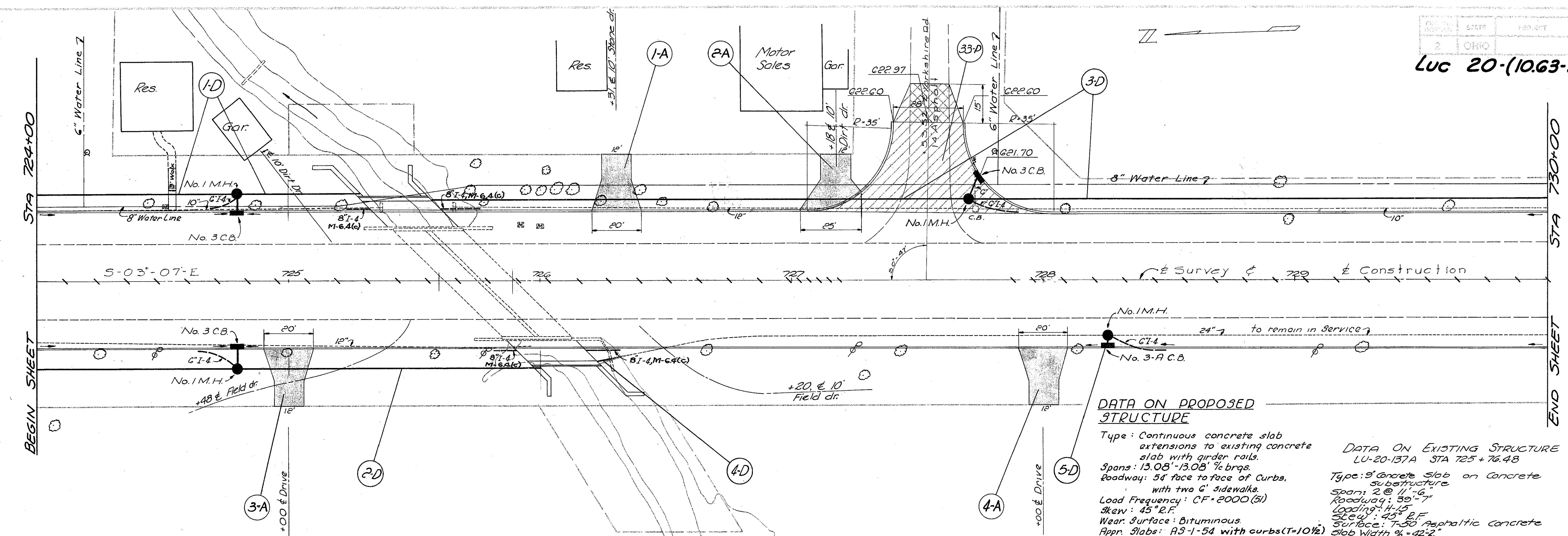


32786 900-00011
40
112

10



BEGIN SHEET

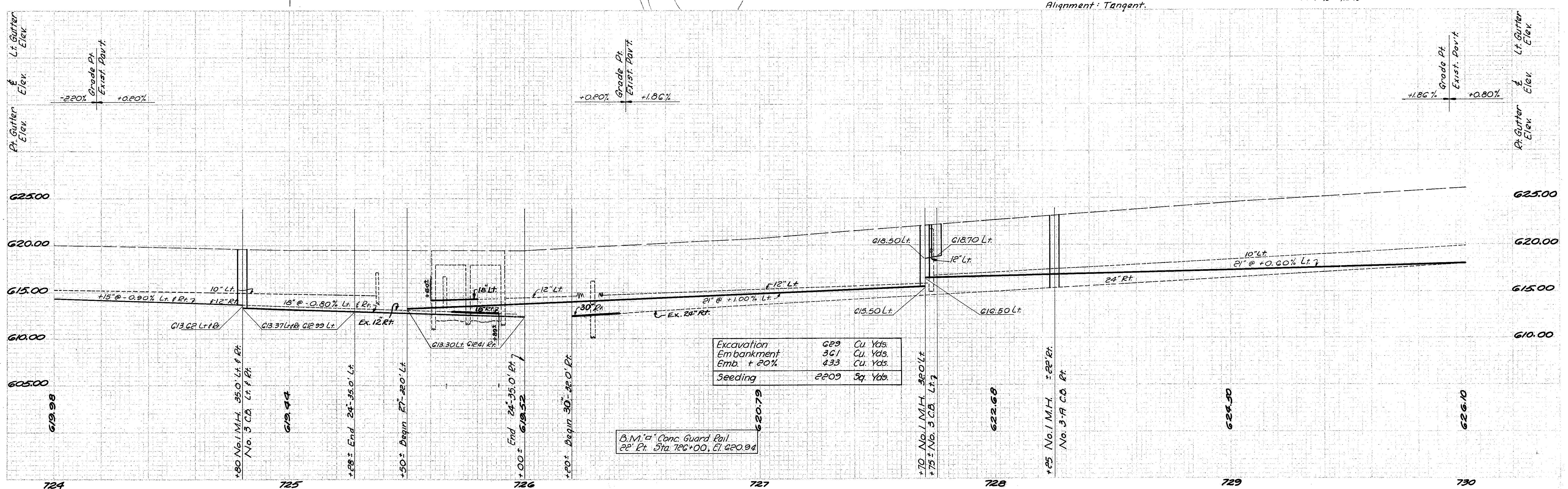
END SHEET 578 730*000

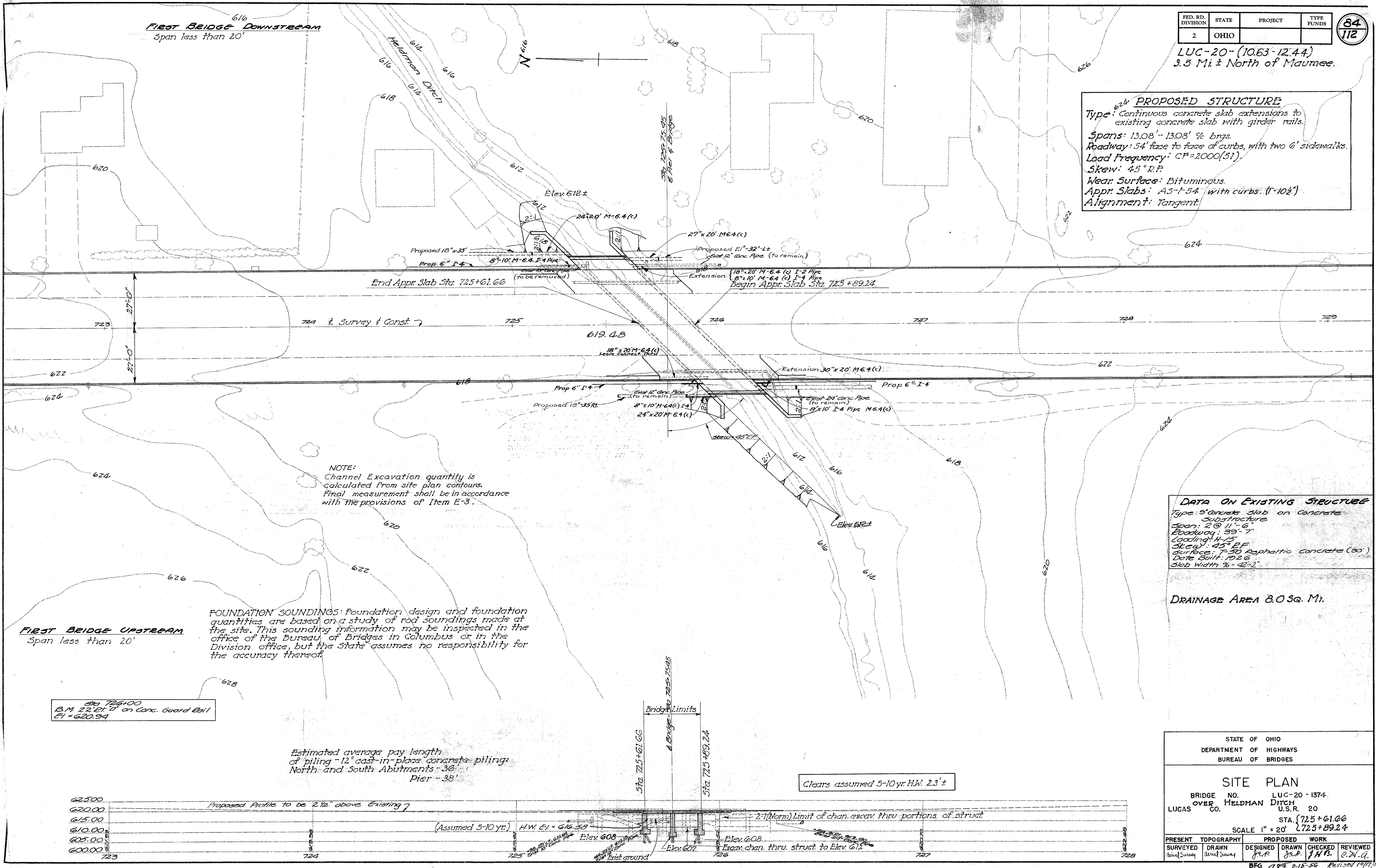
DATA ON PROPOSED STRUCTURE

Type : Continuous concrete slab
 extensions to existing concrete
 slab with girder rails. D
 Spans : 13.08' - 13.08' % brqs. L
 Roadway : 54' face to face of curbs.
 with two 6' sidewalks. Type
 Load Frequency : CF = 2000 (51) Spar
 Skew : 45° R.F. Road
 Wear Surface : Bituminous. Load
 Appr. Slabs : AS-1-54 with curbs ($T=10\frac{1}{2}$) Sce
 Alignment : Tangent. Slob

A ON EXISTING STRUCTURE
-20-137A STA 725 + 76.48

9' Concrete Slab on Concrete
Substructure
2 @ 11'-6"
Avg: 39'-7"
9: H-15
: 45° P.F.
re: T-50 Asphaltic Concrete
Width % = 42-2"



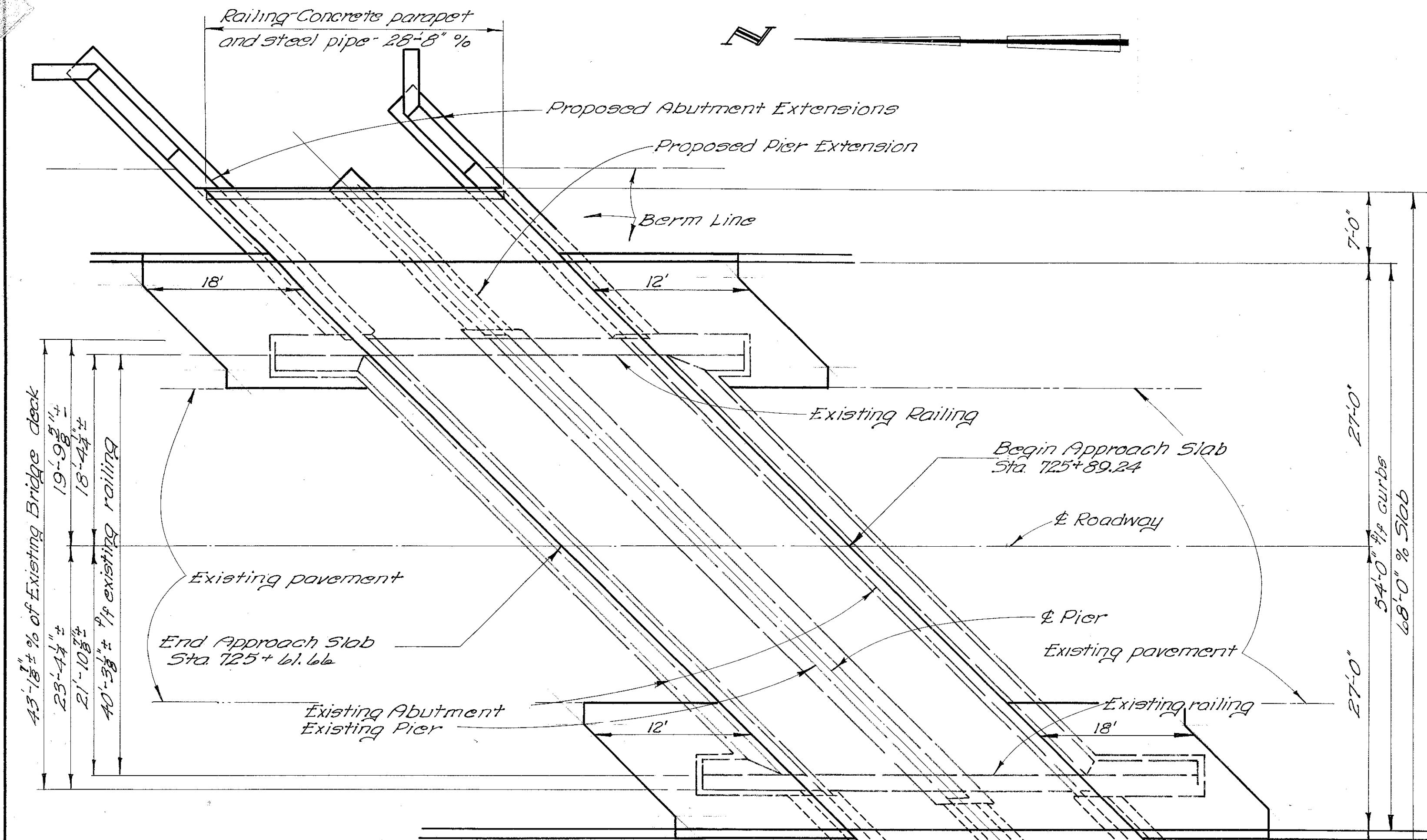


GENERAL NOTES

| FED. RD. DIVISION | STATE | PROJECT |
|----------------------|-------|---------|
| 2 | OHIO | 112 |

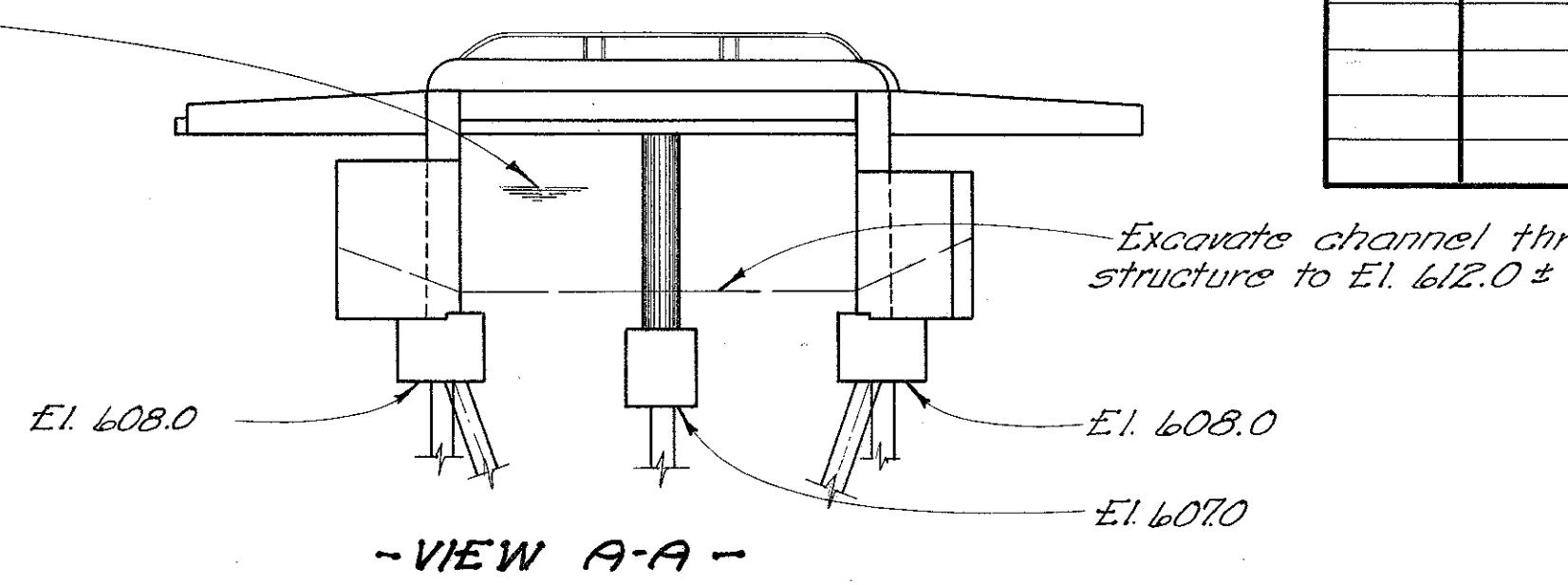
85
112

LUC-20-(10.63-12.44)



- GENERAL PLAN -

(Assumed 5-10 year)
High Water El. 61.68



- VIEW A-A -

PROPOSED WORK:

- Extend existing abutments and pier as shown on the plan.
- Remove existing east railing and remove existing surface course and fill to clearance lines as shown on Sheet 92.
- Temporary railing shall be provided along clearance lines during the two stages of slab construction.
- Provide Class "C" concrete fill over existing slab to bottom of proposed bridge slab.
- Place proposed east slab and edge beam including railing. Proposed east sidewalk shall not be placed until stage two of the slab construction is completed and traffic routed over the west side of the bridge.
- Completed east extension shall be opened to traffic and stage two of the slab construction completed in the same manner as stage one.
- Remove existing wingwalls to 2'-0" below the bottom of approach slabs.
- Place bituminous wearing surface on bridge and approach slabs. Remove T-10 surface course from berms. Complete shoulders and slopes.

