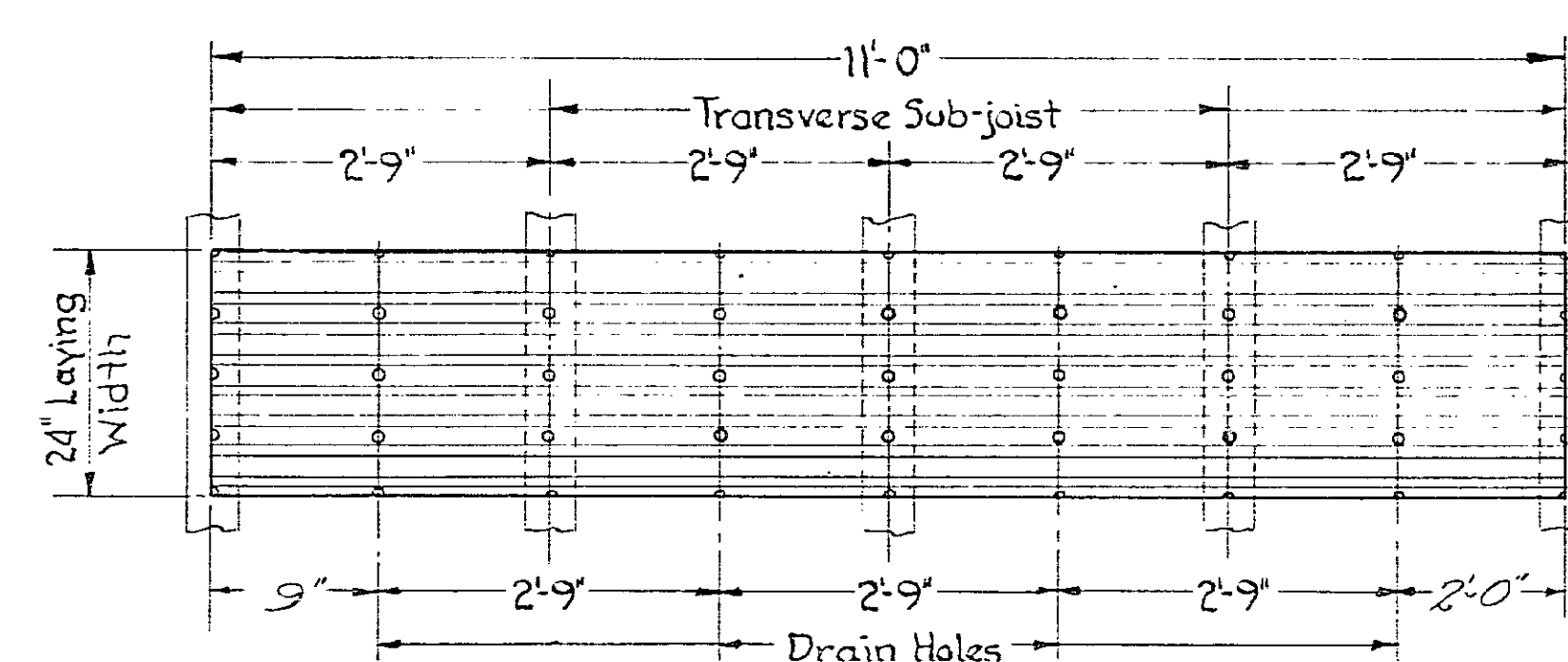


PLATE 2
700 Required

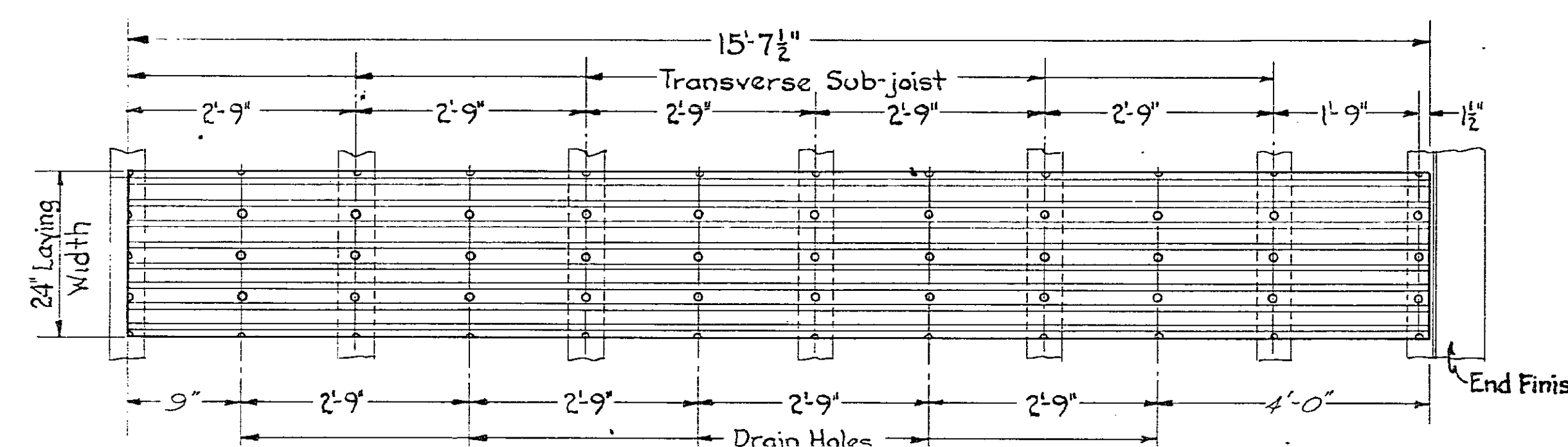


PLATE 4
5 Required

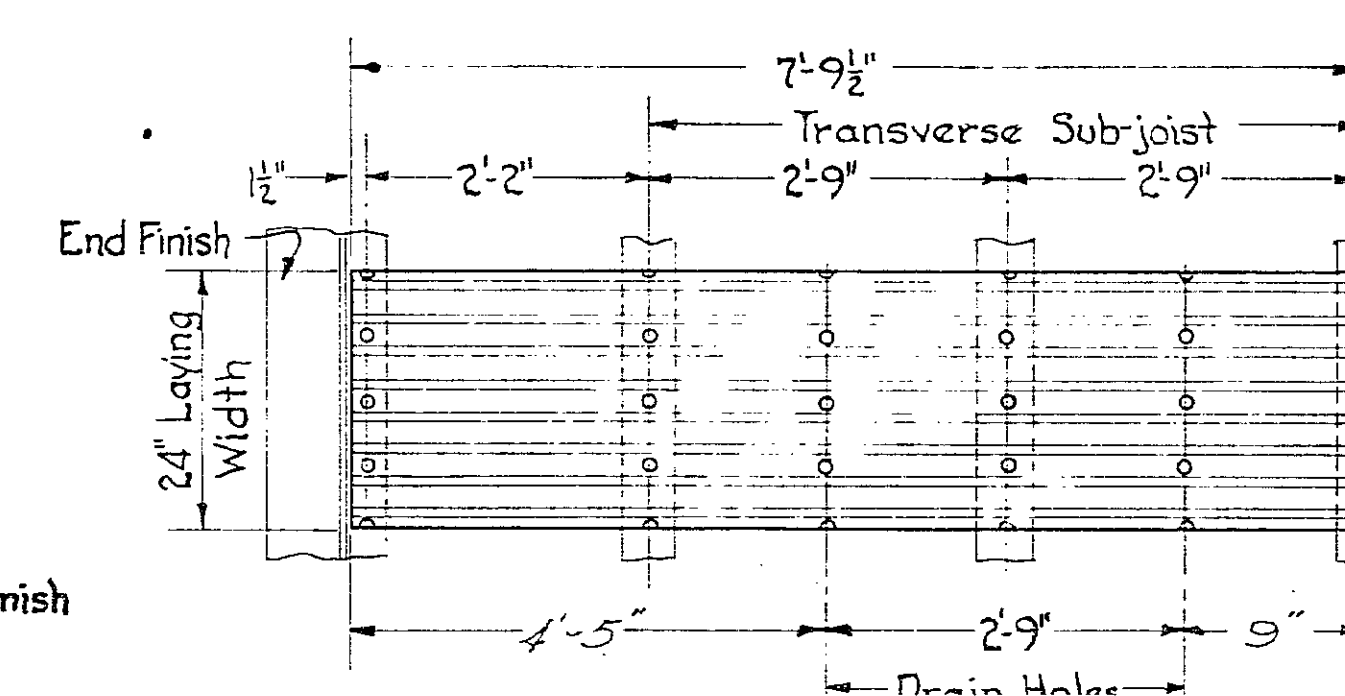


PLATE 6
5 Required

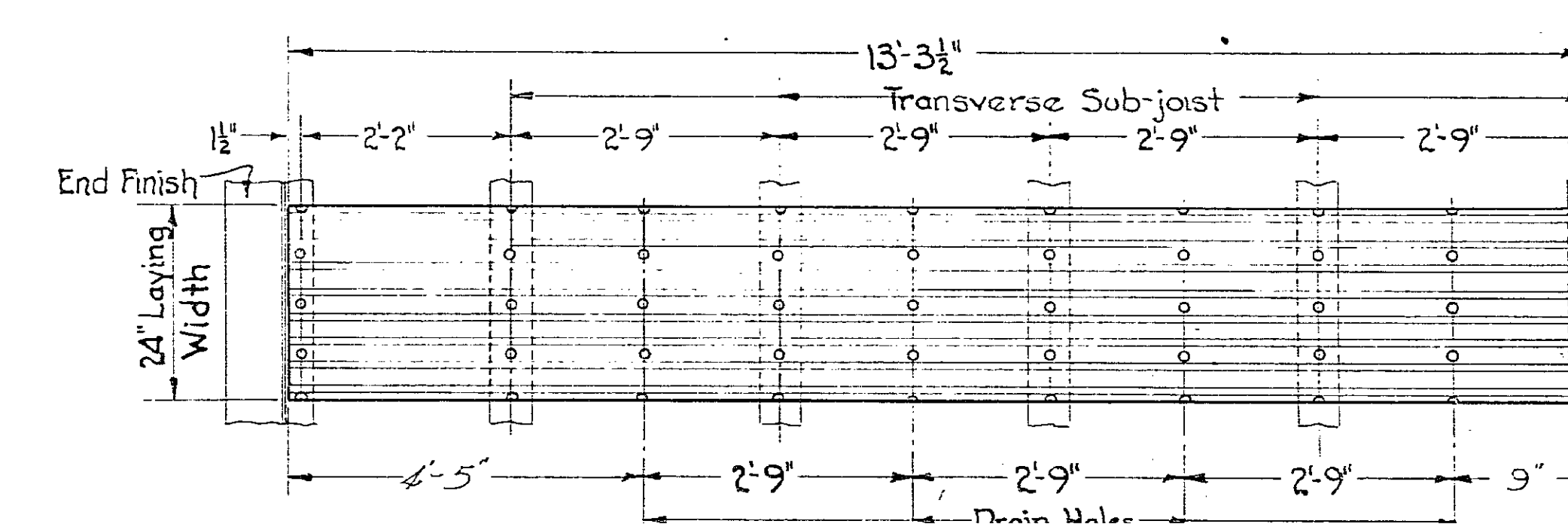


PLATE 7
5 Required

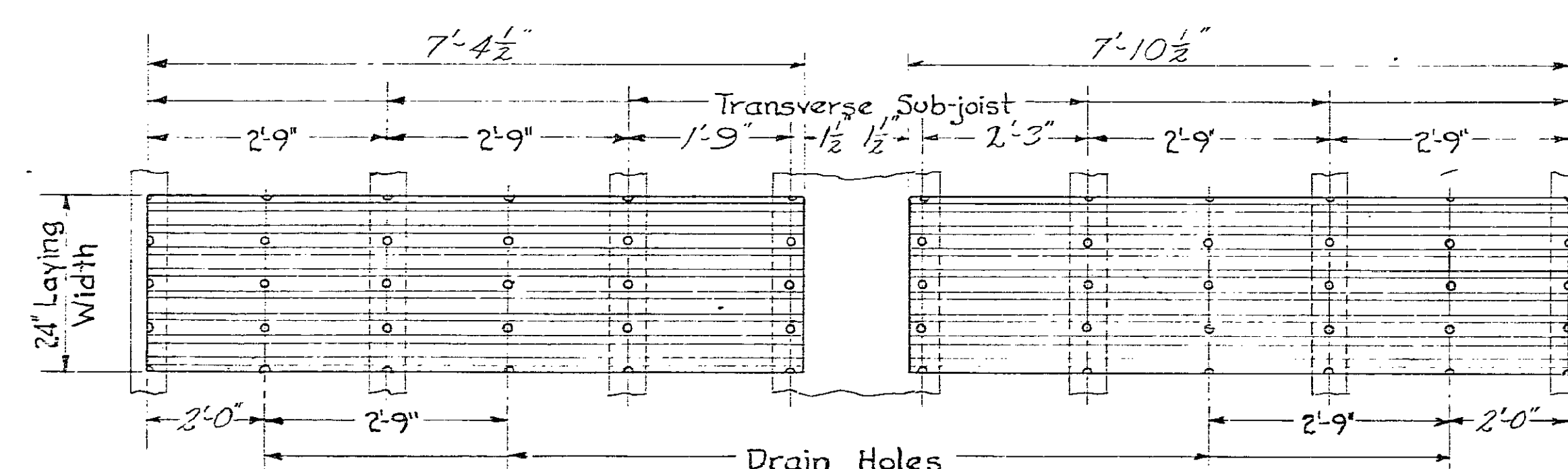


PLATE 3