REMOVAL OF PORTIONS OF EXISTING STRUCTURE: Remove existing railing, bituminous surface course and fill as described in Proposed Work. Remove existing wingwalls to 2'-0" below the bottom of approach slabs. Removed material shall become the property of the Contractor.

SURFACE FINISH OF CONCRETE: Railing parapet, curb faces and fascias of deck shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item 5-1.

GRAVEL, if used as the coarse aggregate, shall be according to Sec. M-3.93 instead of M-3.91 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Sec. M-3.93 also may be used for all other concrete in this structure.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio Department of Highways, dated October 1, 1951 together with revisions thereof dated July 15, 1952, April 1, 1954 and Feb. 1, 1955.

PILING shall be driven to a minimum bearing capacity of 25 tons. The length of penetration of every pile shall be at least 80% of the estimated average pay length of the piles in the pertinent pier or abutment as indicated on the plan unless a lesser penetration is approved by the Director.

TEMPORARY RUN-AROUND APPROACHES: T-10 surface course shall be placed on berms adjacent to proposed structure to provide for 20 ft temporary pavement width. T-10 & M-10 quantities are included in Roadway Items.

MAINTENANCE OF TRAFFIC: Construction operations shall be conducted so as to provide a 22 ft. minimum width of roadway for maintenance of two-way traffic at all times.

APPROACH SLABS: Thickness at approach slab widening adjacent to existing approach slab shall be increased as shown for std approach slab.

ESTIMATED QUANTITIES

| Item | Total | Unit | Description | Abut. | Piers | Super. | Berm. | As Built |
|---------|-------|---------|---|-------|-------|--------|-------|-----------------|
| E-2 | lump | Sum | Cofferdams, cribs and sheeting | | | | | |
| E-2 | 155 | cuyd | Unclassified excavation | 120 | 35 | | | |
| E-3 | 194 | cuyd. | Channel excavation | | | | | 194 |
| S-1 | 97 | cuyd. | Class "C" concrete, superstructure, including railing parapet | | | | | 97 |
| S-1 | 14 | cuyd. | Class "E" concrete, pier footings | | | | | 14 |
| S-1 | 16 | cuyd. | Class "E" concrete, pier walls | | | | | 16 |
| S-1 | 43 | cuyd. | Class "E" concrete, abutment footings | | | | | 43 |
| S-1 | 60 | cuyd. | Class "E" concrete, abutment walls | | | | | 60 |
| S-3 | 166 | sqyd. | Type "C" waterproofing | | | | | 166 |
| S-4 | 2,337 | lbs | Reinforcing steel | 4,330 | 2,028 | 1,194 | 49 | 63,140.6 23,777 |
| Special | 930 | lb | Type "A" mesh fabric | | | | | 930 |
| S-9 | 17 | sqft | 1/2 premolded expansion joint filler | | | | | 17 |
| S-14 | 52 | lin.ft. | Railing (Steel pipe posts and rail) | | | | | 52 |
| S-16 | lump | Sum | First test pile | | | | | |
| S-18 | 1,000 | lin.ft. | 12' cast-in-place reinforced concrete piles | 910 | 340 | | | |
| S-22 | lump | Sum | Removal of portions of existing structure | | | | | |
| S-23 | 45 | lin.ft. | Dowel holes | | | | | 30 15 |
| S-29 | 68 | cuyd. | Porous backfill | | | | | 68 |
| S-29 | 55 | lin.ft. | Subdrainage for wearing surface course | | | | | 55 |
| S-29 | 6 | each | Scuppers (4" dia. cast-iron pipe) | | | | | 6 |
| T-35 | 12 | cuyd. | Asphaltic concrete surface course, Type "C" (60-70) | | | | | 12 |

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

GENERAL PLAN & ELEVATION, NOTES & ESTIMATED QUANTITIES

BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH

LUCAS COUNTY STA. 725+61.66
725+69.24

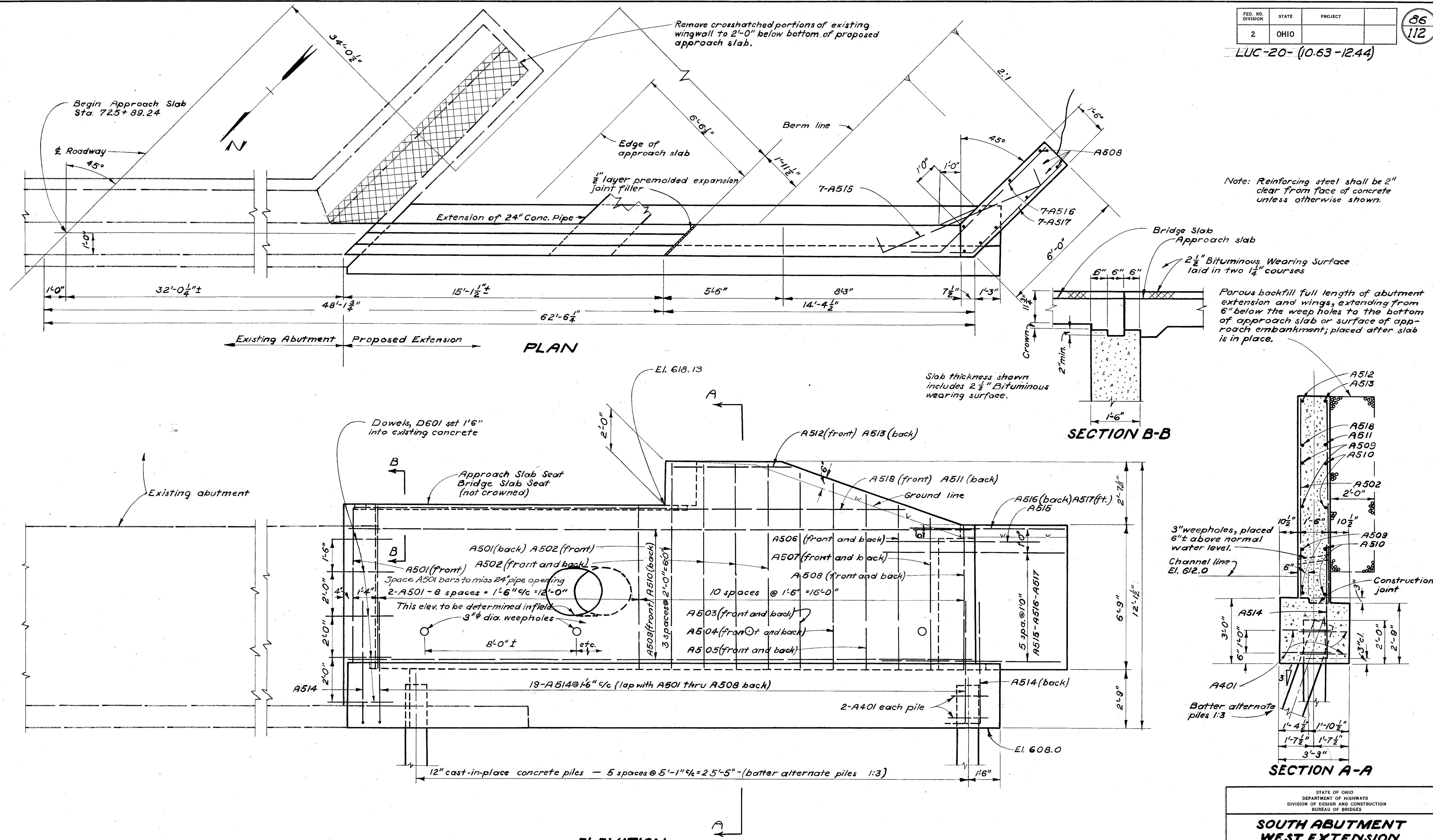
| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED | DATE |
|----------|-------|--------|---------|----------|-------------------------|
| JEM | JEM | RHD | W.G.K. | BFG | 1/17/56 A.F. 2-15-56 |

6-19-59 J.E.P. Revised As Built

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

86
12

LUC-20- (10.63-12.44)



ELEVATION

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

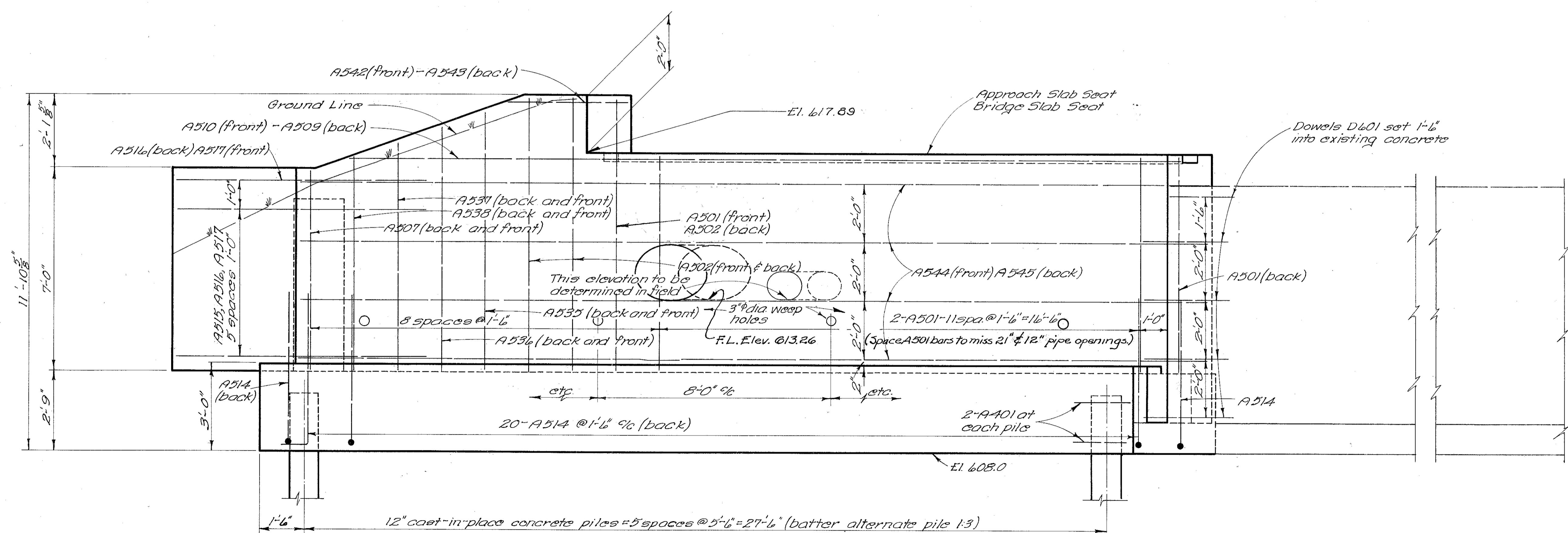
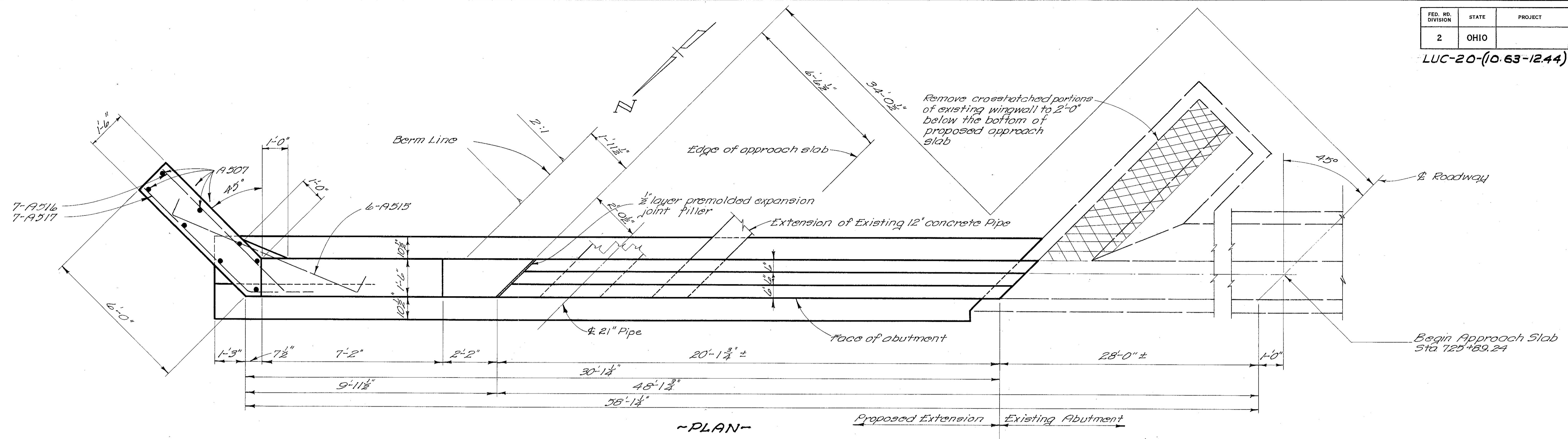
**SOUTH ABUTMENT
WEST EXTENSION
BRIDGE No. LUC-20-1374
OVER HELDMAN DITCH
ICAS CO. STA. 125+61.66**

| | | | | | | |
|----------|-------|--------|---------|---------------|---------|----------|
| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED | DATE | REVISED |
| JEM | JEM | DLS | W.C.K. | BFG 9.8.56 | 2-15-56 | 10/17/56 |

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

LUC-20-(10.63-12.44)

87
112



-ELEVATION

for additional notes and details
see sheet 86 South Abutment
East Extension.

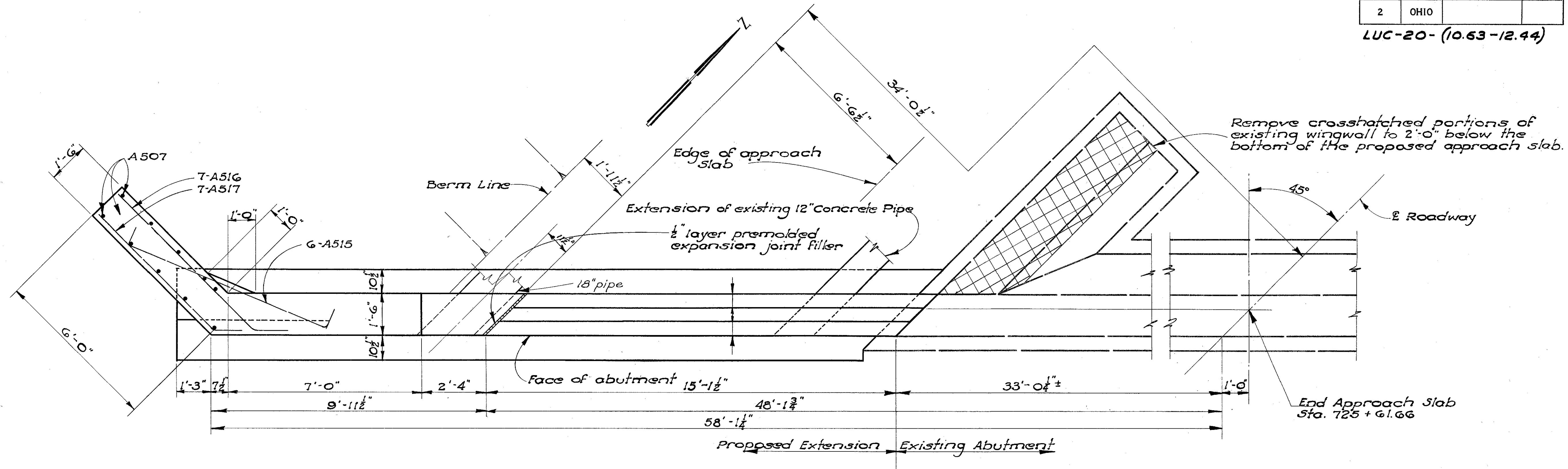
SOUTH ABUTMENT
EAST EXTENSION
BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH
LUCAS CO. STA. 725+61.66
725+89.24

| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED | DATE | REVISE |
|----------|-------|--------------|---------|----------------------|---------|----------|
| JEM | JEM | R.H.D. H. | W.C.K. | BFG <i>A.J.P.</i> | 2-15-56 | 10/17/56 |