5 Req'd

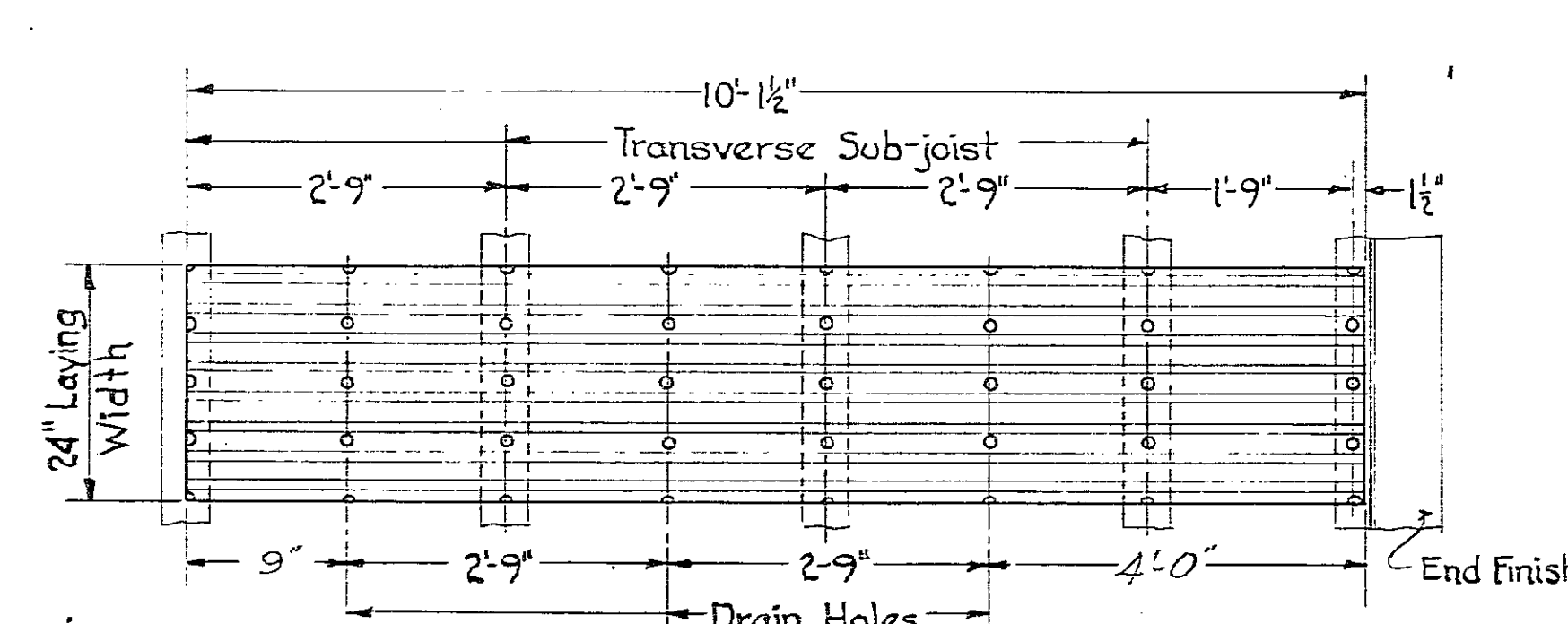


PLATE 5
5 Required

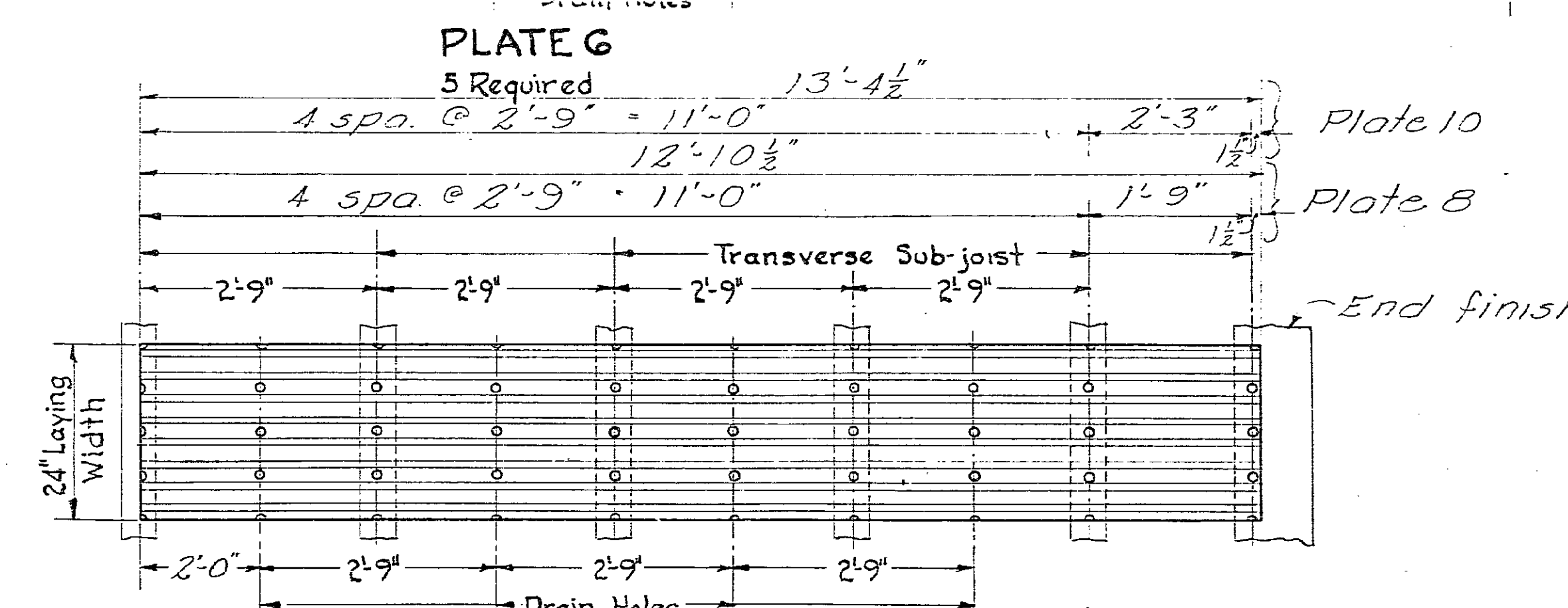


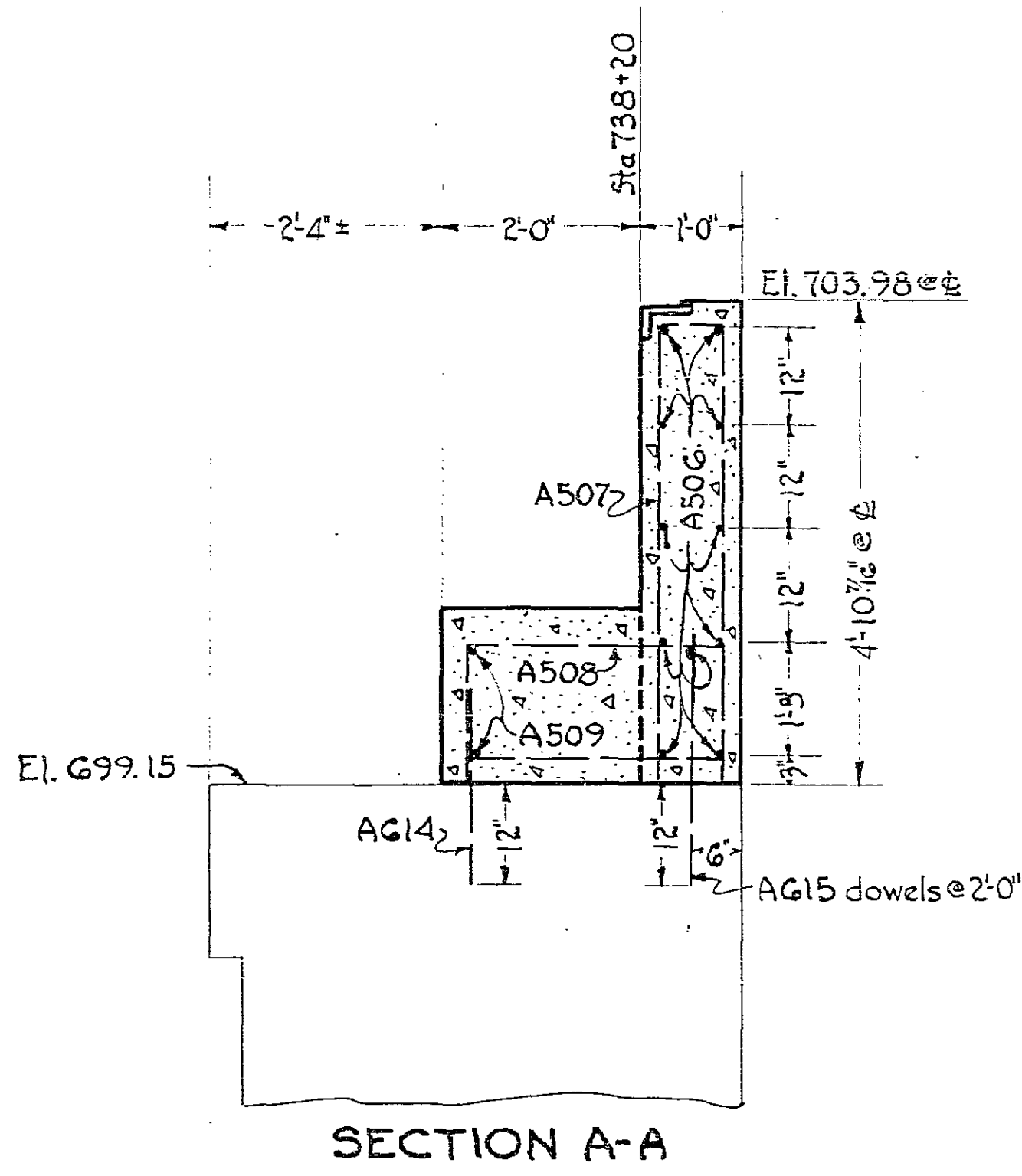
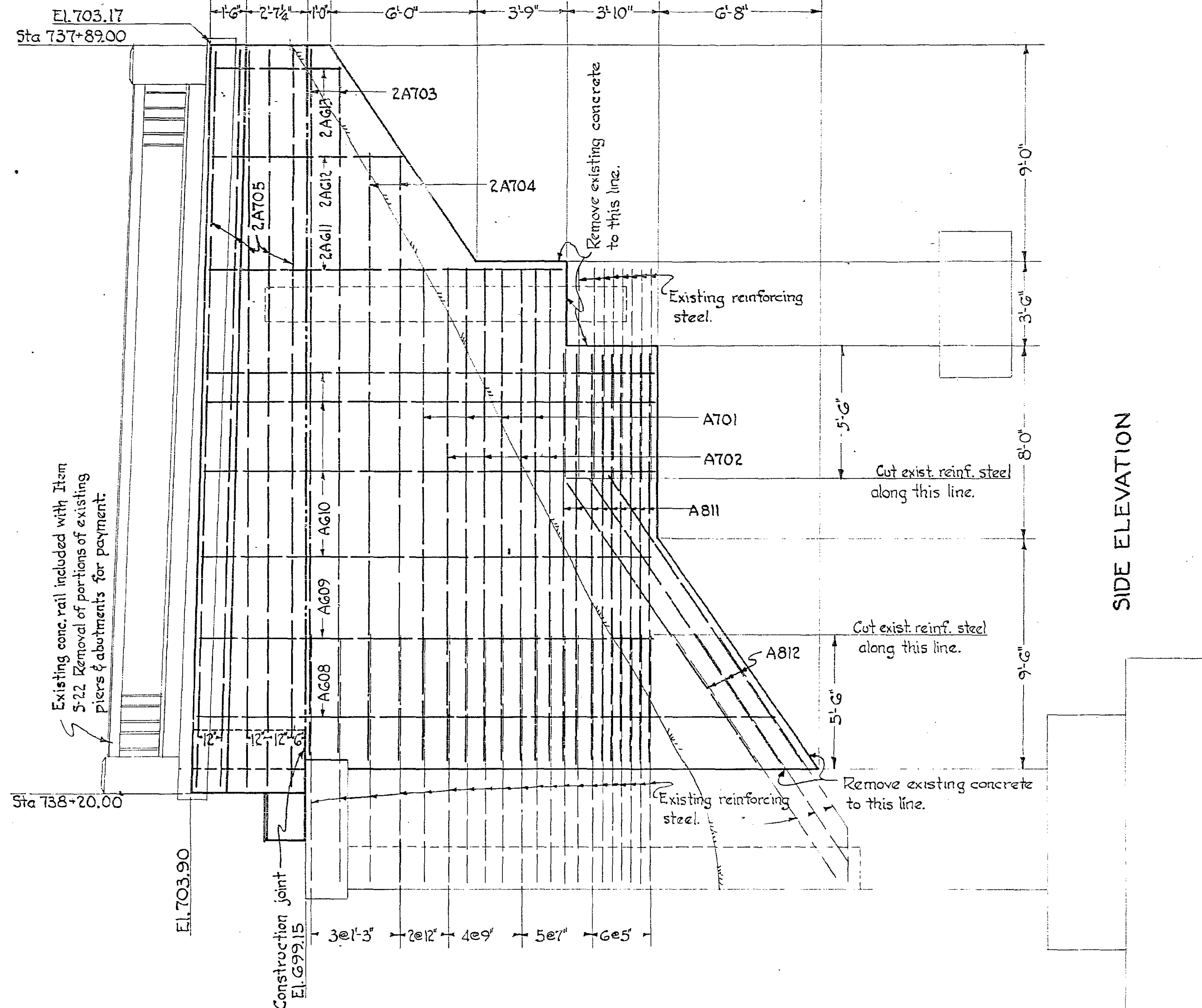
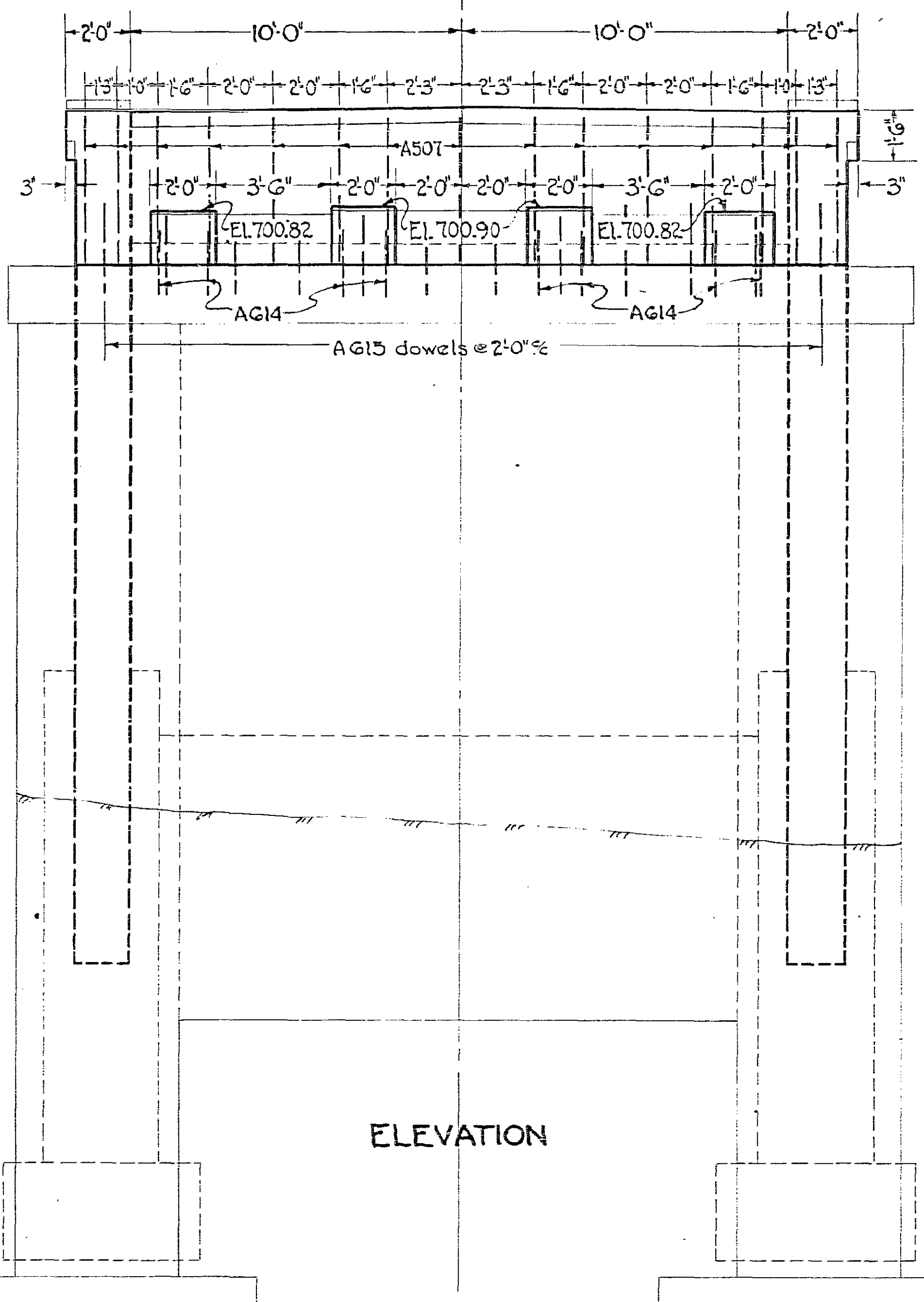
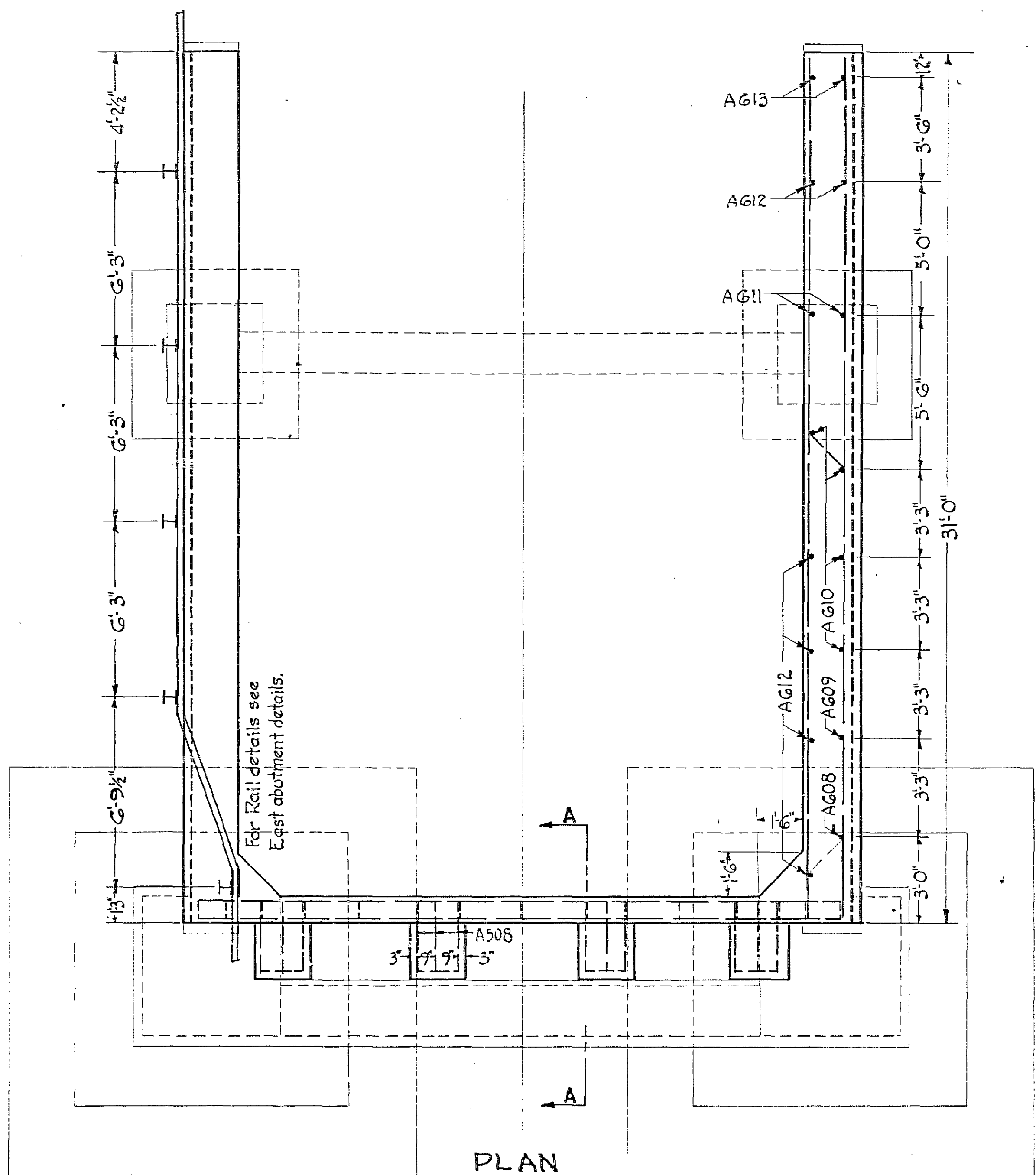
PLATE 8
5 Required

PLATE 10
5 Req'd

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

**CORRUGATED SHEET STEEL
BRIDGE FLOORING DETAILS**
FRA-GG5-1403
over Scioto River
FRANKLIN COUNTY

| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
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| WMC | WMC | | | | |