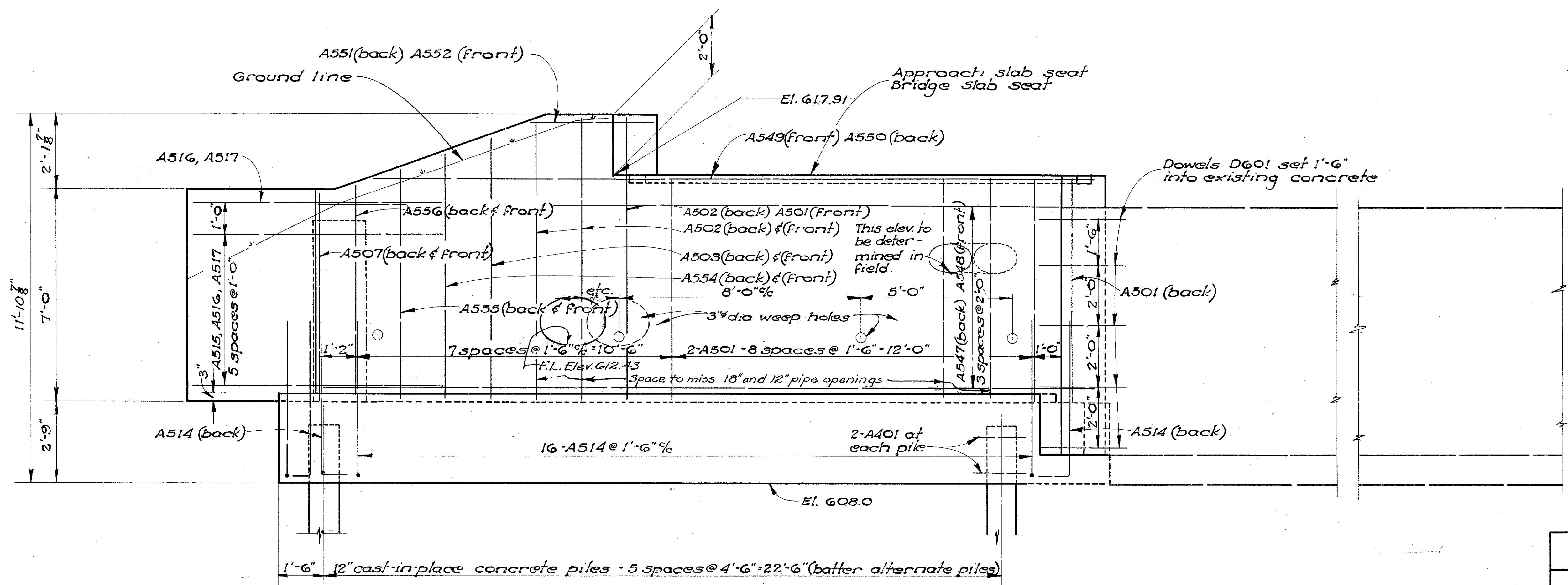
| FED. RD. DIVISION | STATE | PROJECT |
|----------------------|-------|---------|
| 2 | OHIO | |

88
112

LUC-20-(10.63-12.44)



PLAN



ELEVATION

NOTE: For additional notes and details see Sheet 86, South Abutment East Extension.

Save in folder

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

NORTH ABUTMENT
WEST EXTENSION
BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH

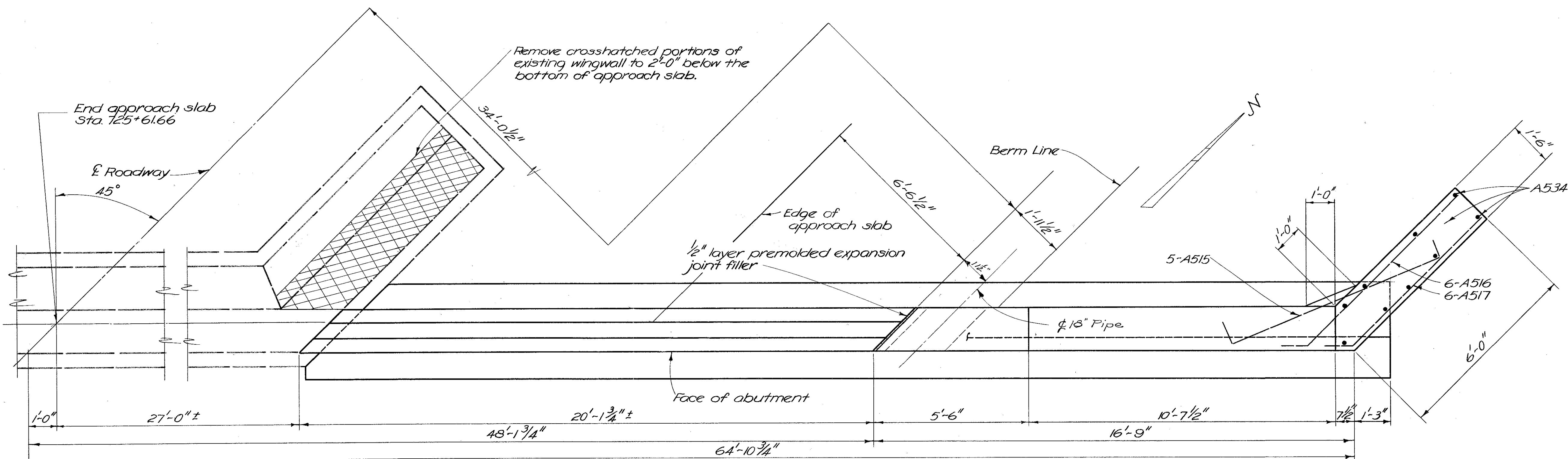
LUCAS COUNTY STA. 725 + G1.66
725 + 89.24

| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED | DATE |
|----------|-------|--------|---------|----------|--------------------|
| JEM | JEM | PGB | W.C.K. | BFG | 1977/86 2-15-86 |

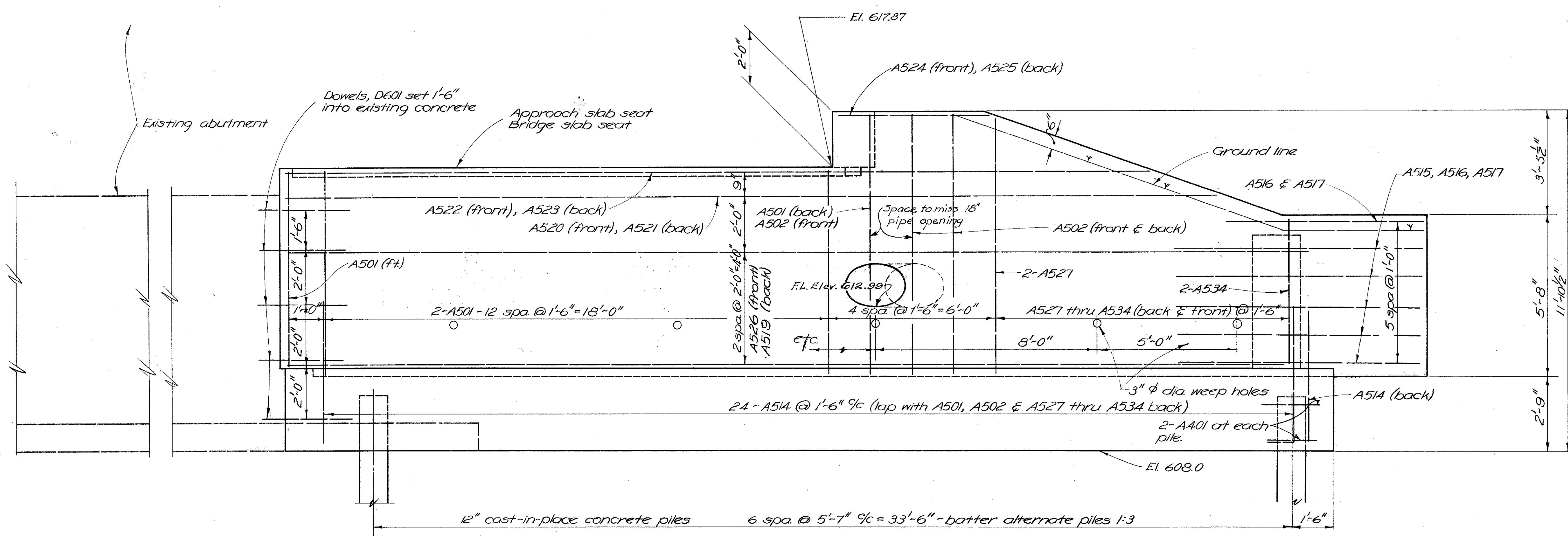
| FED. RD. DIVISION | STATE | PROJECT | |
|----------------------|-------|---------|--|
| 2 | OHIO | | |

LUC-20-(10.63-12.44)

89
112



PLA



ELEVATION

*NOTE: For additional notes
and details see South Abutment
West Extension, Sheet 86.*

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

**NORTH ABUTMENT
EAST EXTENSION**

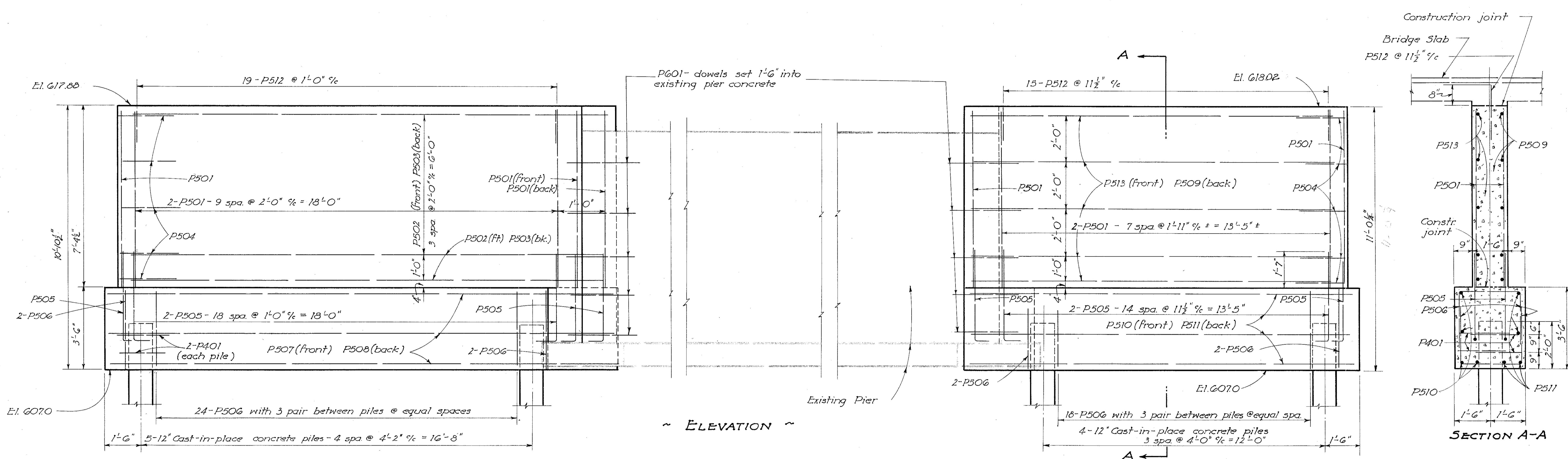
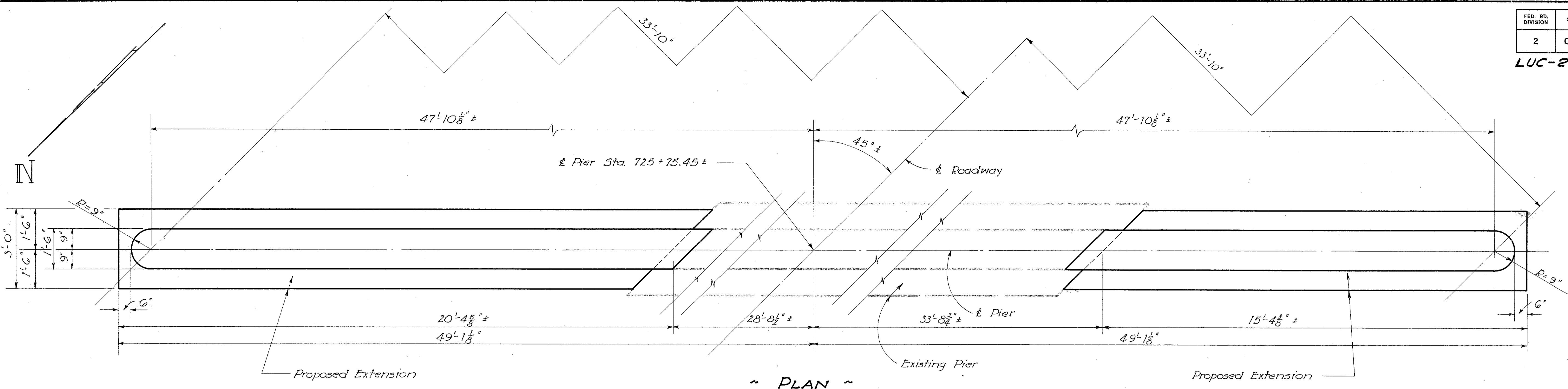
**BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH
LUCAS COUNTY STA. 725 + 61.66
725 + 89.24**

| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED | DATE | REVISED |
|----------|-------|--------|---------|---------------|---------|----------|
| JEM. | JEM | UDM | W.C.K. | BFG 9.8.1. | 2-15-56 | 10/17/56 |

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

90
112

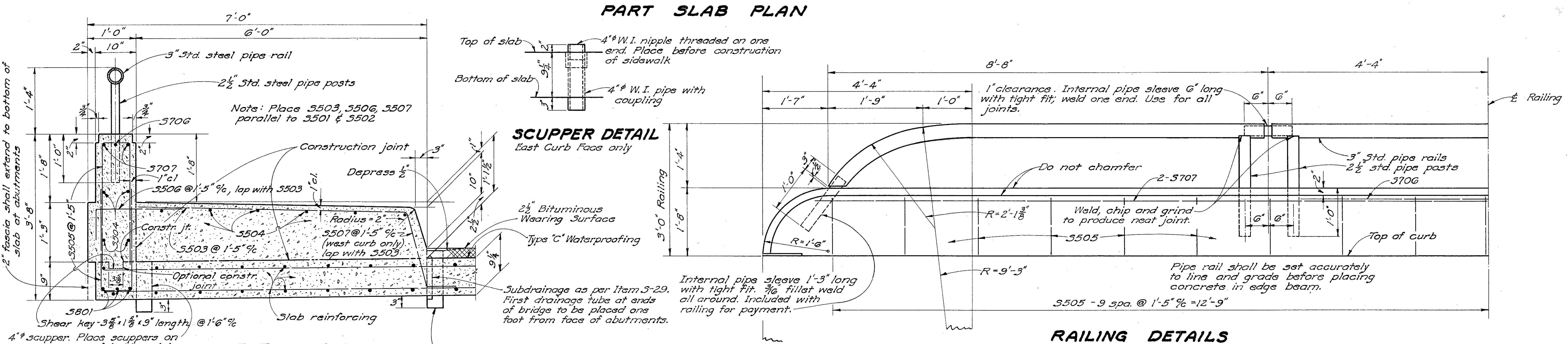
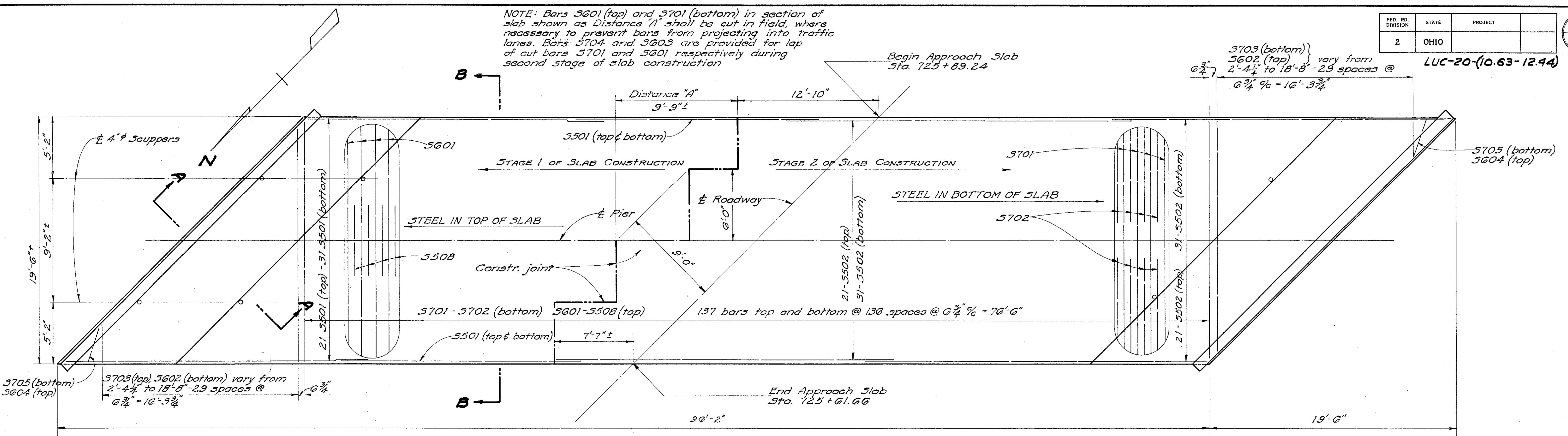
LUC-20-(10.63-12.44)



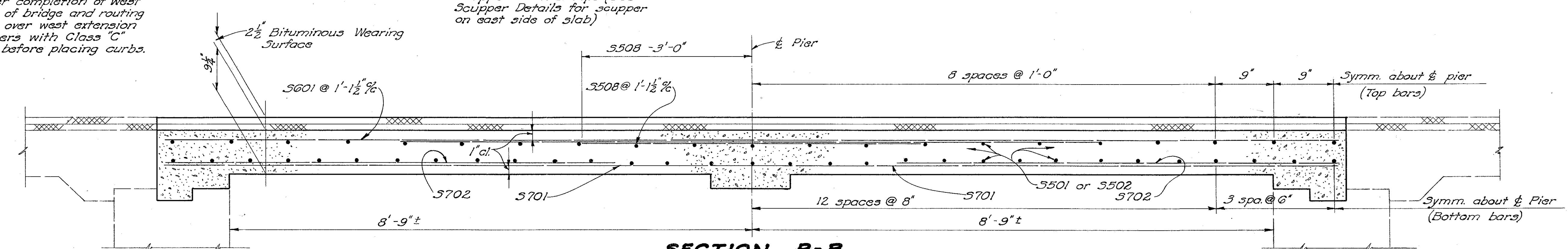
NOTE: Reinforcing steel shall be 2" clear from face of concrete unless otherwise shown.

| PIER DETAILS | | | | | |
|------------------------|-----------|------------------|----------------|--------------|------------------|
| BRIDGE No. LUC-20-1374 | | | | | |
| OVER HELDMAN DITCH | | | | | |
| LUCAS Co. | | | | | STA. 725 + G1.66 |
| DESIGNED JEM | DRAWN JEM | TRACED Grasselli | CHECKED W.C.K. | REVIEWED BRG | DATE 2-15-56 |
| REVISED 2-15-56 | | | | | |

| FED. RD. DIVISION | STATE | PROJECT |
|----------------------|-------|----------------------|
| 2 | OHIO | LUC-20-(10.63-12.44) |

91
112

RAILING DETAILS



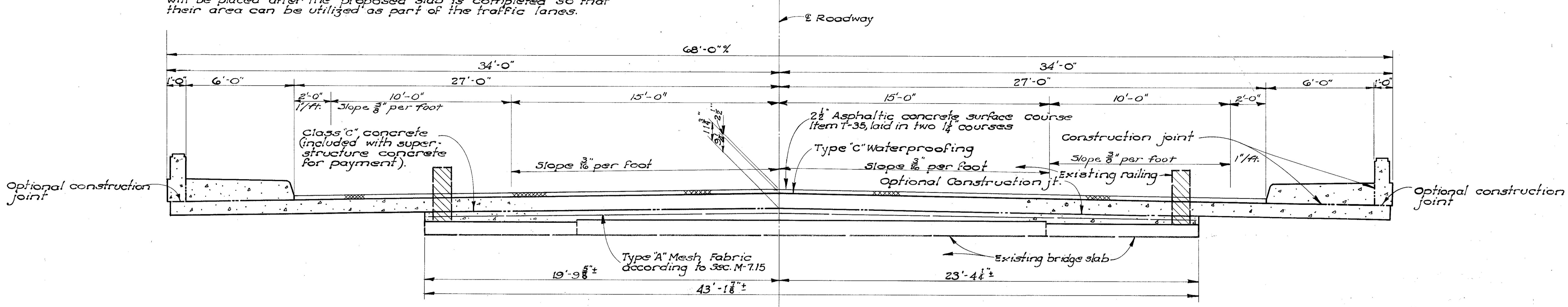
| SUPERSTRUCTURE DETAILS | | | | | |
|---|-----------|------------|----------------|--------------|--------------|
| BRIDGE NO. LUC-20-1374 OVER HELDMAN DITCH LUCAS COUNTY STA. 725 + G1.00 725 + 89.24 | | | | | |
| DESIGNED JEM | DRAWN JEM | TRACED JDJ | CHECKED W.C.K. | REVIEWED BEG | DATE 2-15-56 |
| JEM | JEM | JDJ | W.C.K. | 2-15-56 | |

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

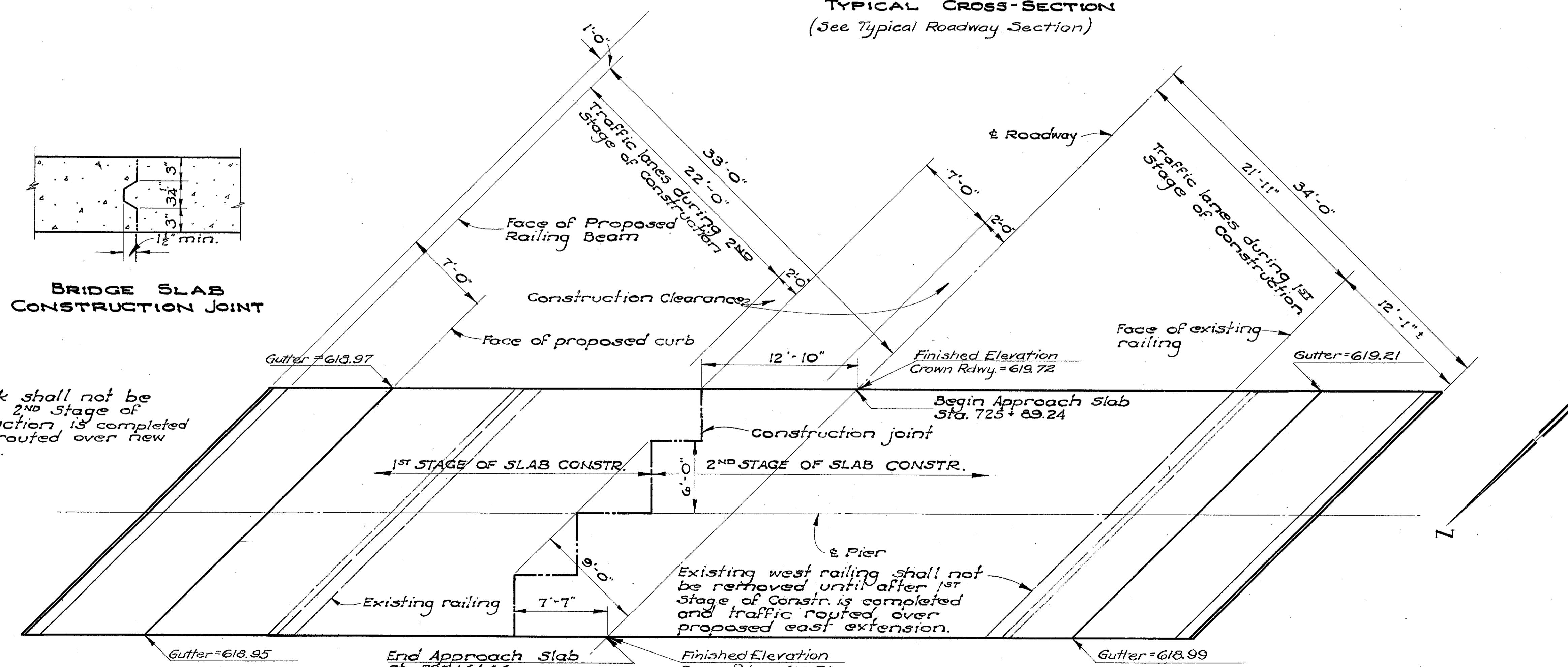
92
112

LUC-20-(0.63-72.44)

Remove existing railing and bituminous surface course. Place Class "C" concrete on existing slab to 11 $\frac{1}{2}$ " below proposed grade before proposed slab is placed. The above removal and proposed construction will be completed in two stages, so that two 11 ft. lanes of traffic, one in each direction, can be maintained at all times. The sidewalks will be placed after the proposed slab is completed so that their area can be utilized as part of the traffic lanes.



TYPICAL CROSS-SECTION
(See Typical Roadway Section)



BRIDGE SLAB CONSTRUCTION JOINT

East sidewalk shall not be placed until 2nd stage of slab construction is completed and traffic routed over new construction.

DIAGRAM OF SLAB CONSTRUCTION STAGES

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

SUPERSTRUCTURE DETAILS

BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH

LUCAS COUNTY STA. 725 + 61.66
STA. 725 + 61.66

| DESIGNED JEM | DRAWN JEM | TRACED PCB | CHECKED W.C.K. | REVIEWED BPG | DATE 9/17/56 | REVISED 9/17/56 |
|-----------------|--------------|---------------|-------------------|-----------------|-----------------|--------------------|
| | | | | | | |

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

93
112

LUC-20-(10.63-12.44)

| REINFORCING STEEL LIST | | | | | | | | | | | | | |
|--------------------------------------|--------------|------------------------------------|-------------------|------------------|--|--------------------------------|--------|-----|------------------|----------|--------|--------|-----|
| MARK NO. | LENGTH | WEIGHT | SHP | BENDING DIAGRAMS | MARK NO. | LENGTH | WEIGHT | SHP | BENDING DIAGRAMS | MARK NO. | LENGTH | WEIGHT | SHP |
| PIERS | | | | | | | | | | | | | |
| P501 | 41 | 7'-3" | 310 | S | | | | | | | | | |
| P502 | 5 | 19'-0" | 99 | S | | | | | | | | | |
| P503 | 5 | 20'-2" | 105 | S | | | | | | | | | |
| P504 | 10 | 4'-9" | 50 | B | | | | | | | | | |
| P505 | 73 | 4'-4" | 330 | B | | | | | | | | | |
| P506 | 50 | 7'-3" | 378 | B | | | | | | | | | |
| P507 | 4 | 16'-8" | 78 | S | | | | | | | | | |
| P508 | 4 | 21'-4" | 89 | S | | | | | | | | | |
| P509 | 5 | 14'-0" | 73 | S | | | | | | | | | |
| P510 | 4 | 16'-2" | 67 | S | | | | | | | | | |
| P511 | 4 | 13'-6" | 56 | S | | | | | | | | | |
| P512 | 34 | 1'-8" | 59 | S | | | | | | | | | |
| P513 | 5 | 15'-2" | 79 | S | | | | | | | | | |
| P401 | 36 | 5'-7" | 210 | B | | | | | | | | | |
| D601 | 10 | 3'-0" | 45 | S | | | | | | | | | |
| SUPERSTRUCTURE | | | | | | | | | | | | | |
| S501 | 6 | 27'-3" | 437 | S | | | | | | | | | |
| S701 | 69 | 19'-2" | 2703 | S | | | | | | | | | |
| S702 | 68 | 8'-8" | 1205 | S | | | | | | | | | |
| S703 | 70 | 2'-4 ¹ / ₄ " | 1289 | S | Vary by 6 ³ / ₄ " increments | | | | | | | | |
| S703 | 70 | 18'-8" | | | | | | | | | | | |
| S704 | 18 | 3'-0" | 110 | S | | | | | | | | | |
| S705 | 2 | 2'-4" | 10 | S | | | | | | | | | |
| S706 | 2 | 7'-0" | 29 | S | | | | | | | | | |
| S707 | 4 | 26'-0" | 213 | S | | | | | | | | | |
| S601 | 69 | 18'-2" | 1986 | S | | | | | | | | | |
| S602 | 70 | 2'-4 ¹ / ₄ " | 947 | S | Vary by 6 ³ / ₄ " increments | | | | | | | | |
| S602 | 70 | 18'-8" | | | | | | | | | | | |
| ABUTMENTS | | | | | | | | | | | | | |
| A501 | 94 | 6'-10" | 670 | S | | | | | | | | | |
| A502 | 22 | 6'-10" | 203 | S | | | | | | | | | |
| A503 | 2 | 8'-10" | 18 | S | | | | | | | | | |
| A504 | 2 | 8'-3" | 17 | S | | | | | | | | | |
| A505 | 2 | 7'-8" | 16 | S | | | | | | | | | |
| A506 | 2 | 7'-2" | 15 | S | | | | | | | | | |
| A507 | 20 | 6'-7" | 137 | S | | | | | | | | | |
| A508 | 9 | 6'-2" | 58 | S | | | | | | | | | |
| A509 | 5 | 29'-2" | 152 | S | | | | | | | | | |
| A510 | 5 | 28'-0" | 146 | S | | | | | | | | | |
| A511 | 1 | 24'-6" | 26 | S | | | | | | | | | |
| A512 | 1 | 5'-0" | 5 | S | | | | | | | | | |
| A513 | 1 | 3'-10" | 4 | S | | | | | | | | | |
| A514 | 87 | 6'-1" | 552 | B | | | | | | | | | |
| A515 | 24 | 8'-9" | 219 | B | | | | | | | | | |
| A516 | 27 | 8'-2" | 230 | B | | | | | | | | | |
| A517 | 27 | 7'-1" | 200 | B | | | | | | | | | |
| A518 | 1 | 25'-6" | 27 | S | | | | | | | | | |
| A519 | 3 | 35'-3" | 110 | S | | | | | | | | | |
| A520 | 1 | 33'-0" | 34 | S | | | | | | | | | |
| A521 | 1 | 31'-9" | 33 | S | | | | | | | | | |
| A522 | 1 | 30'-6" | 32 | S | | | | | | | | | |
| A523 | 1 | 29'-4" | 31 | S | | | | | | | | | |
| A524 | 1 | 5'-1" | 5 | S | | | | | | | | | |
| A525 | 1 | 4'-0" | 4 | S | | | | | | | | | |
| REPLACEMENT BARS | | | | | | | | | | | | | |
| RE701 | 1 | 6'-2" | 13 | S | | | | | | | | | |
| RE801 | 1 | 6'-6" | 17 | S | | | | | | | | | |
| RE601 | 1 | 5'-11" | 9 | S | | | | | | | | | |
| RE501 | 1 | 5'-7" | 6 | S | | | | | | | | | |
| RE401 | 1 | 5'-3" | 4 | S | | | | | | | | | |
| REINFORCING STEEL LIST | | | | | | | | | | | | | |
| BRIDGE NO. LUC-20-1374 | | | | | | | | | | | | | |
| OVER HELDMAN DITCH | | | | | | | | | | | | | |
| LUCAS COUNTY STA. 725 + G1.66 | | | | | | | | | | | | | |
| 725 + 89.24 | | | | | | | | | | | | | |
| DESIGNED JEM | DRAWN JEM | TRACED PCB | CHECKED W.C.K. | REVIEWED BFG | DATE 10/17/54 | REVISED JET 9/97 2-15-56 | | | | | | | |

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

REINFORCING STEEL LIST
BRIDGE NO. LUC-20-1374
OVER HELDMAN DITCH
LUCAS COUNTY STA. 725 + G1.66
725 + 89.24

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED
JEM JEM PCB W.C.K. BFG JET
10/17/54 9/97 2-15-56