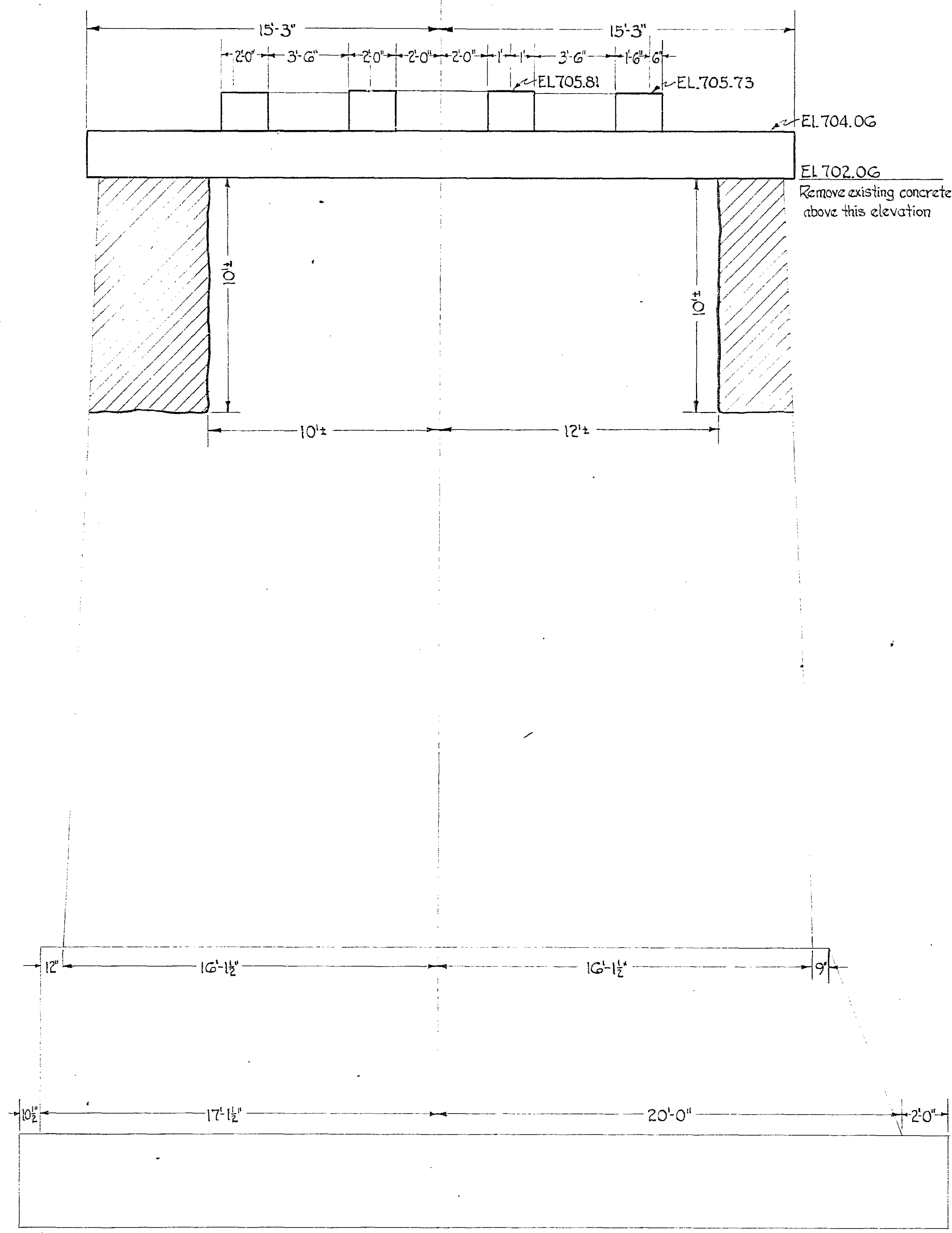
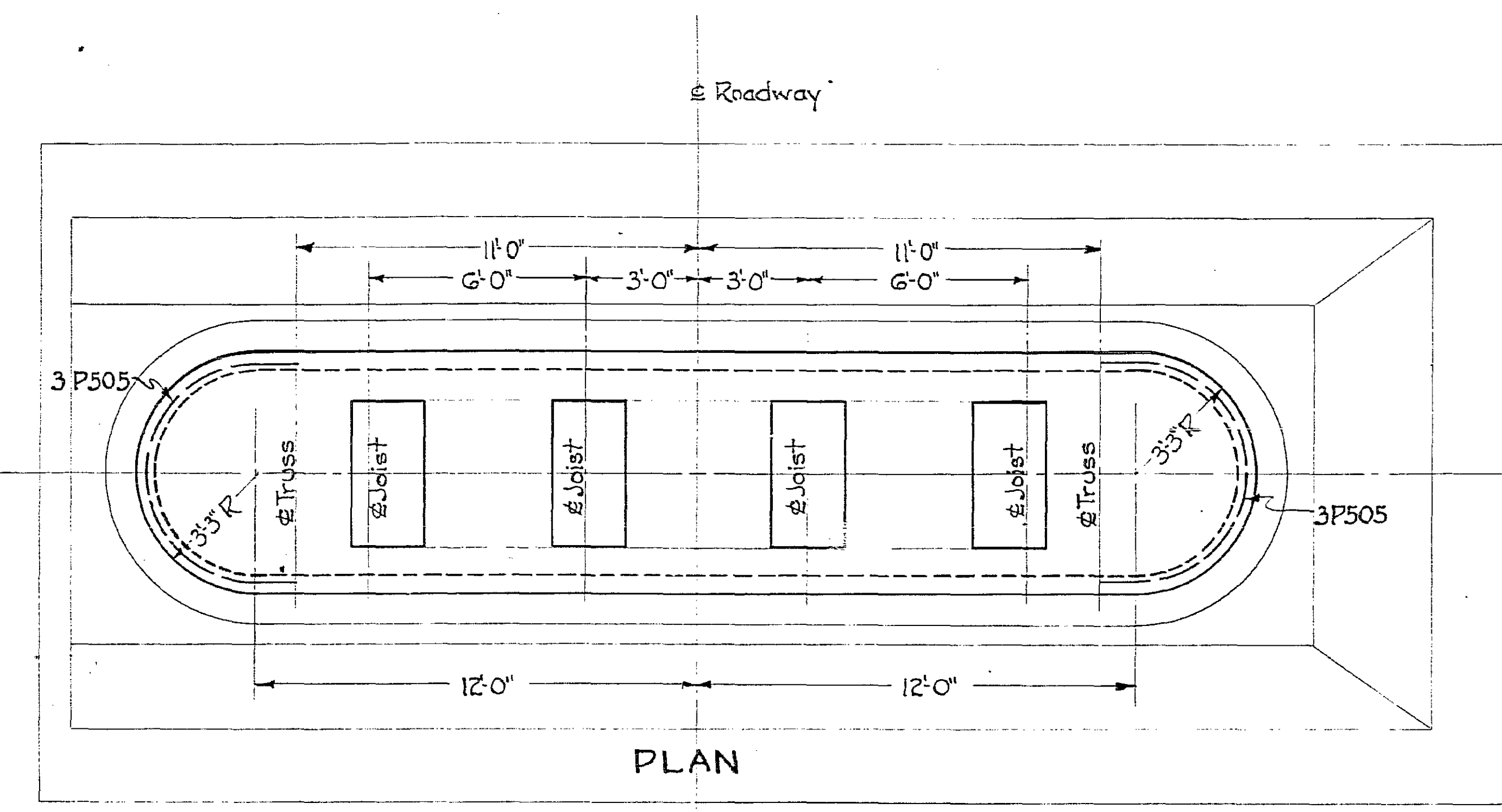
| REINFORCING STEEL LIST | | | | | BENDING DIAGRAMS | | |
|------------------------|-----|--------|--------|-------|------------------|--|--|
| MARK | Nº | LENGTH | WEIGHT | SHAPE | | | |
| East Abutment | | | | | | | |
| A501 | 8 | 23'-0" | 192 | St. | | | |
| A502 | 30 | 6'-10" | 214 | Bent | | | |
| A503 | 12 | 5'-8" | 71 | Bent | | | |
| A504 | 13 | 13'-0" | 176 | Bent | | | |
| AG01 | 30 | 8'-6" | 383 | Bent | | | |
| AG02 | 18 | 21'-9" | 588 | St. | | | |
| AG03 | 14 | 7'-3" | 152 | St. | | | |
| AG04 | 8 | 9'-0" | 108 | St. | | | |
| AG05 | 4 | 14'-6" | 87 | St. | | | |
| AG06 | 4 | 5'-0" | 30 | St. | | | |
| AG07 | 11 | 27'-0" | 446 | St. | | | |
| A801 | 19 | 26'-6" | 1344 | St. | | | |
| A802 | 18 | 27'-9" | 1334 | Bent | | | |
| A803 | 19 | 30'-9" | 1560 | St. | | | |
| A804 | 10 | 24'-3" | 647 | St. | | | |
| A805 | 10 | 24'-9" | 661 | Bent | | | |
| A806 | 12 | 28'-3" | 905 | St. | | | |
| A807 | 14 | 29'-3" | 1093 | Bent | | | |
| A808 | 20 | 36'-0" | 1922 | St. | | | |
| A809 | 6 | 20'-0" | 320 | St. | | | |
| A810 | 4 | 15'-0" | 160 | St. | | | |
| A1001 | 4 | 24'-0" | 413 | St. | | | |
| A1101 | 6 | 24'-3" | 773 | St. | | | |
| A1102 | 4 | 24'-9" | 526 | Bent | | | |
| West Abutment | | | | | | | |
| A506 | 11 | 23'-0" | 264 | St. | | | |
| A507 | 15 | 10'-0" | 156 | Bent | | | |
| A508 | 12 | 6'-5" | 80 | Bent | | | |
| A509 | 8 | 1'-6" | 12 | St. | | | |
| AG08 | 2 | 24'-0" | 72 | St. | | | |
| AG09 | 2 | 22'-0" | 66 | St. | | | |
| AG10 | 8 | 18'-6" | 222 | St. | | | |
| AG11 | 4 | 14'-9" | 89 | St. | | | |
| AG12 | 12 | 8'-0" | 144 | St. | | | |
| AG13 | 4 | 5'-0" | 30 | St. | | | |
| AG14 | 8 | 2'-0" | 24 | St. | | | |
| AG15 | 12 | 2'-9" | 50 | St. | | | |
| A701 | 8 | 20'-6" | 335 | St. | | | |
| A702 | 8 | 20'-9" | 339 | Bent | | | |
| A703 | 8 | 28'-0" | 458 | St. | | | |
| A704 | 8 | 25'-0" | 409 | St. | | | |
| A705 | 20 | 30'-6" | 1247 | St. | | | |
| A811 | 18 | 17'-0" | 817 | St. | | | |
| A812 | 6 | 12'-8" | 203 | St. | | | |
| Piers | | | | | | | |
| P501 | 76 | 8'-6" | 674 | bent | | | |
| P502 | 44 | 13'-6" | 620 | St. | | | |
| P503 | 24 | 7'-6" | 188 | Bent | | | |
| P504 | 40 | 1'-6" | 63 | St. | | | |
| P505 | 12 | 12'-7" | 157 | Bent | | | |
| PG01 | 76 | 2'-0" | 228 | St. | | | |
| PG02 | 172 | 2'-0" | 316 | St. | | | |
| Replacement Bars | | | | | | | |
| R501 | 1 | 7'-2" | | St. | | | |
| R601 | 1 | 7'-10" | | St. | | | |
| R701 | 1 | 8'-6" | | St. | | | |
| R801 | 1 | 9'-0" | | St. | | | |
| R1001 | 1 | 10'-4" | | St. | | | |
| R1101 | 1 | 11'-0" | | St. | | | |

Bar Size
The bar size is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size number. For example bar A701 is a number 7 size bar and A1101 is a number 11 size bar.

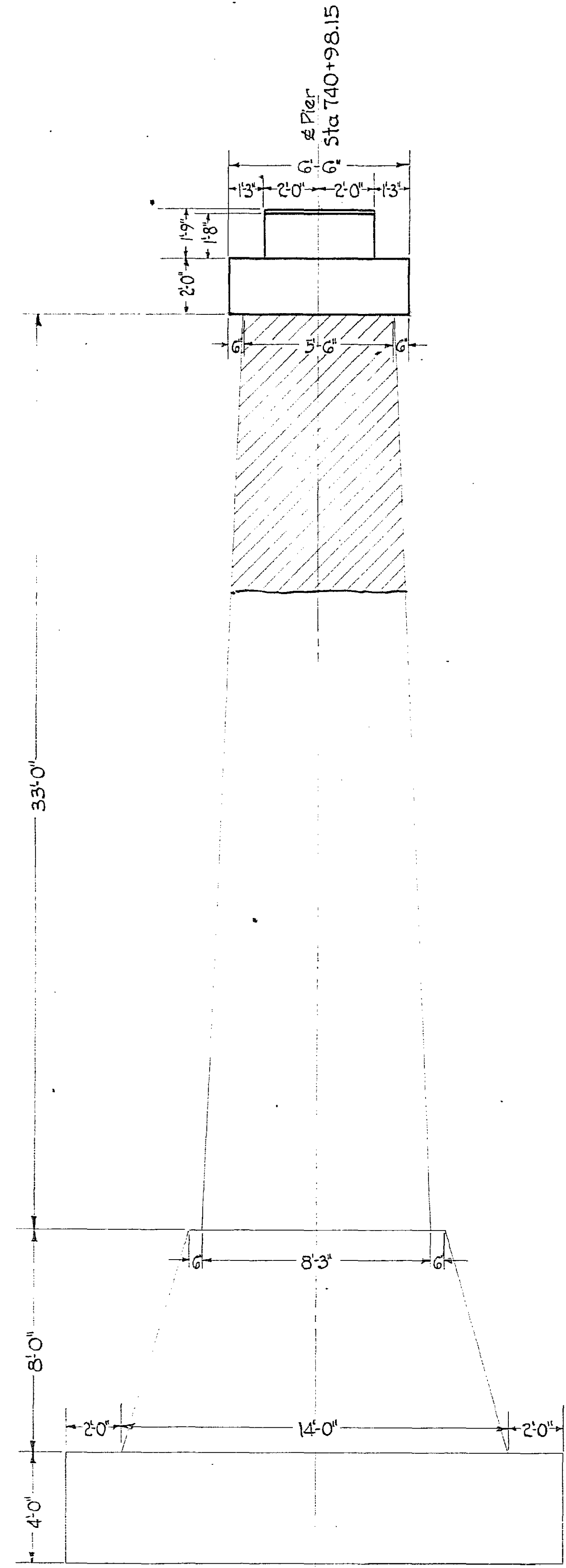
Replacement Bars
If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec 4.02 need not be furnished and replacement bars will not be required.

All reinforcing shall be 3" clear unless otherwise shown.

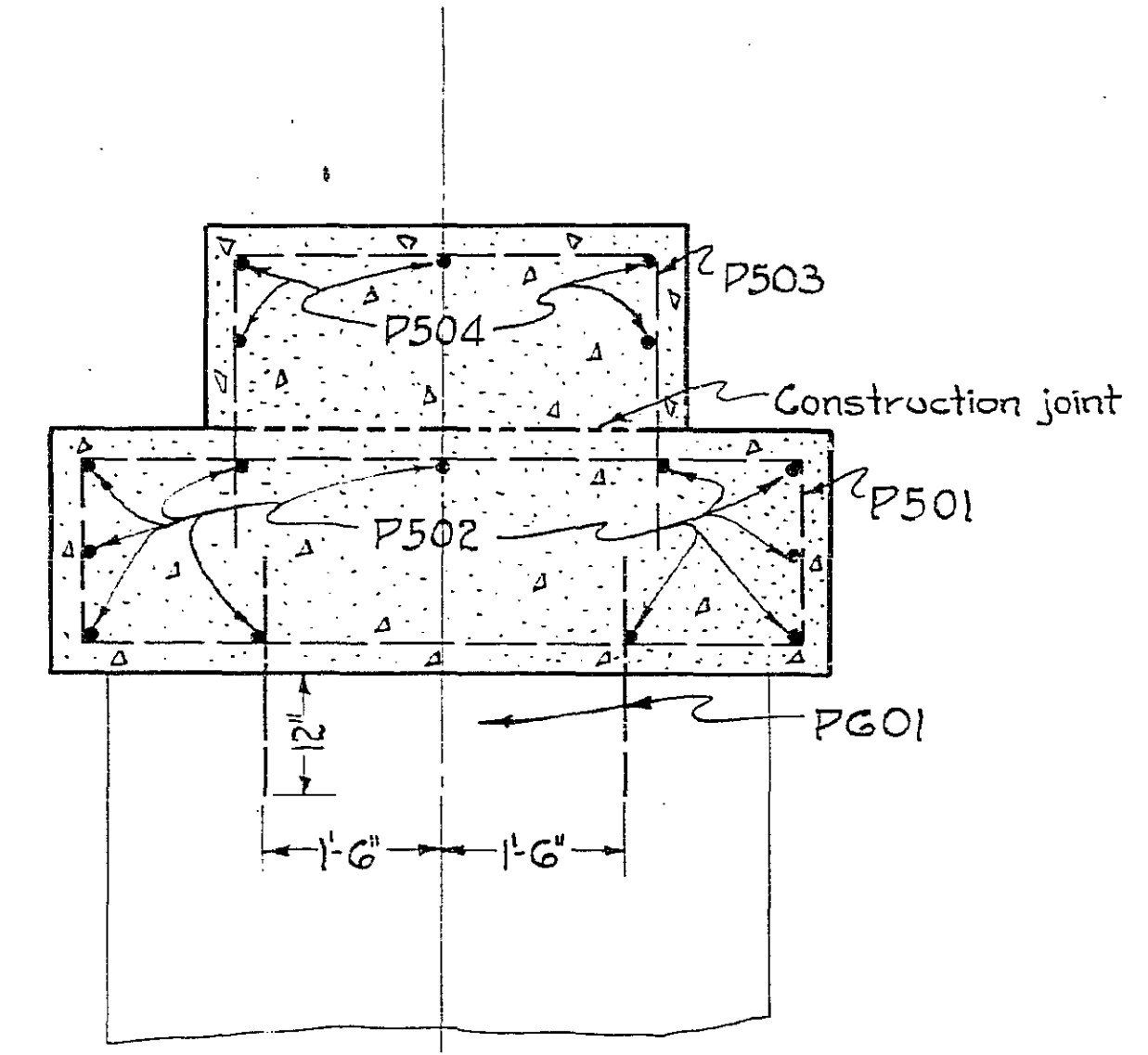
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|---|-------|---------|----------|------|---------|
| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | | |
| WEST ABUTMENT DETAILS REINFORCING STEEL LIST | | | | | |
| FRA-GG5-1403 over Scioto River FRANKLIN COUNTY | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| WMC | WMC | | | | |



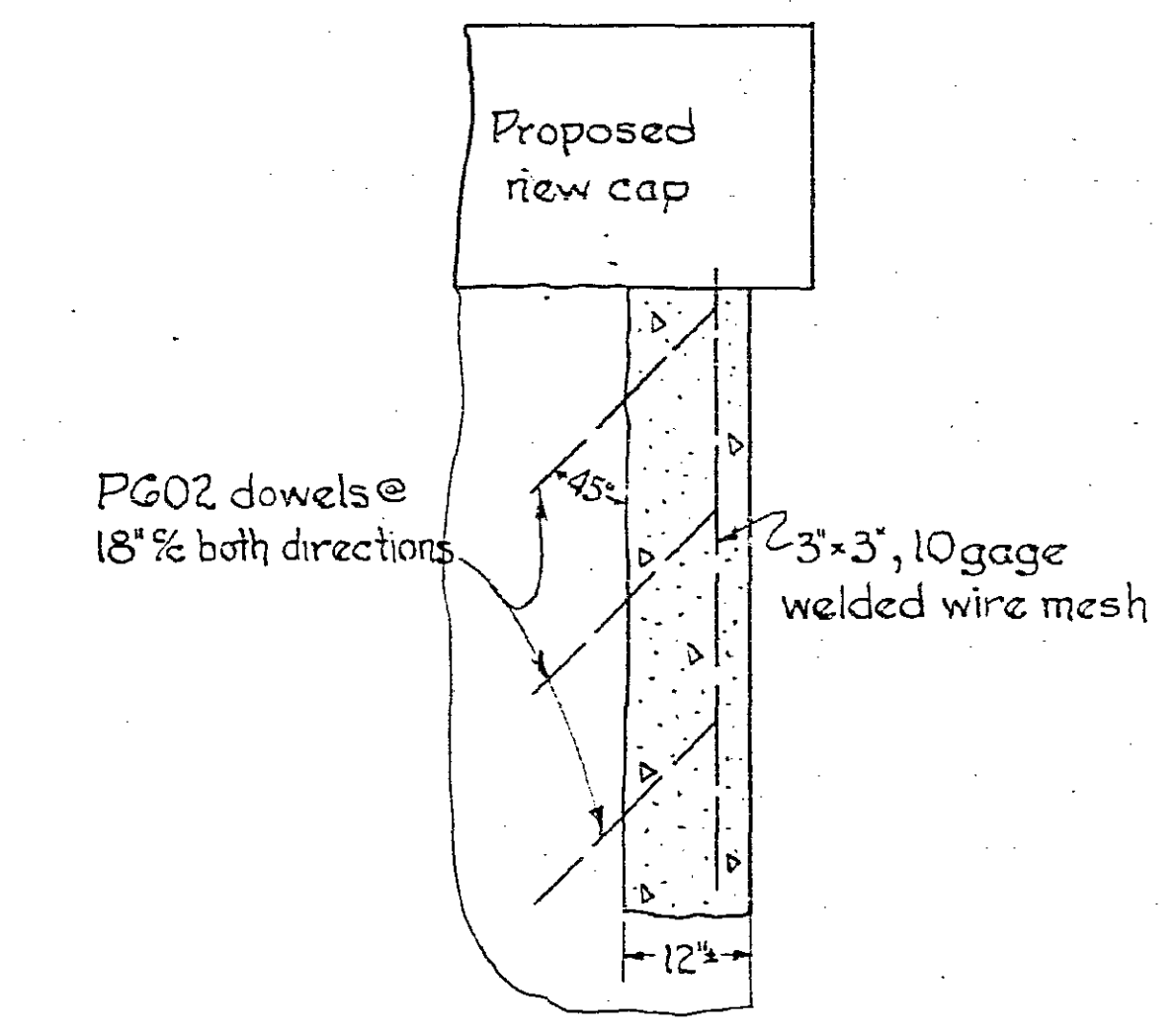
WEST ELEVATION



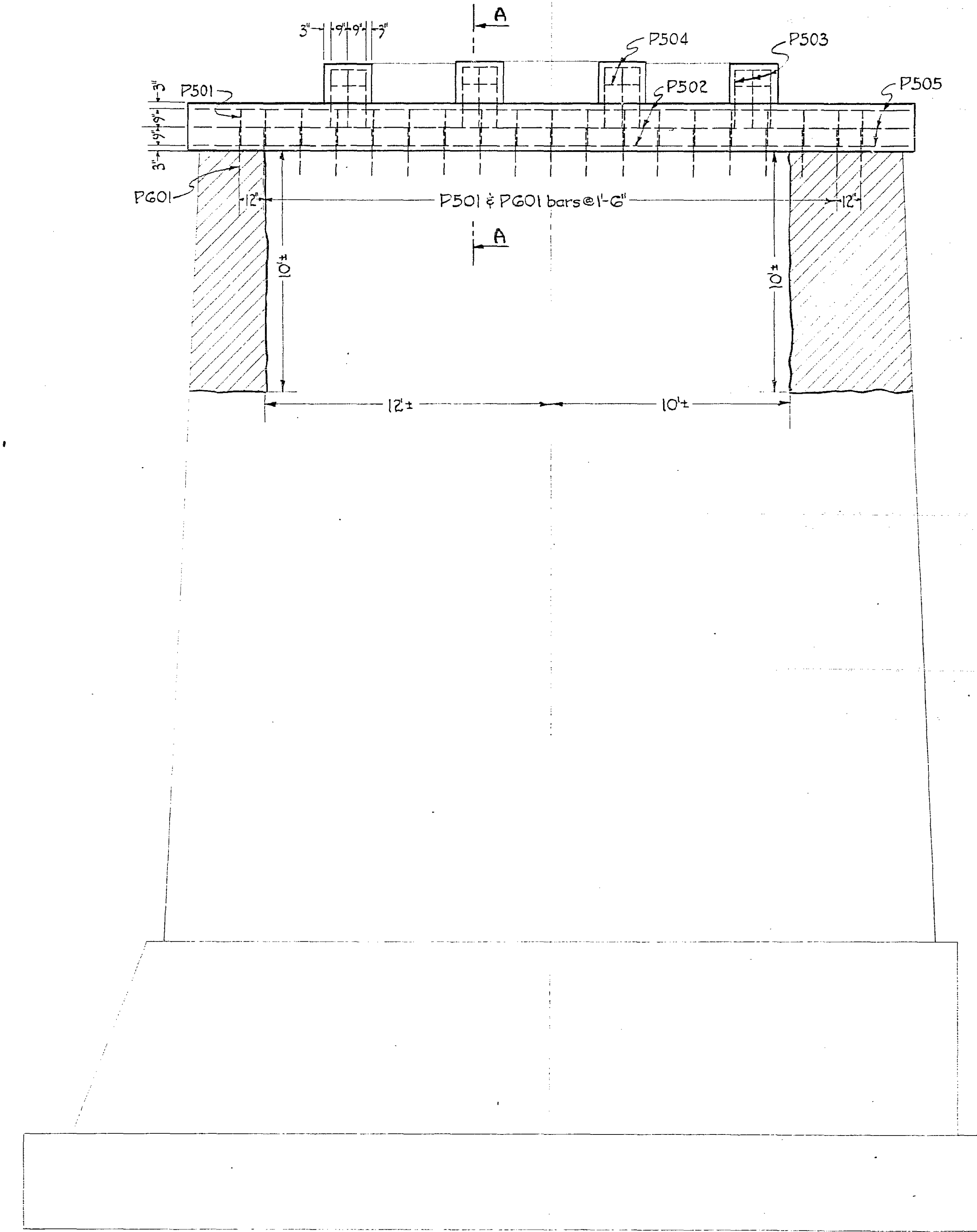
END VIEW



SECTION A-A



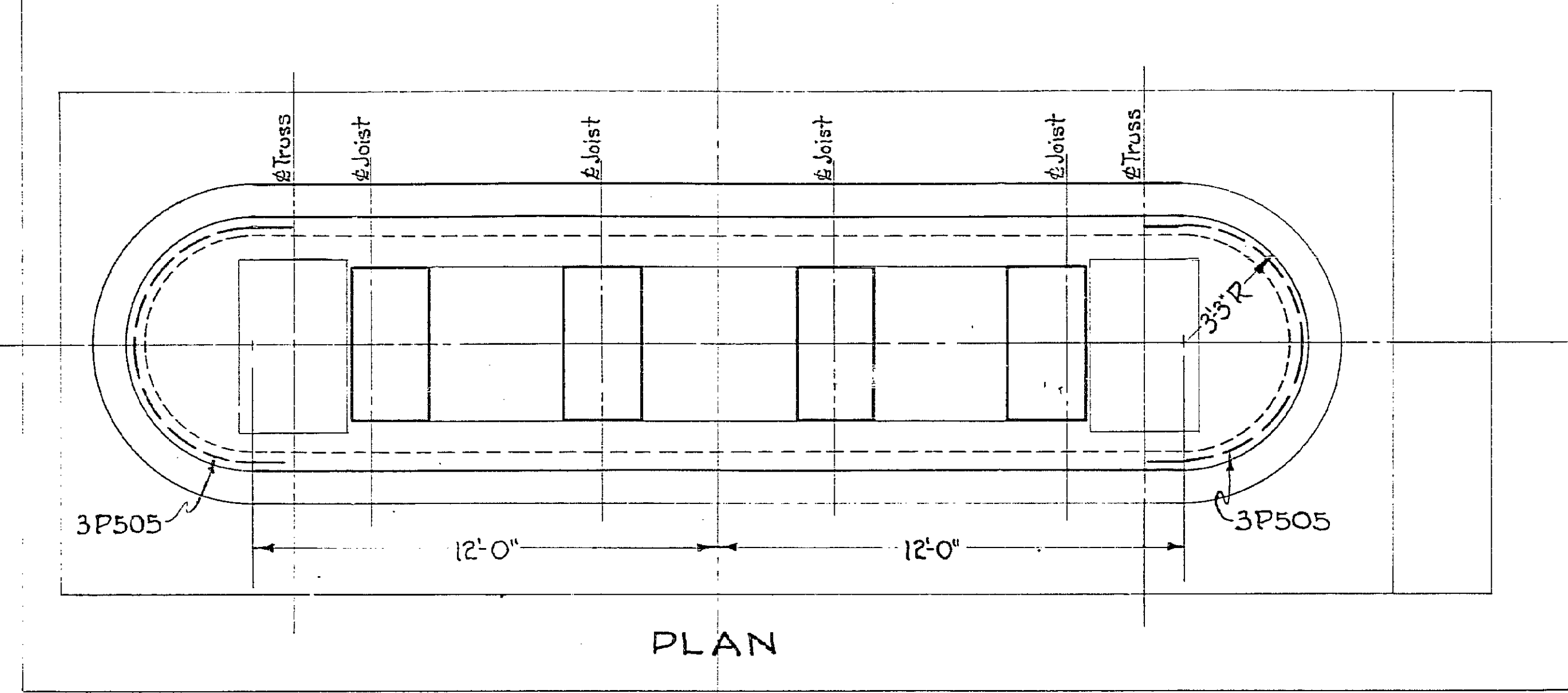
DETAIL "A"



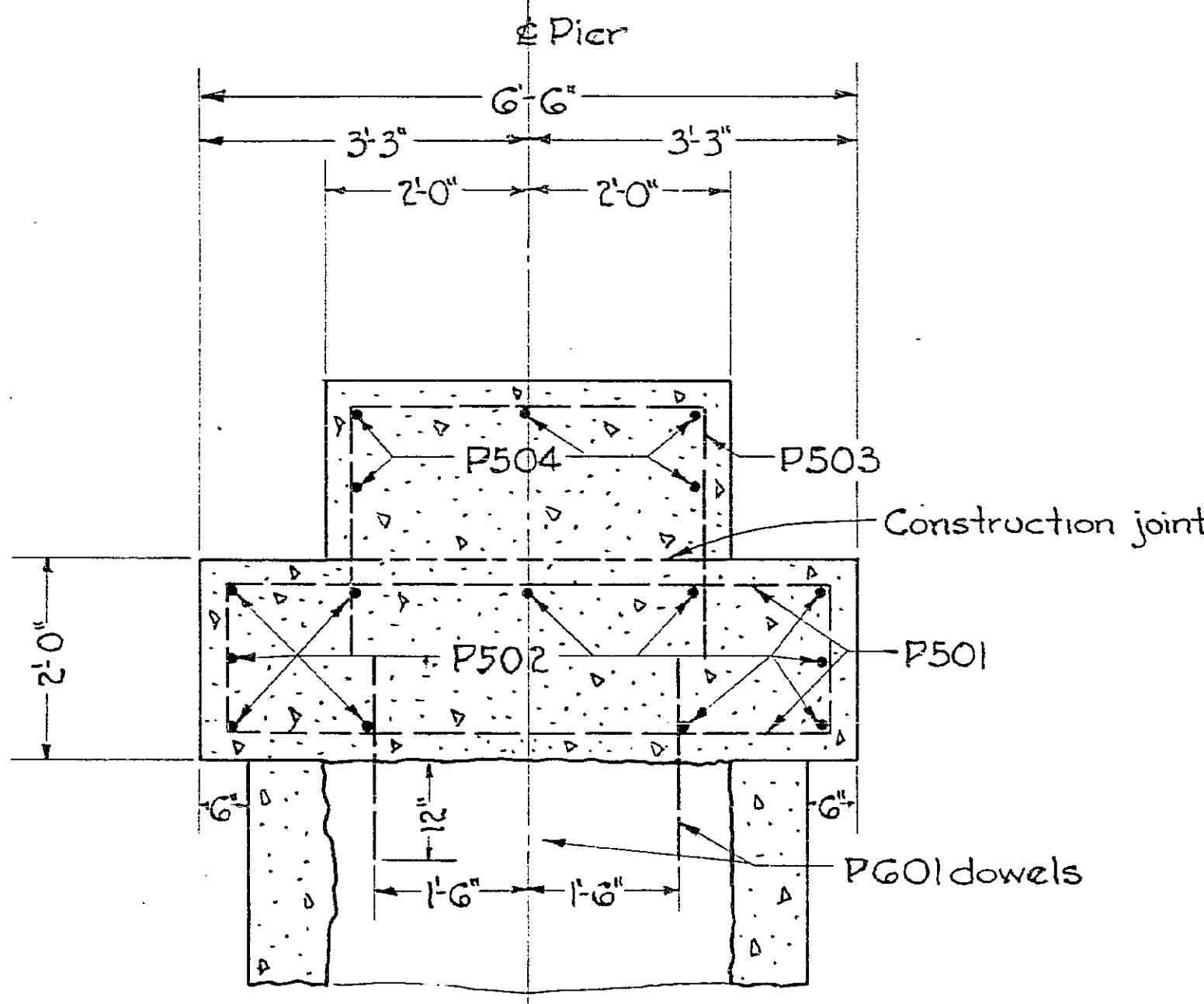
EAST ELEVATION

Replace disintegrated concrete with new Class "E" concrete reinforced with 3"x3", 10gage welded wire mesh, See Detail "A".

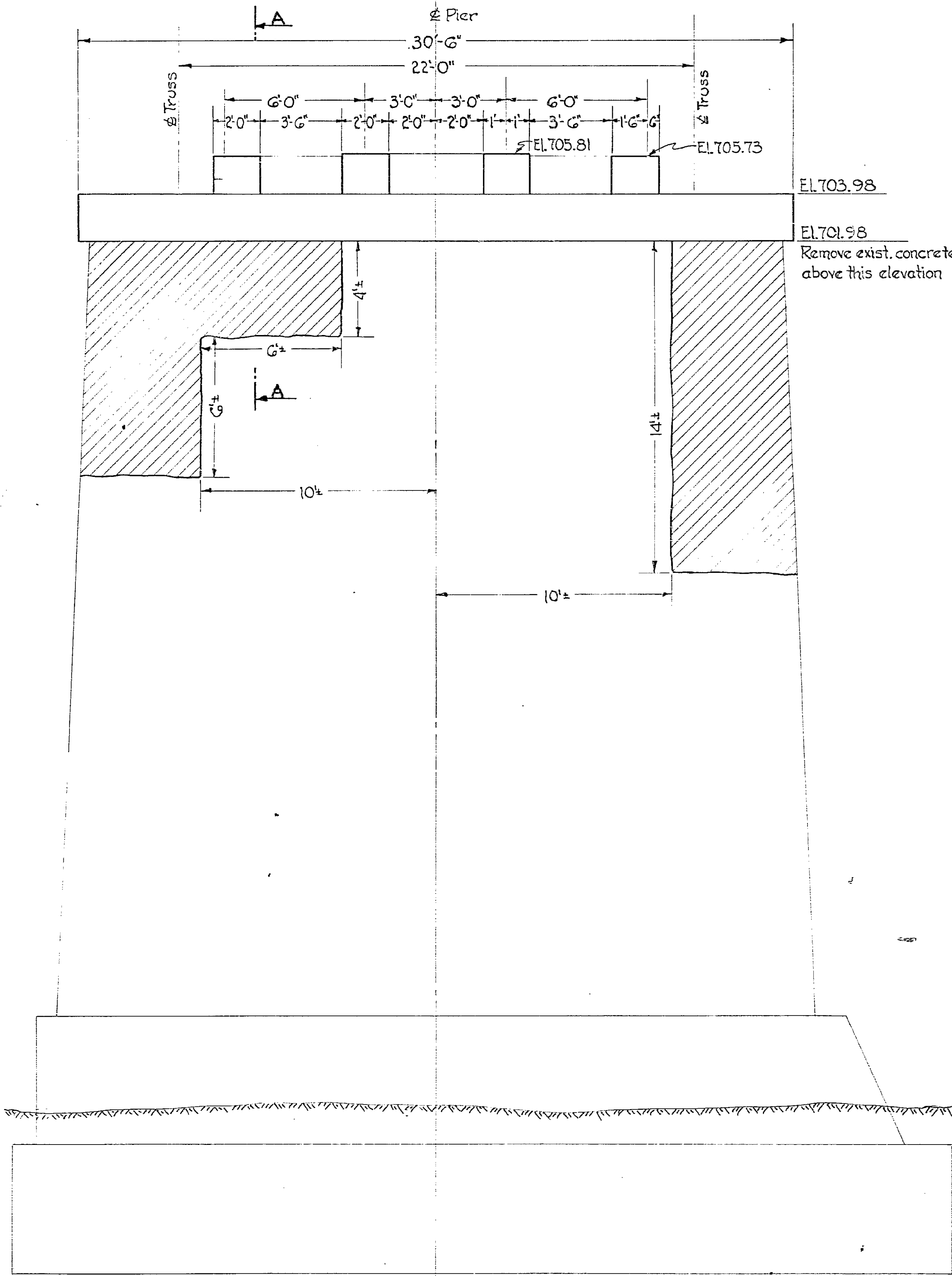
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| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | | |
| WEST PIER DETAILS | | | | | |
| FRA-GG5-1403 over Scioto River FRANKLIN COUNTY | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| WML | WML | | | | |



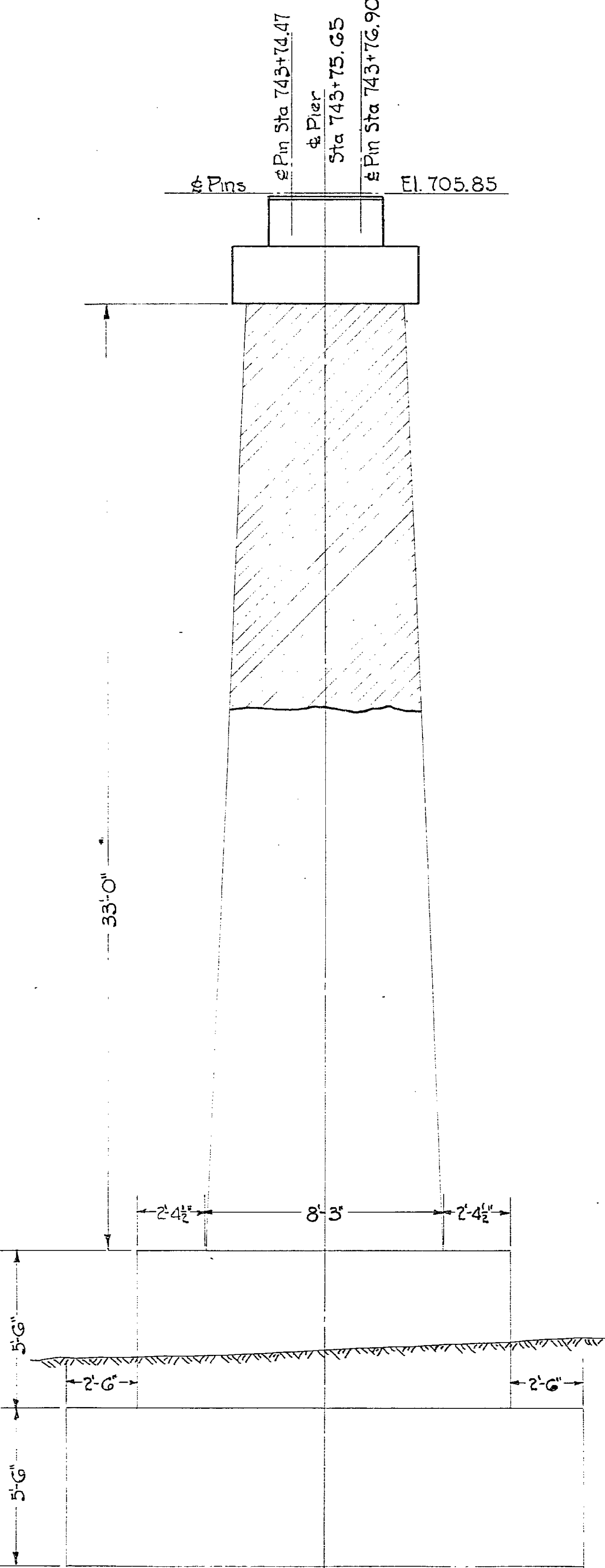
PLAN



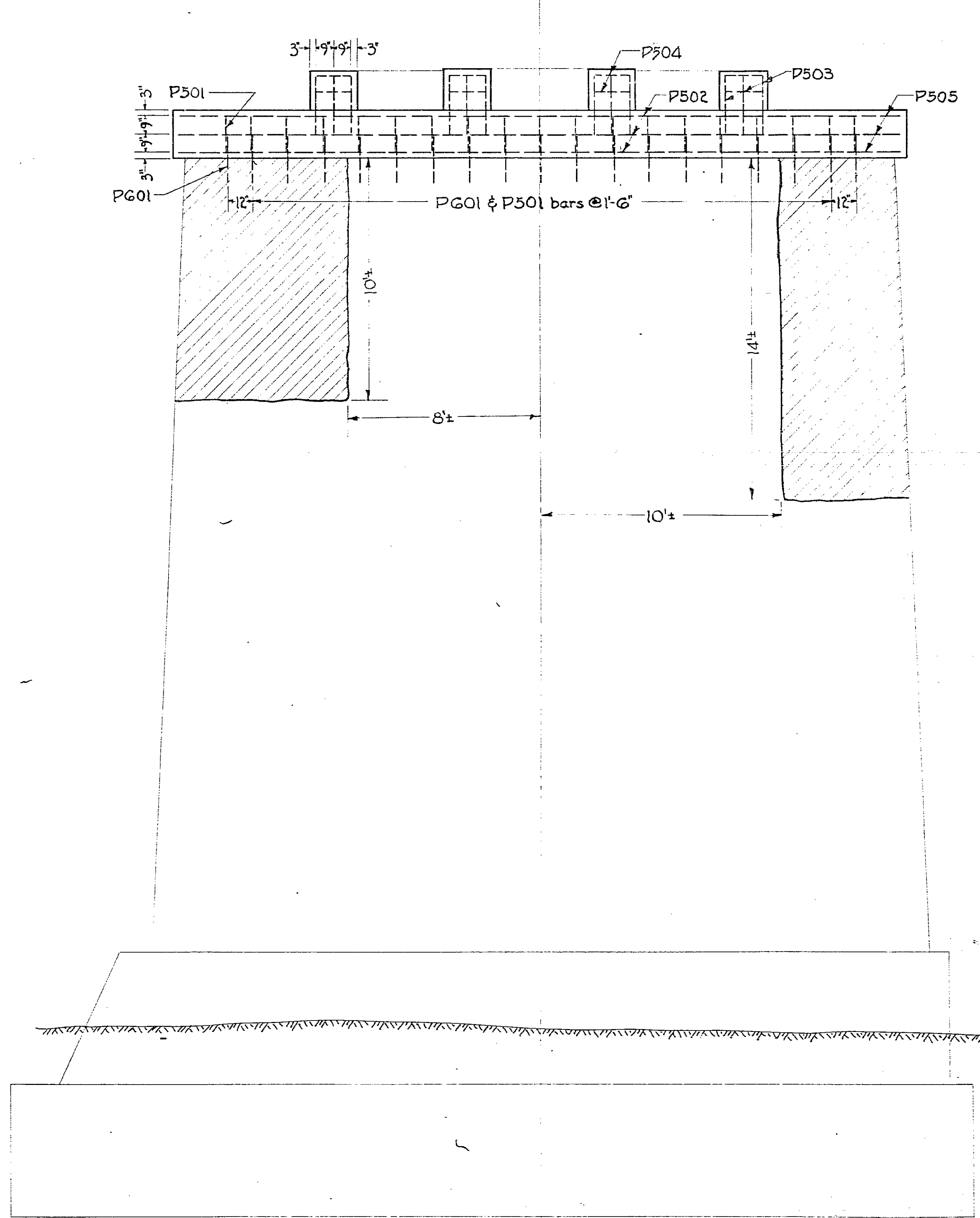
SECTION A-A



WEST ELEVATION



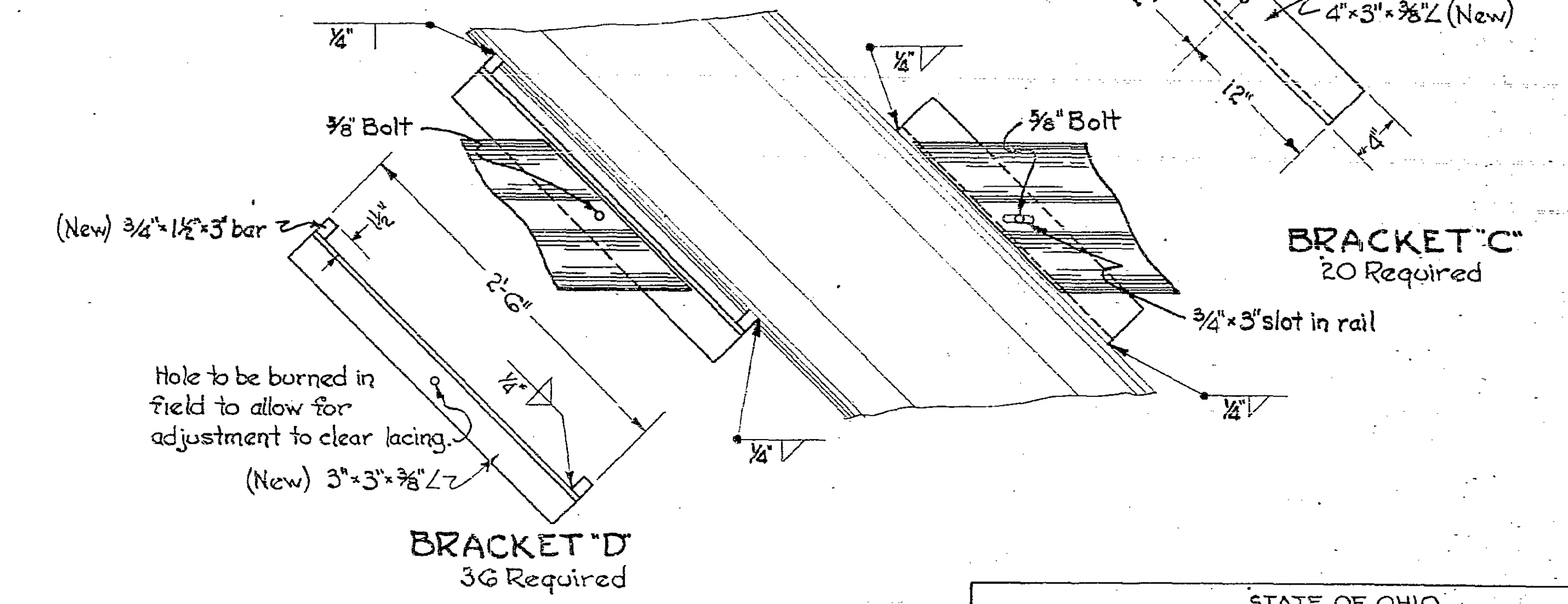
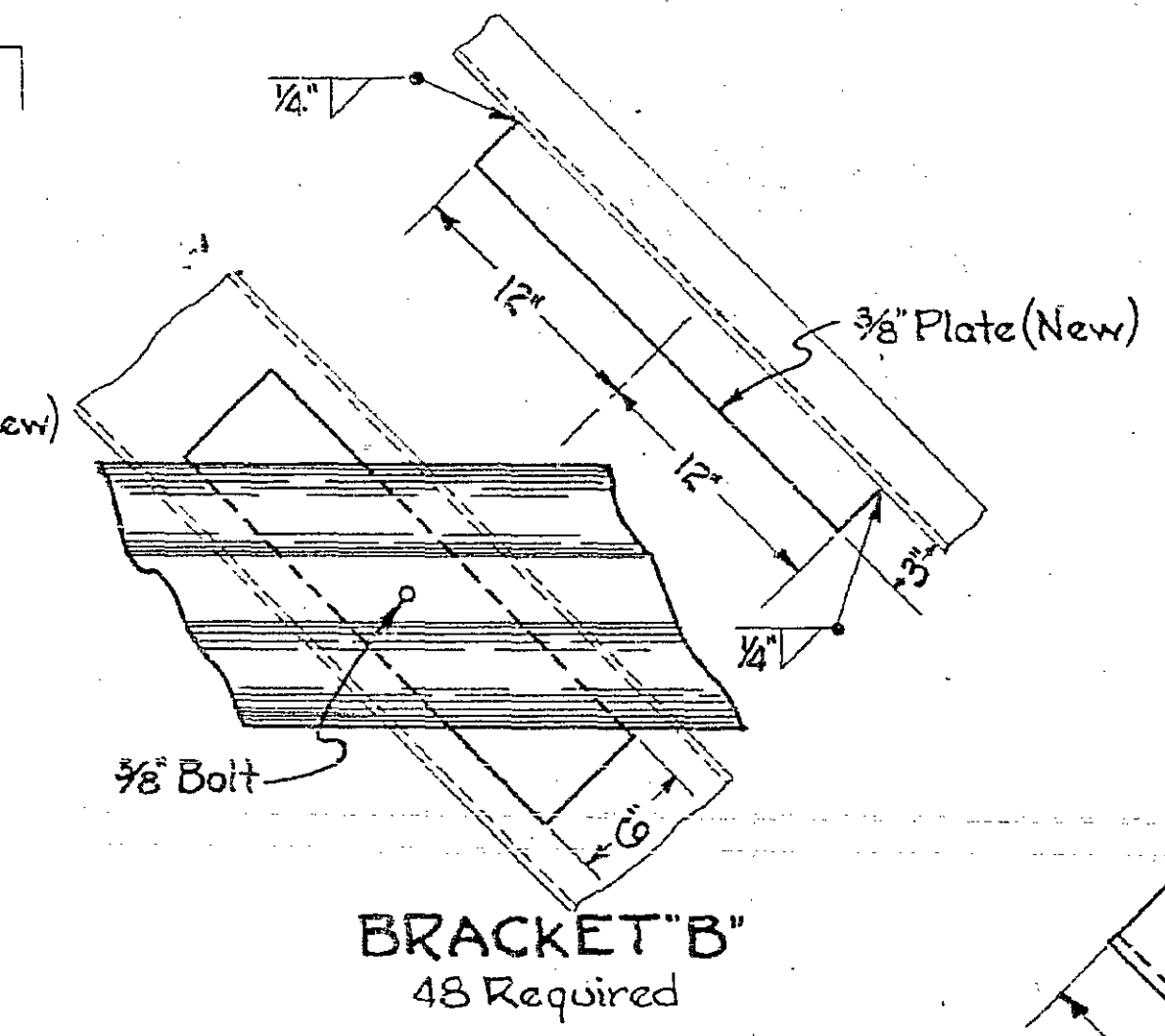
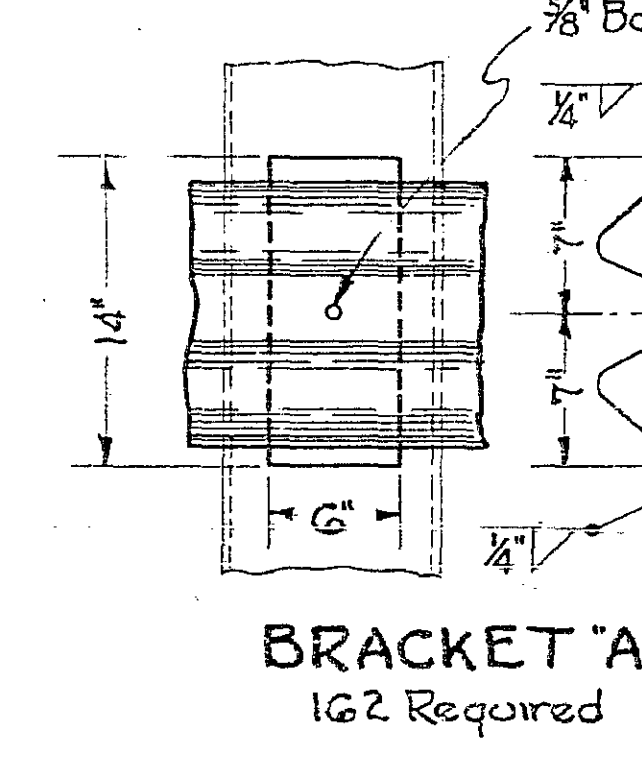
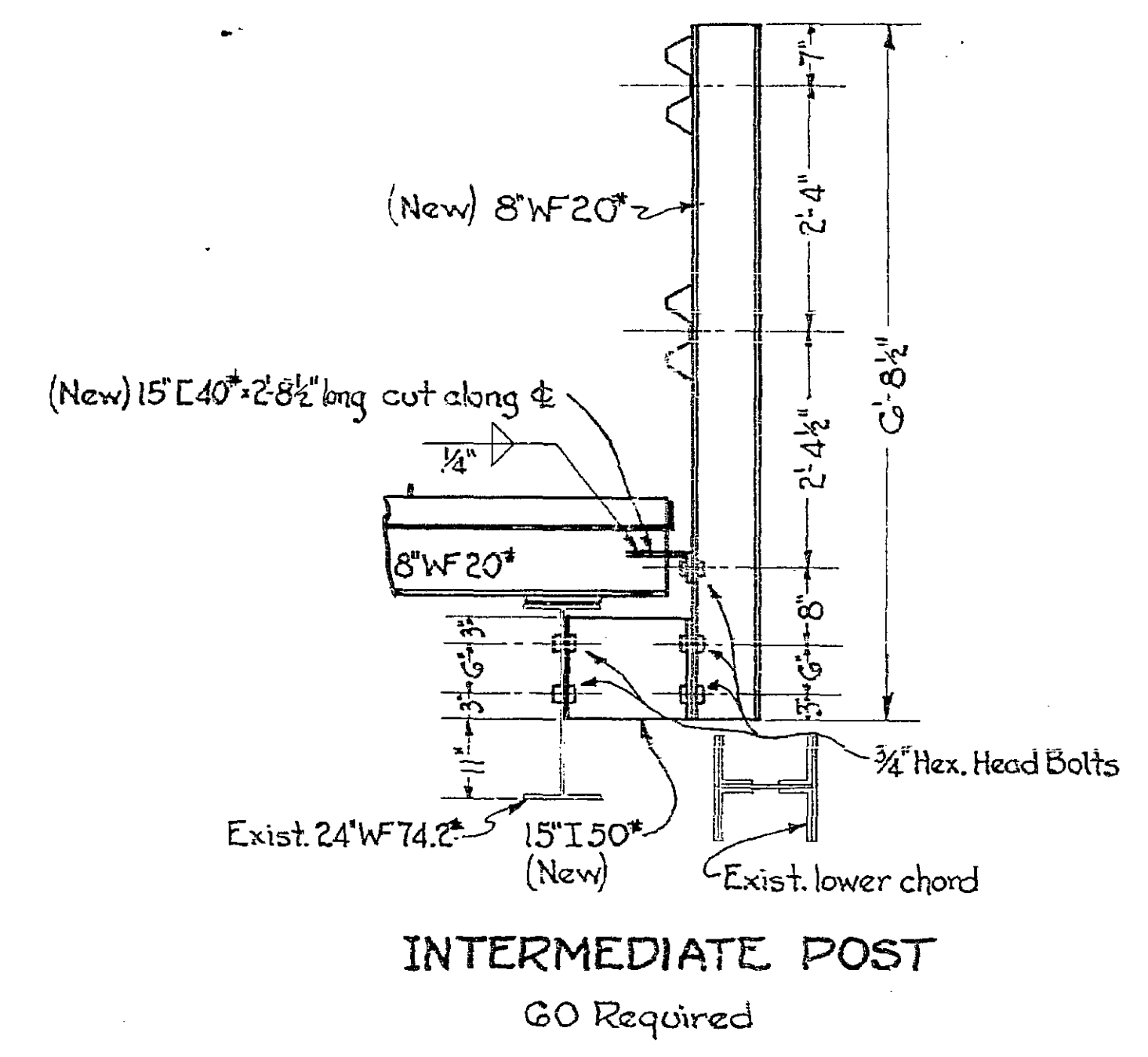
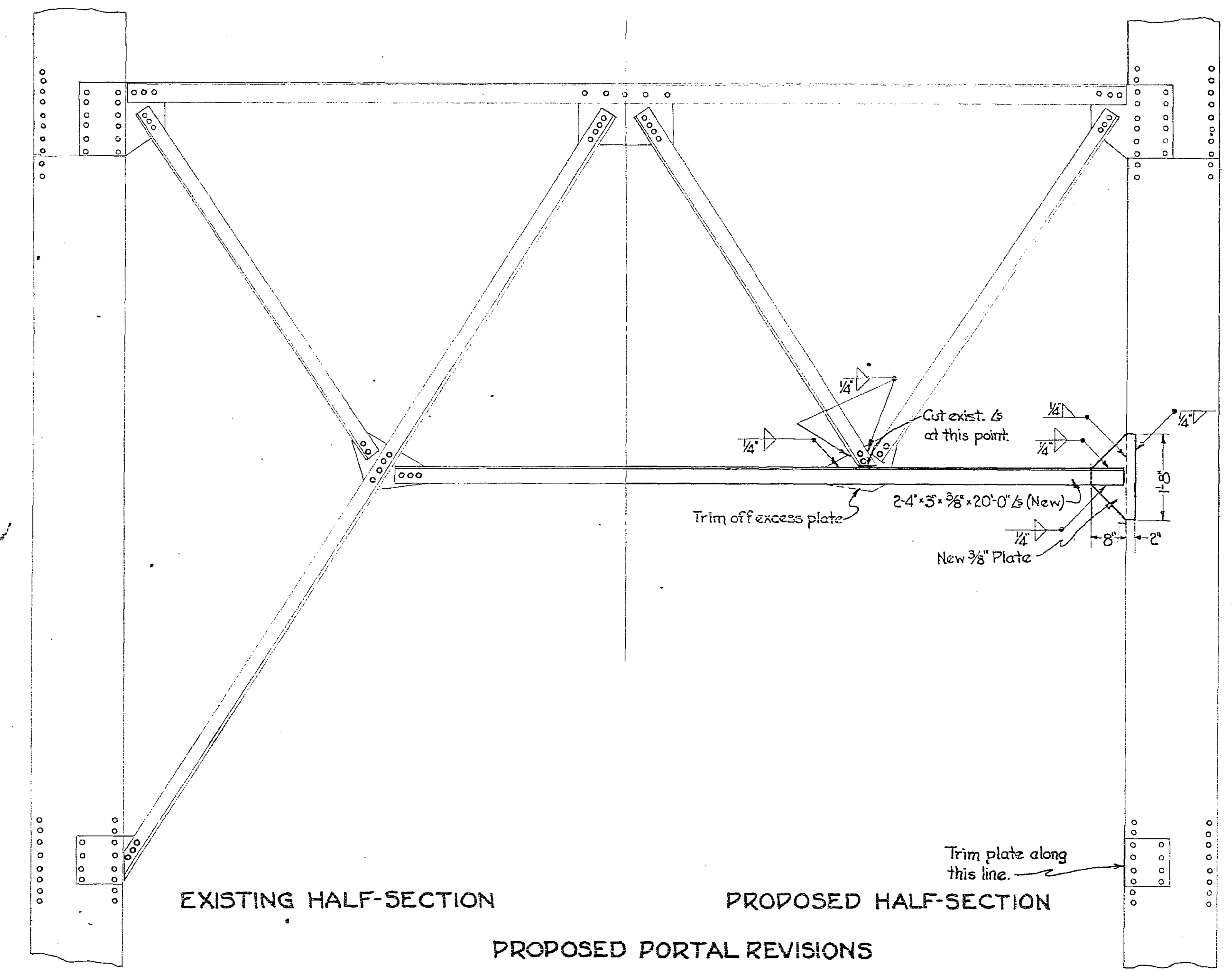
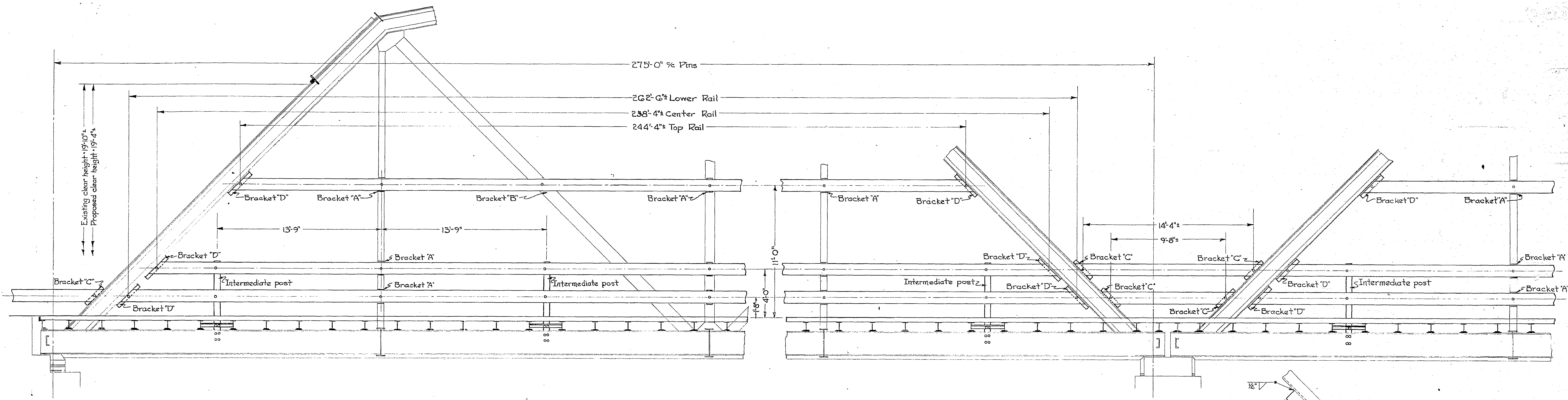
END VIEW



EAST ELEVATION

Replace disintegrated concrete with new Class 'E' concrete. See Detail A Sheet 18.

| | | | | | |
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| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | | |
| EAST PIER DETAILS | | | | | |
| FRA-665-1403 over Scioto River FRANKLIN COUNTY | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| WMC | WMC | | | | |



Railing Brackets and Intermediate Posts
Complete, are included in Item 5-7
Structural Steel for payment.

| | | | | | |
|---|-------|---------|----------|------|---------|
| STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES | | | | | |
| RAILING and PORTAL DETAILS | | | | | |
| FRA-GG5-1403 over Scioto River FRANKLIN COUNTY | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |