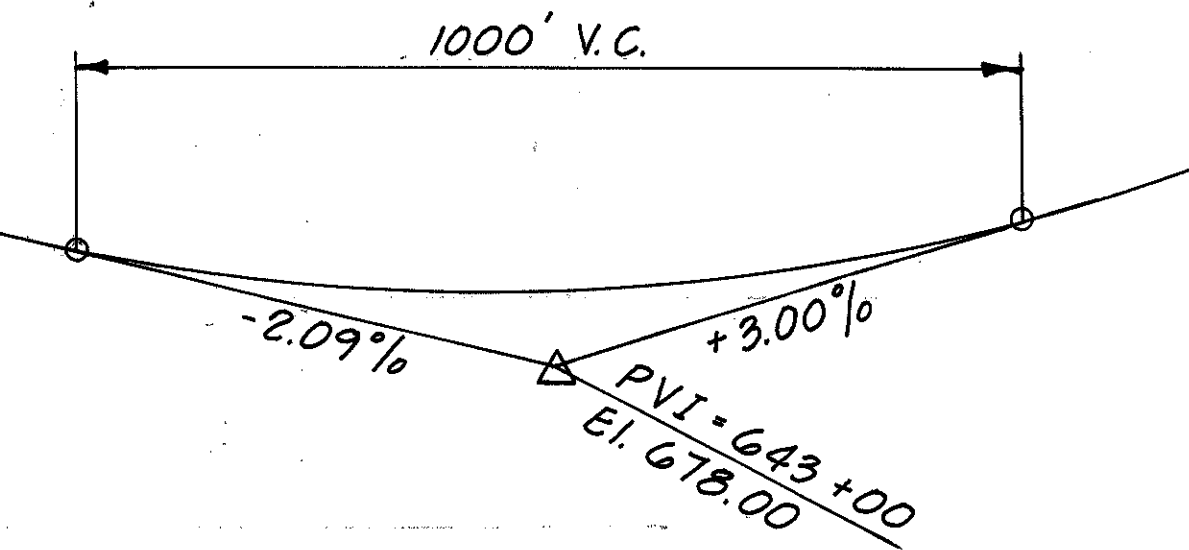
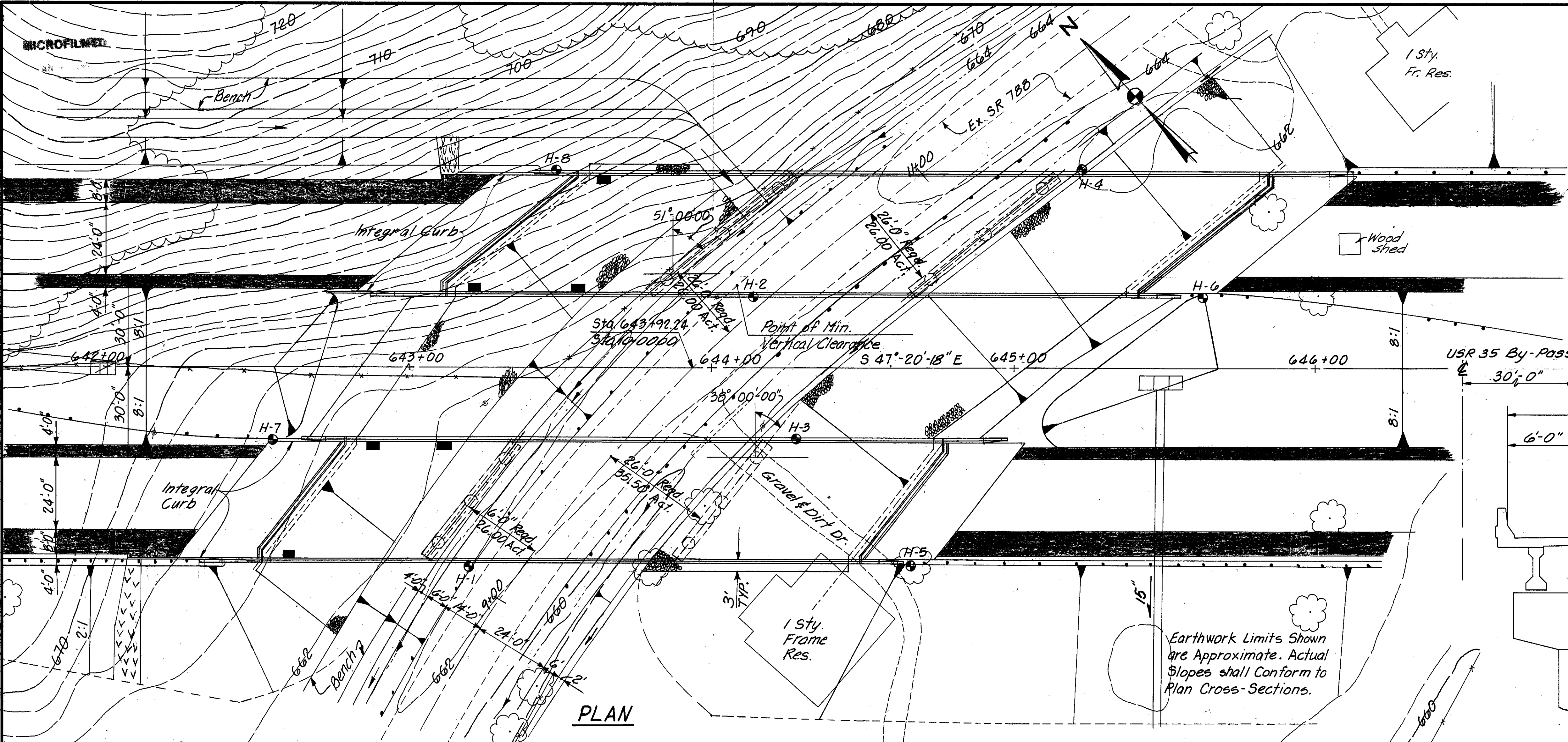
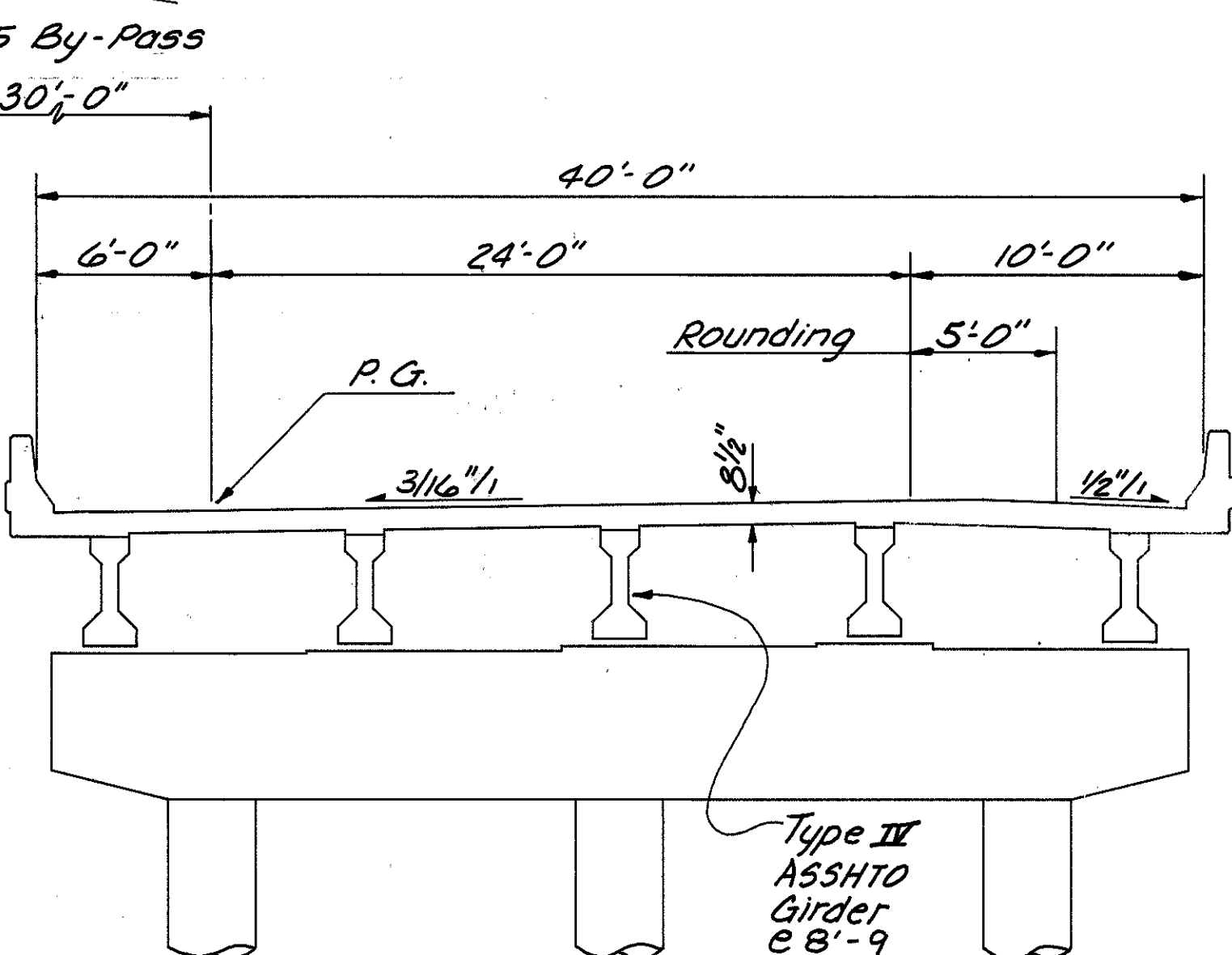
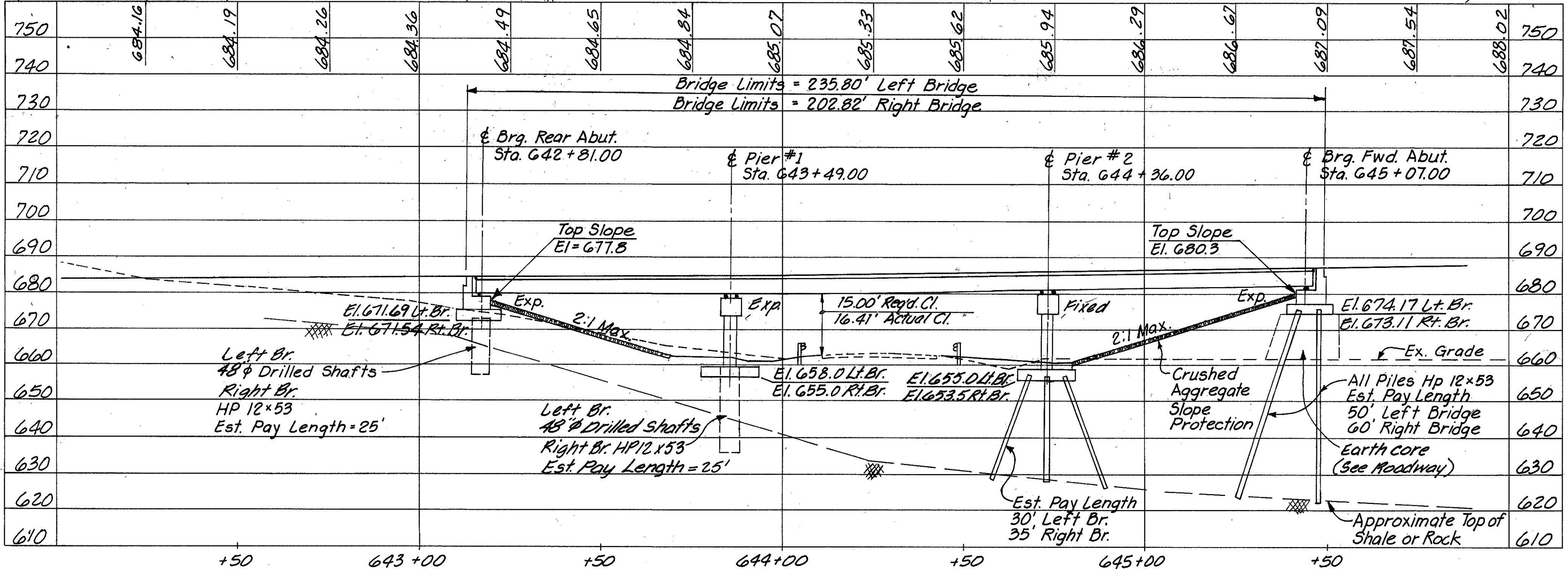




PROFILE GRADE



TYPICAL HALF SECTION
(Right Bridge)



SECTION ALONG PROFILE LINE OF LEFT BRIDGE

TRAFFIC DATA

Average Daily Traffic
Year 2006 = 6,090
26% Trucks = 1,600

PROPOSED STRUCTURE

TYPE: Concrete Deck on Prestressed Concrete I Girders. Deck Composite & Girders Continuous for Live Load.
SPANS: 68'-0, 81'-0 & 71'-0 Left Bridge
54'-0, 83'-0 & 58'-0 Right Bridge
ROADWAY: 2 @ 40' F/F Concrete Parapets.
LOADING: HS20-44 and Alternate Military Loading.
SKEW: 51°-00'-00" Left Fwd. Left Bridge
38°-00'-00" Left Fwd. Right Bridge
ALIGNMENT: Tangent.
WEARING SURFACE: Monolithic Concrete.
APPROACH SLAB: AS-1-81 (25' Long)



ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

SITE PLAN

BRIDGE NO. JAC-35-1220 1/4
OVER STATE ROUTE 788

DESIGNED: W.B.S. DRAWN: KJO TRACED: J.E.T. CHECKED: W.B.S. 5/9/06 REVIEWED: DATE: REVISED:

ESTIMATED QUANTITIES

JAC-35-11.46

OHIO
FHWA
REGION 5355
442

ITEM	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE					RIGHT BRIDGE				
				ABUT'S	PIERS	SUPER	GENERAL		ABUT'S	PIERS	SUPER	GENERAL	
503	1212	Cu.Yds.	Unclassified Excavation	493	136				372	211			
505	L.S.	Lump Sum	Pile Driving Equipment Mobilization				L.S.					L.S.	
507	4255	Lin.Ft.	Steel Piles, HP 12x53	1,100	630				1,445	1080			
507	113	Each	Steel Points	22	21				34	36			
509	97,545	Lbs.	Reinforcing Steel, Grade 60	14,212	31,099	6,994			11,791	28,334	5,115		
511	176	Cu.Yds.	Class C Concrete, Diaphragms			96					80		
511	224	Cu.Yds.	Class C Concrete, Pier Above Footings		122					102			
511	350	Cu.Yds.	Class C Concrete, Abutments Above Footings	206					144				
511	397	Cu.Yds.	Class C Concrete, Footings	136	69				103	89			
515	2105	Lin.Ft.	Prestressed Concrete Bridge Members, AASHTO Type IV, See Proposal Note			1,130					975		
516	41	Lin.Ft.	PVC Waterstop, as per plan	21					20				
516	226	Lin.Ft.	Structural Expansion Joint, including 3" Strip Seal			124					102		
516	60	Each	4"x10"x24" Laminated Elastomeric Bearings	10	20				10	20			
516	48	Sq.Ft.	4" Preformed Expansion Joint Filler (AASHTO M213)			24					24		
518	185	Cu.Yds.	Porous Backfill	101					84				
518	206	Lin.Ft.	6" Perforated Helical Corrugated Steel Pipe, 707.01	114					92				
518	179	Lin.Ft.	6" Non Perforated Helical Corrugated Steel Pipe, including Specials 707.01	105					74				
518	6	Each	Scupper, including Supports, as per plan			3					3		
601	2855	Sq.Yds.	Crushed Aggregate Slope Protection				1572					1283	
Special	1,946	Sq. Yds.	Sealing of Concrete Surfaces (Epoxy), See Proposal Note	238	320	500			195	261	432		
824	15,635	Lbs.	Epoxy Coated Reinforcing Steel, Grade 60	8,546					7,089				
Special	30	Each	1" Smooth Dowel Bars with Sleeves		15					15			
Special	64	Lin.Ft.	4" Drilled Shafts above Bedrock	37	27								
Special	66	Lin.Ft.	4" Drilled Shafts in Bedrock	42	24								
Bridge Deck Design A													
511	580	Cu.Yds.	Class S Concrete, superstructure, See Proposal Note			311					269		
Special	141,670	Lbs.	Epoxy Coated Reinforcing Steel, Grade 60, for Deck			75,780					65,890		
Bridge Deck Design B													
511	467	Cu.Yds.	Class S Concrete, superstructure, See Proposal Note			251					216		
515	200	Each	Precast Prestressed Concrete Panel, See Proposal Note			104					96		
Special	105,338	Lbs.	Epoxy Coated Reinforcing Steel, Grade 60, for Deck			56,056					49,282		

GENERAL NOTES

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS:
 AS-1-81 DATED 11/27/81 SHEETS 1, 2, & 3
 BR-1 DATED 5/29/79
 DP-1-84 DATED 4/84 SHEETS 1 & 2
 ICD-1-82 DATED 8/1/84 SHEET 2
 GR-1 DATED 1/11/85
 GR-3 DATED 1/21/85
 MC-7 DATED 10/15/76
 BP-4 DATED 7/16/81
 AND TO SUPPLEMENTAL SPECIFICATION:
 836 DATED 11/12/85
 824 DATED 10/8/82

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING THE 1984 INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

CONCRETE: CLASS S - COMPRESSIVE STRENGTH 4500 PSI
 CLASS C - COMPRESSIVE STRENGTH 4000 PSI

REINFORCING STEEL: ASTM A615, A616 or A617--GRADE 60
 MINIMUM YIELD STRENGTH 60,000 P.S.I.
 SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

CONCRETE FOR PRESTRESSED BEAMS: UNIT STRESS 2200 PSI
 COMPRESSION 444 PSI TENSION, 28 DAY STRENGTH 5500 PSI.

PRESTRESSING STRAND: STABILIZED (LO-LAX) ASTM A416.
 F'S = 270,000 PSI; INITIAL STRESS = 0.75 F'S.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, TOP AND BOTTOM MAT.

MONOLITHIC WEARING SURFACE: IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ALTERNATE BEAM DESIGN: THIS STRUCTURE WAS DESIGNED USING AASHTO TYPE IV GIRDERS AND STABILIZED (LO-LAX) STRAND. IF STRESS-RELIEVED STRAND AND/OR ODOT 1-54 GIRDERS ARE CHOSEN, THE PRESTRESSED BEAMS MUST BE REDESIGNED AND THE PLANS REVISED AS REQUIRED BY A PREQUALIFIED ENGINEER AT THE CONTRACTOR'S EXPENSE. DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW.

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES AT THIS STRUCTURE, THE SPILL-THRU SLOPE EMBANKMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. AFTER THE EMBANKMENT IS COMPLETED WITHIN THE ABOVE REQUIRED LIMITS, THE EXCAVATION FOR THE PIER FOOTING CAN BE MADE AND PIER PILES CAN BE DRIVEN. THE EXCAVATION FOR THE ABUTMENT FOOTING AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT IS COMPLETED AND THE EMBANKMENT HAS EXPERIENCED A WAITING PERIOD OF 60 DAYS. THE DIRECTOR MAY SHORTEN THE WAITING PERIOD IF THE CONTRACTOR'S FIELD MEASUREMENTS INDICATE THAT 90 PERCENT CONSOLIDATION HAS BEEN ATTAINED. THIS NOTE DOES NOT APPLY TO THE REAR ABUTMENT OR PIER OF THE LEFT STRUCTURE.

PILES: SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS ATTAINED BY PENETRATING SOFT BEDROCK WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH, OR REFUSAL SHALL BE CONSIDERED AS ATTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

PILE DESIGN LOADS: THE DESIGN LOAD FOR THE ABUTMENT PILES IS 70 TONS PER PILE WHICH INCLUDES AN ALLOWANCE OF 22 TONS PER PILE FOR DOWNDRAG AND THE DESIGN LOAD FOR THE PIER NO. 1 IS 45 TONS PER PILE AND PIER NO. 2 IS 55 TONS PER PILE.

STEEL POINTS: STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED PILING. THE STEEL POINTS SHALL BE FURNISHED BY THE ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BOULEVARD, CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS INC., P.O. BOX 688, FRANKLIN LAKE, NEW JERSEY 07417; VERSA STEEL INC., 3601 N.W. YEON AVENUE, P.O. BOX 10559, PORTLAND, OREGON 97210 OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO THE DIRECTOR.

CONSTRUCTION SEQUENCE: SEE PROJECT GENERAL NOTES FOR SEQUENCE OF CONSTRUCTION.

EMBANKMENT: SEE PROJECT GENERAL NOTES FOR EMBANKMENT CONSTRUCTION AND INSTRUMENTATION.

STRIP SEALS & EXTRUSIONS: FOR EXPANSION JOINT SHALL BE WATSON/BROWN/ACME, D.S. BROWN OR APPROVED EQUIVALENT. DRAWINGS OF THE SEALS SHOWING DIMENSIONS, DIMENSIONAL TOLERANCES AND WEIGHT PER FOOT SHALL BE SUBMITTED WITH THE REQUEST FOR DESIGN APPROVAL. SEALS FOR BRIDGE DECK JOINTS SHALL BE FURNISHED IN ONE CONTINUOUS PIECE. SHOP SPLICES SHALL BE MADE BY A VULCANIZED PROCESS.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

MAINTENANCE OF TRAFFIC: TWO LANES OF TRAFFIC WITH A MINIMUM HORIZONTAL WIDTH OF 20'-0" AND A MINIMUM VERTICAL CLEARANCE OF 14'-0" SHALL BE MAINTAINED ON S.R. 788 AT ALL TIMES.

KZF INCORPORATED						2/32
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS 111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117						
ESTIMATED QUANTITIES & GENERAL NOTES						
BRIDGE NO. JAC-35-1220 1/2 OVER STATE ROUTE 788						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	KJD	—	JET	WBS	5/7/84	

ITEM SPECIAL - DRILLED SHAFTS

DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING DRILLED SHAFTS OF THE TYPE AND SIZE CALLED FOR BY THE PLANS. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND APPURTENANCES REQUIRED TO COMPLETE THE WORK AS SPECIFIED. THE LENGTH(S) OF THE DRILLED SHAFTS SHOWN IN THESE PLANS HAS BEEN ESTIMATED FROM THE AVAILABLE SUBSURFACE INFORMATION. THE CONTRACTOR IS EXPECTED TO FURNISH THE PROPOSED DRILLED SHAFTS AS PER THESE PLAN REQUIREMENTS WITH THE UNDERSTANDING THAT THE ESTIMATED LENGTH SHOWN ON THE PLANS MAY BE DIFFERENT FROM THE ACTUAL LENGTH DETERMINED TO BE NECESSARY AT THE TIME OF CONSTRUCTING THE DRILLED SHAFTS.

THE LIMITS OF EACH DRILLED SHAFT SHALL BE DEFINED AT THE TOP BY THE PLAN ELEVATION AND AT THE BOTTOM BY THE ELEVATION OF THE BOTTOM OF THE BEDROCK SOCKET.

A CASING MAY BE NECESSARY FOR EACH DRILLED SHAFT. DRILLED SHAFT CASINGS MAY BE REMOVED PROVIDED ALL PLAN REQUIREMENTS ARE SATISFIED.

CONTRACTOR QUALIFICATION

THE CONTRACTOR SHALL SUBMIT INFORMATION TO DOCUMENT THAT HIS PERSONNEL ARE EXPERIENCED IN THE CONSTRUCTION OF DRILLED SHAFTS OF THE TYPE AND SIZE DESCRIBED BY THE PLANS. THIS INFORMATION SHALL BE SUBMITTED AT THE PRECONSTRUCTION CONFERENCE.

DEVIATION FROM PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS INVOLVED WHEN MAKING CORRECTIONS TO HIS UNAUTHORIZED DEVIATIONS FROM THE PLANS. THE DIRECTOR SHALL DECIDE WHEN CORRECTIONS ARE NECESSARY.

IF A DRILLED SHAFT(S) IS CONSTRUCTED OUTSIDE OF THE PLAN TOLERANCES, THE CONTRACTOR MAY BE SUBJECT TO REDUCED PAYMENT AS DETERMINED BY THE DIRECTOR.

CASING

THE CASINGS SHALL BE MADE OF STEEL AND SHALL BE WATER TIGHT AND SHALL BE OF AMPLE STRENGTH TO WITHSTAND HANDLING STRESSES AND EXTERNAL SUBSURFACE PRESSURES. THE CASINGS SHALL BE SEATED INTO THE BEDROCK, THUS ATTEMPTING TO SEAL OFF INCOMING WATER, AND THE CASING LENGTH SHALL BE AS NECESSARY TO CONSTRUCT EACH DRILLED SHAFT.

THE DIAMETER OF THE FURNISHED CASING(S) SHALL BE LARGE ENOUGH TO ALLOW THE CONSTRUCTION OF A BEDROCK SOCKET WHICH HAS A DIAMETER THAT IS EQUAL TO OR GREATER THAN THE PLAN DIAMETER.

EXCAVATION

EXCAVATION FOR THE DRILLED SHAFTS SHALL BE PERFORMED BY ROTARY DRILLING METHODS USING PRACTICAL METHODS AND MACHINERY ACCEPTABLE TO THE ENGINEER. WHEN OBJECTS SUCH AS LARGE BOULDERS ARE ENCOUNTERED, THEY SHALL BE REMOVED. BLASTING METHODS MAY BE USED ONLY AFTER RECEIVING PERMISSION FROM THE ENGINEER AND WHEN USED SHALL BE SO CONDUCTED AS TO AVOID DISTURBANCE OF THE BEDROCK FORMATION BELOW AND OUTSIDE THE LIMITS OF THE PROPOSED DRILLED SHAFT EXCAVATIONS. THE CONTRACTOR SHALL CARRY LIABILITY INSURANCE AND SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS GOVERNING THE USE OF EXPLOSIVES. THE DRILLED SHAFTS SHALL PENETRATE INTO SOLID BEDROCK TO A DEPTH THAT PROVIDES A BEDROCK SOCKET LENGTH THAT IS NOT LESS THAN THE BEDROCK SOCKET LENGTH SHOWN IN THE PLANS. WHEN A CASING IS USED, THE BEDROCK SOCKET SHALL BE MEASURED FROM THE BOTTOM OF THE CASING TO THE BOTTOM OF THE DRILLED BEDROCK EXCAVATION. WHEN THE ENGINEER IS ASSURED THAT A PORTION OF THE METAL CASING IS EMBEDDED IN SOLID BEDROCK, THE EMBEDDED DISTANCE MAY BE INCLUDED AS PART OF THE BEDROCK SOCKET UPON THE DIRECTOR'S CONCURRENCE.

DEWATERING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ANY INCOMING WATER TO THE EXTENT THAT THE SHAFT EXCAVATION IS MAINTAINED DRY ENOUGH FOR PERFORMANCE OF THE REQUIRED INSPECTION OPERATION. THE PREFERRED METHOD OF CONSTRUCTION IS TO PLACE THE CONCRETE IN A CLEAN DRY EXCAVATION. THE CONTRACTOR IS EXPECTED TO MAKE A REASONABLE ATTEMPT TO SEAL WATER OUT OF THE DRILLED SHAFT EXCAVATION.

BOTTOM CLEANOUT

THE BOTTOM OF THE DRILLED SHAFT EXCAVATION SHALL BE AS CLEAN AS PRACTICABLE (NO MORE THAN ONE QUARTER INCH OF LOOSE MATERIAL ON THE BOTTOM) PRIOR TO CONCRETE PLACEMENT. DRILLING SPOILS THAT ADHERE TO THE VERTICAL SIDES OF THE BEDROCK SOCKET ARE TO BE REMOVED.

APPROVAL BEFORE CONCRETE PLACEMENT

THE CONTRACTOR SHALL SUBMIT TO THE PROJECT ENGINEER A WRITTEN REPORT OF STEPS AND PROCEDURES THAT HE PROPOSES TO FOLLOW WHEN PLACING AND MONITORING THE CONCRETE PLACEMENT. CONCRETE SHALL NOT BE PLACED IN ANY DRILLED SHAFT EXCAVATION WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE DRILLED SHAFT EXCAVATION SHALL BE INSPECTED IMMEDIATELY BEFORE THE CONCRETE IS PLACED. A LIGHT POWERFUL ENOUGH TO THOROUGHLY INSPECT THE SIDES, BOTTOM AND REINFORCING STEEL CAGE OF THE DRILLED SHAFT IS REQUIRED. NO CONCRETE SHALL BE PLACED DURING INCLEMENT WEATHER CONDITIONS WHICH PROHIBIT A THOROUGH INSPECTION.

CONCRETE PLACEMENT

THE CONCRETE FOR THE DRILLED SHAFTS SHALL BE PLACED AS PER 511 EXCEPT AS MODIFIED BY THE PLANS. THE CONCRETE PLACEMENT OPERATION SHOULD BE CONTINUOUS FROM START TO FINISH. THE CONCRETE FOR THE BEDROCK SOCKET SHALL BE PLACED AGAINST THE INSITU BEDROCK AND SHALL BE PLACED PROMPTLY AFTER THE FINAL INSPECTION OF THE SHAFT. IF PRACTICABLE, THE CONCRETE SHALL BE PLACED IN A CLEAN DRY EXCAVATION. CARE SHALL BE TAKEN TO ENSURE THAT CONCRETE IS NOT BEING PLACED IN MOVING WATER. THE CONCRETE CAN BE PLACED IN A DRY DRILLED SHAFT EXCAVATION BY THE FREE FALL METHOD PROVIDED THE CONCRETE FALLS TO ITS FINAL POSITION THROUGH AIR WITHOUT STRIKING THE SIDES OF THE HOLE, THE REINFORCING STEEL CAGE, OR ANY OTHER OBSTRUCTION. THE FREE FALL METHOD ALLOWS THE CONCRETE TO BE DROPPED FROM THE TOP THROUGH A CENTERING CHUTE TO THE CONCRETE'S FINAL POSITION.

IF THE ENGINEER DETERMINES THAT DEWATERING IS NOT PRACTICABLE, THE CONTRACTOR WILL BE GIVEN PERMISSION TO PLACE THE CONCRETE UNDER WATER. TO PLACE CONCRETE UNDER WATER, THE DRILLED SHAFT EXCAVATION SHALL BE FILLED WITH WATER TO SUCH A DEPTH THAT ALL WATER MOTION HAS CEASED. THE CONCRETE SHALL THEN BE PLACED BY MEANS OF A CONCRETE PUMP. THE CONCRETE PUMP PIPE SHALL HAVE A DIAMETER THAT IS NOT LESS THAN 4 INCHES. THE CONCRETE PUMP EQUIPMENT SHALL BE SO ARRANGED THAT NO VIBRATIONS RESULT WHICH MIGHT DAMAGE FRESHLY PLACED CONCRETE. PIPES CARRYING CONCRETE FROM THE PUMP TO THE SHAFT SHOULD BE LAID OUT WITH A MINIMUM NUMBER OF BENDS. THE PIPE USED TO CONVEY THE CONCRETE TO THE BOTTOM OF THE DRILLED SHAFT EXCAVATION SHALL BE ANCHORED TO THE STEEL CASING TO PREVENT THE PIPE FROM UNDULATING DURING THE INITIAL PLACEMENT OF THE CONCRETE.

THE PUMPING EQUIPMENT SHALL BE SUITABLE IN KIND AND ADEQUATE IN CAPACITY FOR THE WORK REQUIRED. THE USE OF ALUMINUM PIPE AS A CONVEYANCE FOR THE CONCRETE WILL NOT BE PERMITTED. AN ADEQUATE QUANTITY OF GROUT MORTAR OR CONCRETE WITH COARSE AGGREGATE OMITTED SHALL BE PUMPED THROUGH THE EQUIPMENT AHEAD OF THE SPECIFICATION CONCRETE TO PROVIDE LUBRICATION TO THE PUMPING SYSTEM. THE CONCRETE USED FOR LUBRICATION SHALL NOT BE PLACED IN THE SHAFT. THE LUBRICATION PROCESS WILL NOT BE REPEATED AS LONG AS THE PUMPING OPERATIONS ARE CONTINUOUS. THE OPERATION OF THE PUMP SHALL BE SUCH THAT A CONTINUOUS STREAM OF CONCRETE WITHOUT AIR POCKETS IS PRODUCED. IN ORDER TO PREVENT THE CONTAMINATION OF THE CONCRETE PLACED INITIALLY AT THE BOTTOM OF THE SHAFT, THE OUTLET END OF THE PUMPING PIPE SHALL BE SEALED WITH A DIAPHRAGM OR PLUG THAT IS FLUSHED OUT WHEN THE HYDROSTATIC PRESSURE FROM THE COLUMN OF CONCRETE EXCEEDS THAT OF THE WATER IN THE SHAFT. THE INITIAL RATE OF CONCRETE PLACEMENT MUST BE CAREFULLY CONTROLLED SO AS NOT TO LIFT OR DISPLACE THE CAGE OF REINFORCING STEEL. THE CONVEYING SYSTEM SHALL BE WATER TIGHT AND THE OUTLET END SHALL ALWAYS REMAIN WELL BELOW THE TOP OF THE FRESHLY PLACED CONCRETE. THE PREFERRED CONCRETE PLACEMENT PROCEDURE IS TO MAINTAIN THE OUTLET END OF THE PUMPING SYSTEM AT APPROXIMATELY 3 FEET BELOW THE TOP OF THE FRESH CONCRETE. WHEN THE CONCRETE REACHES THE TOP OF THE DRILLED SHAFT COLUMN ALL LAITANCE SHALL BE REMOVED.

ALTERNATE CONSTRUCTION METHODS

THE CONTRACTOR MAY PROPOSE ALTERNATE CONSTRUCTION METHODS WHICH WILL BE APPROVED OR REJECTED BY THE DIRECTOR.

TOLERANCES

THE CONTRACTOR SHALL LOCATE AND CONSTRUCT THE TOP CENTER OF THE PIER DRILLED SHAFTS WITHIN A ONE-INCH RADIUS OF THE POSITION INDICATED BY THE PLANS. THE PIER SHAFTS ARE TO BE INSTALLED VERTICALLY AND MUST BE WITHIN 1.0 PERCENT OF PLUMB FOR THE TOTAL LENGTH OF THE DRILLED SHAFT.

THE TOP CENTER OF THE ABUTMENT DRILLED SHAFTS SHALL BE LOCATED WITHIN A 3 INCH RADIUS OF THE POSITION INDICATED BY THE PLANS. THE ABUTMENT VERTICAL DRILLED SHAFTS ARE TO BE INSTALLED WITHIN 2.0 PERCENT OF PLUMB FOR THE TOTAL LENGTH OF THE DRILLED SHAFTS.

CONCRETE

CONCRETE FOR ALL DRILLED SHAFTS SHALL BE CLASS S CONCRETE AND SHALL BE IN ACCORDANCE WITH 511, EXCEPT AS MODIFIED AND SUPPLEMENTED HEREIN. THE REQUIRED SLUMP IS SIX (6) INCHES, PLUS OR MINUS ONE-HALF INCH. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.50. IF CONCRETE IS PLACED UNDER WATER, THE REQUIREMENT OF ADDING 10 PERCENT MORE CEMENT TO THE CONCRETE MIX SHALL BE WAIVED. THE TOP 5 TO 10 FEET OF CONCRETE IN THE DRILLED SHAFTS ARE REQUIRED TO BE VIBRATED. ONLY A MINIMAL VIBRATORY EFFORT IS NECESSARY. SPECIAL CARE SHALL BE TAKEN NOT TO OVER-VIBRATE THE DRILLED SHAFT CONCRETE.

IF THE CASINGS FOR THE DRILLED SHAFTS ARE TO BE WITHDRAWN, THE CONCRETE SHALL NOT BE VIBRATED UNTIL THE CASING IS COMPLETELY REMOVED AND THE SHAFT TOP IS FORMED TO THE PLAN CROSS-SECTION. THE CONTRACTOR SHALL FURNISH A PRECONSTRUCTED TOP FORM FOR USE IN ACCURATELY CONFINING THE CONCRETE AT THE TOP OF THE DRILLED SHAFT WHEN THE CASING IS REMOVED.

REINFORCING STEEL

REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF 509. THE REINFORCING STEEL SHALL BE GRADE 60. THE SPIRAL REINFORCING STEEL MAY BE PLAIN BARS ASTM A82 OR A615. THE REINFORCING STEEL SHALL BE COMPLETELY ASSEMBLED PRIOR TO PLACEMENT AND THE LENGTH SHALL BE AS NECESSARY TO CONSTRUCT EACH DRILLED SHAFT. SEE PLAN SHEETS FOR DETAILS OF REINFORCING STEEL. VERTICAL BAR LENGTHS AS GIVEN IN THE REINFORCING STEEL LIST HAVE BEEN ESTIMATED.

INSPECTION

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUITABLE MEANS FOR ACCESS AND SAFE DESCENT INTO ALL DRILLED SHAFT EXCAVATIONS THAT ARE PROTECTED BY A CASING AND HAVE A DIAMETER THAT IS LARGE ENOUGH TO ALLOW A PERSON TO SAFELY ENTER AND PERFORM THE REQUIRED INSPECTION. ACCESS CAN BE PROVIDED BY A POSITIVE FORWARD AND REVERSE HYDRAULIC WINCH OR A POWER-UP AND POWER-DOWN HOIST ON A CRANE. THE METHOD CHOSEN FOR ENTERING AND LEAVING THE SHAFT SHALL BE CONVENIENT, SAFE AND NOT UNCOMFORTABLE FOR THE USER. THE CONTRACTOR SHALL ALSO PROVIDE PROTECTIVE CLOTHING FOR USE BY THOSE MAKING AN INSPECTION OF THE SHAFT.

AN INSPECTION RECORD CHART HAS BEEN INCLUDED WITH THE PLANS ON SHEET 4 OF 32 AND SHALL BE COMPLETED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT NEEDED TO OBTAIN THE MEASUREMENTS FOR COMPLETING THE CHART AND THE CONTRACTOR SHALL ASSIST THE ENGINEER IN OBTAINING THESE MEASUREMENTS. MEASUREMENTS SHALL BE OBTAINED PRIOR TO PLACING CONCRETE. WHEN THE INSPECTION RECORD CHART IS COMPLETED, THE PROJECT ENGINEER SHALL SUBMIT A COPY TO THE BUREAU OF BRIDGES. ATTENTION: FOUNDATION ENGINEER.

THE ENGINEER SHOULD OBTAIN PHOTOGRAPHS OF THE CONTRACTOR'S CONSTRUCTION PROCEDURES.

SAFETY PROVISIONS

THE CONTRACTOR SHALL HAVE AT THE JOB SITE ALL EQUIPMENT AND MATERIALS NEEDED TO PROVIDE SAFE CONSTRUCTION AND INSPECTION OF THE DRILLED SHAFTS AS REQUIRED BY CITY, STATE AND FEDERAL SAFETY REQUIREMENTS.

SAFETY PROVISIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REQUIREMENTS SPECIFIED BY THE PLANS, SPECIAL PROVISIONS, AND PROPOSAL.

THE CONTRACTOR SHALL PROVIDE CONTINUOUS SURVEILLANCE OF ALL PERSONS IN THE PIER DRILLED SHAFT EXCAVATION. AT ALL TIMES WHEN A PERSON IS IN THE DRILLED SHAFT EXCAVATION, PROVISION SHALL BE MADE FOR PUMPING FRESH AIR TO SAID PERSON. ALL LIGHTING SHALL BE WITH ELECTRIC LIGHTS. MECHANICAL EQUIPMENT USED INSIDE THE SHAFT SHALL BE OPERATED BY AIR OR ELECTRICITY. THE USE OF GASOLINE ENGINES OR OTHER TYPES OF EQUIPMENT PRODUCING FUMES THAT MAY ENTER THE EXCAVATION WILL NOT BE PERMITTED. THE CONTRACTOR SHALL PROVIDE GAS DETECTION AND OXYGEN ANALYZERS, AND SHALL TEST THE DRILLED SHAFT EXCAVATION ATMOSPHERE QUALITATIVELY THROUGHOUT THE COLUMN'S ENTIRE LENGTH AND ASSURE THAT THE QUANTITIES OF GASES AND OXYGEN PRESENT ARE IN SAFE AMOUNT AND SAFE PROPORTIONS PRIOR TO PERMITTING ANY PERSON TO ENTER THE SHAFT.

METHOD OF MEASUREMENT

THE TOTAL LENGTH OF EACH DRILLED SHAFT TO BE PAID FOR SHALL BE THE COMPLETED AND ACCEPTED LENGTH, MEASURED ALONG THE AXIS OF THE DRILLED SHAFT FROM THE BOTTOM OF THE BEDROCK SOCKET TO THE PROPOSED TOP ELEVATION, AS PER PLAN. THE REINFORCING STEEL THAT PROJECTS FROM THE DRILLED SHAFT INTO THE PIER COLUMN OR THE ABUTMENT FOOTING AS SPECIFIED BY THE PLANS IS INCLUDED WITH THE DRILLED SHAFT FOR PAYMENT BUT SHALL NOT BE INCLUDED IN THE MEASURED LENGTH OF THE DRILLED SHAFT.

THE TOTAL LENGTH OF EACH DRILLED SHAFT SHALL BE DIVIDED INTO TWO SEGMENTS. THE LENGTH OF THE LOWER SEGMENT IS THE LENGTH OF THE BEDROCK SOCKET AND THE LENGTH OF THE UPPER SEGMENT IS THE LENGTH OF THE DRILLED SHAFT ABOVE THE BEDROCK SOCKET.

BASIS OF PAYMENT

PAYMENT FOR FURNISHING AND INSTALLING DRILLED SHAFTS WILL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF ACCEPTED SHAFTS AS PER ITEM SPECIAL DRILLED-SHAFTS ABOVE THE BEDROCK SOCKET AND ITEM SPECIAL DRILLED-SHAFTS IN BEDROCK, WHICH SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE ITEM AS SPECIFIED.

DESIGN PARAMETERS

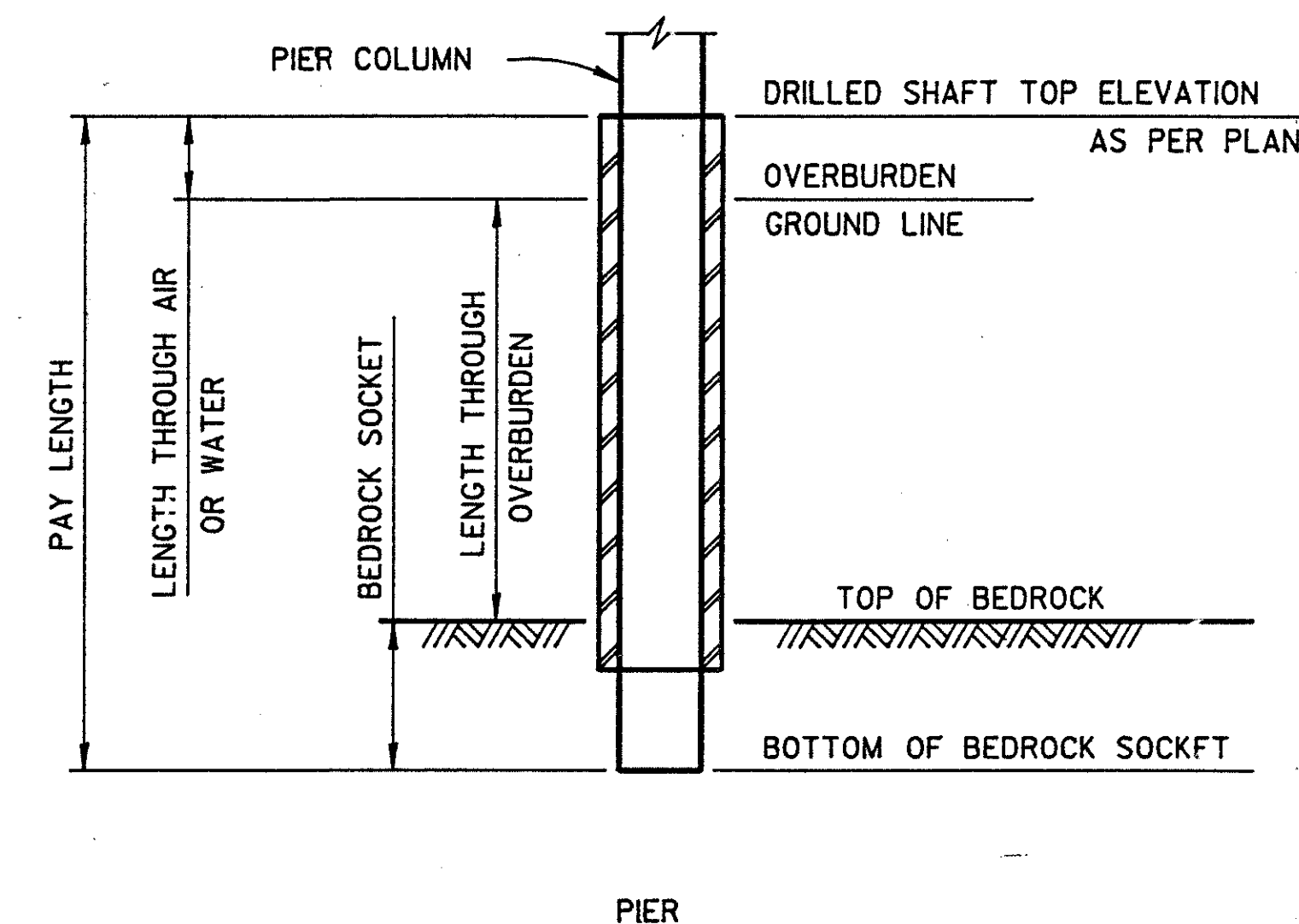
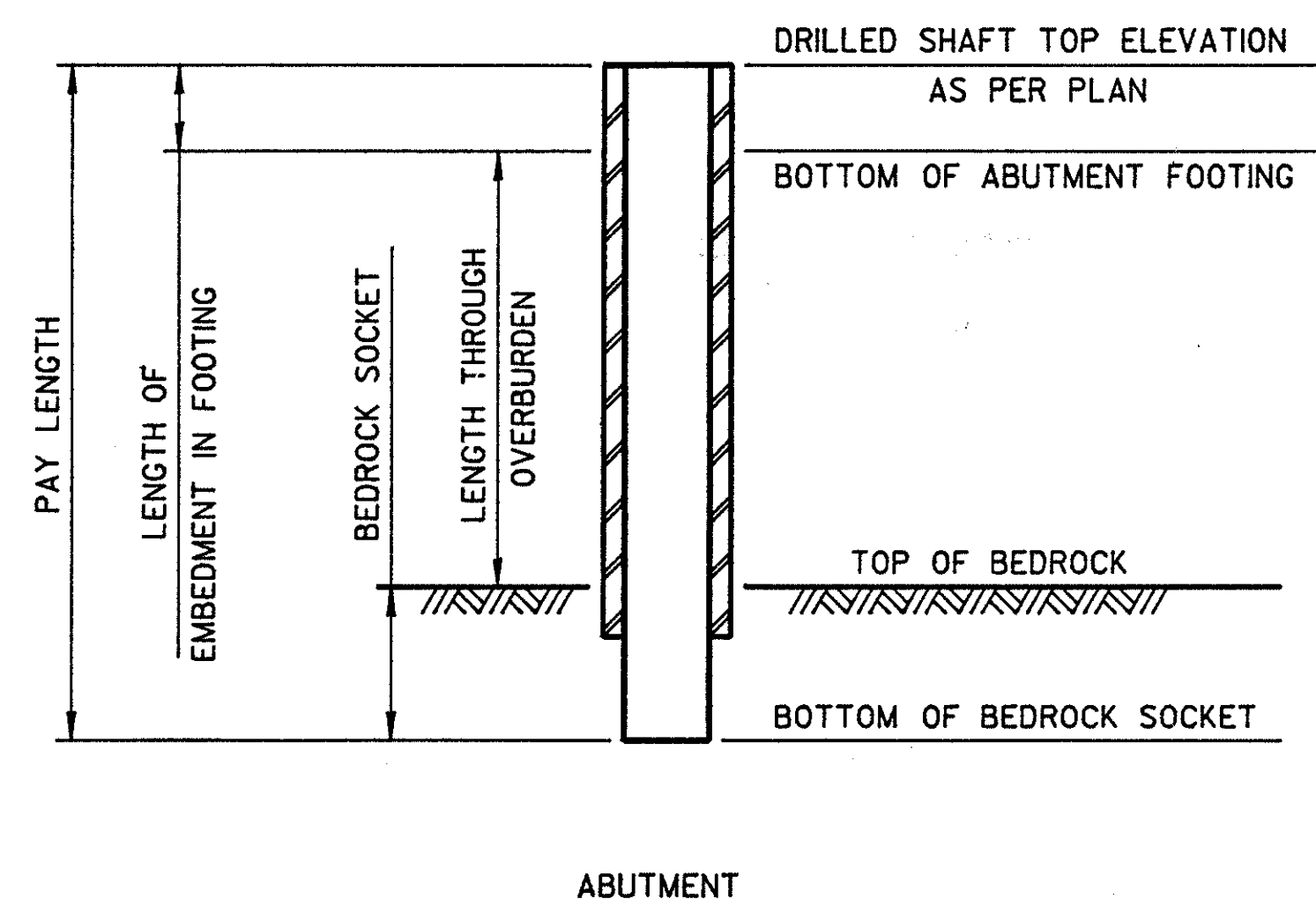
THE CALCULATED DESIGN LOADING FOR A PIER DRILLED SHAFT IS 225 TONS AND FOR AN ABUTMENT DRILLED SHAFT IS 112 TONS. THE ALLOWABLE DESIGN END BEARING PRESSURE IS 25 TONS PER SQUARE FOOT.

STATE OF OHIO		3 / 32	
DEPARTMENT OF TRANSPORTATION			
BUREAU OF BRIDGES AND STRUCTURAL DESIGN			
DRILLED SHAFT NOTES			
BRIDGE NO. JAC-35 -1220 L/R			
OVER			
STATE ROUTE 788			
JACKSON COUNTY			
DESIGNED	DRAWN	TRACED	CHECKED
WBS	REF		CKT
REVIEWED	DATE	REVISED	
WJJ	1-30 -85		

INSPECTION RECORD FOR DRILLED SHAFTS

JACKSON COUNTY
JAC-35 -11.46

PROJECT NO. _____	GENERAL CONTRACTOR _____	TYPE & MODEL OF DRILLING MACHINERY _____	TYPE OF CONCRETE PUMP _____	COST PER LINEAL FOOT _____
	DRILLING CONTRACTOR _____	MAX. CONTINUOUS TORQUE _____ FT.-LB.	HOSE DIAMETER _____ INCHES	ABOVE THE BEDROCK SOCKET _____
	PROJECT ENGINEER _____	CROWD (MAX. CONTINUOUS DOWNWARD FORCE) _____ LBS.	CAPACITY _____ CU. FT./MIN.	IN BEDROCK SOCKET _____
				TYPE OF ROCK _____

[illegible][illegible]

WHEN INSPECTION RECORD IS COMPLETED
SUBMIT A COPY TO BUREAU OF BRIDGES
ATTN: FOUNDATION ENGINEER

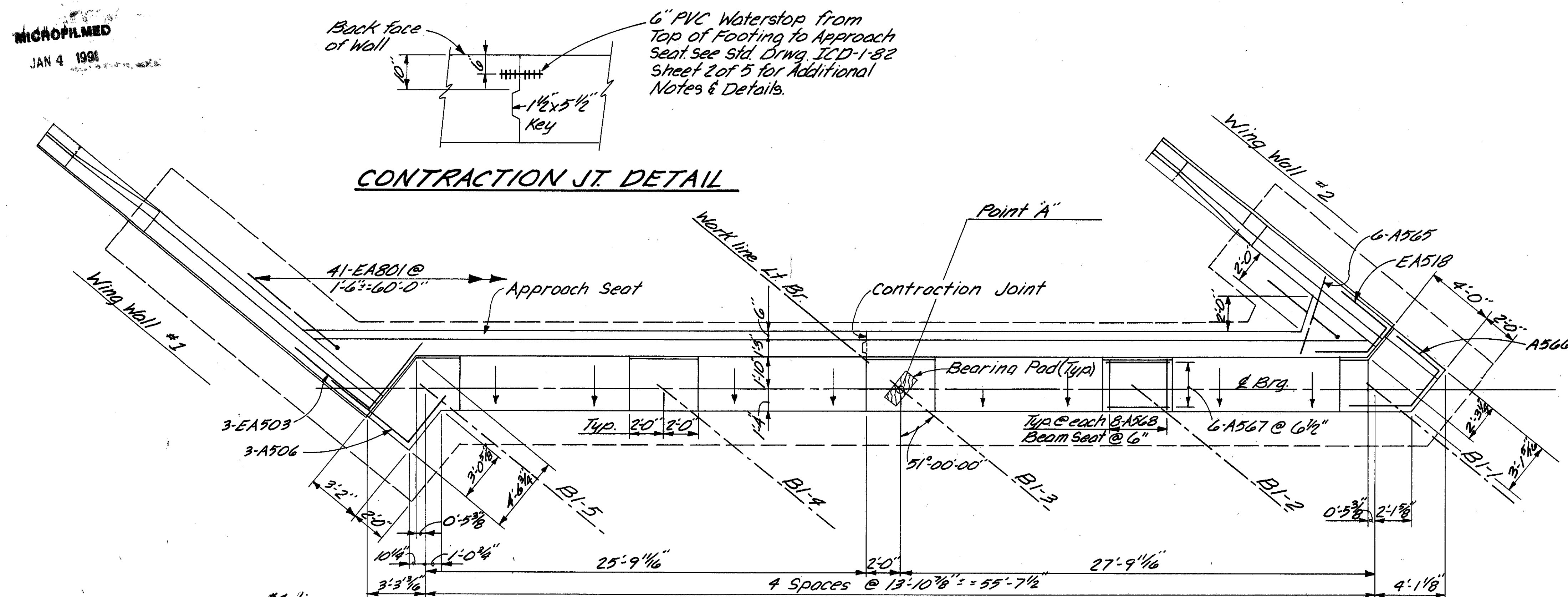
THIS SHEET IS TO BE USED ONLY FOR
RECORDING "AS-BUILT" INFORMATION

STATE OF OHIO DEPARTMENT OF TRANSPORTATION BUREAU OF BRIDGES AND STRUCTURAL DESIGN					4	
DRILLED SHAFTS INSPECTION RECORD BRIDGE NO. JAC-35 -1220 L/R OVER STATE ROUTE 788						
JACKSON COUNTY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVIS
WBS	REF		CKT	WJJ	1-30-86	

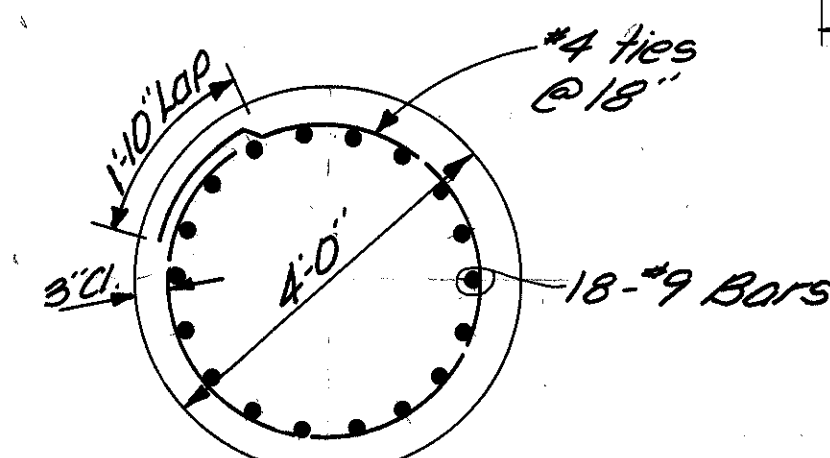
JAN 4 1991

JAC-35-11.46

OHIO
FHWA REGION 5

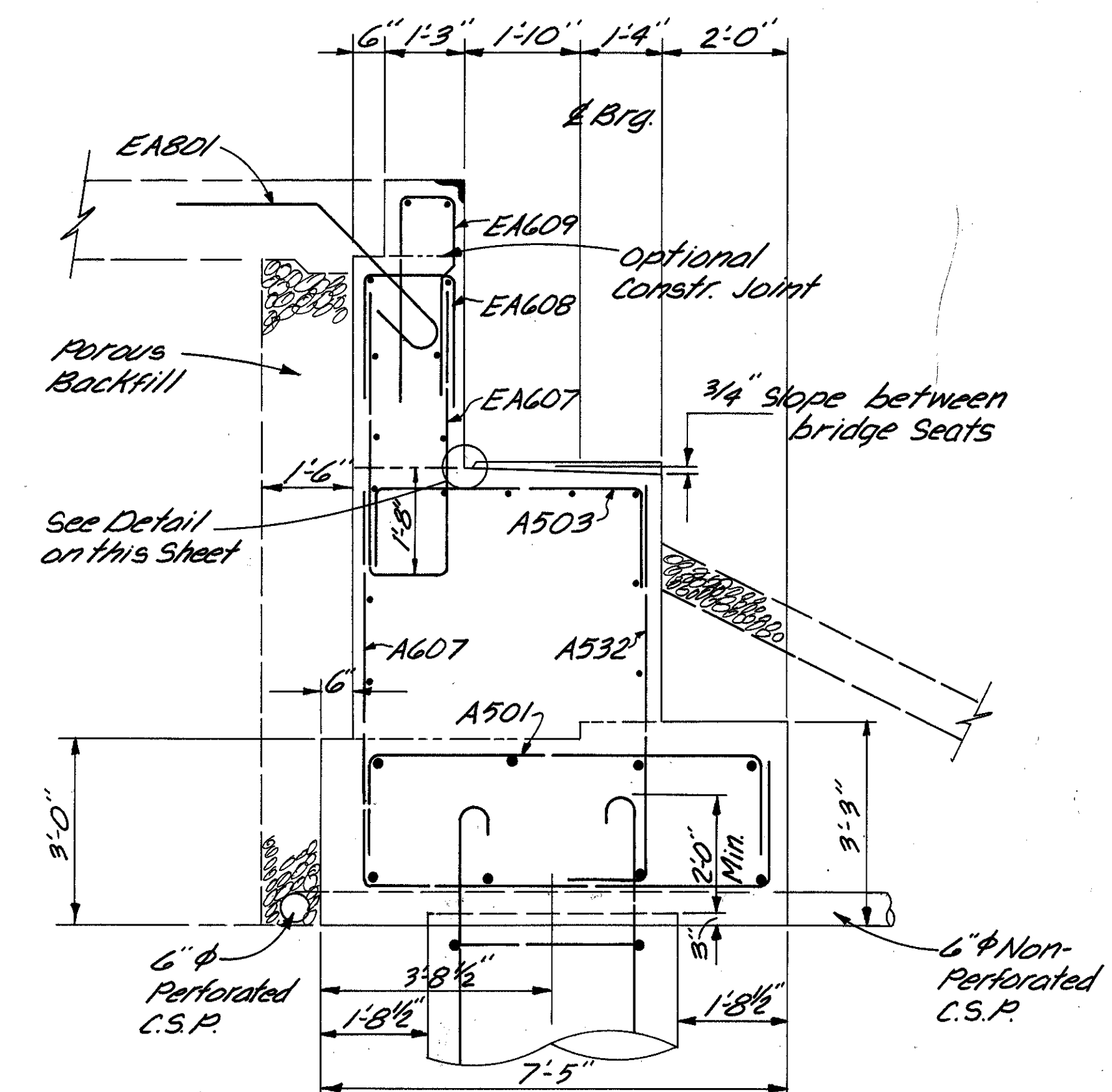
$$\begin{array}{r} 358 \\ 442 \end{array}$$


CONTRACTION JT. DETAIL

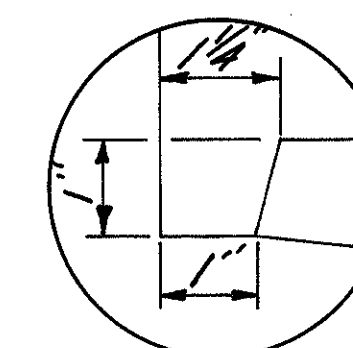


SECTION 2
5

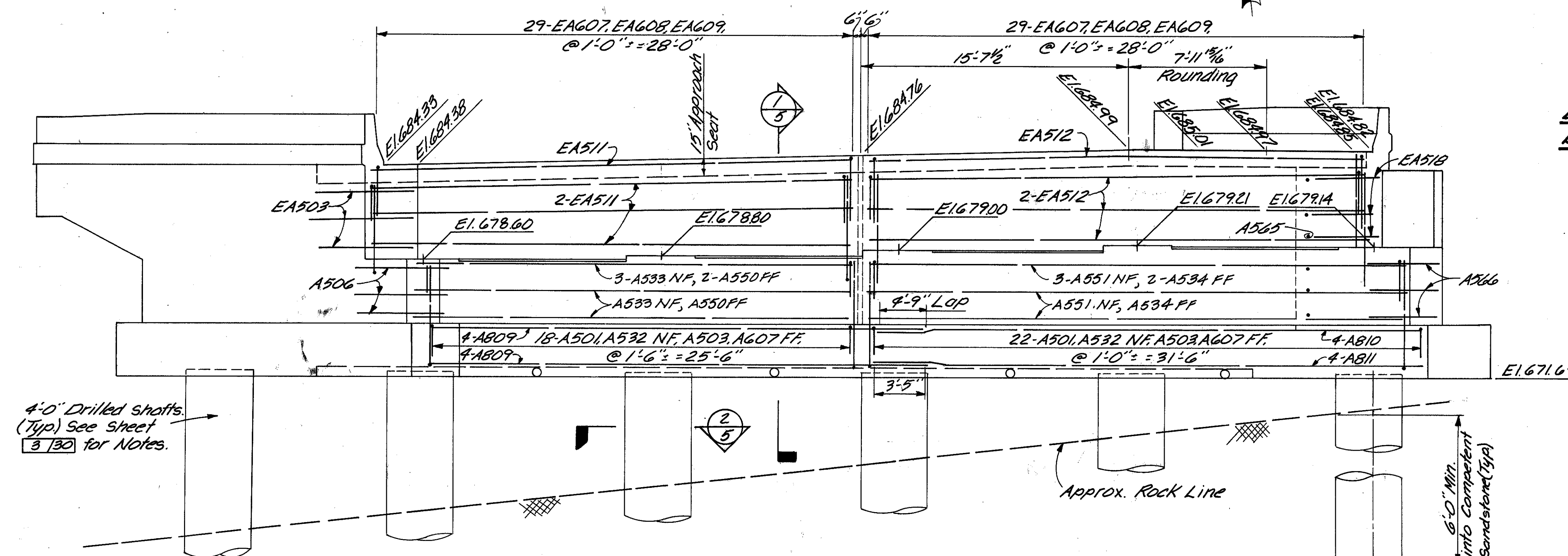
Item special "Sealing of Concrete Surfaces" shall apply to all exposed surfaces of Abutment



SECTION 1
5



DETAIL AT
BEAM SEAT



ELEVATION

LEGEND:

NF = Near Face
FF = Far Face
El = Elevation

NOTES:

1. See Sheet 20/32 for Layout Plan.
2. See Sheet 2/32 for Estimated Quantities & General Notes.
3. See Sheets 29/32 & 30/32 for Reinforcing Steel Details.
4. See Sheet 24/32 for Beam Bearing Detail.
5. Porous Backfill, 15ft thick, shall Extend up to the Plane of the Subgrade & Laterally to the Ends of the Wing Walls.



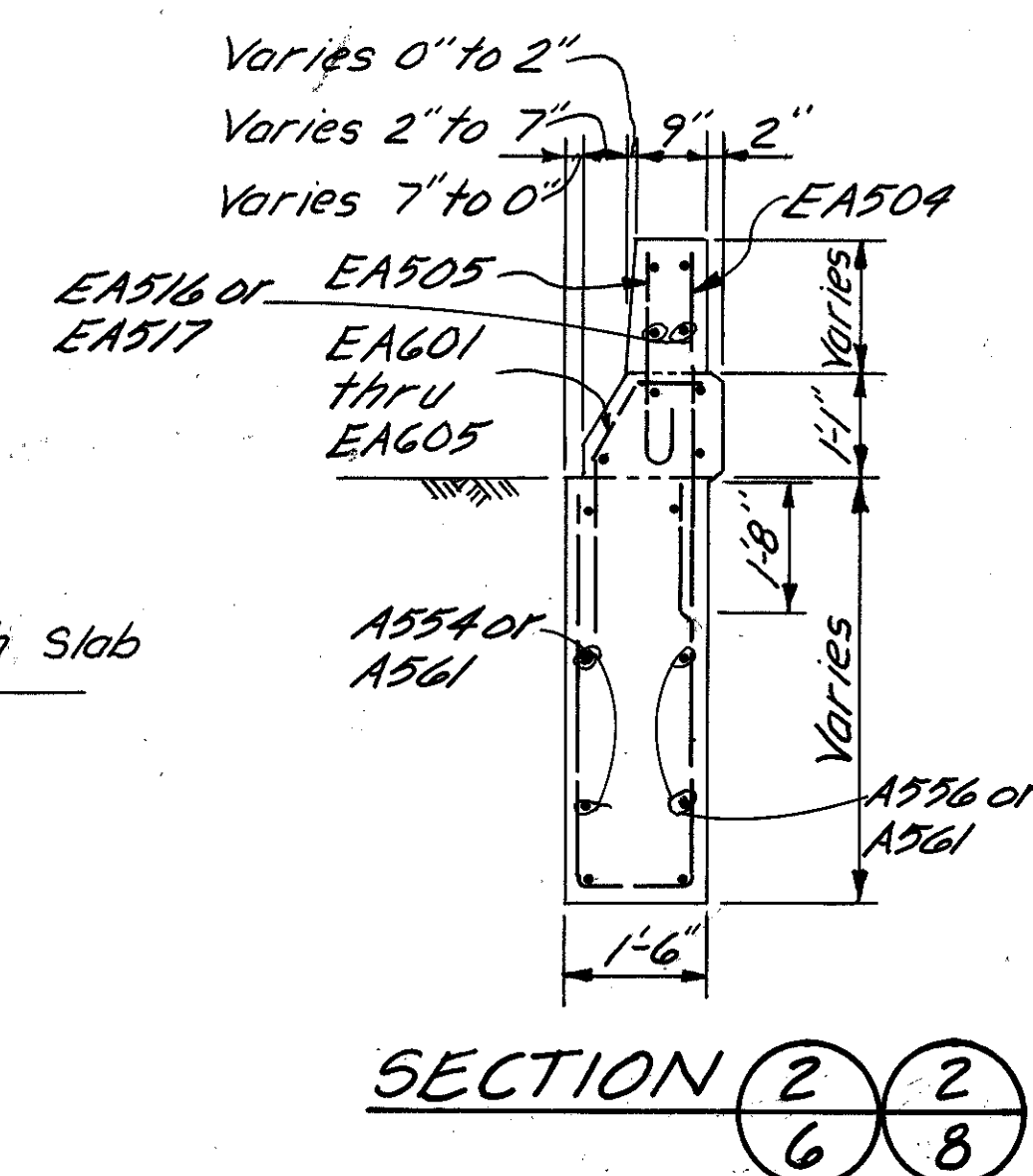
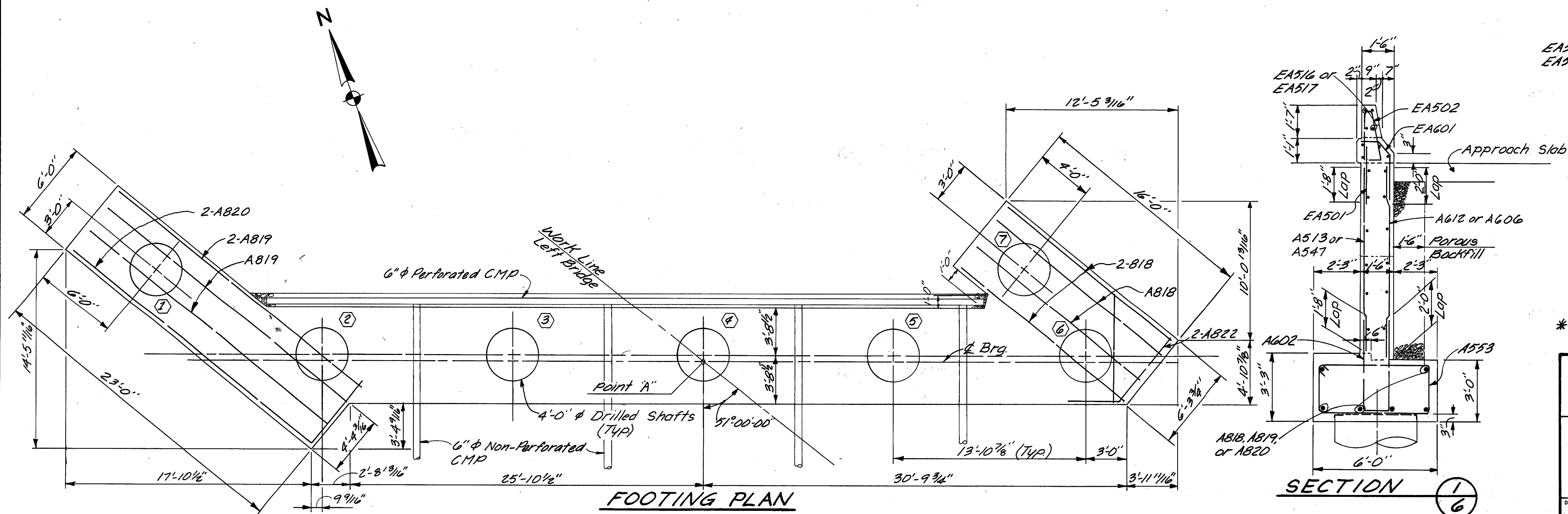
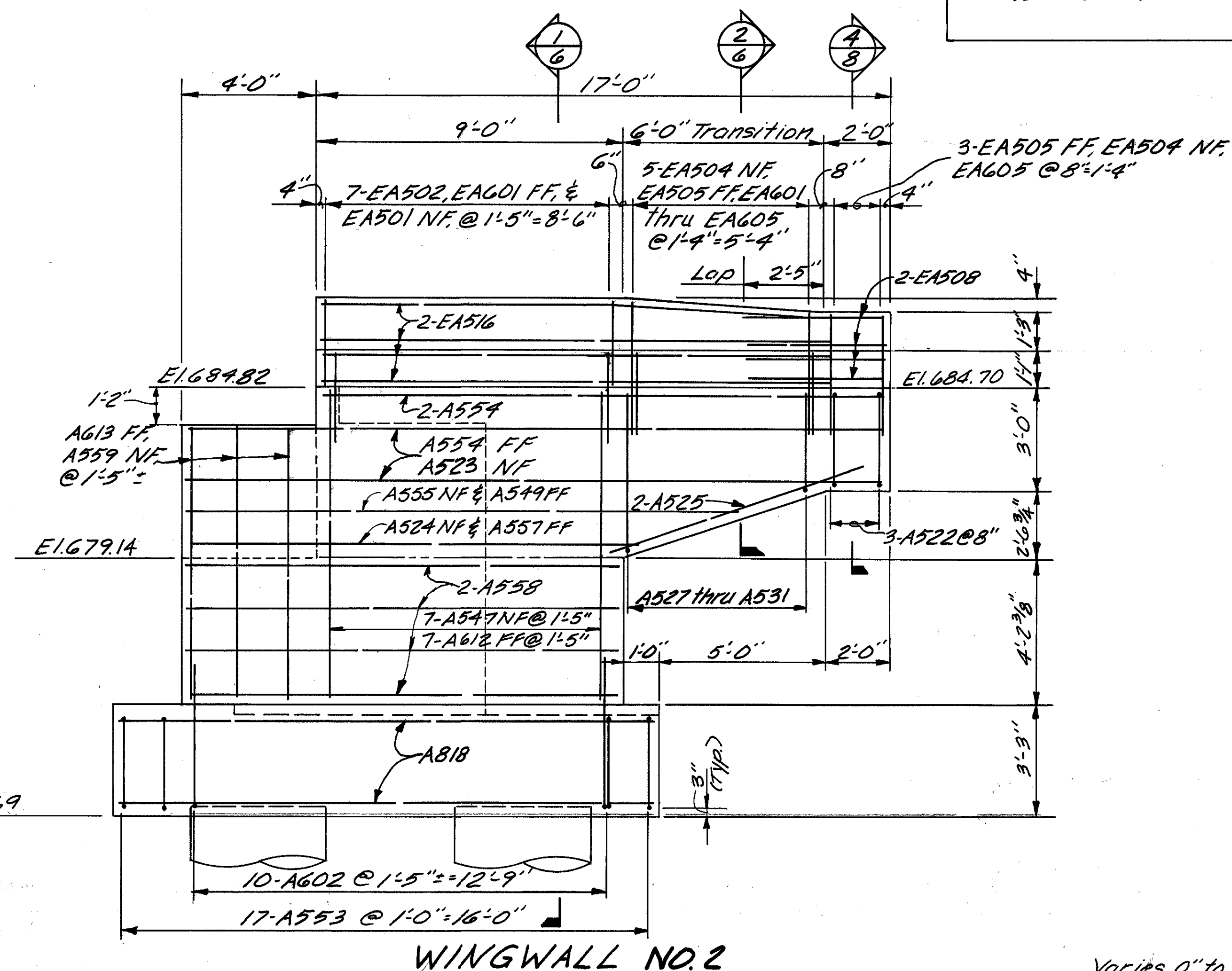
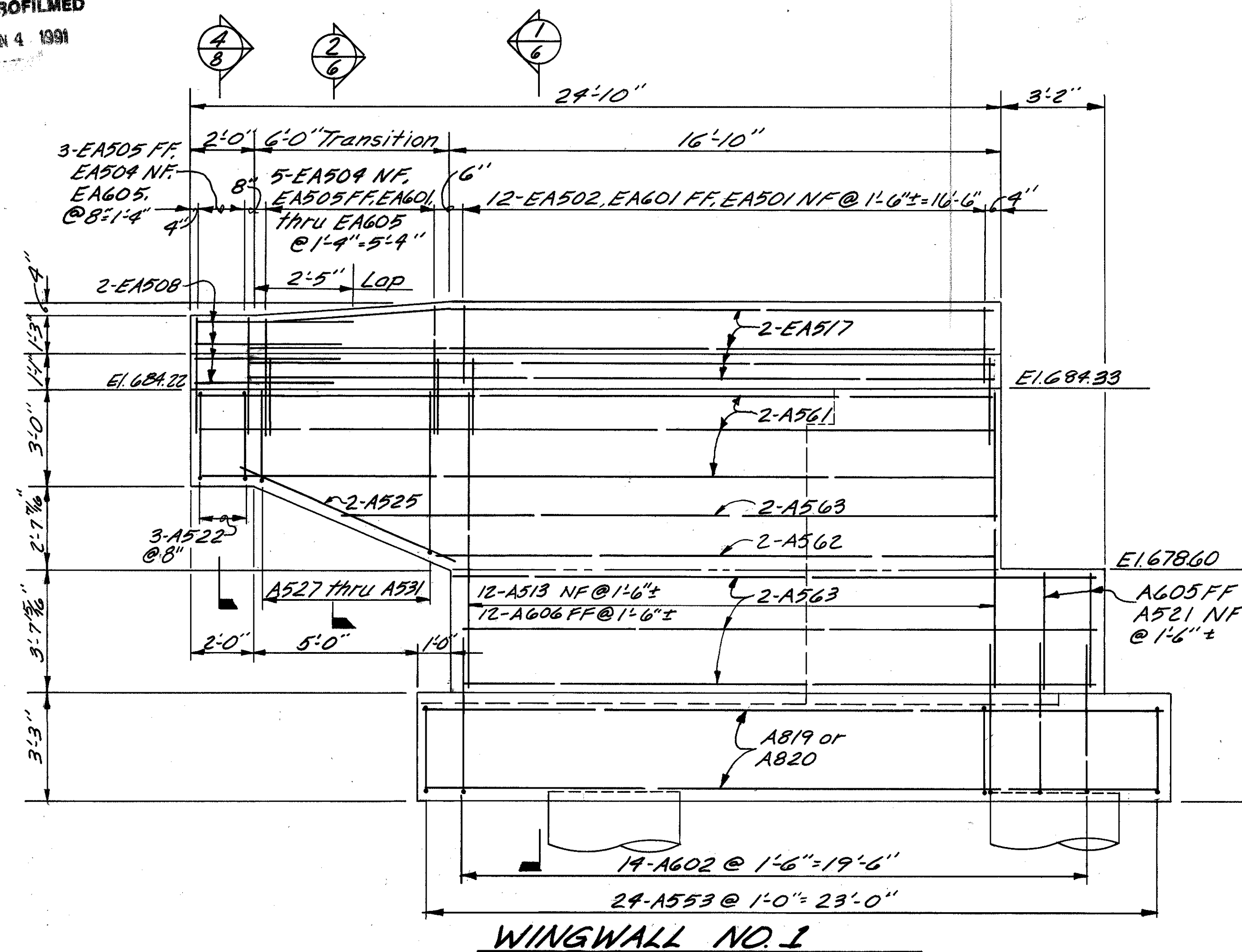
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INCORPORATED

ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

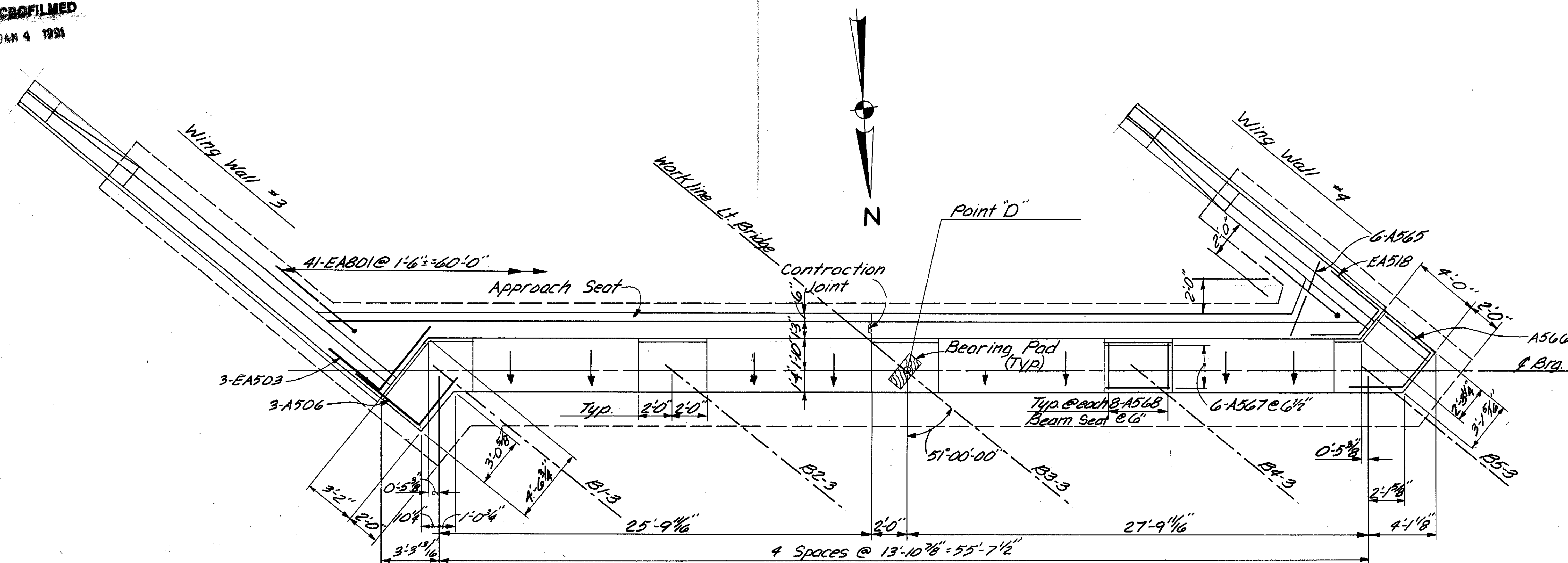
REAR ABUTMENT
LEFT BRIDGE

BRIDGE NO. JAC-35-1220 4/R
OVER STATE ROUTE 788

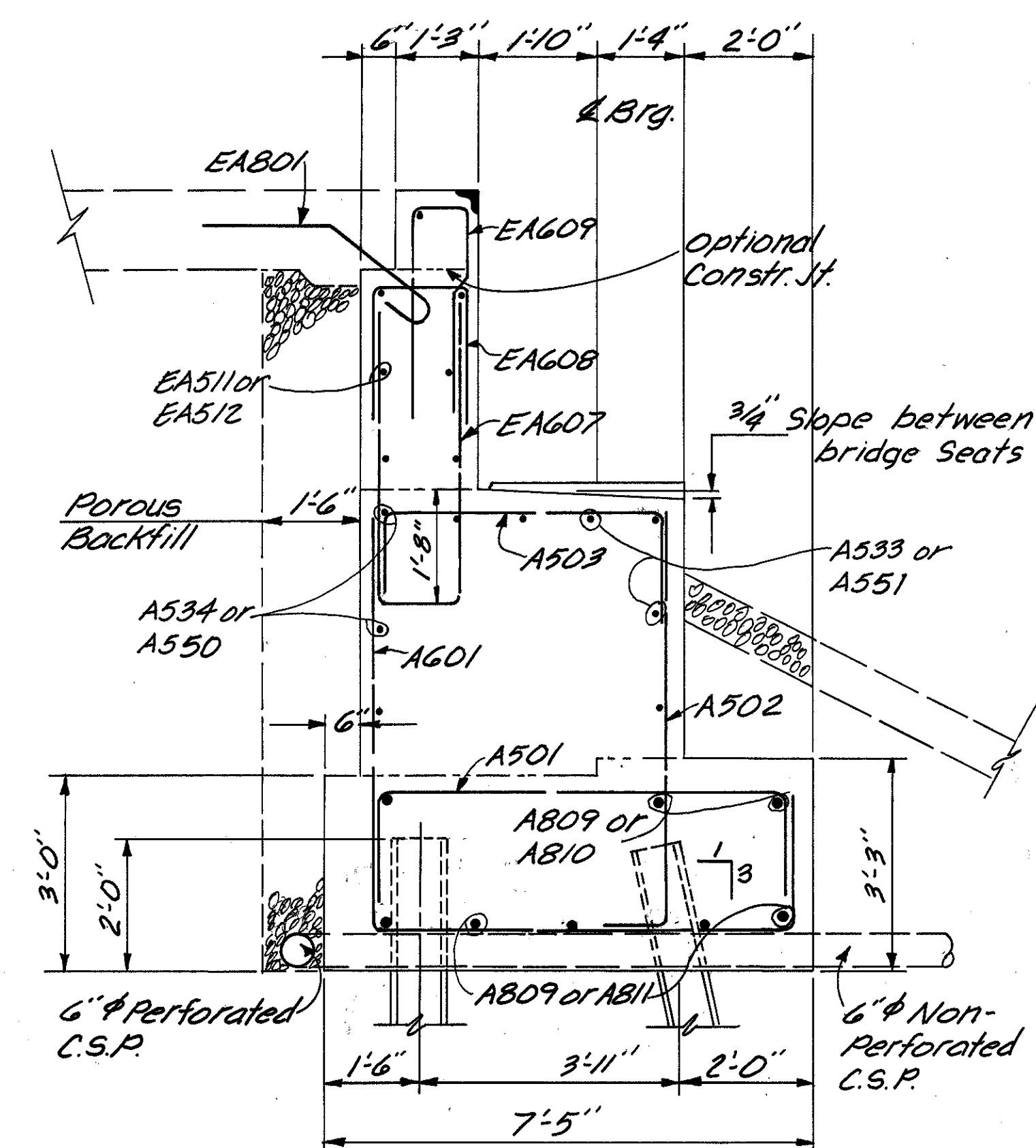
DESIGNED JET	DRAWN K.10	TRACED —	CHECKED GTW	REVIEWED WBS	DATE 5/9/81	REVISED
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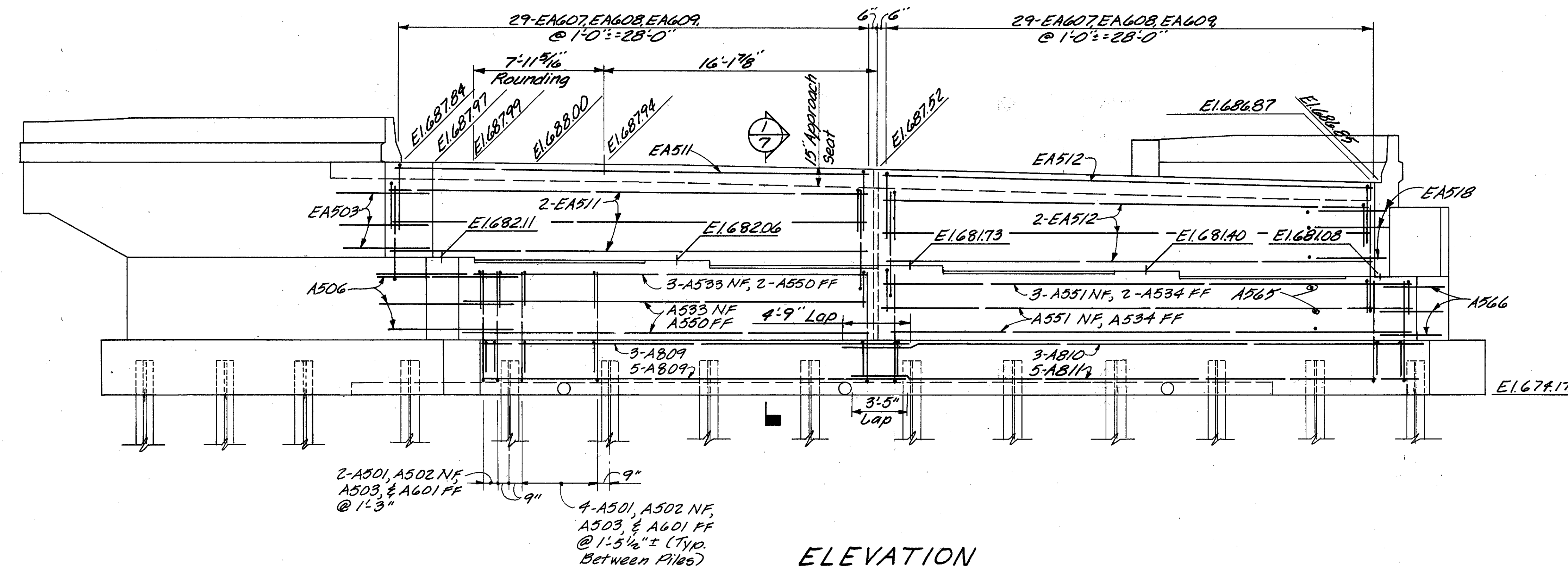
* See Preceding Sheet for additional Notes.



PLAN



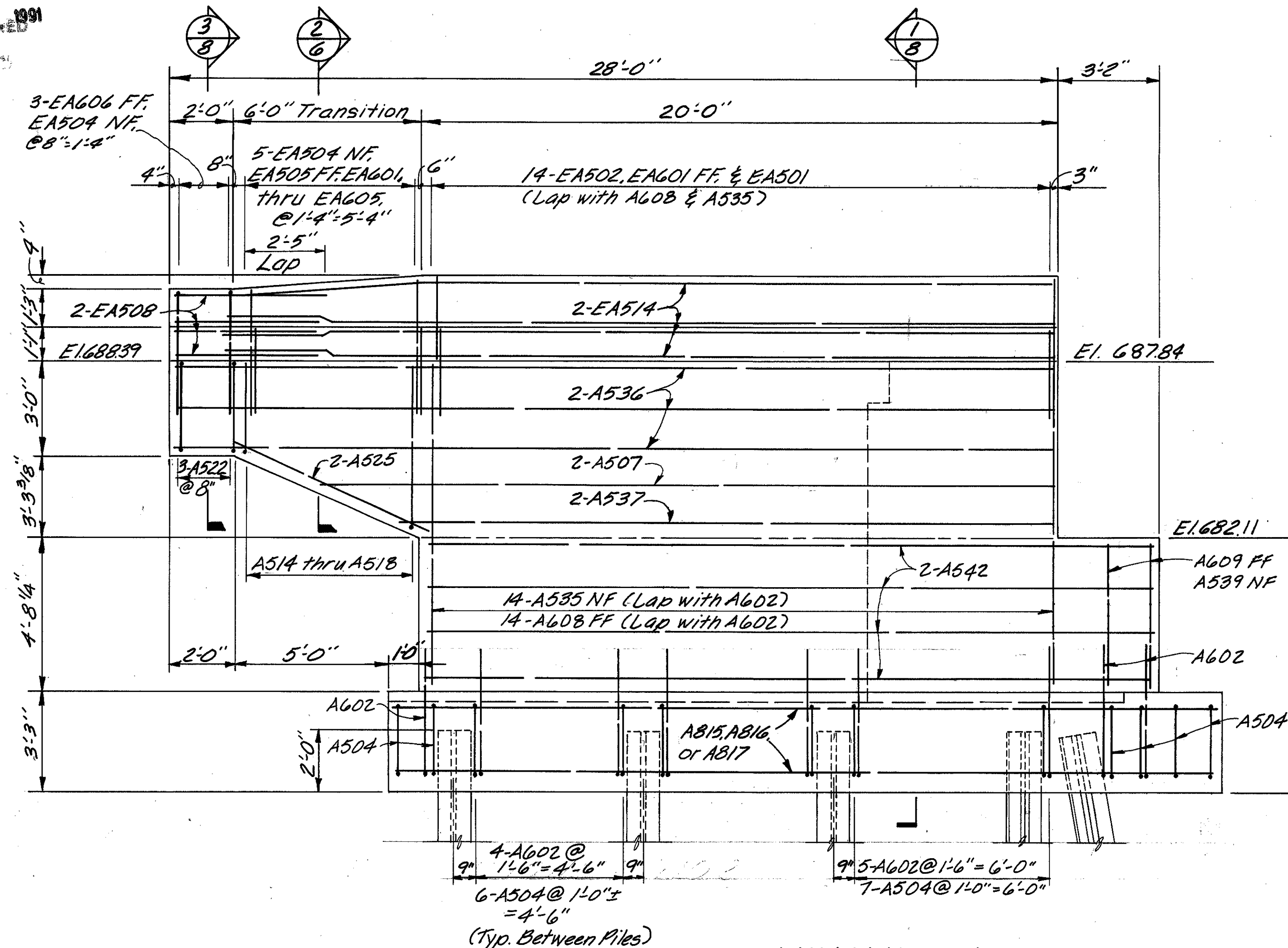
SECTION (17)



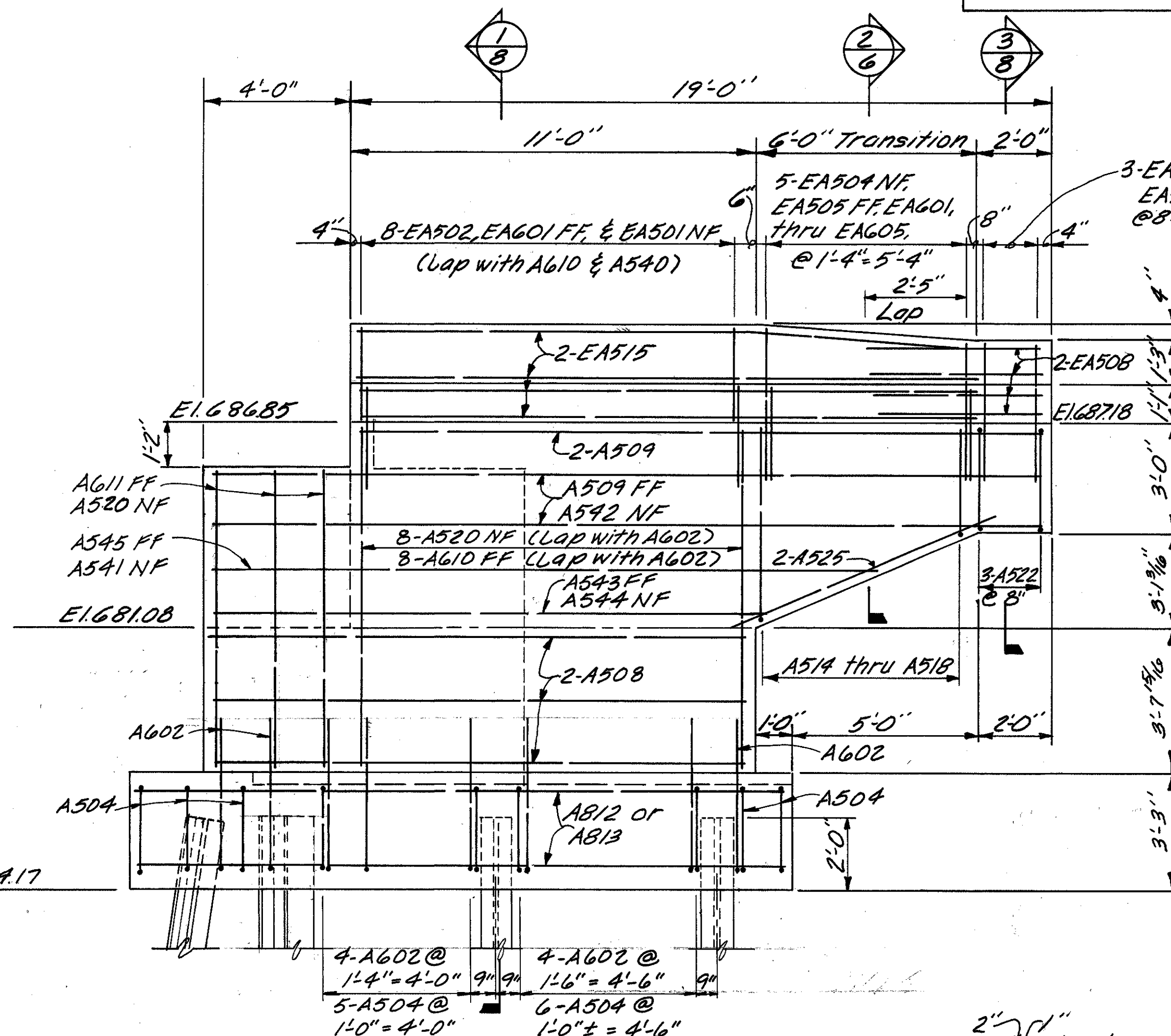
ELEVATION

NOTES:

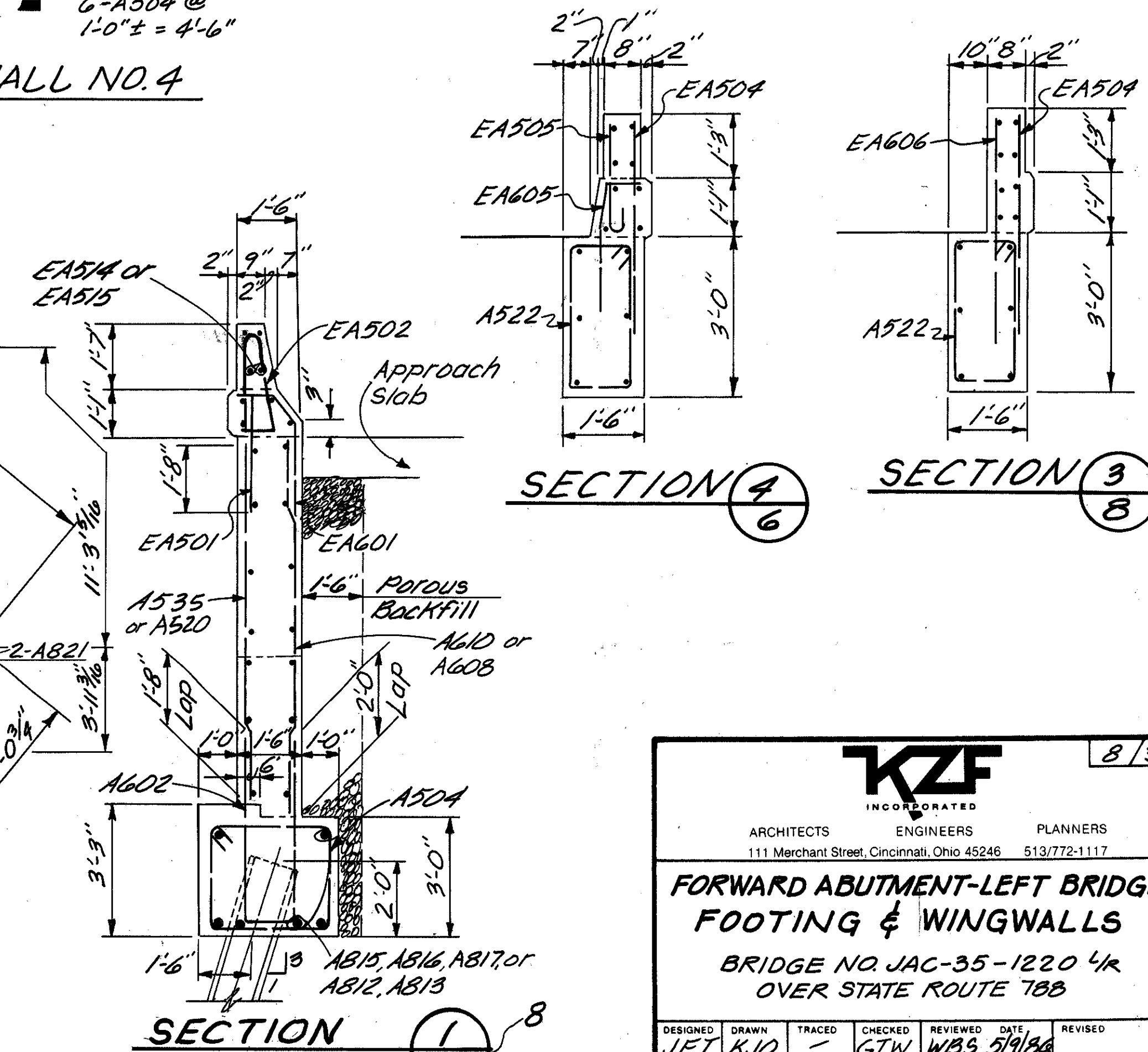
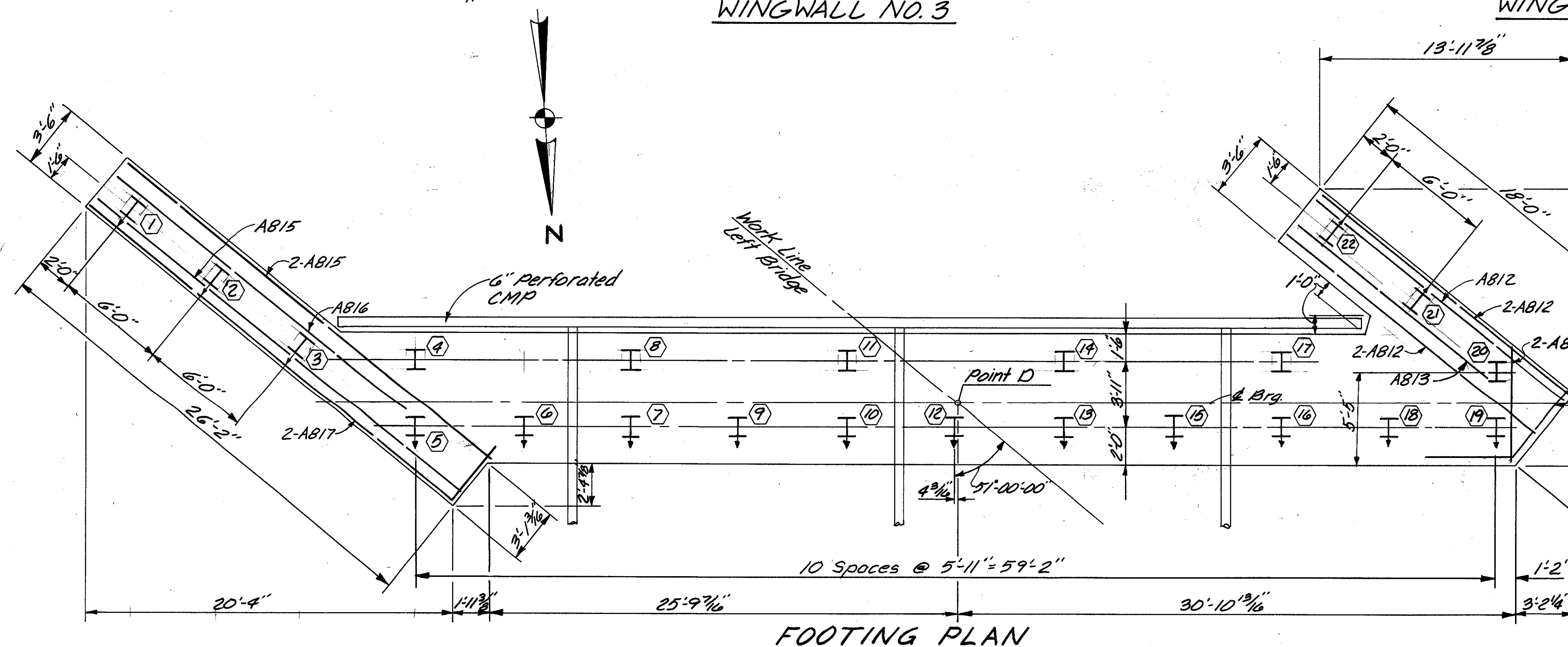
1. See Sheet 2/32 for Estimated Quantities & General Notes.
2. See Sheets 27/32 & 28/32 for Reinforcing Steel Details.
3. See Sheet 24/32 for Beam Bearing Detail
4. Porous Backfill, 1.5 ft. thick, shall Extend up to the Plane of the Subgrade & Laterally to the Ends of the Wing Walls.
5. See Sheet 5/32 for Contraction Joint Detail.



WINGWALL NO. 3



WINGWALL NO. 4



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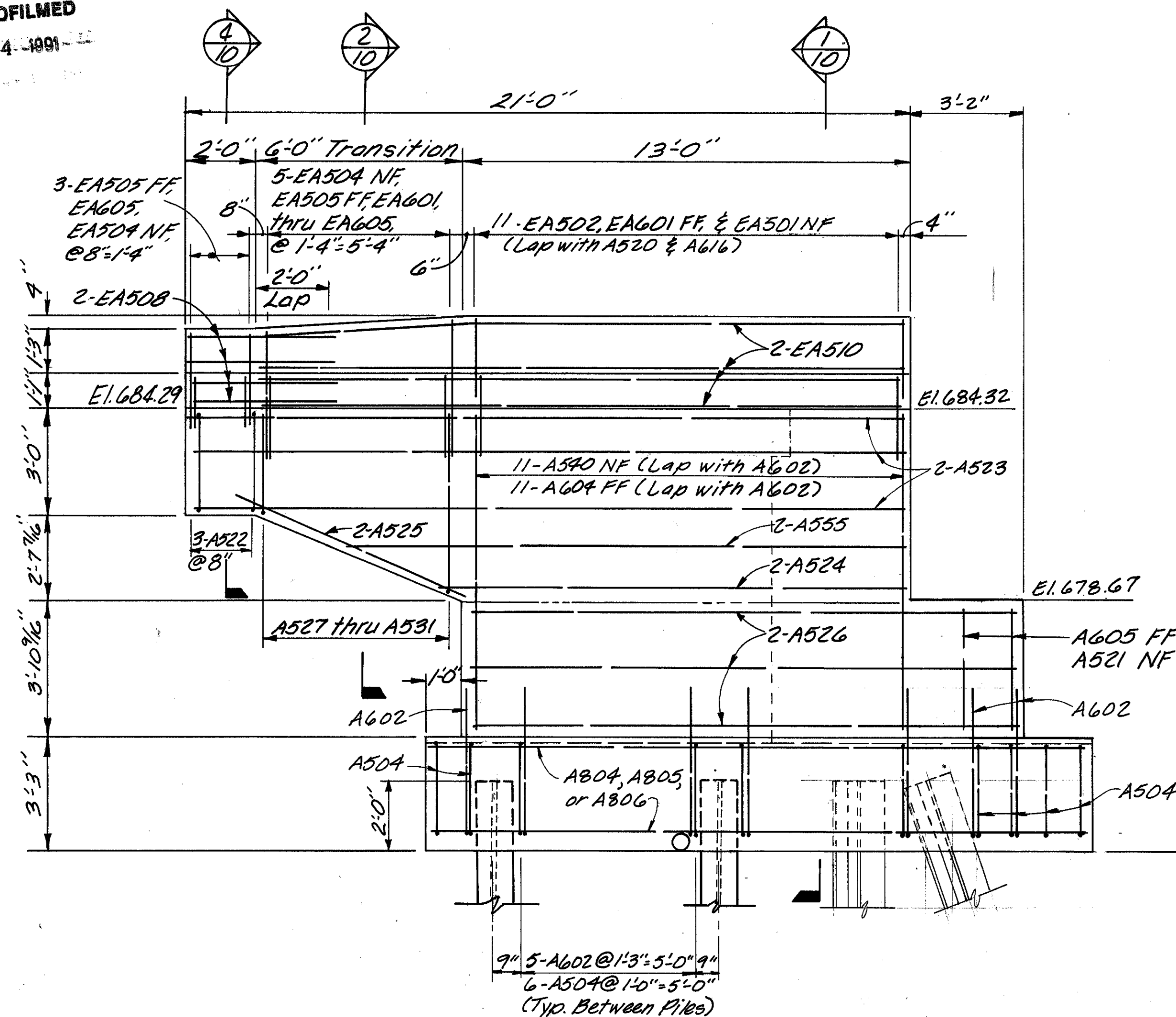
ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

**FORWARD ABUTMENT-LEFT BRIDGE
FOOTING & WINGWALLS**

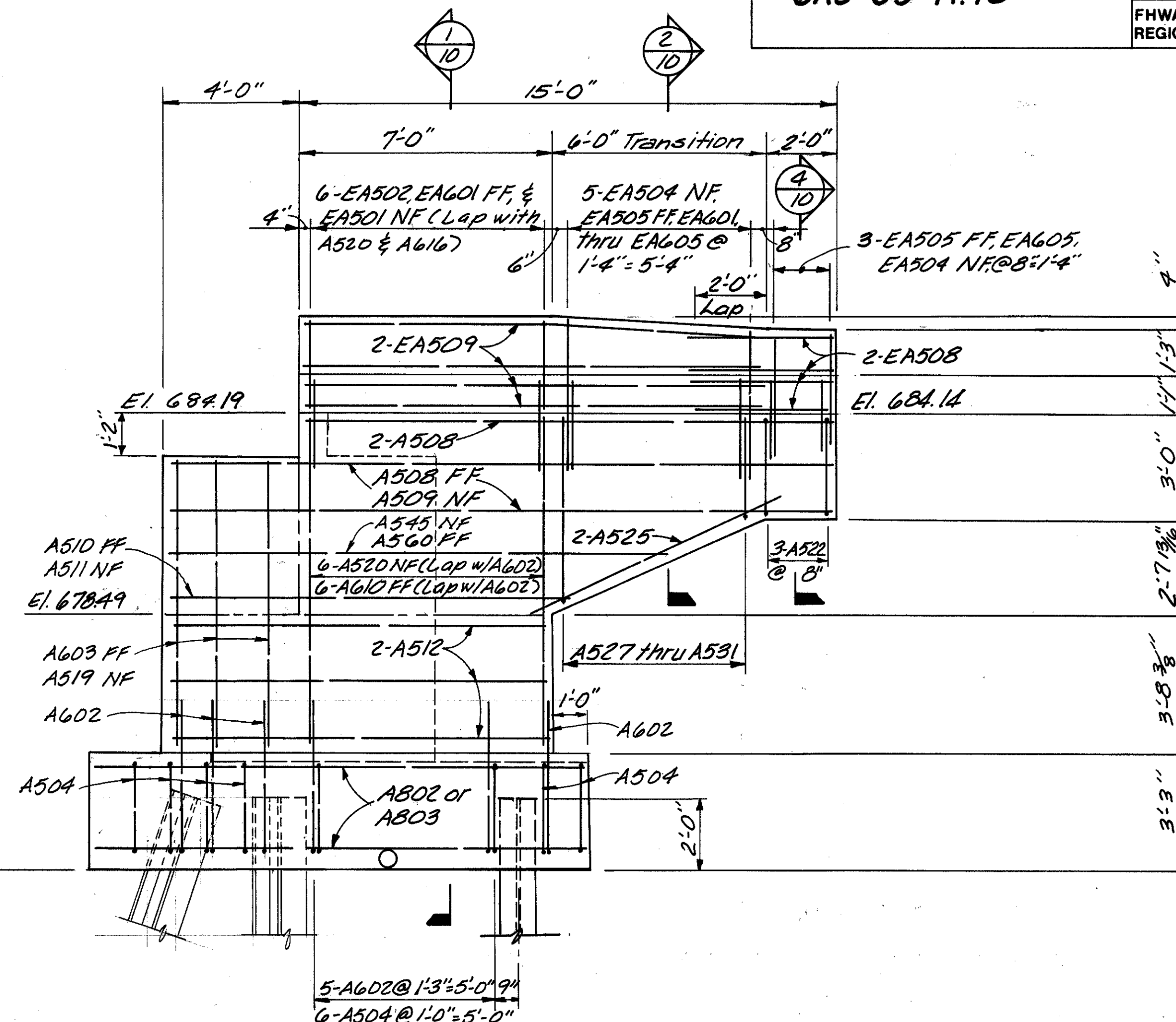
BRIDGE NO. JAC-35-1220 1/4
OVER STATE ROUTE 788

DESIGNED: JET DRAWN: KJD TRACED: GTW CHECKED: WBS 5/9/84

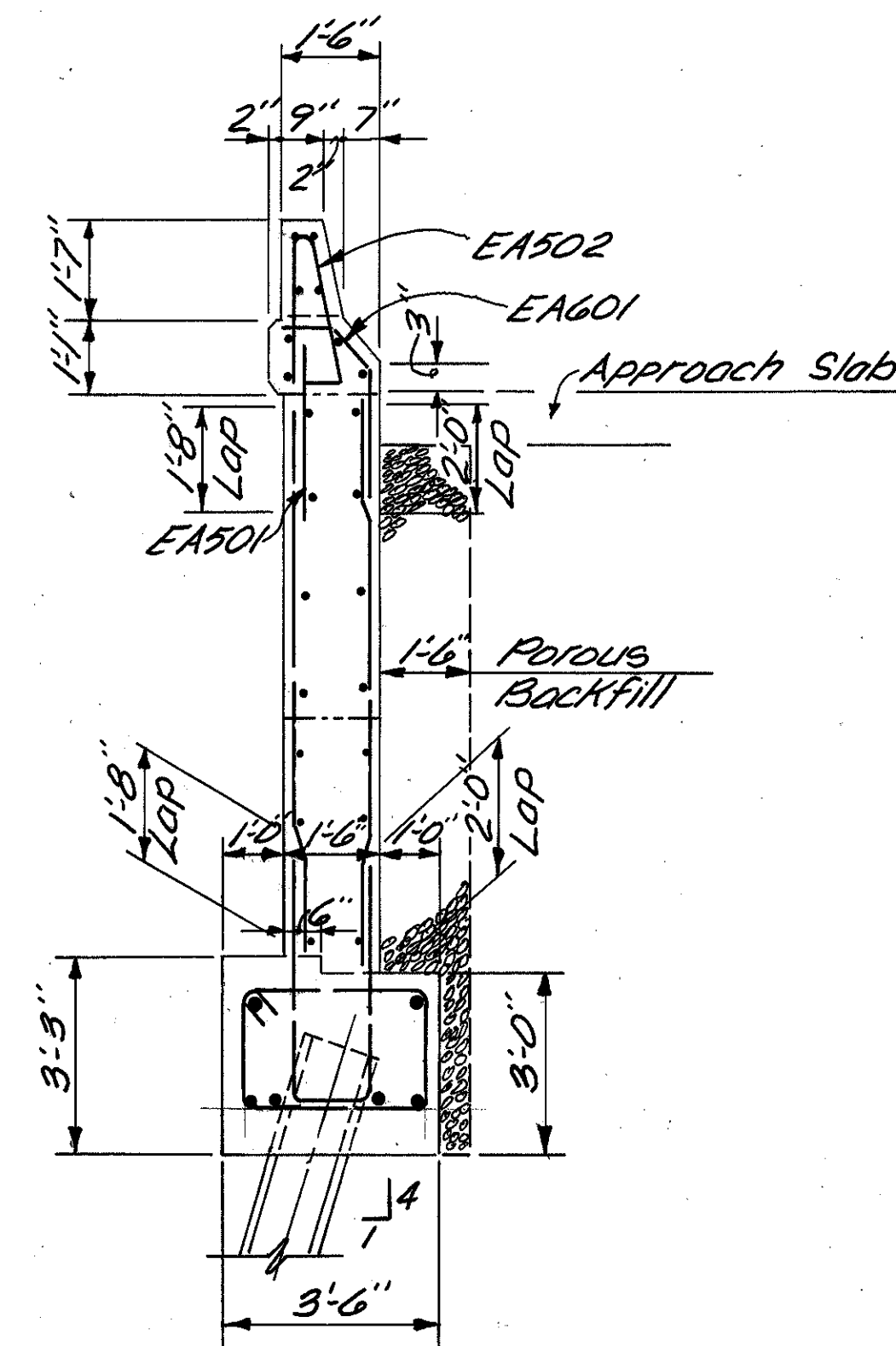
		9/3/82	
ARCHITECTS		ENGINEERS	
111 Merchant Street, Cincinnati, Ohio 45246		513/772-1117	



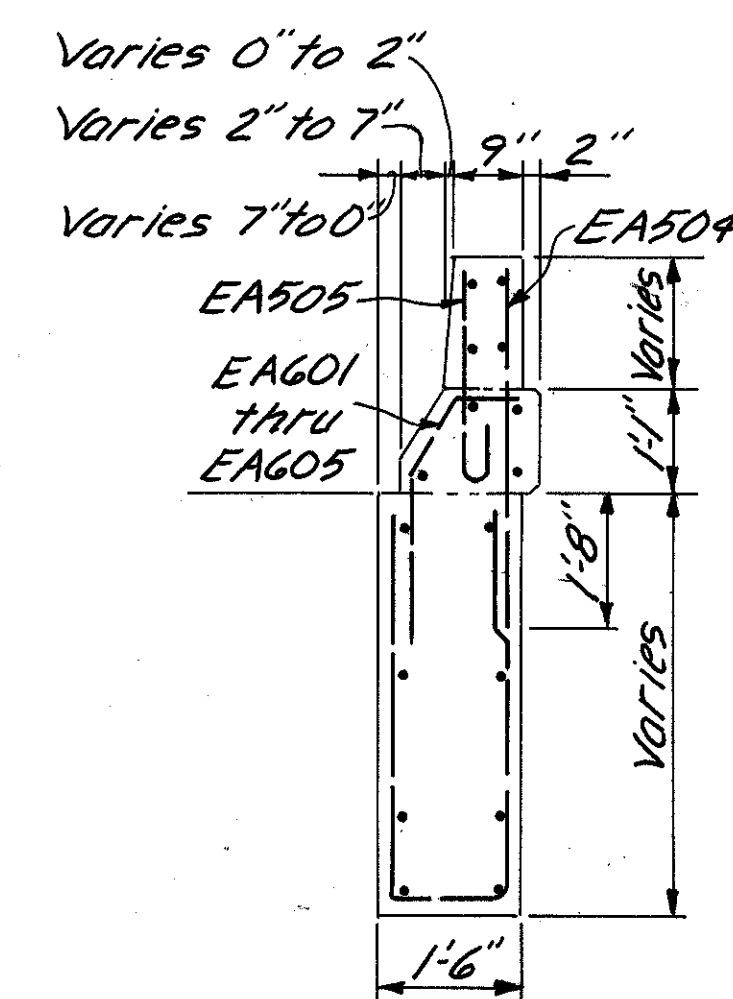
WINGWALL No. 6



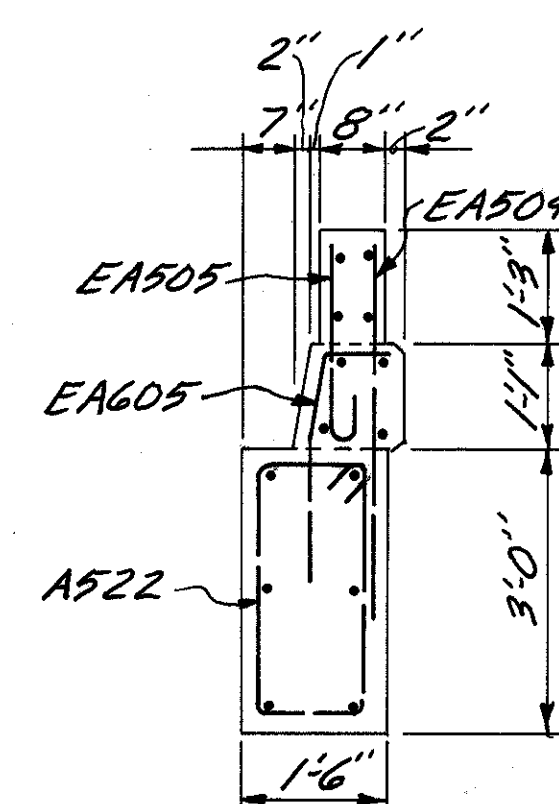
WINGWALL No. 5



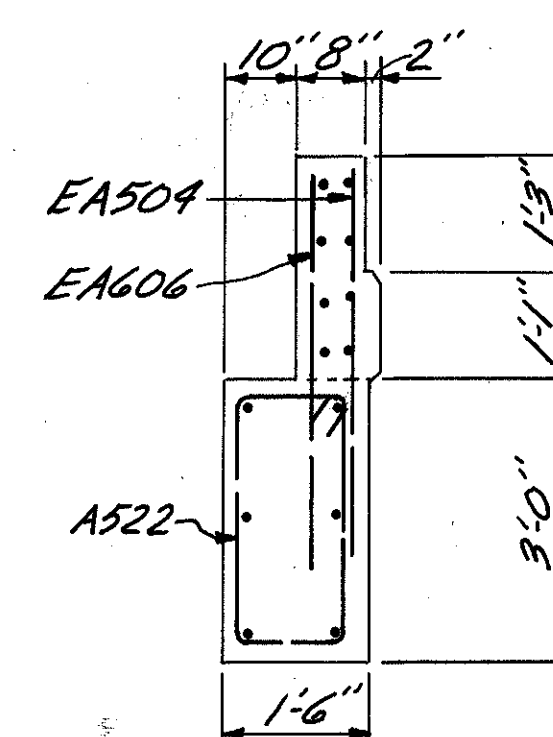
SECTION 1-1



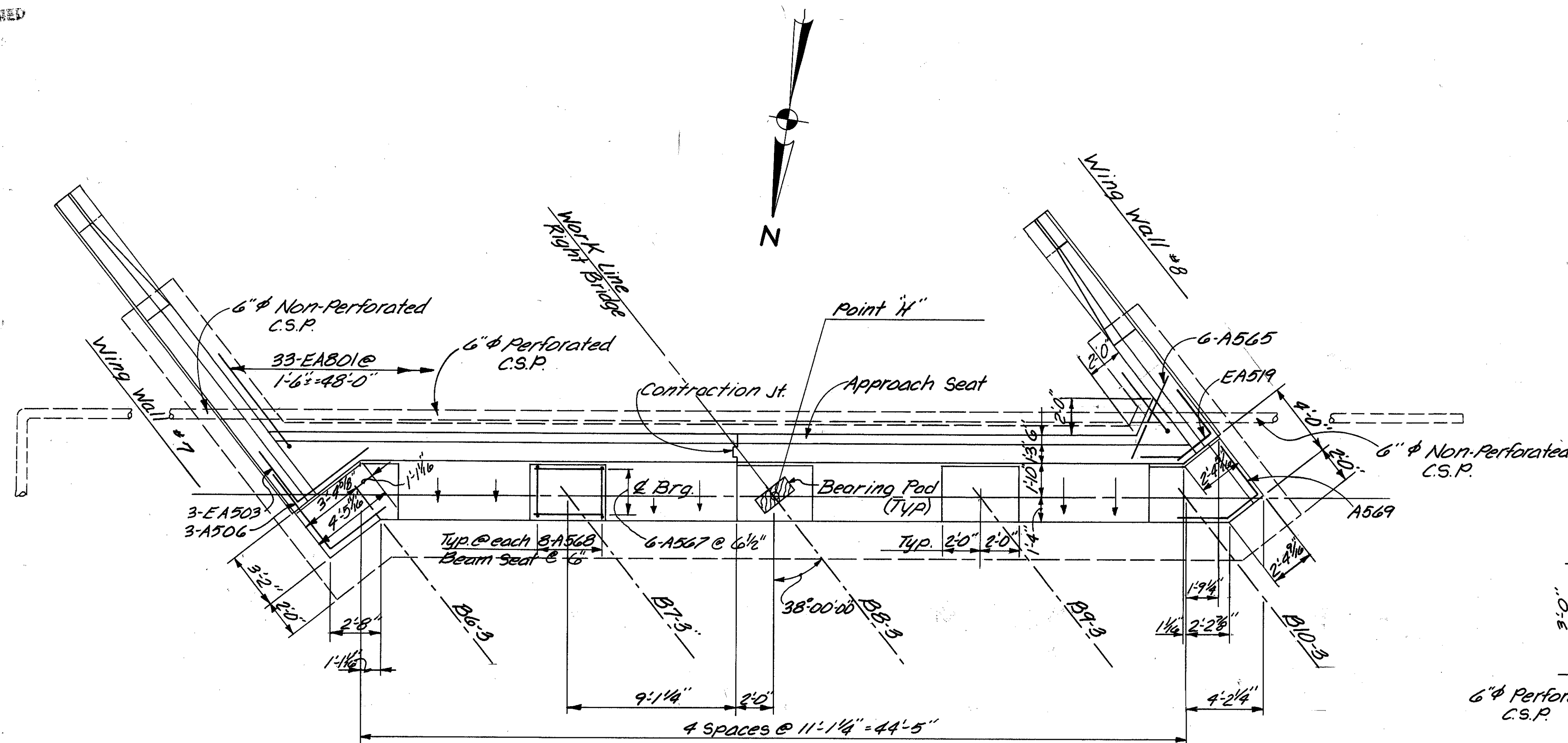
SECTION 2-2



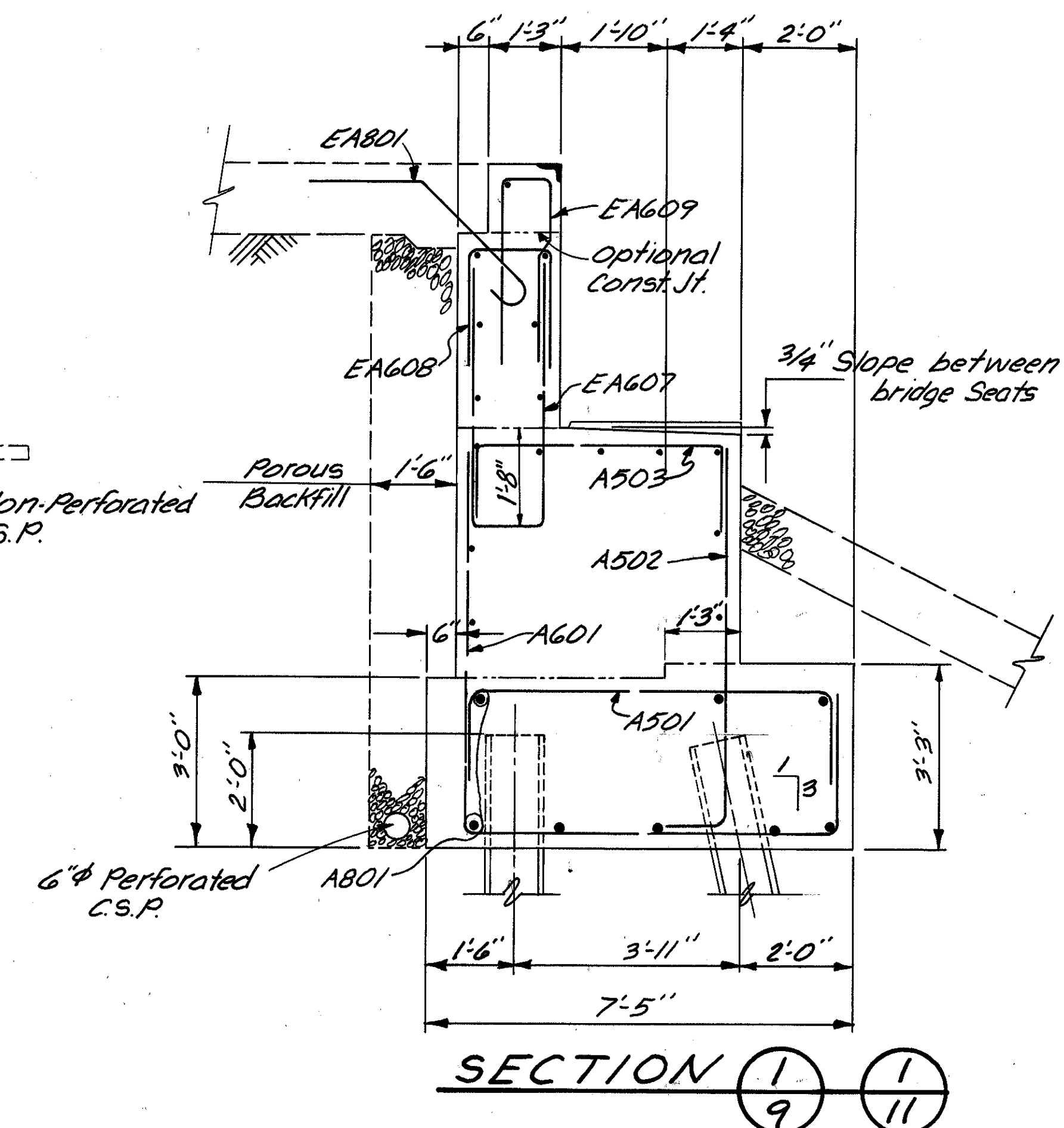
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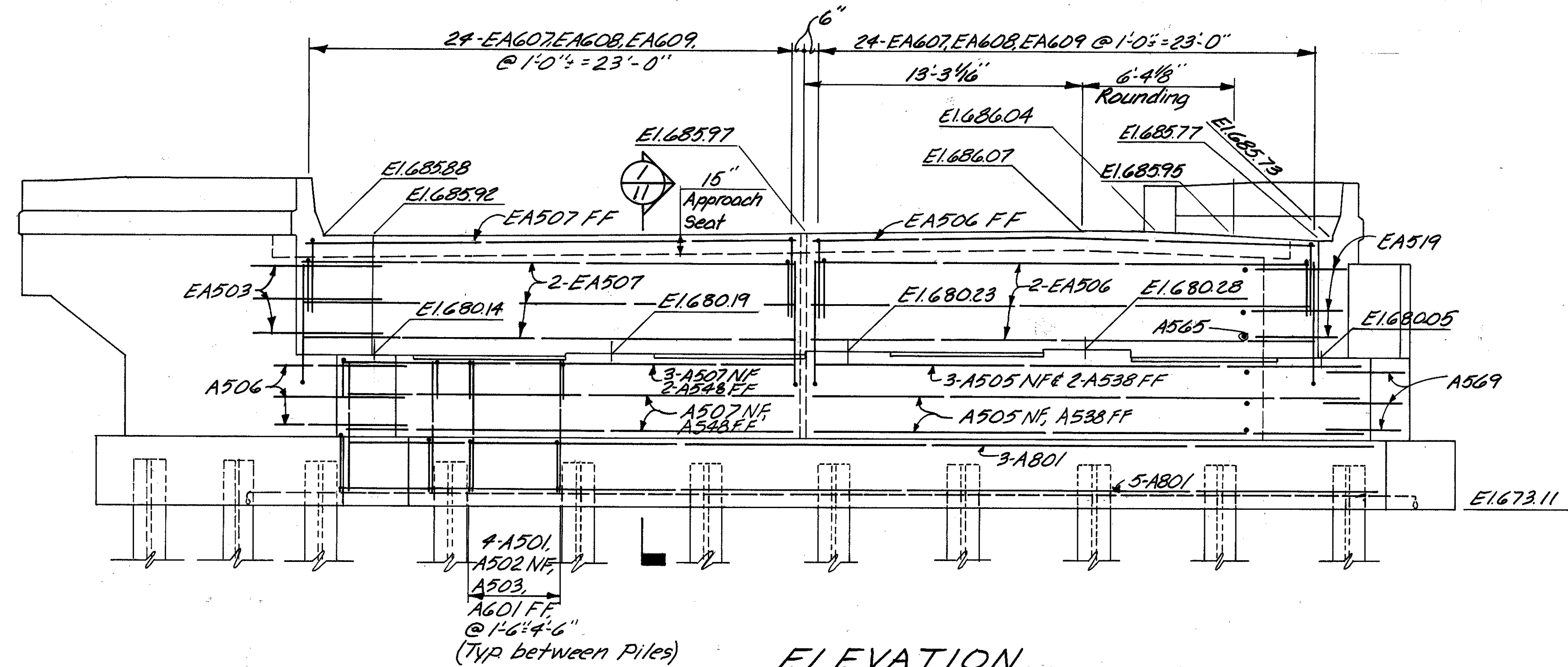
SECTION 3-3



PLAN



SECTION 1 1
9 11



ELEVATION

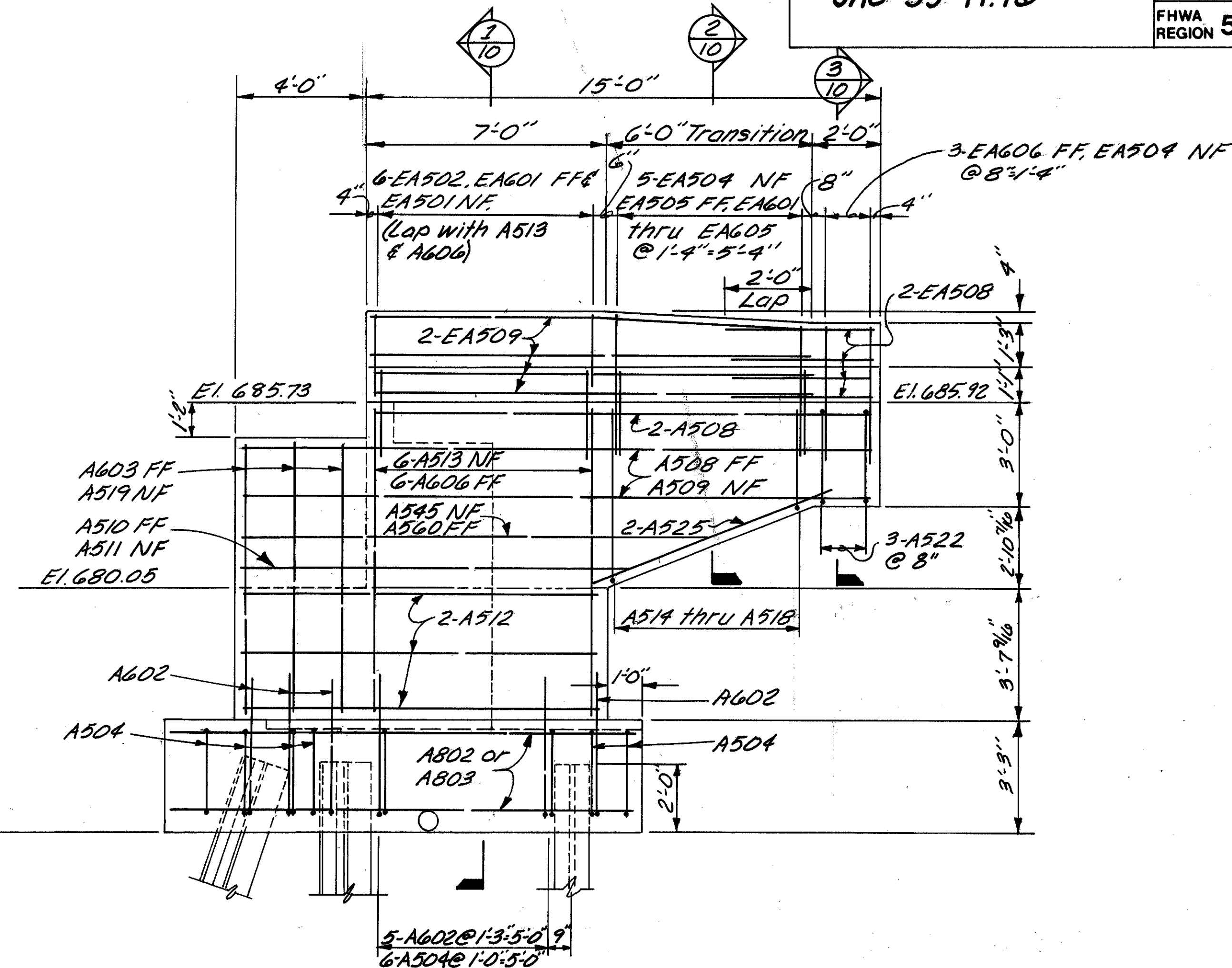
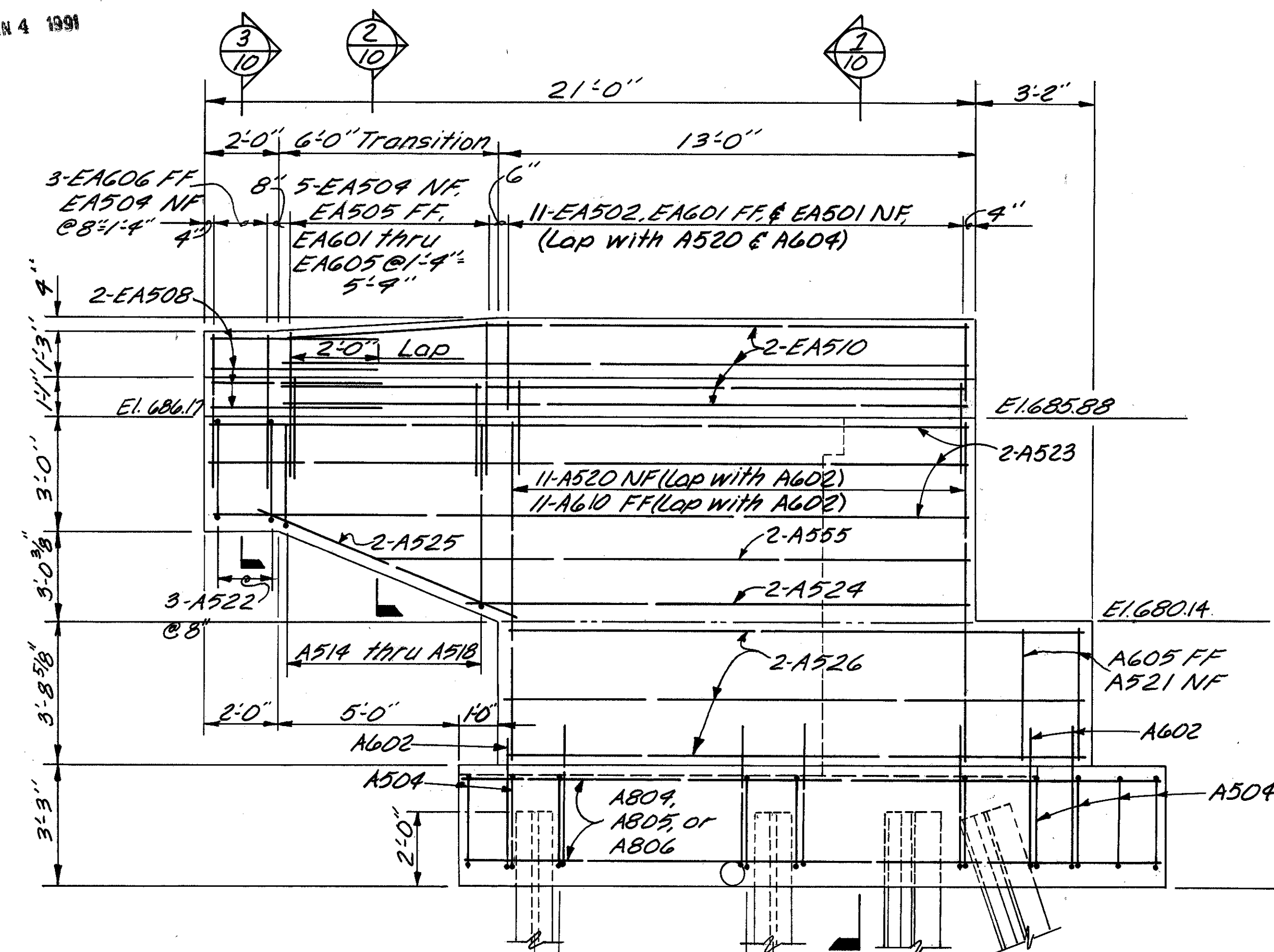
NOTES:

1. See Sheet 2/32 for Estimated Quantities & General Notes.
2. See Sheets 29/32 & 30/32 for Reinforcing Steel Details.
3. See Sheet 24/32 for Beam Bearing Details.
4. Porous Backfill, 1.5 ft. thick, shall Extended up to the Plane of the Subgrade & Laterally to the Ends of the Wing Walls.
5. See Sheet 5/32 for Contraction Joint Details.

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ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

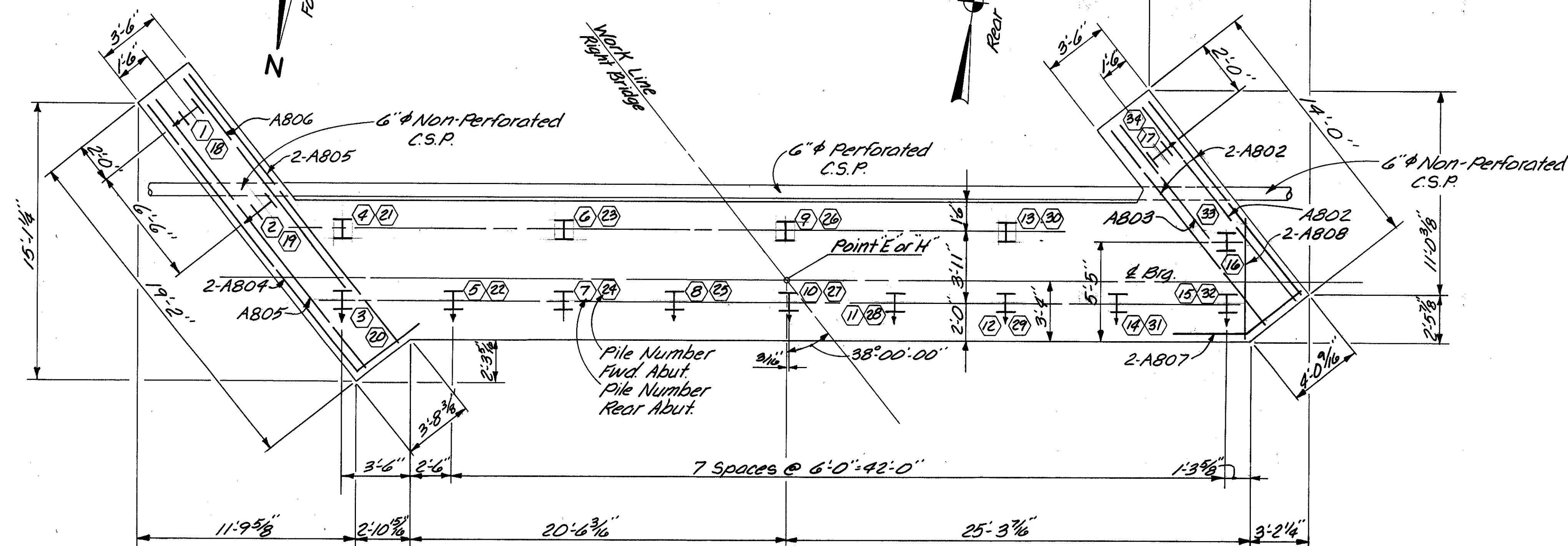
**FORWARD ABUTMENT
RIGHT BRIDGE**
BRIDGE NO. JAC-35-1220 4/R
OVER STATE ROUTE 708

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JET	KJO	-	GTW	WBS	5/9/86	

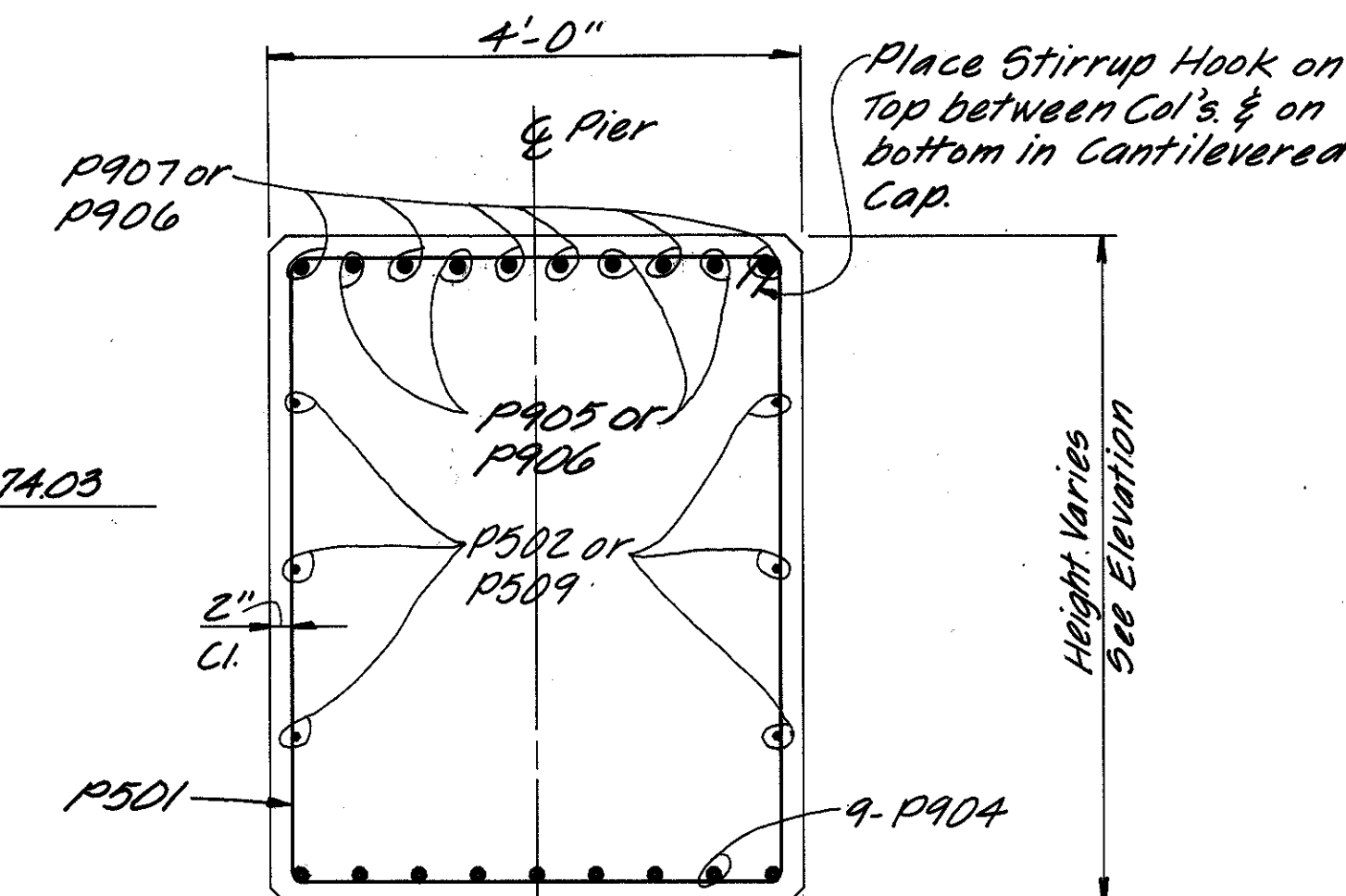
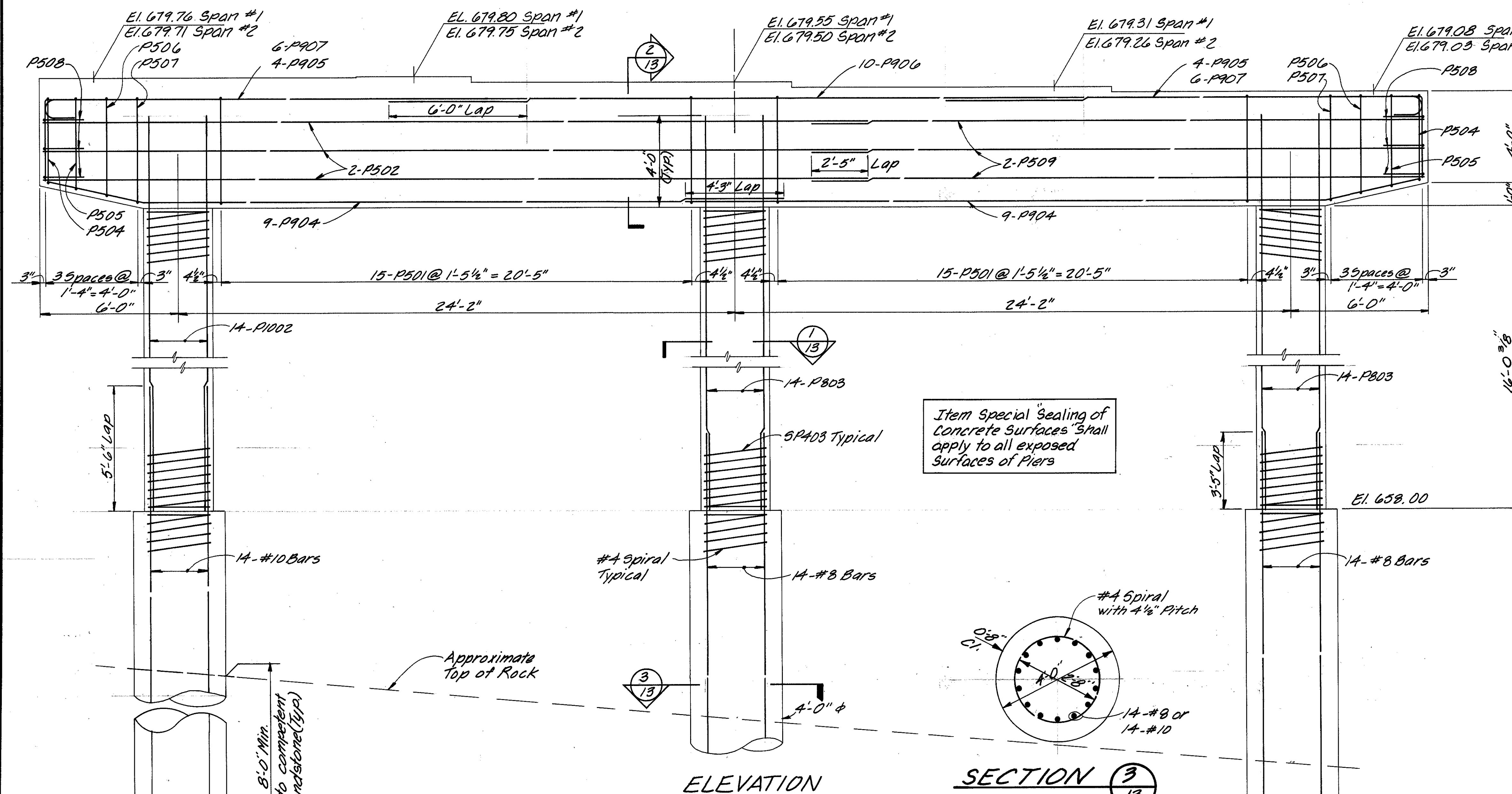
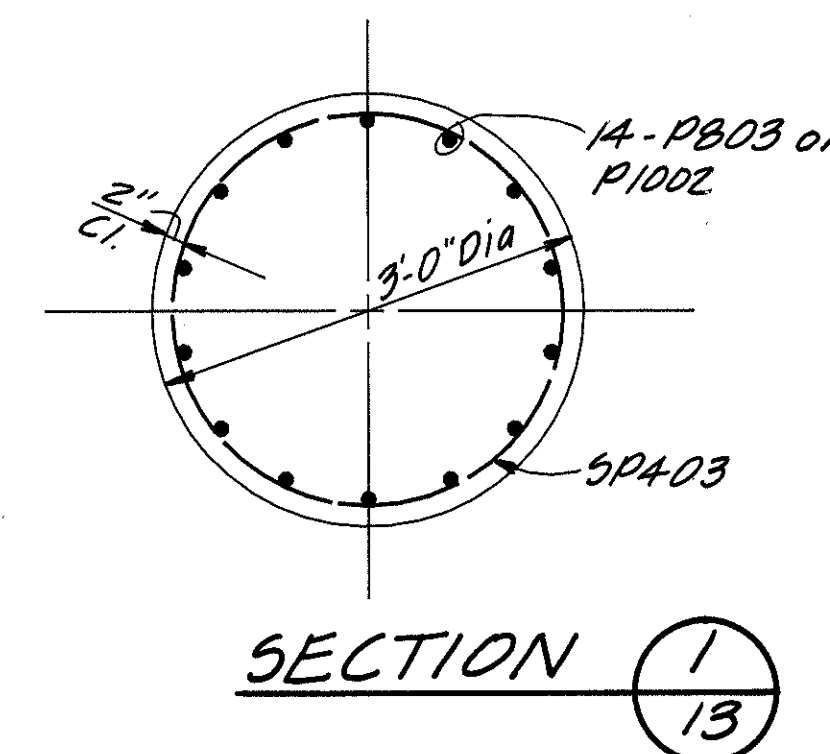
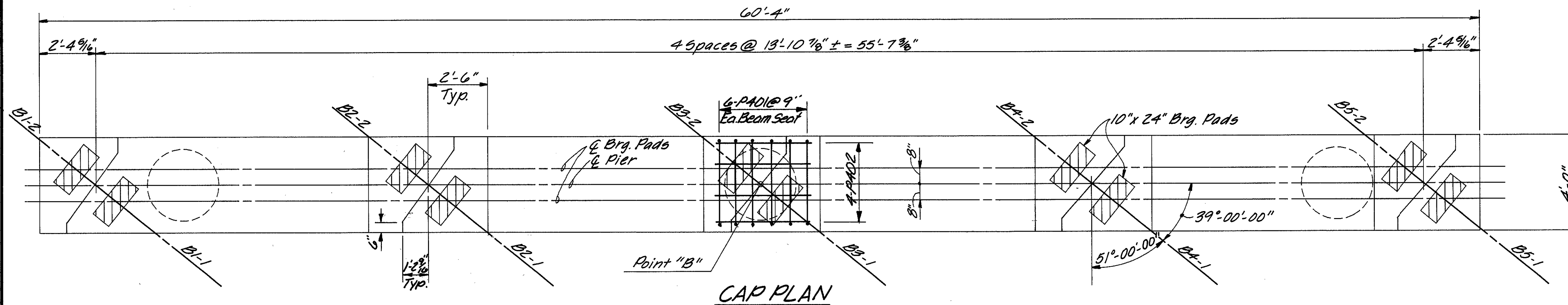


WINGWALL NO. 7

WINGWALL No. 8

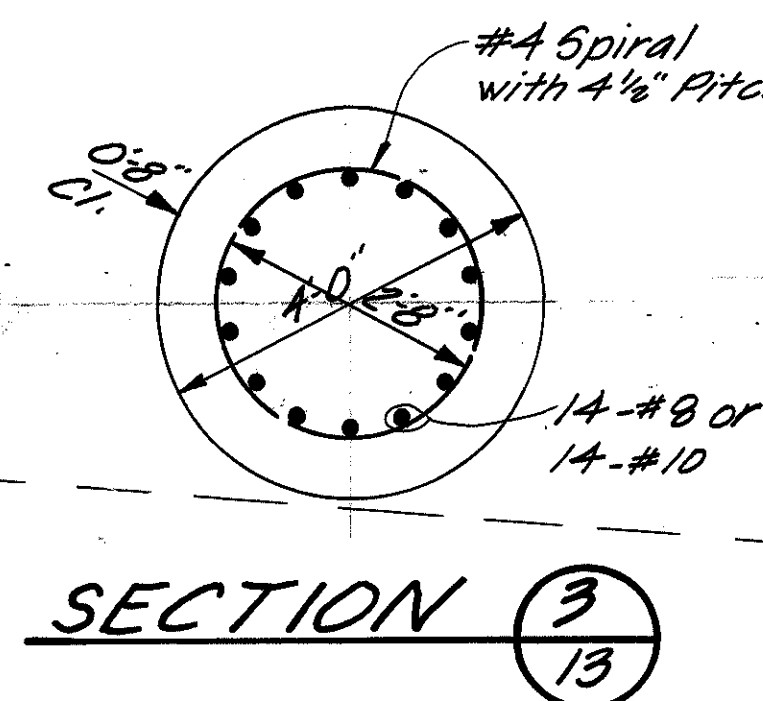


FOOTING PLAN
(Forward & Rear Abutment)



NOTES:

1. See Sheet 2/32 for General Notes & Quantities.
2. See Sheets 31/32 & 32/32 for Reinforcing Steel Details.
3. See Sheet 24/32 for Beam Bearing Details.
4. Reinforcing Steel in the Vicinity of the Bridge Seat shall be Accurately Placed to avoid Interference with the Drilling of Dowel Holes or the Pre-setting of Beam Dowels.
5. At the Option of the Contractor, Beam Dowels (or Formed Holes), Located & Supported by Templates, may be cast in Place.
6. See Sheet 17/32 for Footing Plan.

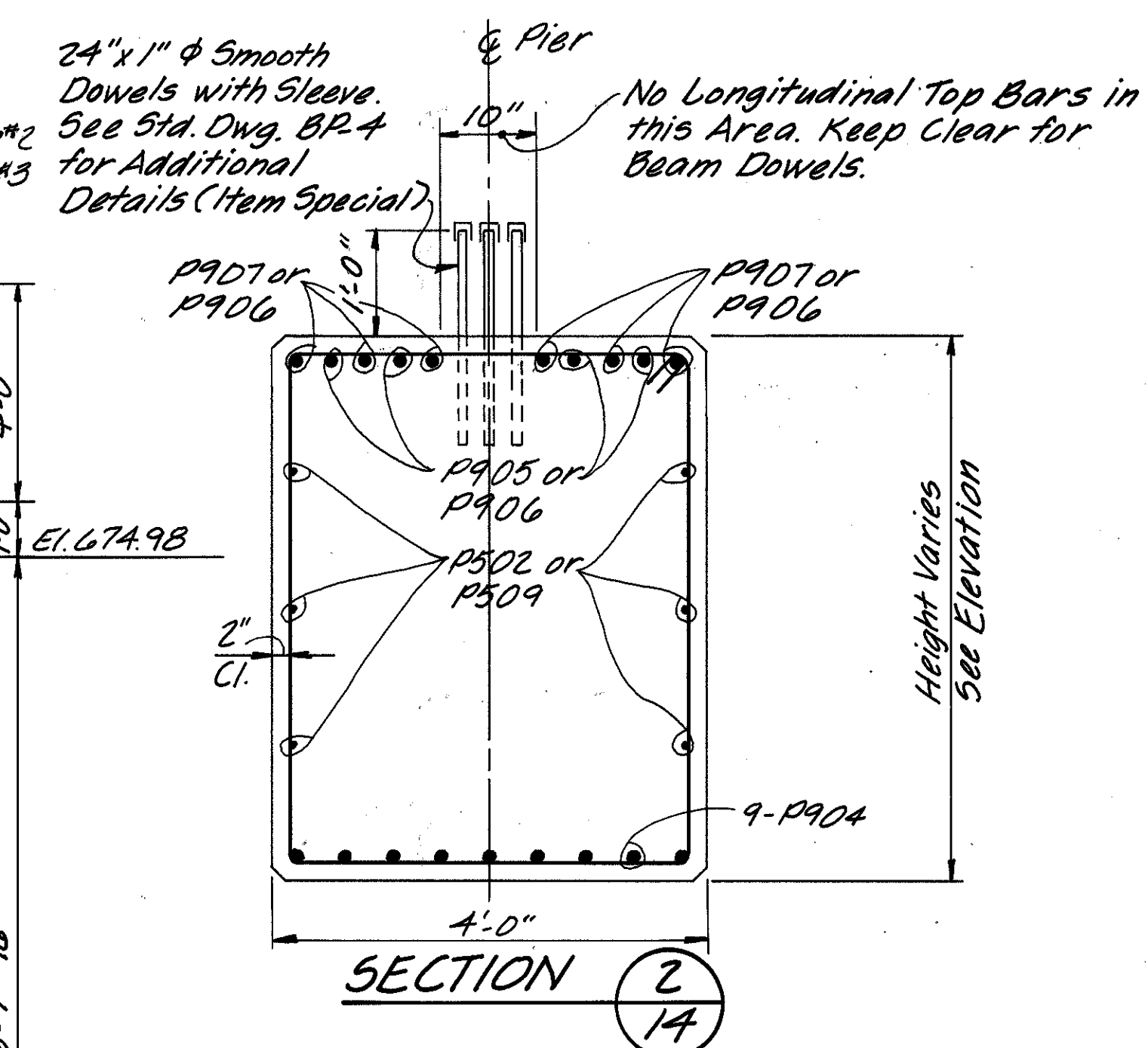
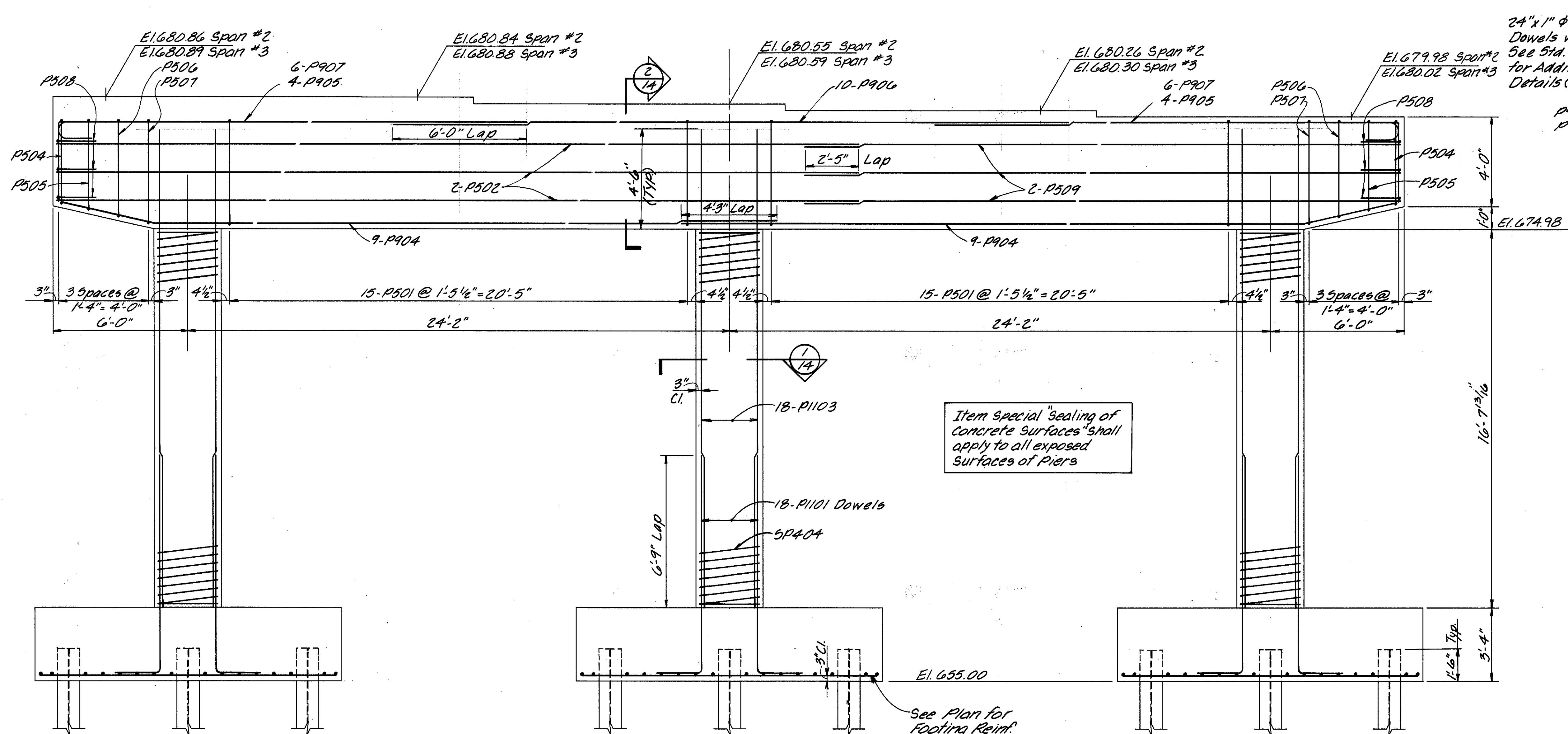
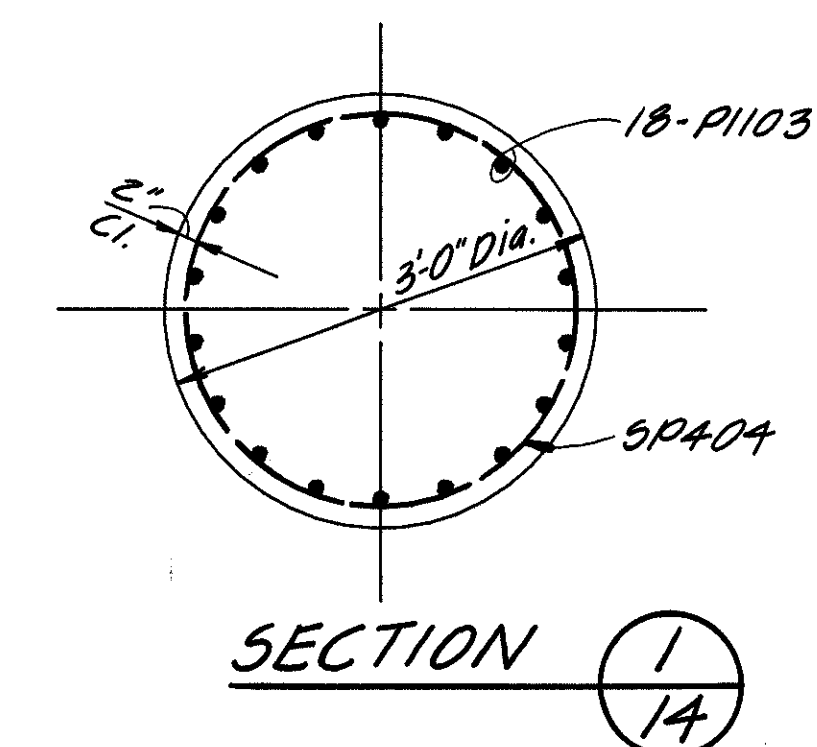
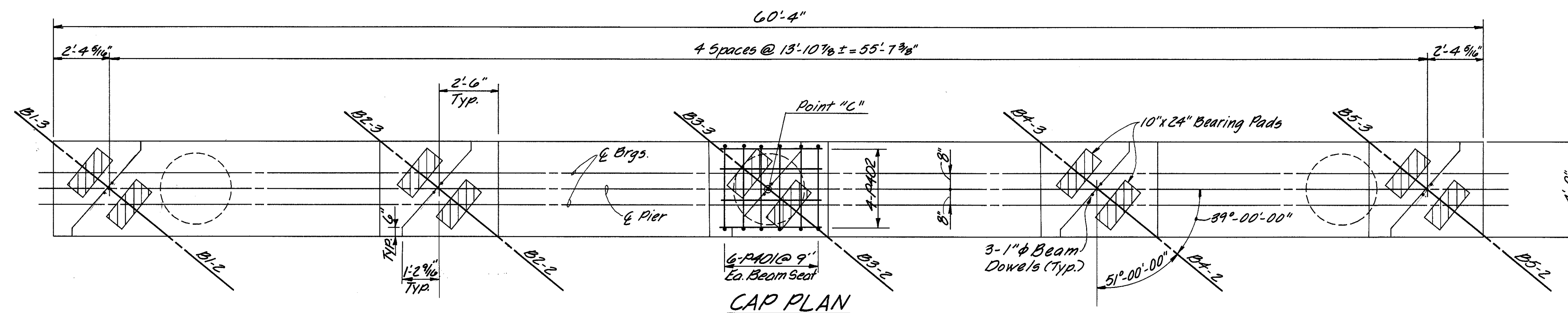


DESIGNED		DRAWN		TRACED		CHECKED		REVIEWED		DATE		REVISED	
MP		LEP		-		GTW		WBS		5/9/86			

ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

PIER #1
LEFT BRIDGE

BRIDGE NO. JAC-35-1220 L/R
OVER STATE ROUTE 100



- See previous Sheet for Notes.

		14/3	
ARCHITECTS		ENGINEERS	
111 Merchant Street, Cincinnati, Ohio 45246		513/772-1117	

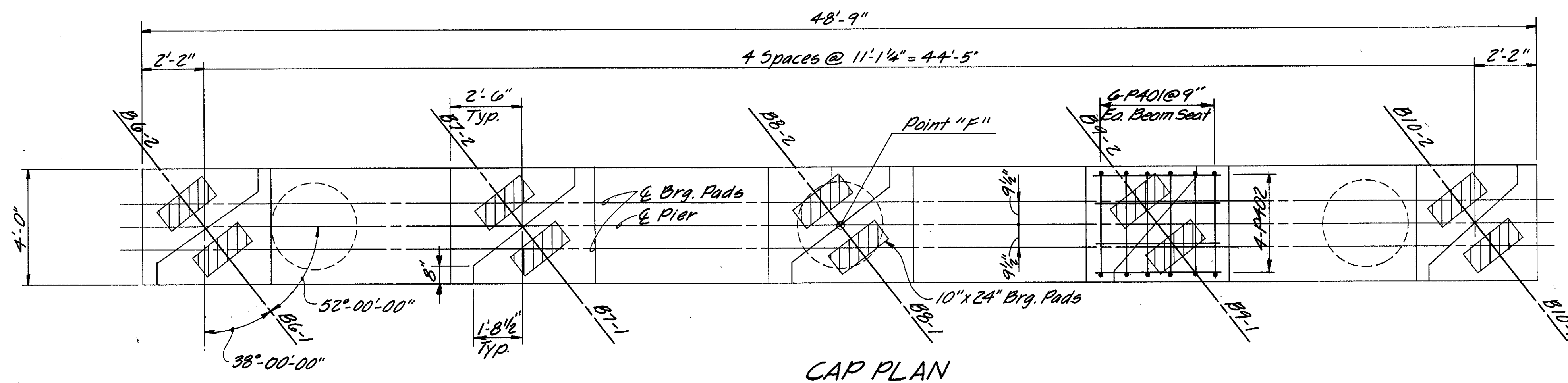
PIER #2

LEFT BRIDGE

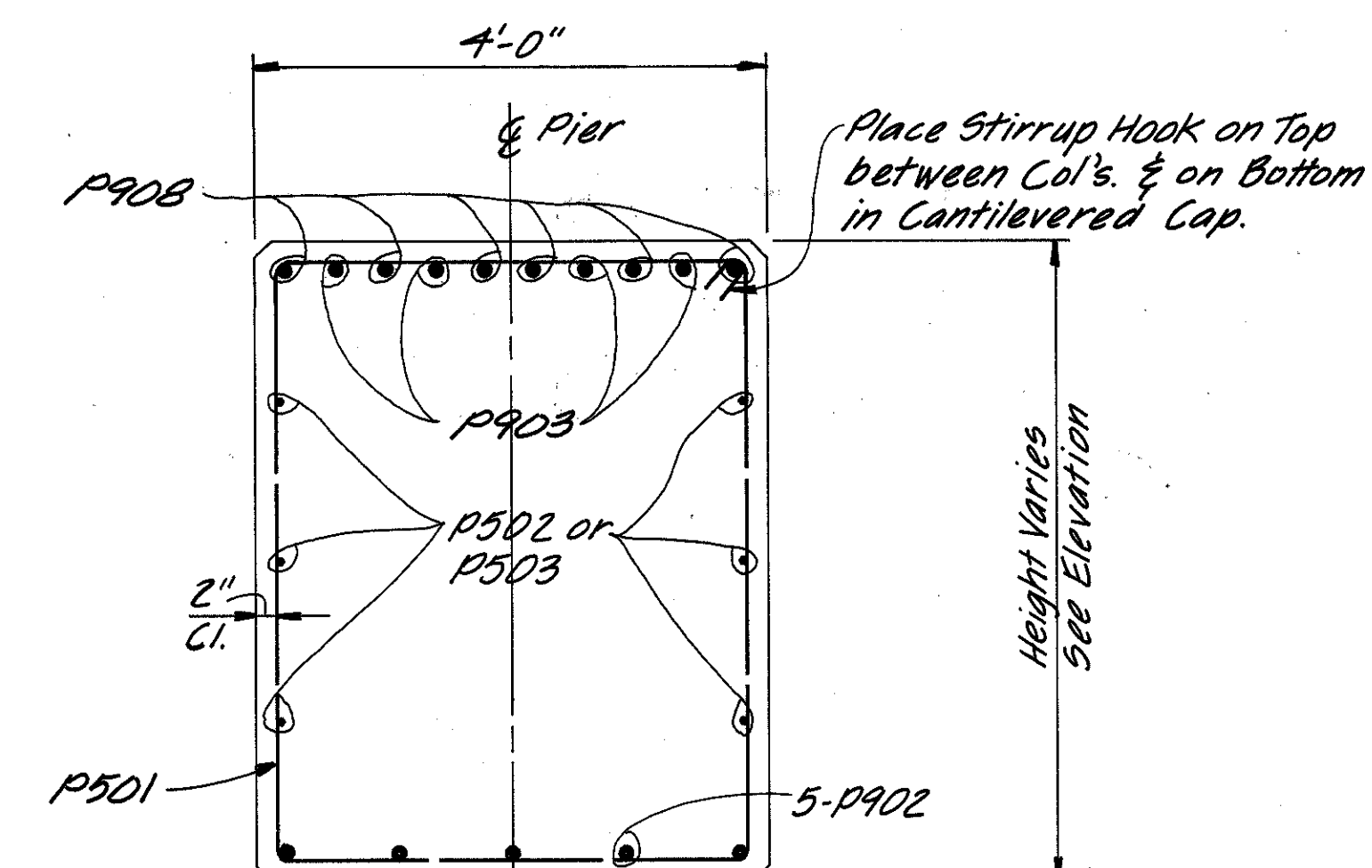
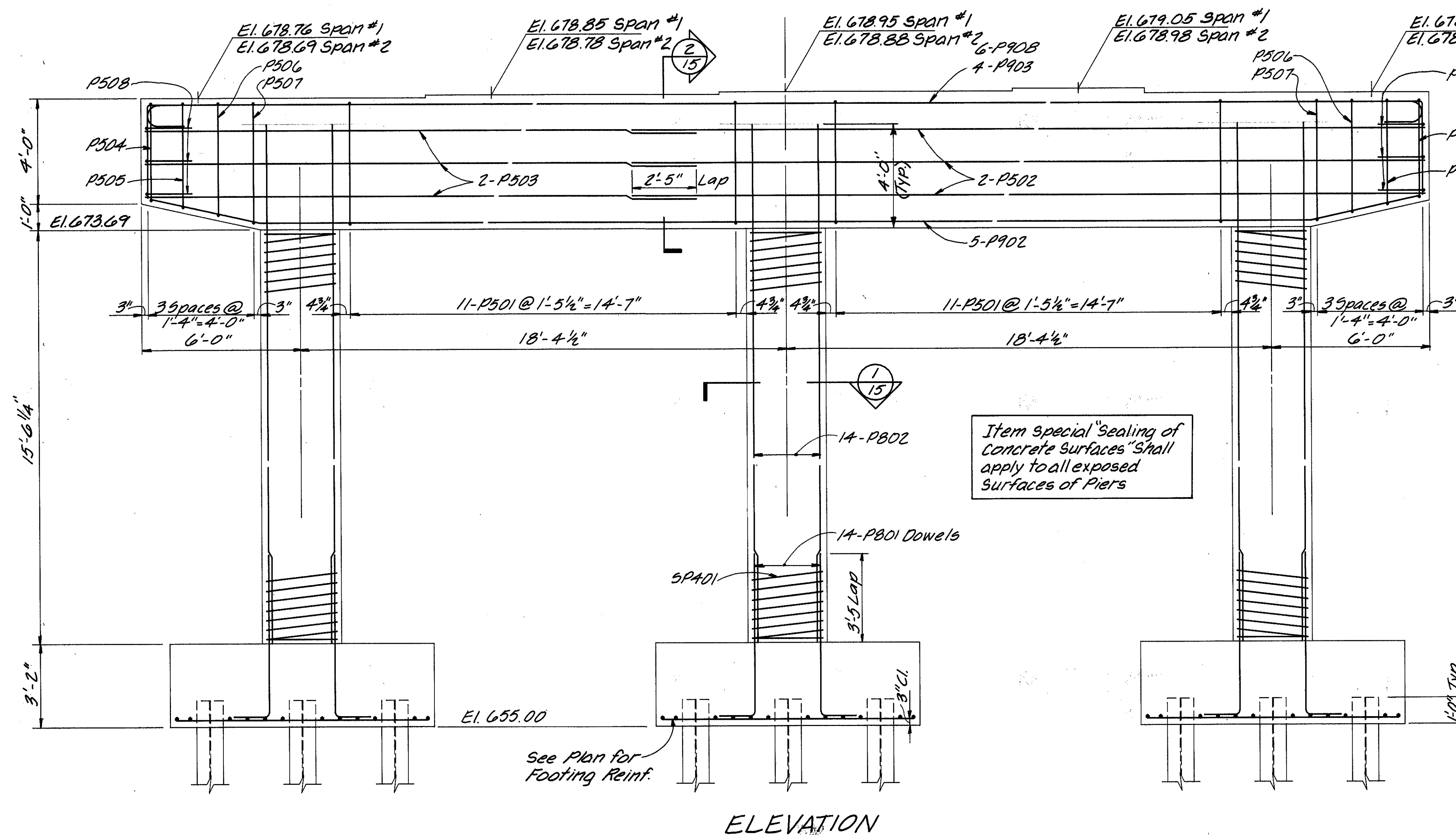
BRIDGE NO. JAC-35-1220 41R

OVER STATE ROUTE 780

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	LEP	—	GTW		WAS 5/9/80	



SECTION 1/15



SECTION 2/15

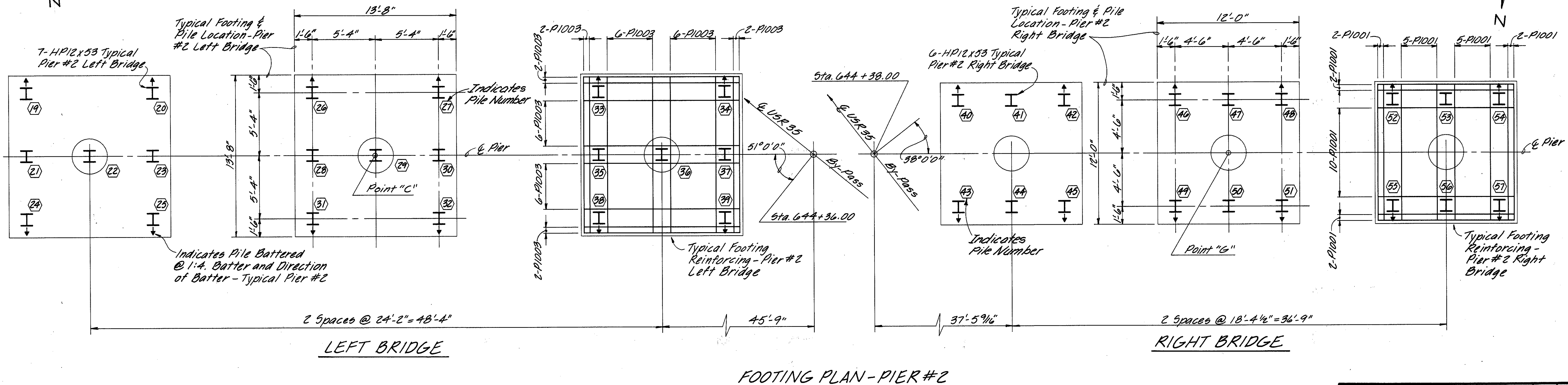
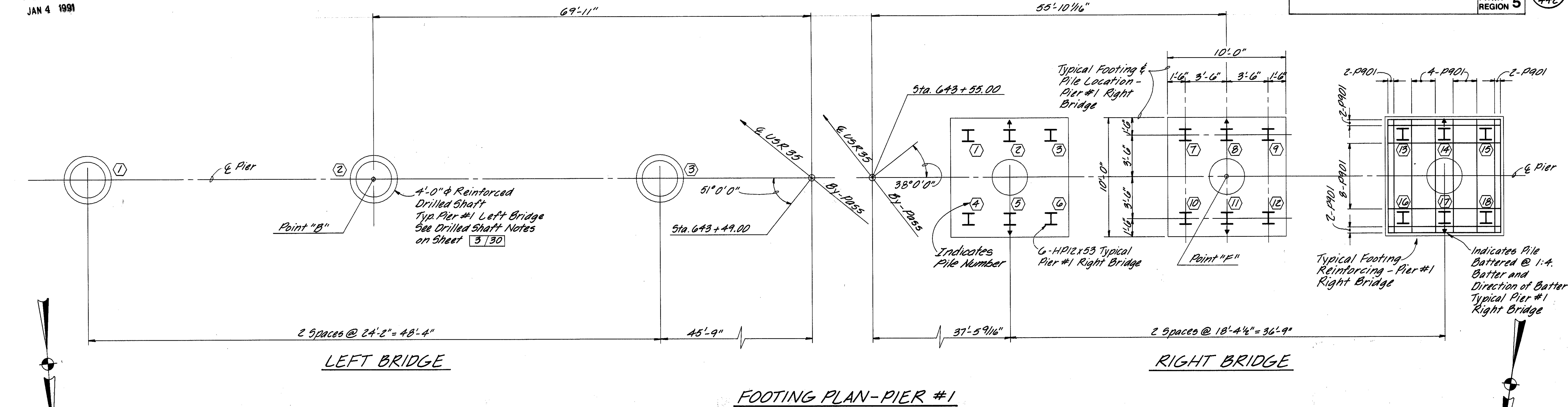
NOTES:

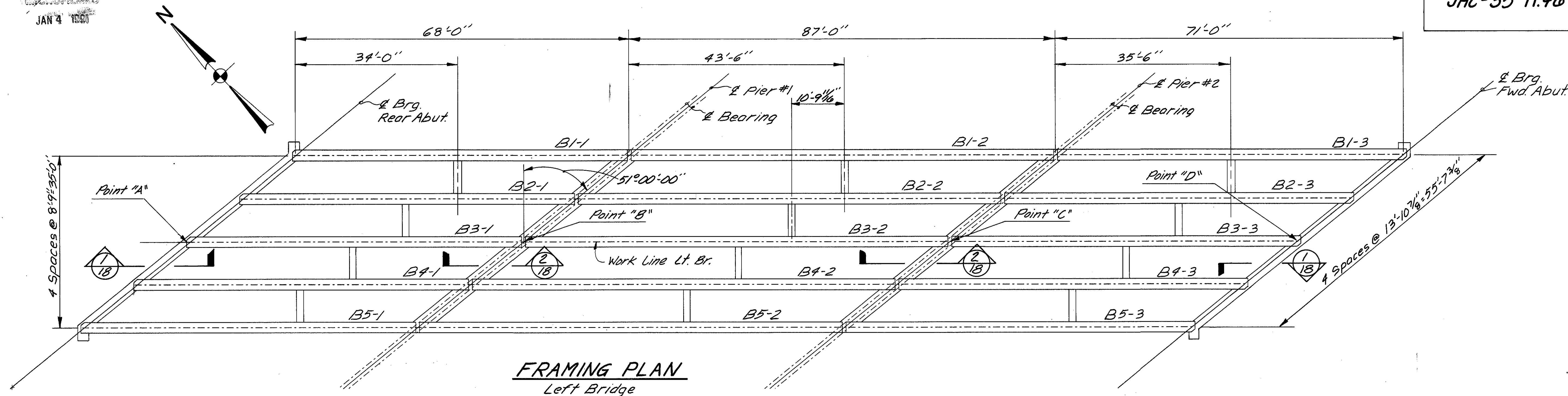
1. See Sheet 3/32 for General Notes & Quantities.
2. See Sheets 29/32 & 30/32 for Reinforcing Steel Details.
3. See Sheet 24/32 for Beam Bearing Details.
4. Reinforcing Steel in the Vicinity of the Bridge Seat shall be Accurately Placed to avoid interference with the Drilling of Dowel Holes or the Pre-setting of Beam Dowels.
5. At the Option of the Contractor, Beam Dowels (or Formed Holes), Located & Supported by Templates, May be Cast in Place.
6. See Sheet 17/32 for Footing Plan.

DESIGNED M.P.		DRAWN LEP		CHECKED GTN		REVIEWED WDS 5/9/88		DATE 5/9/88		REVISED	
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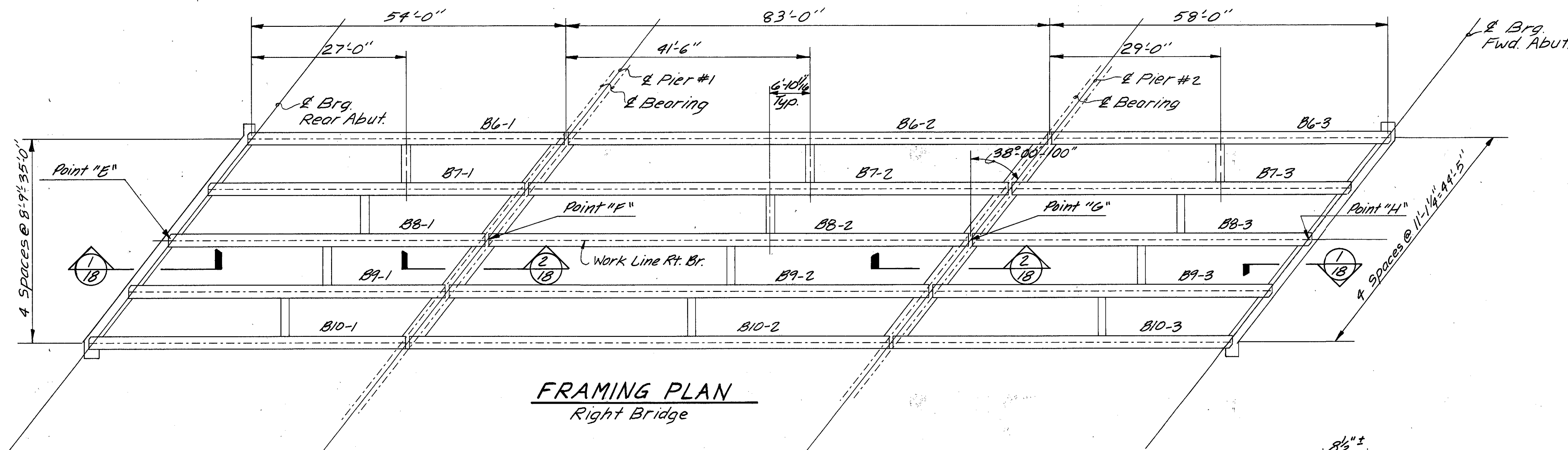
ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

PIER #1
RIGHT BRIDGE
BRIDGE NO. JAC-35-1220 4/R
OVER STATE ROUTE 788

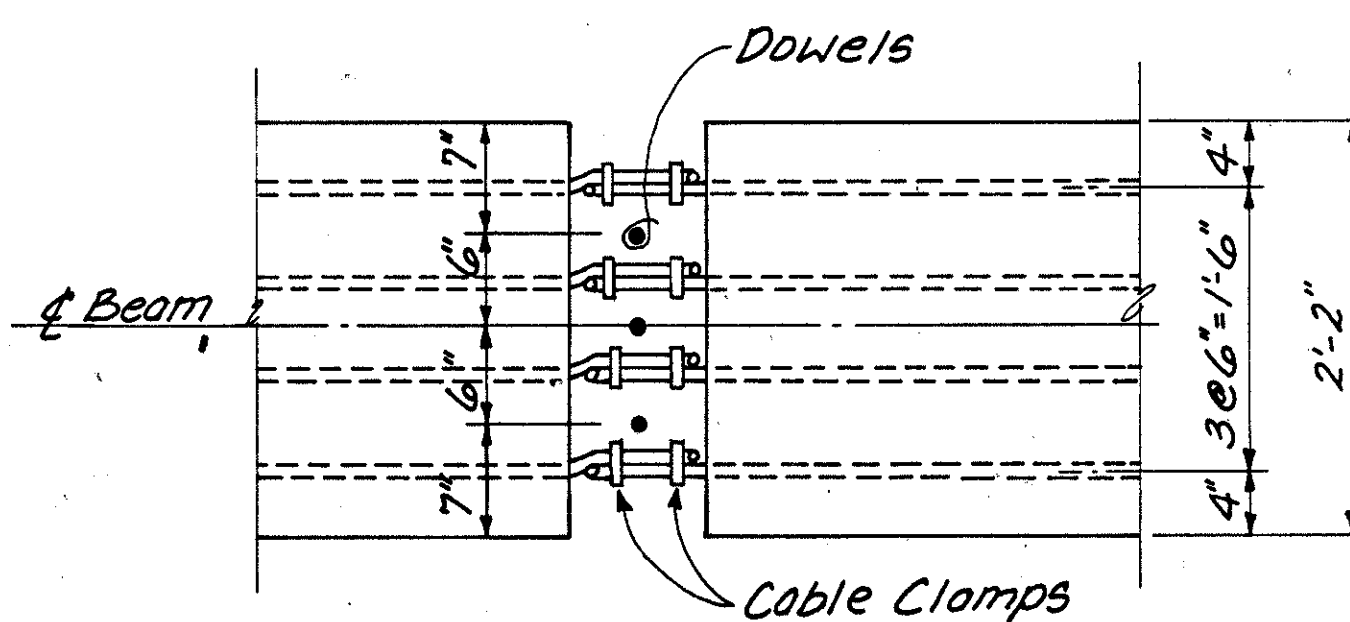




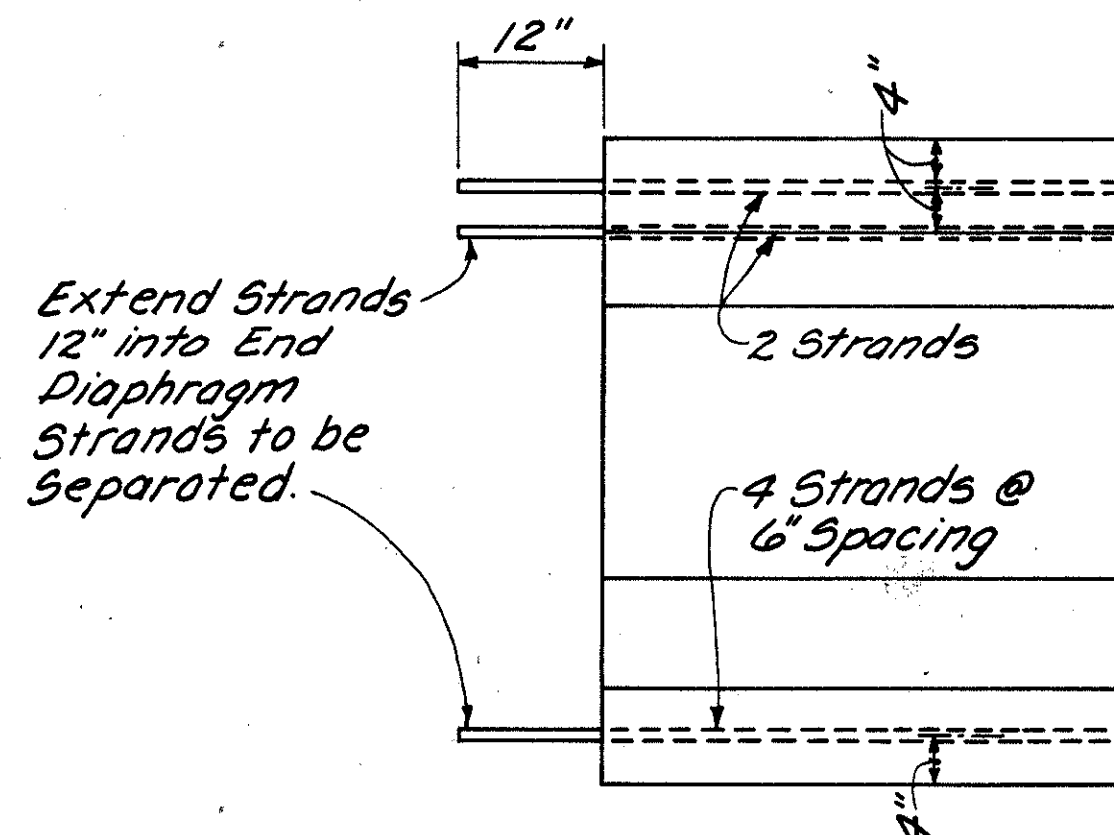
FRAMING PLAN
Left Bridge



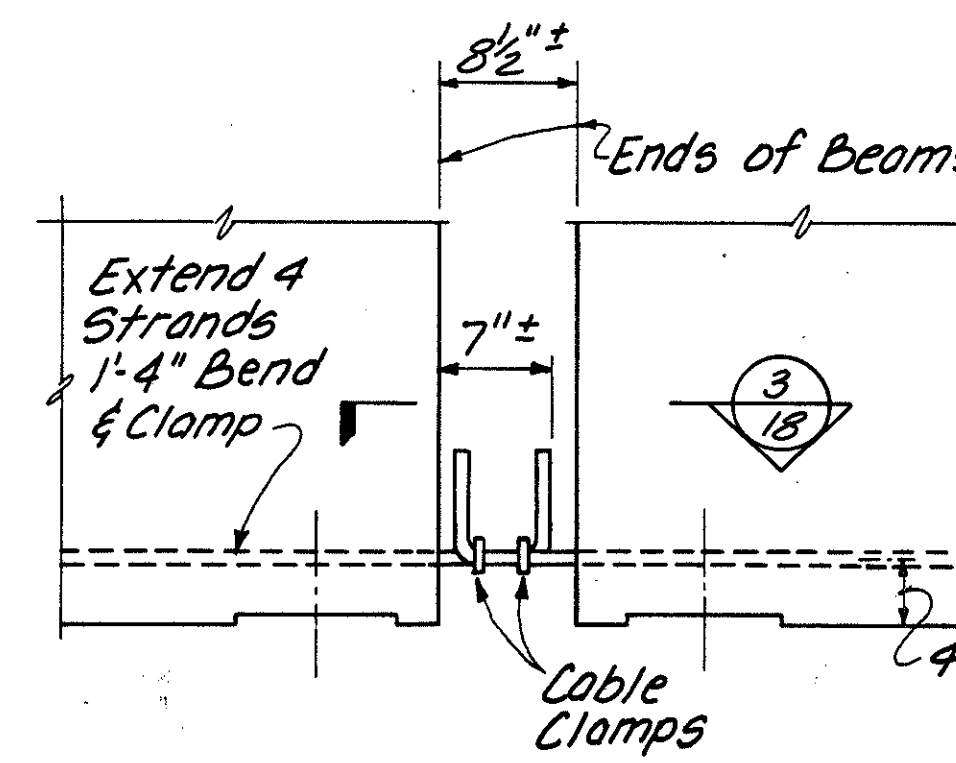
FRAMING PLAN
Right Bridge



SECTION 3/18



SECTION 1/18



SECTION 2/18

NOTES:

1. See Sheet 19/32 for Beam Details.
2. See Sheet 24/32 for Intermediate Diaphragm Details.
3. See Sheet 27/32 for Additional Deck & Beam Details.
4. See Sheet 24/32 for Bearing Pad Details & Sheets 23/32 & 24/32 for Pier & Abut. Diaphragm Details.
5. Once Diaphragm Concrete is Placed, No Loads Shall be Applied to the Beams until all the Diaphragm Concrete has Cured for 72 Hours.
6. Lifting Inserts of the Contractors Design May be Used if Approved by the Director.
7. Position of Lifting Inserts May be Shifted Slightly When Necessary to Clear Reinforcing Steel.
8. For Camber, Deflection & Extension of Strands at Ends of Beam, See Sheet 19/32.
9. See Sheet 23/32, Section 2/29, for Chamfer of Top & Bottom Beam Flanges at Abutment End of Beams.

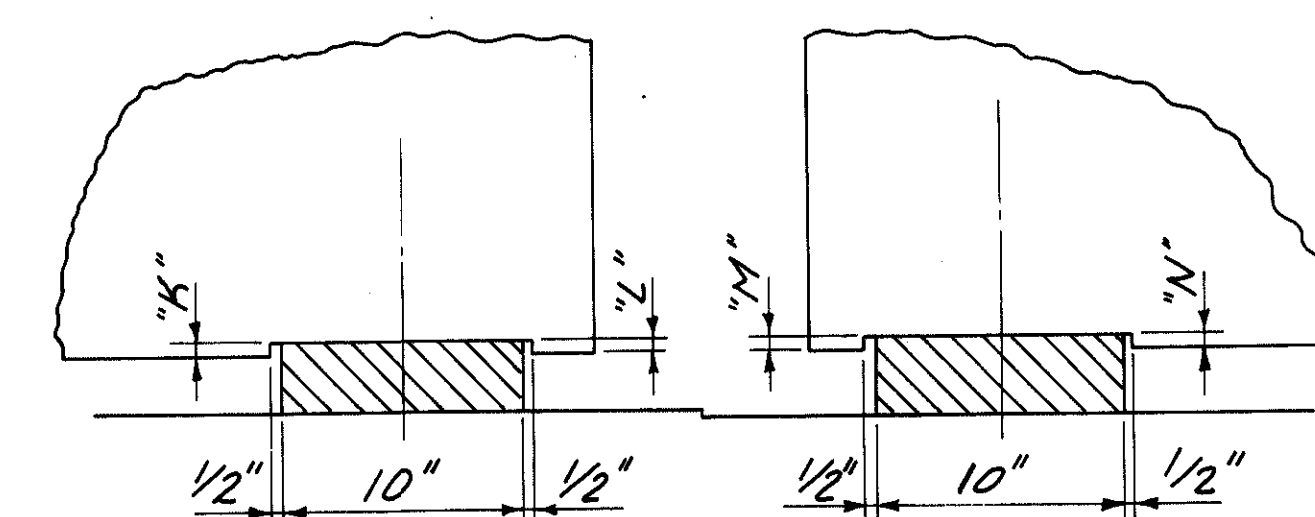
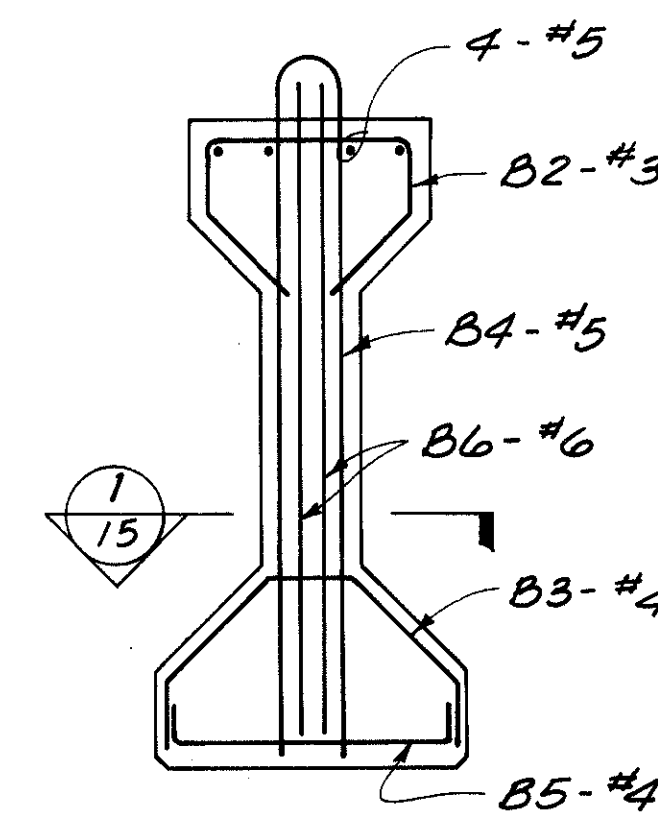
KZF
INCORPORATED

ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

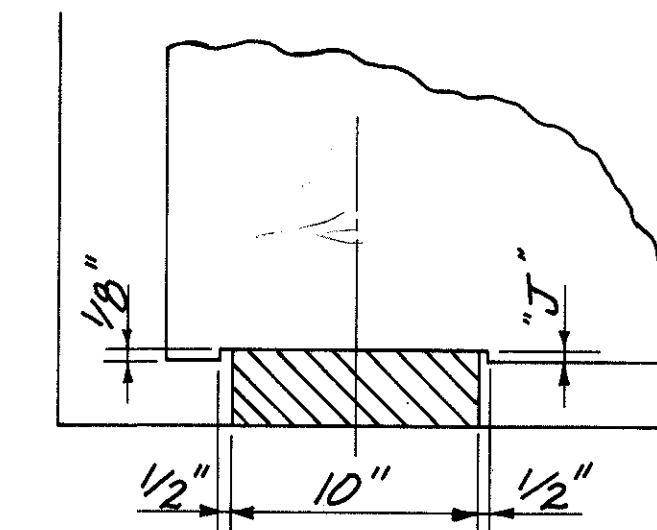
**LEFT & RIGHT BRIDGE
FRAMING PLAN**

BRIDGE NO. JAC-35-1220 L/R
OVER STATE ROUTE 788

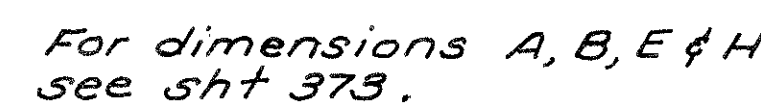
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	KJO	-	JET	WBS	5/9/86	



FORWARD ABUTMENT



REAR ABUTMENT

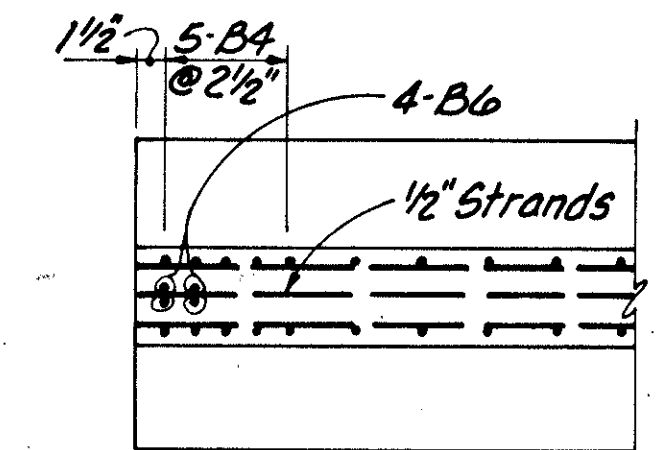


BEAM ELEVATION

* Δ_1 = Deflection Due to Prestress and DL Beam,
 Δ_2 = Deflection Due to DL Deck, FW and Parapet.
 Δ_3 = Net Camber $\Delta_1 - \Delta_2$.

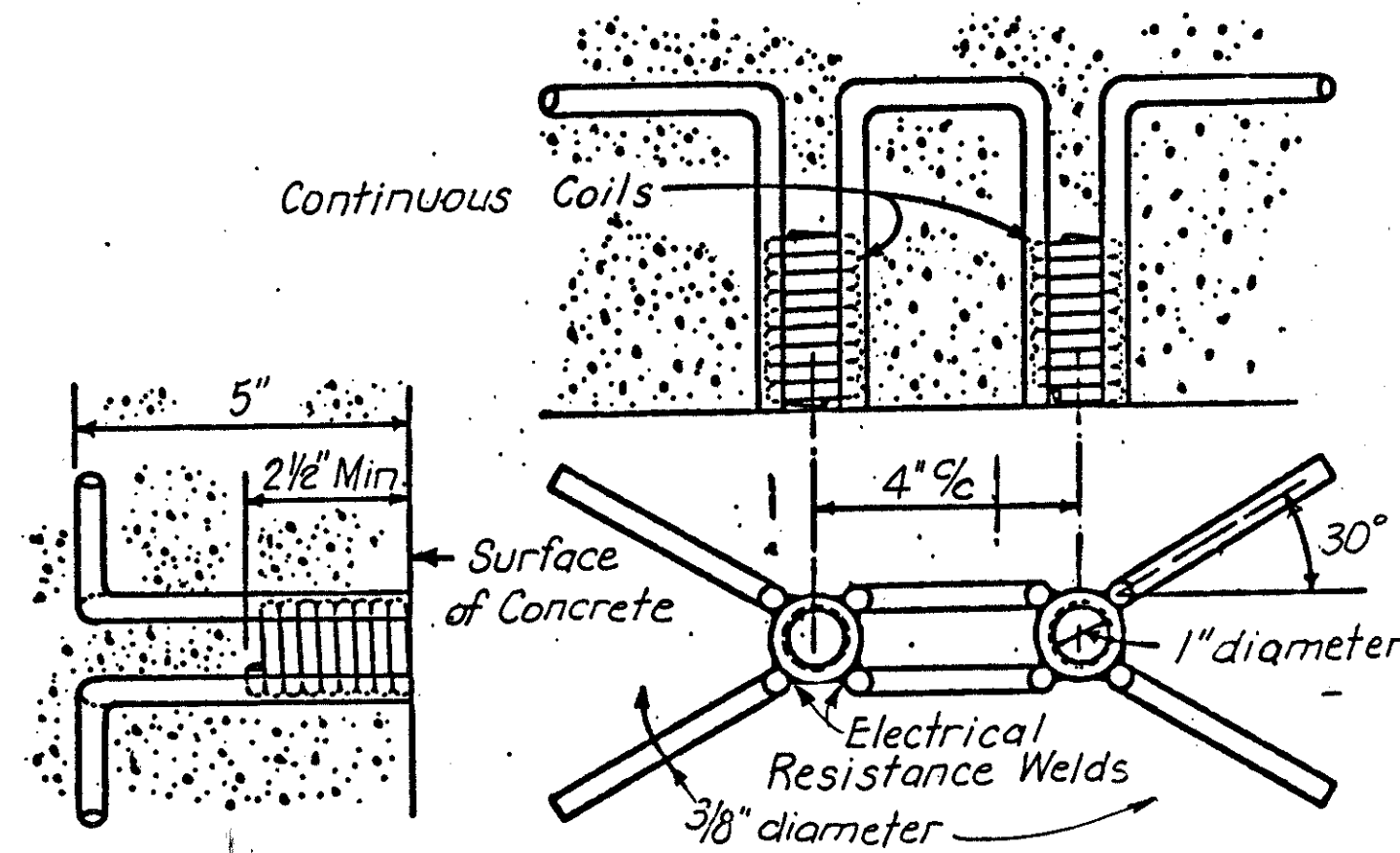
BEAM TABLE

		BEAM TABLE																								#6 BARS OVER PIERS					Slab Thickness "Q" *** At Brgs			
LT Bridge	BEAM NO.	LENGTH "A"	1/2 LENGTH "B"	DRAPING POINT E	STIRRUPS			LOCATION OF STRANDS												BEARING PAD			CAMBER *			MID-SPAN SLAB THICKNESS "Q" ***								
					"F"	"G"	"H"	MIDPOINT						END						NOTCH			Δ ₁	Δ ₂	Δ ₃		Mark	NO.	"R"	"S"	"R+S"			
								2	4	6	8	10	12	14	16	18	20	22	24	26	28	30										"J"	"K"	"L"
SPAN 1	B1-1 & B5-1	68'-0"	34'-0"	23'-10"	26 Spd @ 9'-19"	0-11 1/2"	13 Spd @ 18'-19"	12	6	-	10	4	-	-	2	2	1/4	1/4	1/8						1 1/16	1/2	1 1/16	9 1/4"	ES605	18	15'-0"	13'-0"	28'-0"	10 1/16"
	B2-1 thru B4-1	68'-0"	34'-0"	23'-10"	26 Spd @ 9'-19"	0-11 1/2"	13 Spd @ 18'-19"	12	6	-	10	4	-	-	2	2	1/4	1/4	1/8						1 1/16	1/2	1 1/16	9 1/4"	ES605	18	15'-0"	13'-0"	28'-0"	10 1/16"
SPAN 2	B1-2 & B5-2	87'-0"	43'-6"	30'-6"	35 Spd @ 9'-26 1/3"	0-8 1/4"	17 Spd @ 18'-25 1/6"	12	12	4	10	10	2	2	2	2		1/4	1/8	1/4	1/8				2 3/4	1 1/16	1 3/16	9 1/4"	ES605	18	13'-0"	15'-0"	28'-0"	11 1/4"
	B2-2 thru B4-2	87'-0"	43'-6"	30'-6"	35 Spd @ 9'-26 1/3"	0-8 1/4"	17 Spd @ 18'-25 1/6"	12	12	4	10	10	2	2	2	2		1/4	1/8	1/4	1/8				2 3/4	1 1/16	1 3/16	9 1/4"	ES605	18	13'-0"	15'-0"	28'-0"	11 1/4"
SPAN 3	B1-3 & B5-3	71'-0"	35'-6"	24'-10"	27 Spd @ 9'-20 1/3"	0-11 1/2"	14 Spd @ 18'-21'-0"	12	8	-	10	6	-	-	2	2		3/16	1/8	3/16	1 1/16	5/8	1 3/16			1 3/16	5/8	1 3/16	9 1/4"					10 13/16"
	B2-3 thru B4-3	71'-0"	35'-6"	24'-10"	27 Spd @ 9'-20 1/3"	0-11 1/2"	14 Spd @ 18'-21'-0"	12	8	-	10	6	-	-	2	2		3/16	1/8	3/16	1 1/16	5/8	1 3/16			1 3/16	5/8	1 3/16	9 1/4"					10 13/16"
RT Bridge																																		
SPAN 1	B6-1 & B10-1	54'-0"	27'-0"	18'-11"	20 Spd @ 9'-15'-0"	0-8 1/2"	10 Spd @ 18'-15'-0"	12	-	-	10	-	-	-	-	2	3/16	3/16	1/8						1 3/16	3/16	3/4	9 1/4"	ES606	16	17'-0"	12'-0"	29'-0"	10 1/4"
	B7-1 thru B9-1	54'-0"	27'-0"	18'-11"	20 Spd @ 9'-15'-0"	0-8 1/2"	10 Spd @ 18'-15'-0"	12	-	-	10	-	-	-	-	2	3/16	3/16	1/8						1 3/16	3/16	3/4	9 1/4"	ES606	16	17'-0"	12'-0"	29'-0"	10 1/4"
SPAN 2	B6-2 & B10-2	83'-0"	41'-6"	29'-0"	33 Spd @ 9'-24 1/9"	0-11 1/2"	16 Spd @ 18'-24'-0"	12	10	2	10	8	-	-	2	2		3/16	1/8	3/16	1/8				2 1/16	1 1/8	1 3/16	9 1/4"	ES606	16	13'-0"	16'-0"	29'-0"	11 1/16"
	B7-2 thru B9-2	83'-0"	41'-6"	29'-0"	33 Spd @ 9'-24 1/9"	0-11 1/2"	16 Spd @ 18'-24'-0"	12	10	2	10	8	-	-	2	2		3/16	1/8	3/16	1/8				2 1/16	1 1/8	1 3/16	9 1/4"	ES606	16	13'-0"	16'-0"	29'-0"	11 1/16"
SPAN 3	B6-3 & B10-3	58'-0"	29'-0"	20'-4"	21 Spd @ 9'-15'-9"	1-2 1/2"	11 Spd @ 18'-16'-6"	12	2	-	10	-	-	-	2	2		1/4	1/8	1/4					1 1/8	1/4	7/8	9 1/4"					10 3/8"	
	B7-3 thru B9-3	58'-0"	29'-0"	20'-4"	21 Spd @ 9'-15'-9"	1-2 1/2"	11 Spd @ 18'-16'-6"	12	2	-	10	-	-	-	2	2		1/4	1/8	1/4					1 1/8	1/4	7/8	9 1/4"					10 3/8"	

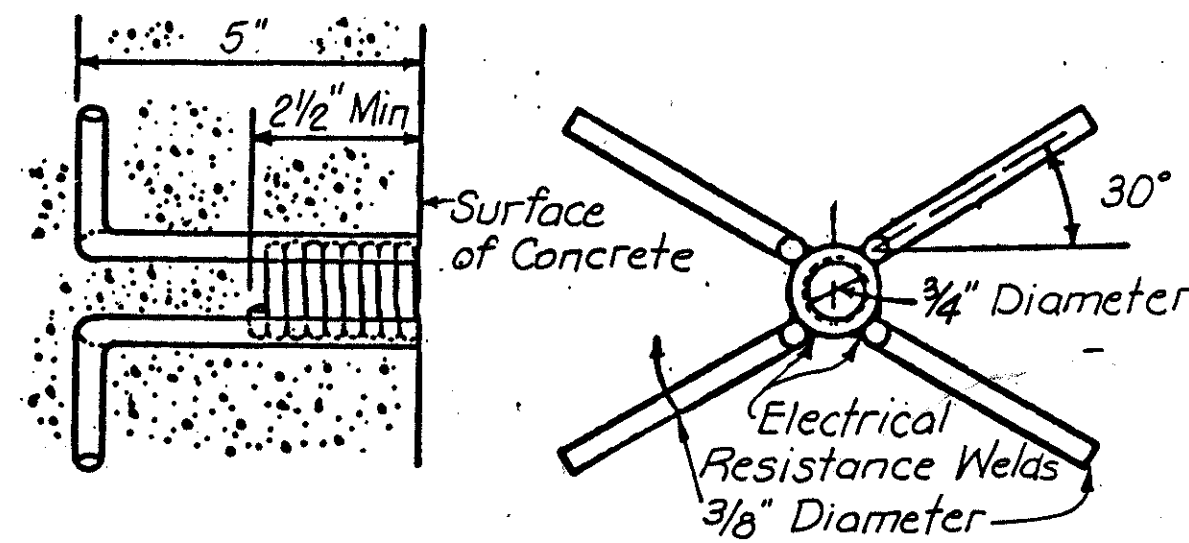


SECTION 1
15

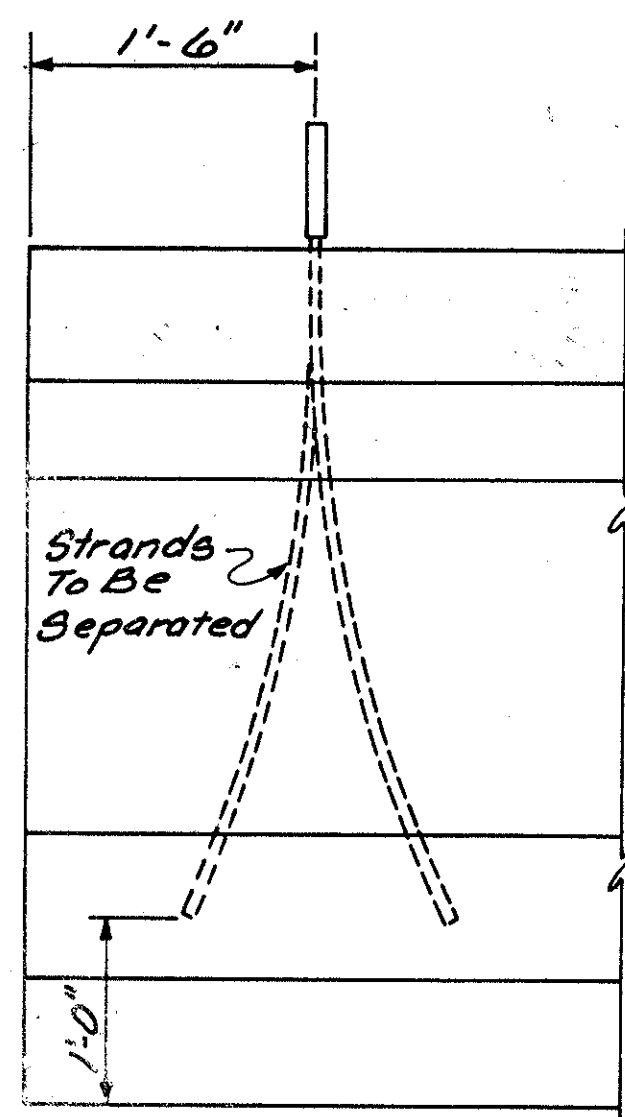
* * See Notes on Sheets 21 \ 32 & 22 \ 32



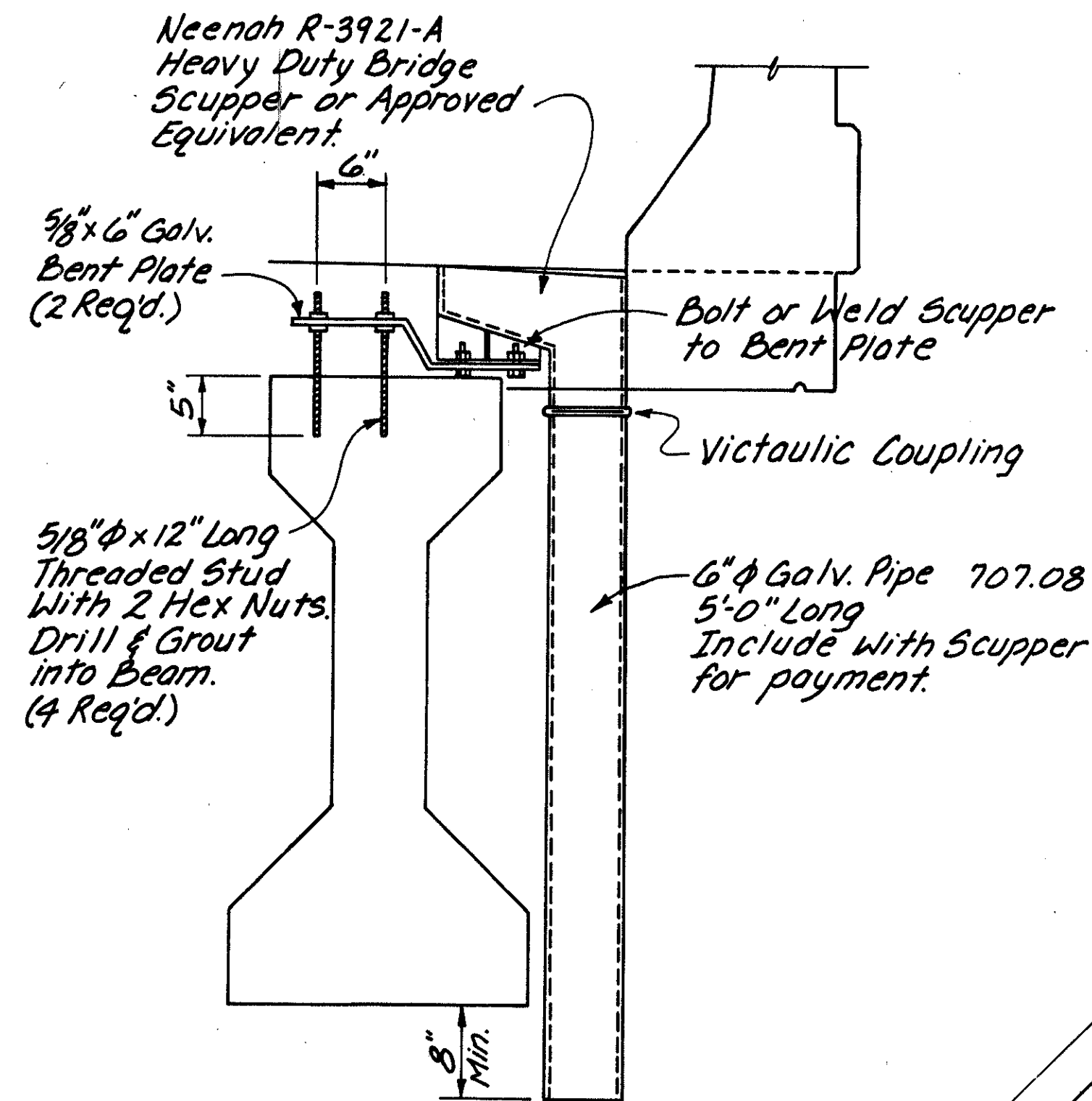
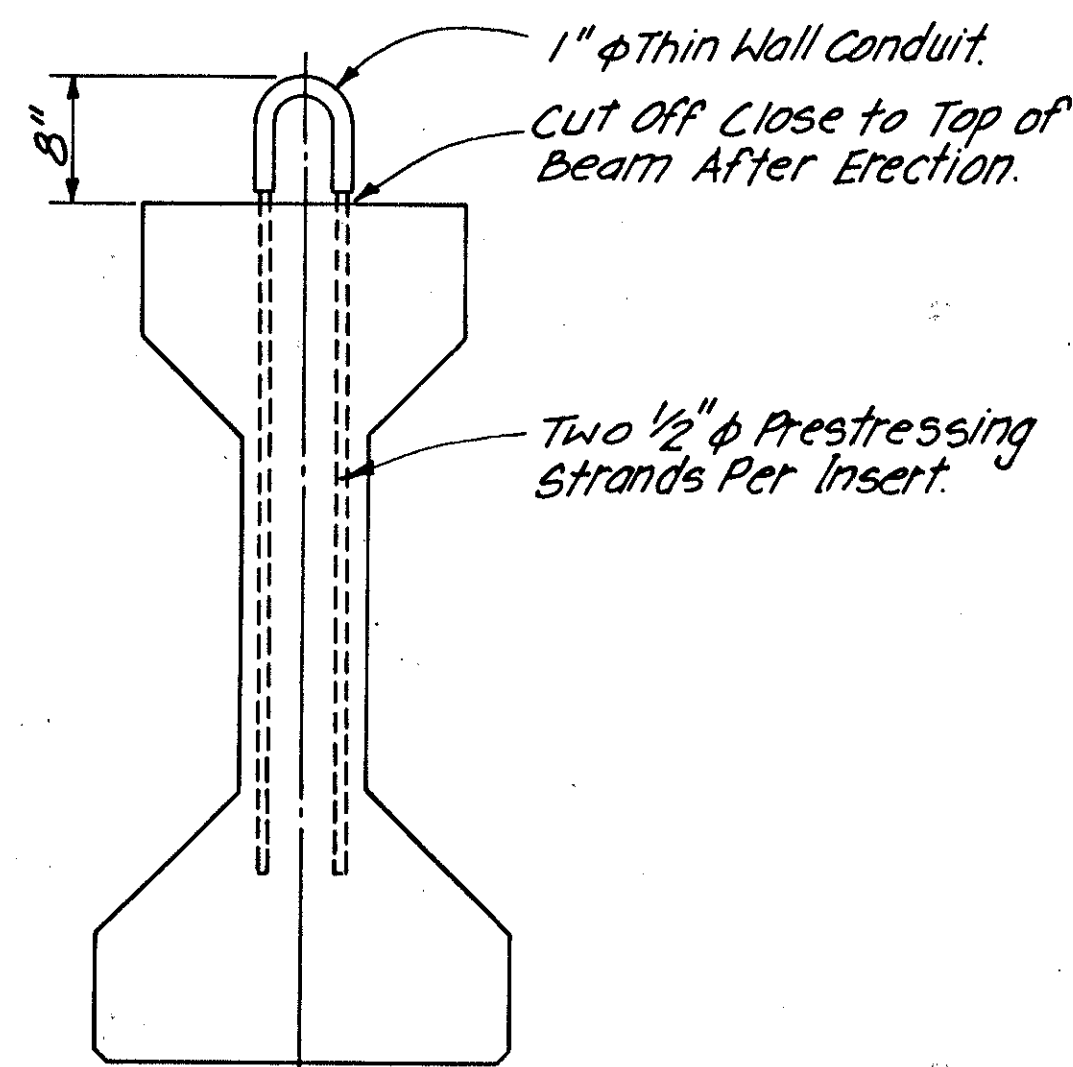
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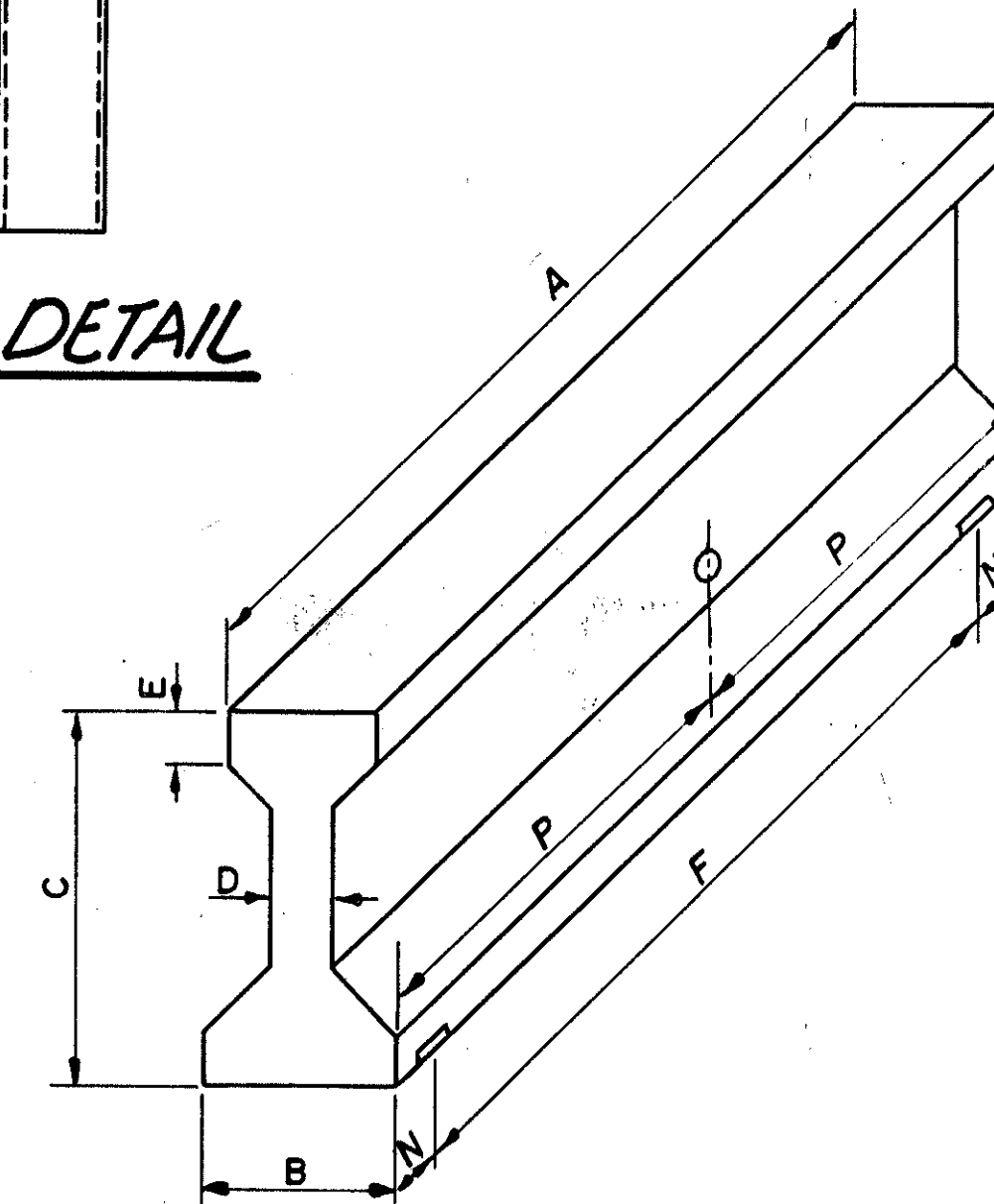
SINGLE COIL INSERT



BEAM LIFTING INSERT



SCUPPER DETAIL

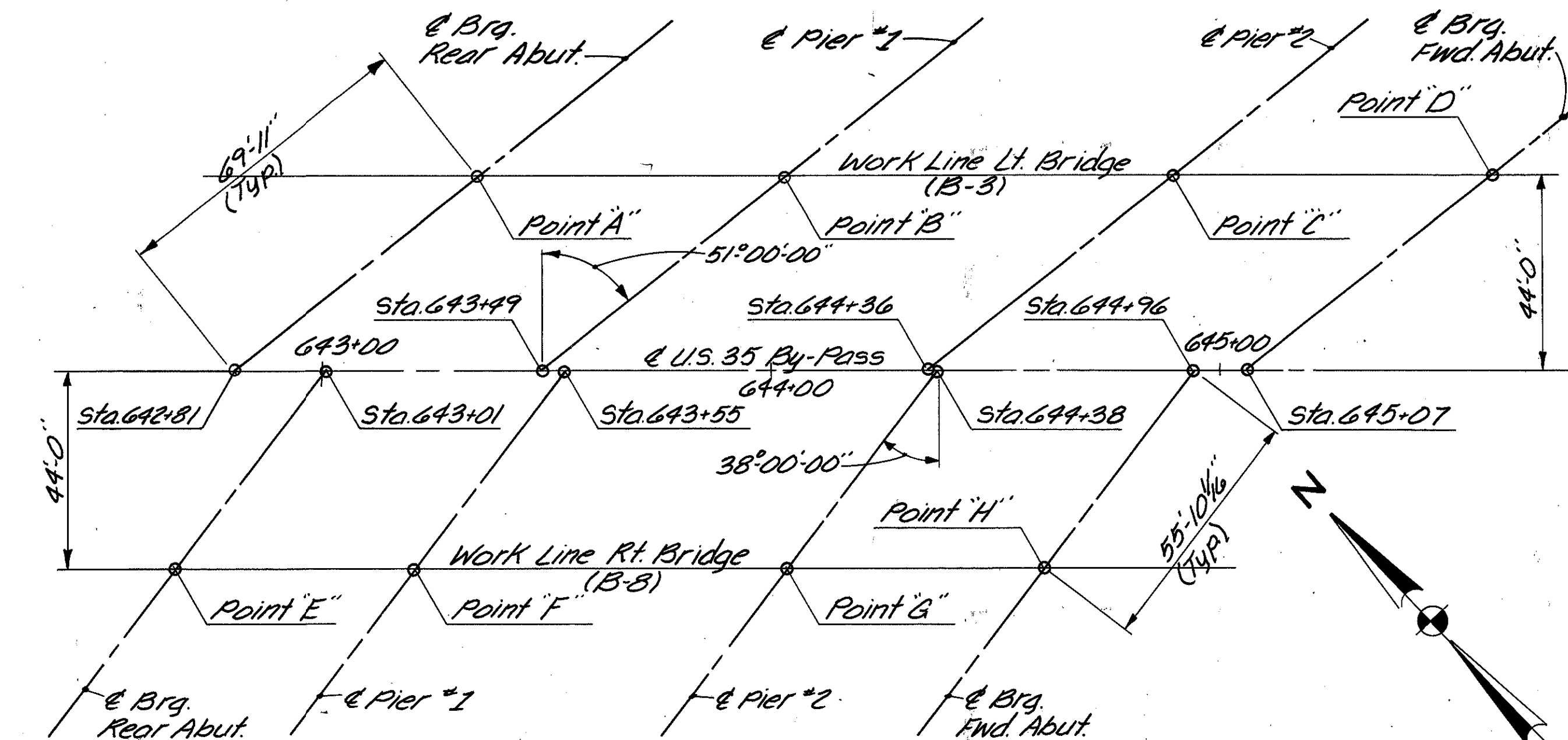


BEAM TOLERANCES

- LENGTH OF BEAM $\pm 1/8"$ PER 10' BUT NOT GREATER THAN $3/4"$
- WIDTH (FLANGES AND FILLETS) $\pm 3/8"$ - $1/4"$
- DEPTH (COVER-ALL) $\pm 1/2"$ - $1/4"$
- WIDTH (WEB) $\pm 3/8"$ - $1/4"$
- DEPTH (FLANGES, WEB AND FILLERS) $\pm 1/4"$
- BEARING PLATES (C TO E) $\pm 1/8"$ PER 10' BUT NOT GREATER THAN $3/4"$
- HORIZONTAL ALIGNMENT (DEVIATION FROM A STRAIGHT LINE PARALLEL TO CENTERLINE OF MEMBER) $\pm 1"$
- CAMBER, DIFFERENTIAL FROM DESIGN CAMBER $\pm 1/8"$ PER 10' BUT NOT GREATER THAN $1/2"$
- CAMBER, DIFFERENTIAL BETWEEN ADJACENT BEAMS $1/8"$ PER 10' OF SPAN BUT NOT GREATER THAN $1"$
- STIRRUP BARS, PROJECTION ABOVE TOP OF BEAM $\pm 3/4"$
- TENDON POSITION $\pm 1/4"$ CG OF STRAND GROUP AND INDIVIDUAL TENDONS
- POSITION OF DEFLECTION POINTS FOR DEFLECTED STRANDS $\pm 12"$
- POSITION OF HANDLING DEVICES $\pm 6"$
- BEARING PLATES (C TO END OF BEAM) $\pm 1/2"$
- INSERTS (C TO END) $\pm 1/2"$
- EXPOSED BEAM ENDS DEVIATION FROM SQUARE OR DESIGNATED SKEW
- STIRRUP BARS, LONGITUDINAL SPACING $\pm 1"$

HORIZONTAL $\pm 1/4"$
VERTICAL $\pm 1/8"$ PER FT.
OF BEAM HEIGHT.

BEAM TABLE					
	BEAM NO.	LENGTH "A"	1/2 LENGTH "B"	DRAINING POINT "E"	STIRRUPS "H"
Lt. Bridge	B1-1 & B5-1	66'-11 1/16"	33'-5 5/8"	23'-5"	12Spa @ 18 1/2" 18'-6"
	B2-1 thru B4-1	66'-11 1/16"	33'-5 5/8"	23'-5"	12Spa @ 18 1/2" 18'-6"
SPAN 2	B1-2 & B5-2	84'-10 3/16"	42'-5 3/16"	29'-9"	16Spa @ 18 1/2" 23'-0"
	B2-2 thru B4-2	84'-10 3/16"	42'-5 3/16"	29'-9"	16Spa @ 18 1/2" 23'-0"
SPAN 3	B1-3 & B5-3	69'-11 5/16"	34'-11 5/16"	24'-5"	13Spa @ 18 1/2" 20'-0"
	B2-3 thru B4-3	69'-11 5/16"	34'-11 5/16"	24'-5"	13Spa @ 18 1/2" 20'-0"
Rt. Bridge	B6-1 & B10-1	52'-11 15/16"	26'-6"	18'-6"	9Spa @ 18 1/2" 14'-0"
	B7-1 thru B9-1	52'-11 15/16"	26'-6"	18'-6"	9Spa @ 18 1/2" 14'-0"
SPAN 2	B6-2 & B10-2	80'-11 1/8"	40'-5 5/16"	28'-4"	15Spa @ 17 1/2" 22'-0"
	B7-2 thru B9-2	80'-11 1/8"	40'-5 5/16"	28'-4"	15Spa @ 17 1/2" 22'-0"
SPAN 3	B6-3 & B10-3	56'-11 15/16"	28'-6"	20'-0"	10Spa @ 18 1/2" 15'-6"
	B7-3 thru B9-3	56'-11 15/16"	28'-6"	20'-0"	10Spa @ 18 1/2" 15'-6"

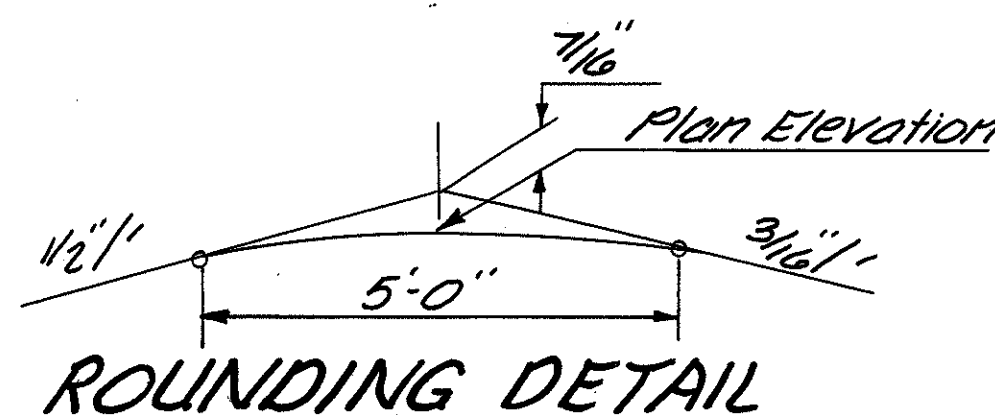
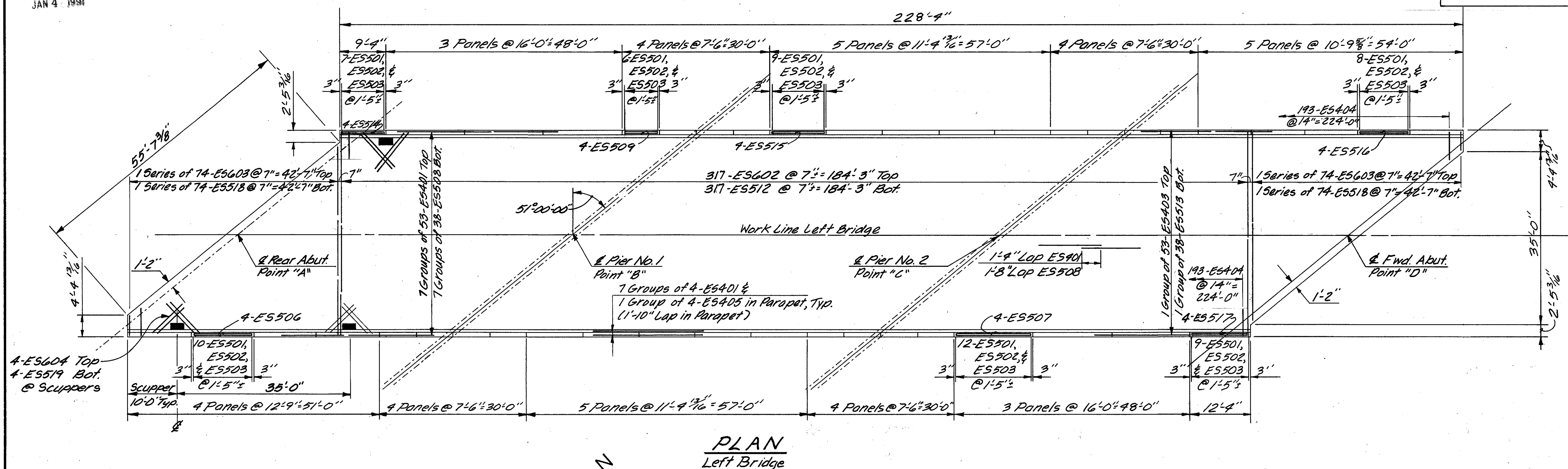


LAYOUT PLAN

KZF
INCORPORATED
ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

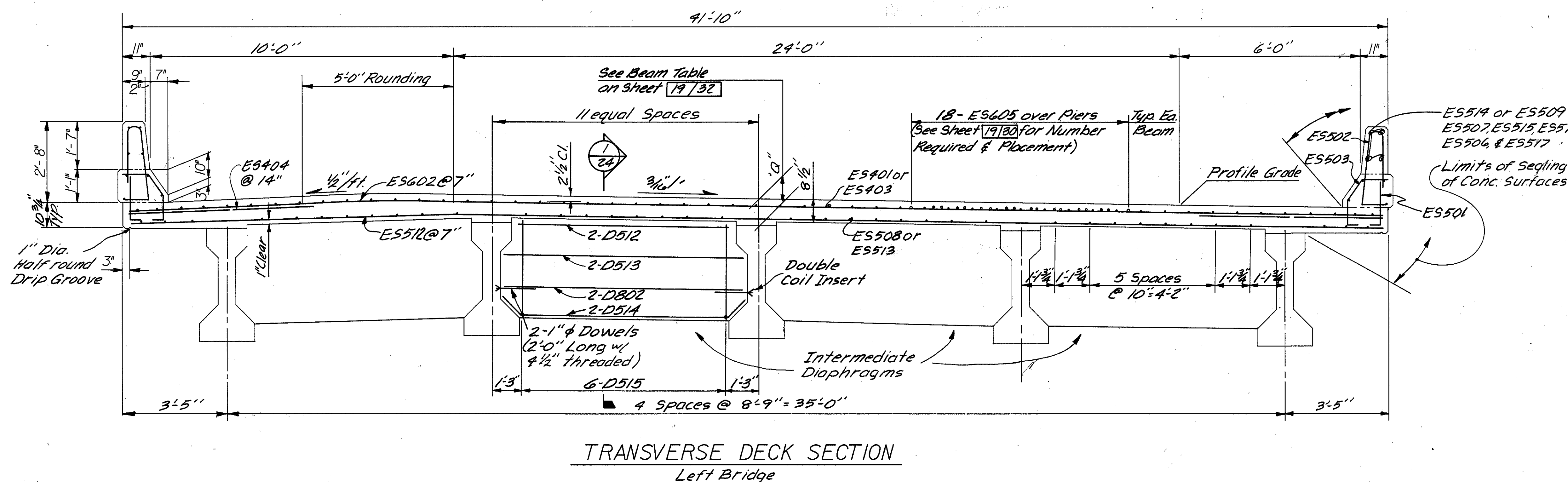
BEAM & DECK DETAILS AND LAYOUT PLAN
BRIDGE NO. JAC-35-1220 1/2
OVER STATE ROUTE 188

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE / REVISION
WBS KJO - JET WBS 5/9/86 11-24-86



DIMENSION "A"

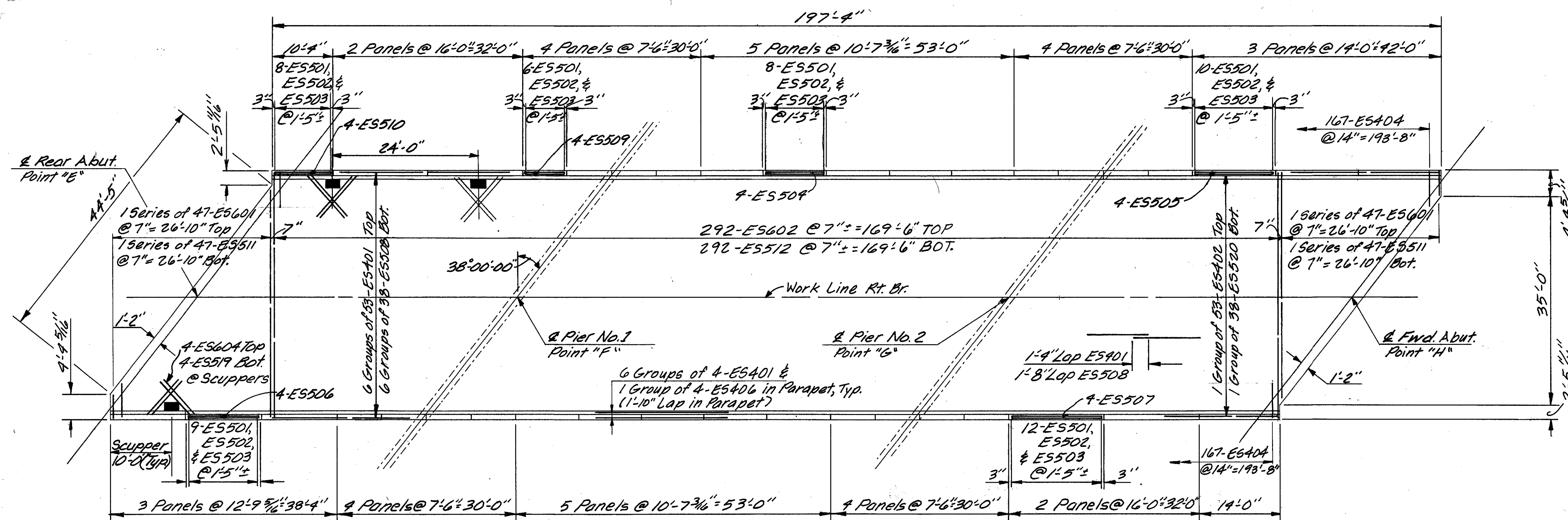
This is the nominal dimension. The pay quantity of that portion of the deck concrete over the beams shall be based on the average of thickness of slab at midspan or beam and at the bearing, even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design. The camber of beams shall be measured in the field before the deck is placed. The actual depth of mid-span shall be the normal dimension ± the difference between actual and anticipated camber.



NOTES:

- See sheet 2/32 for General Notes & Quantities.
- See sheets 31/32 & 32/32 for Reinforcing Steel Details.
- See sheet 20/32 for Alternate Deck & Scupper Details.
- See sheet 25/32 for Diaphragm Details.
- See sheet 26/32 for Expansion Joint Details.

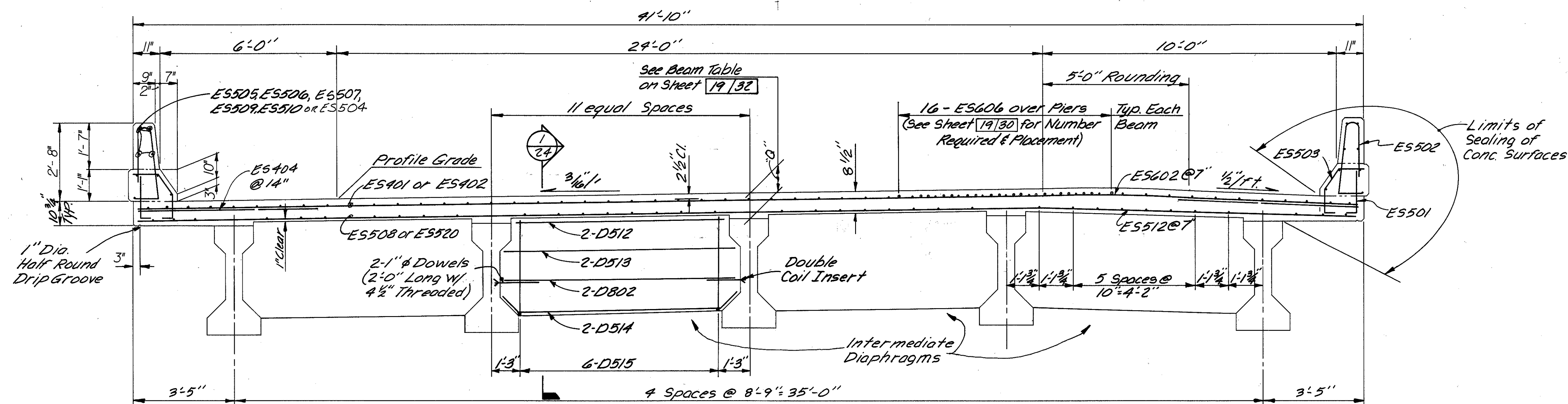
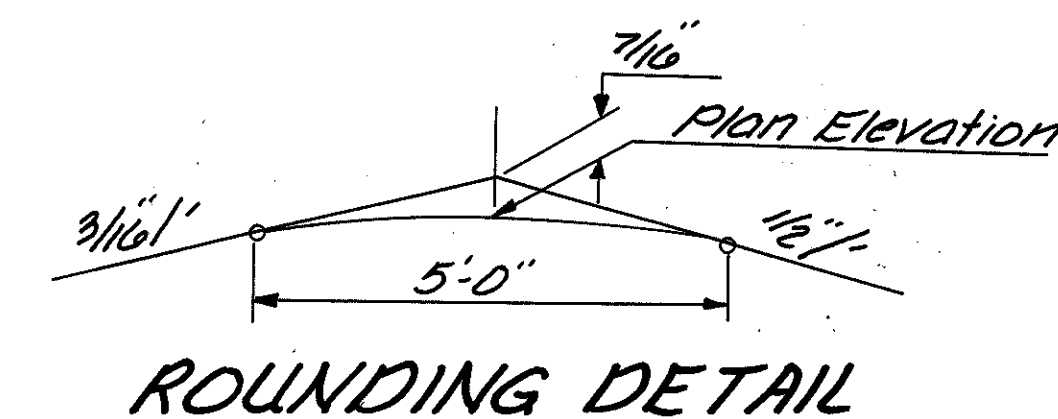
		21/32	
		ARCHITECTS ENGINEERS PLANNERS 111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117	
DECK PLAN - LEFT BRIDGE BRIDGE NO. JAC-35-1220 4/1 OVER STATE ROUTE 785			
DESIGNED JET	DRAWN KJO	TRACED —	CHECKED GTW
REVIEWED WBS	DATE 5/9/86	REVISOR	



PLAN
Right Bridge

DIMENSION "Q"

This is the nominal dimension. The pay quantity of that portion of the deck concrete over the beams shall be based on the average of thickness of slab at midspan of beam and at the bearing, even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design. The camber of beams shall be measured in the field before the deck is placed. The actual depth at mid-span shall be the normal dimension ± the difference between actual and anticipated camber.



TRANSVERSE DECK SECTION
Right Bridge

NOTES:

1. See Sheet 2/32 for General Notes & Quantities.
2. See Sheets 31/32 & 32/32 for Reinforcing Steel Details.
3. See Sheet 20/32 for Alternate Deck & Scupper Details.
4. See Sheet 25/32 for Diaphragm Details.
5. See Sheet 26/32 for Expansion Joint Details.

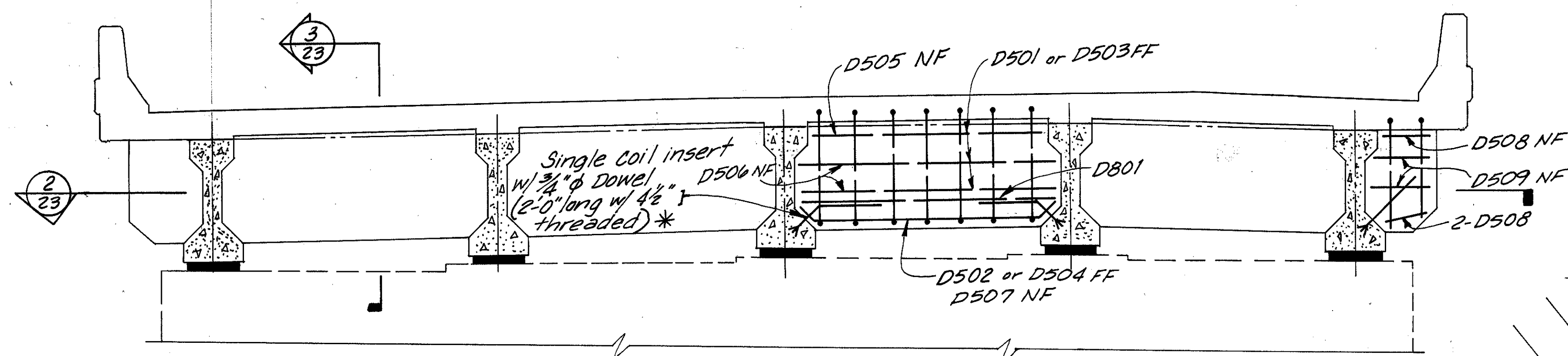
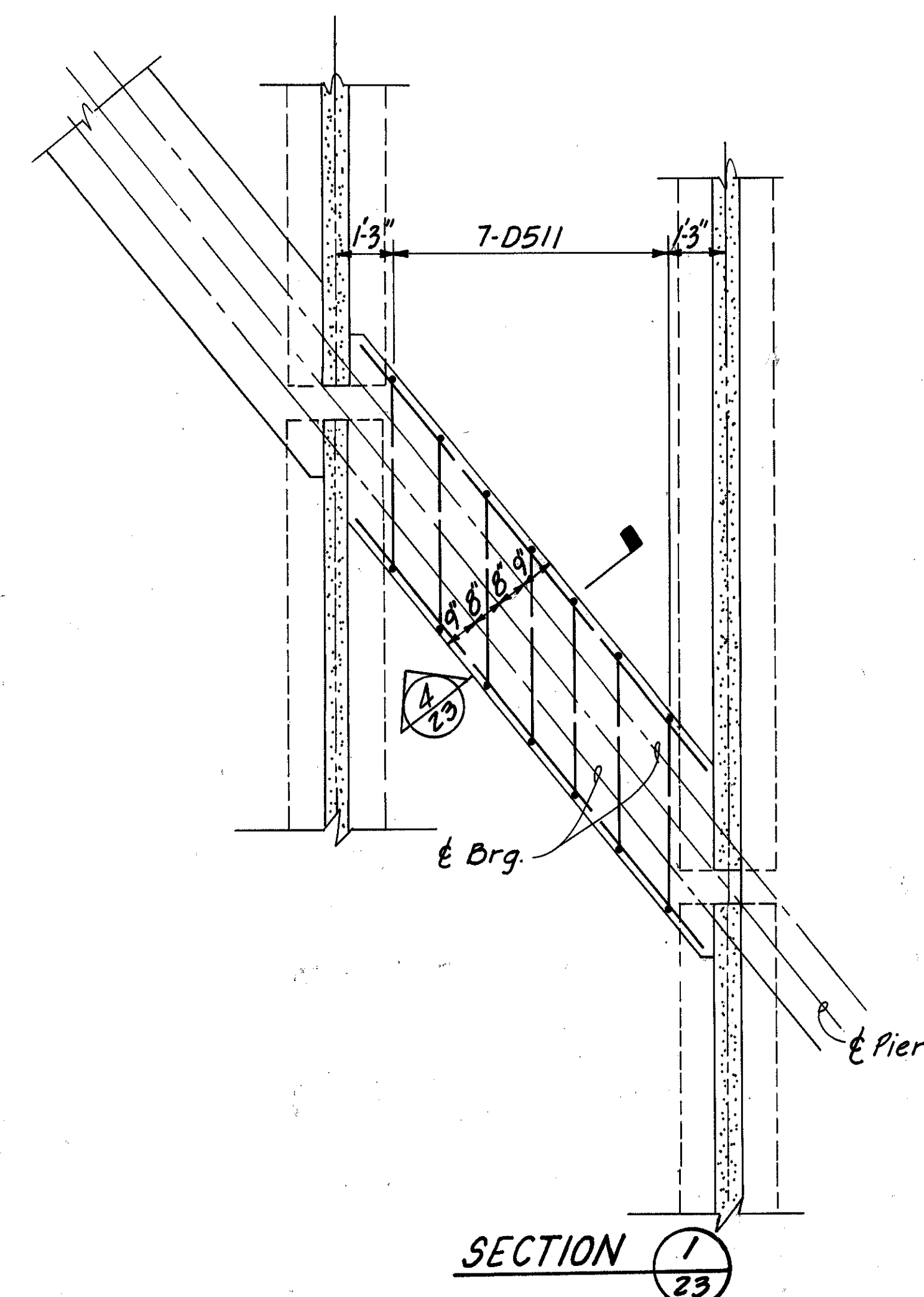
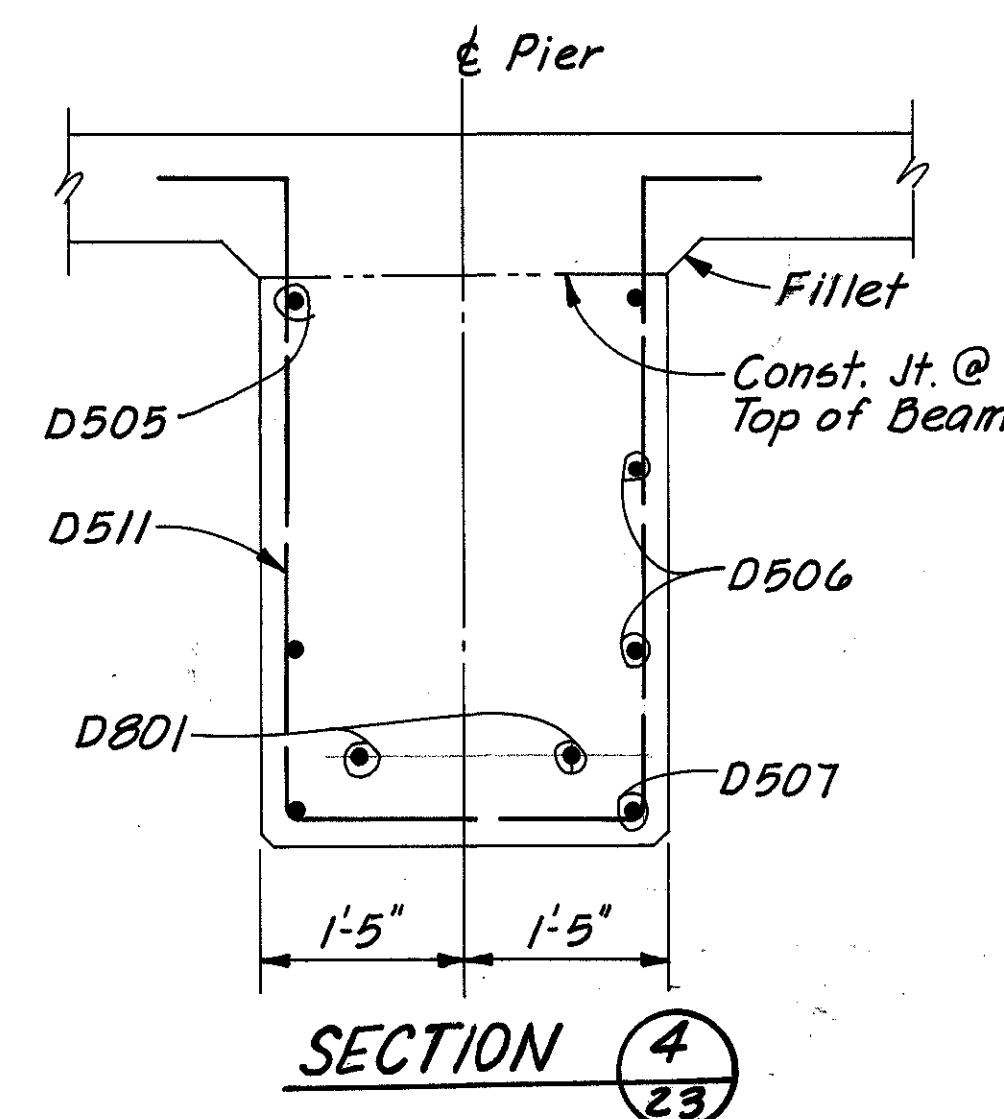
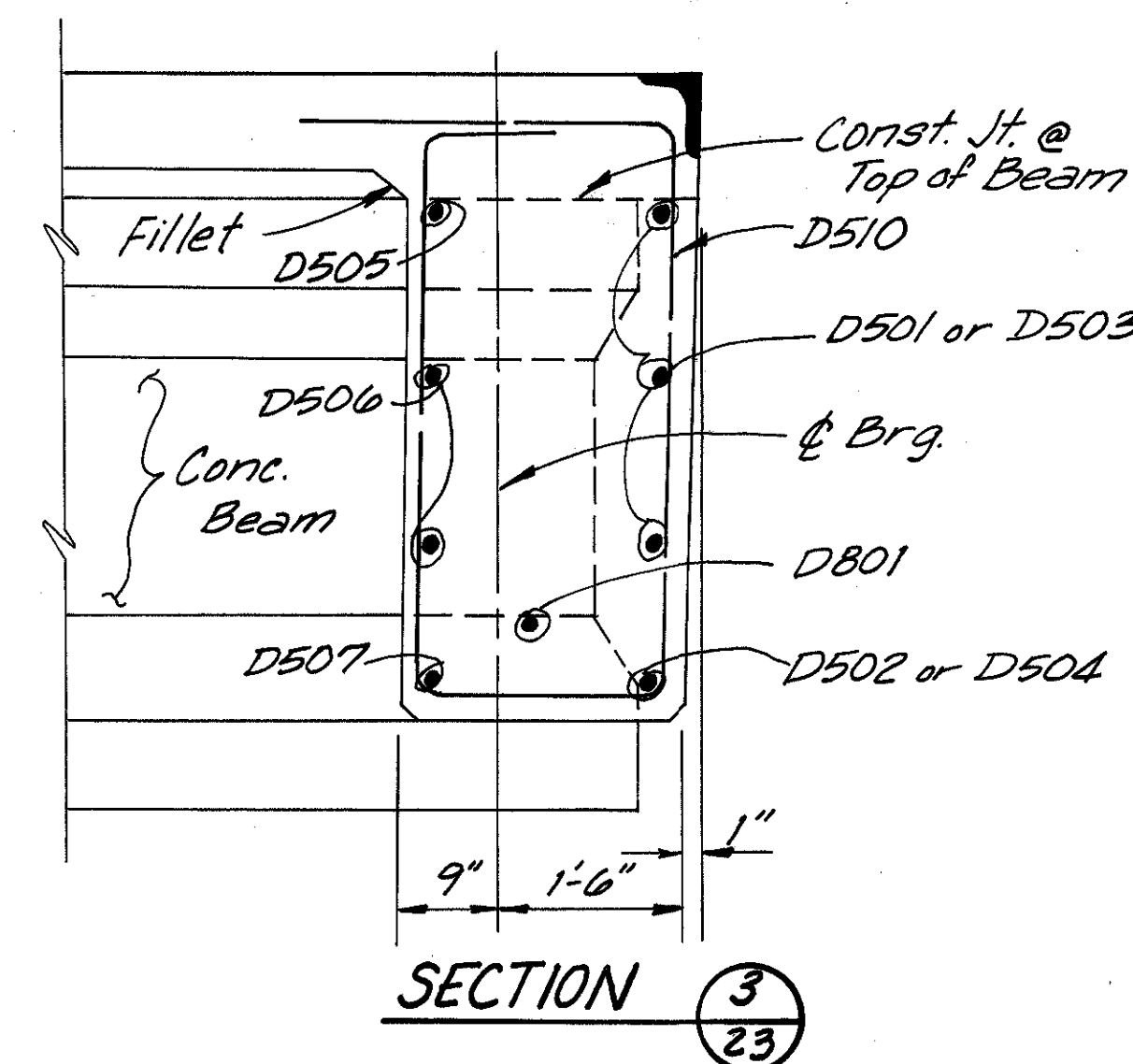
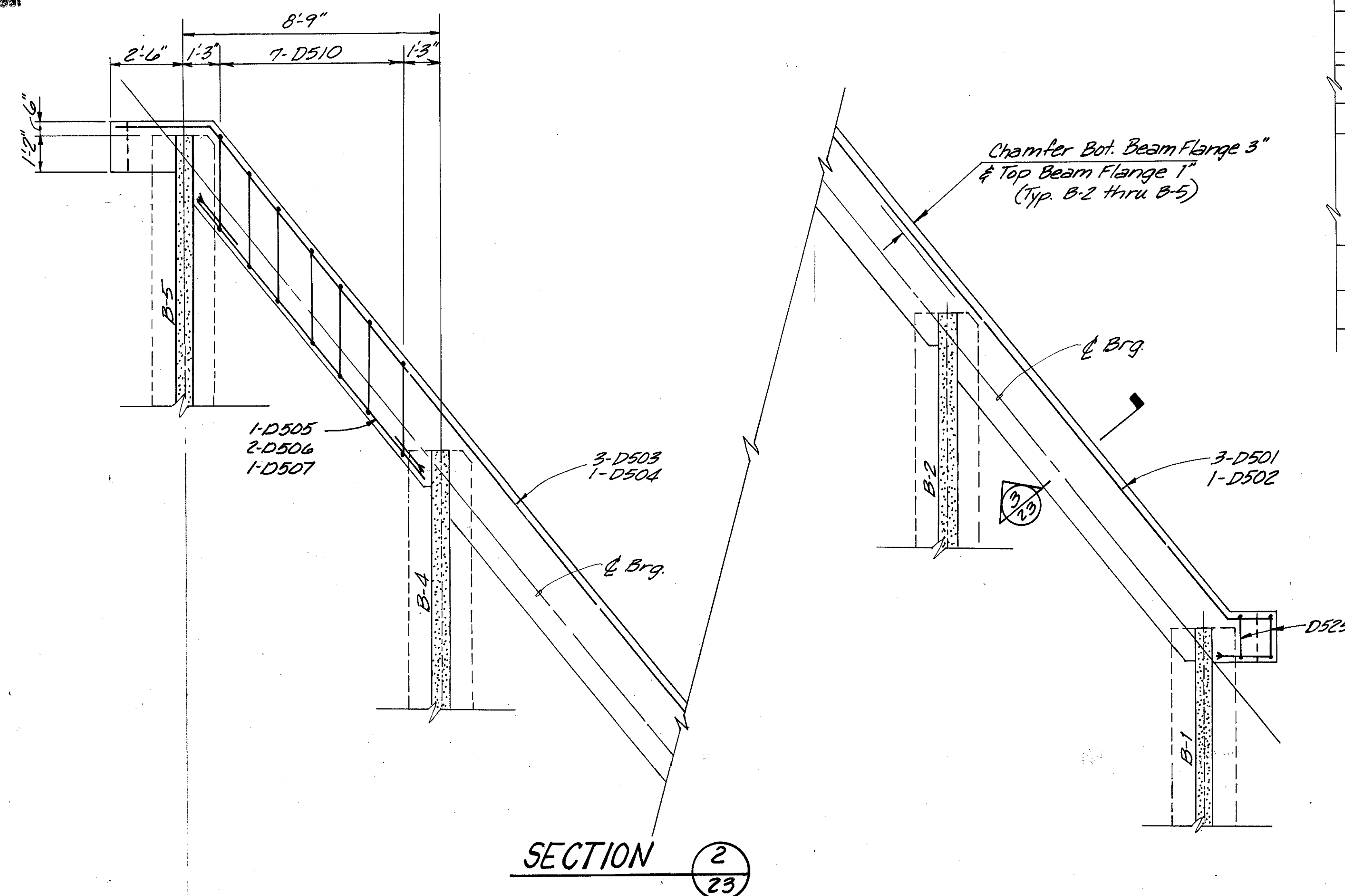
		22/30	
ARCHITECTS	ENGINEERS	PLANNERS	
111 Merchant Street, Cincinnati, Ohio 45246		513/772-1117	

DECK PLAN - RIGHT BRIDGE

BRIDGE NO. JAC-35-1220 41R

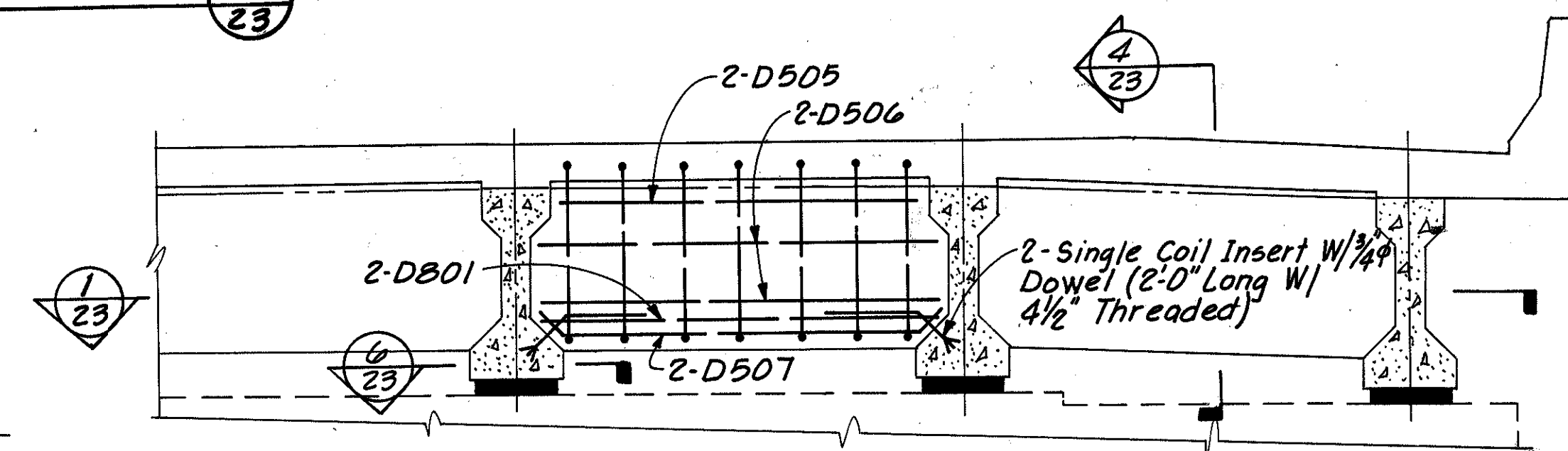
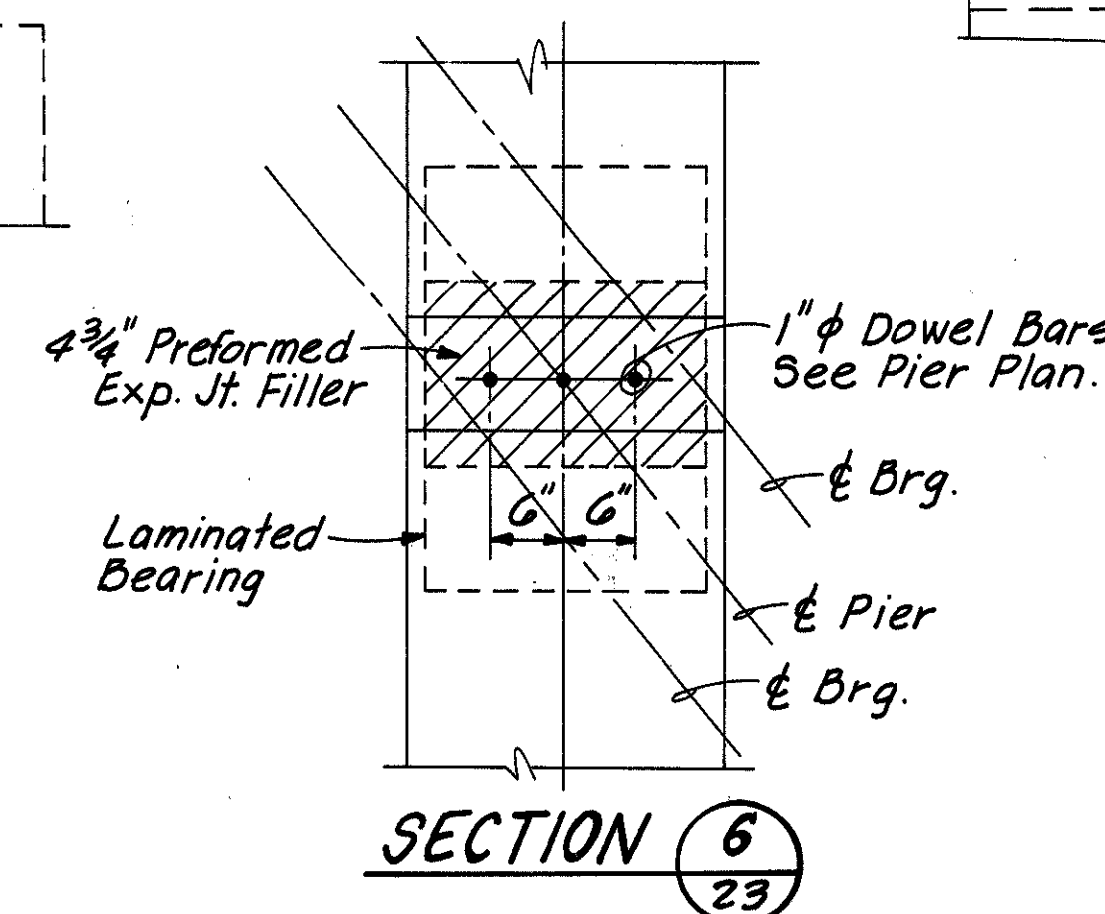
OVER STATE ROUTE 78B

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JET	KJD	—	GTW	WBS	5/9/80	



DIAPHRAGM AT ABUTMENTS

* Included all threaded rods with Item 513 for payment



DIAPHRAGM AT PIERS

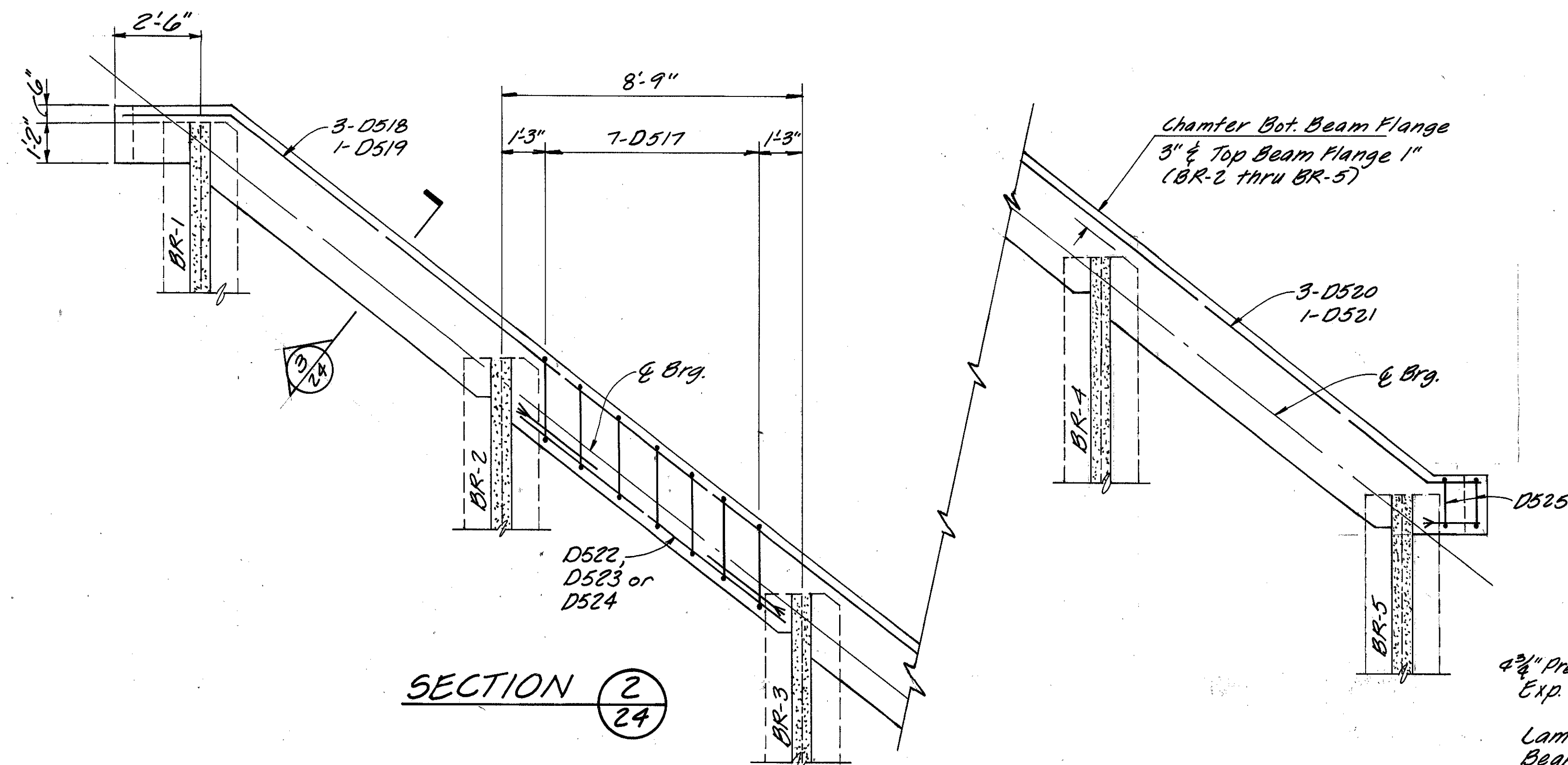
KZF
INCORPORATED

ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

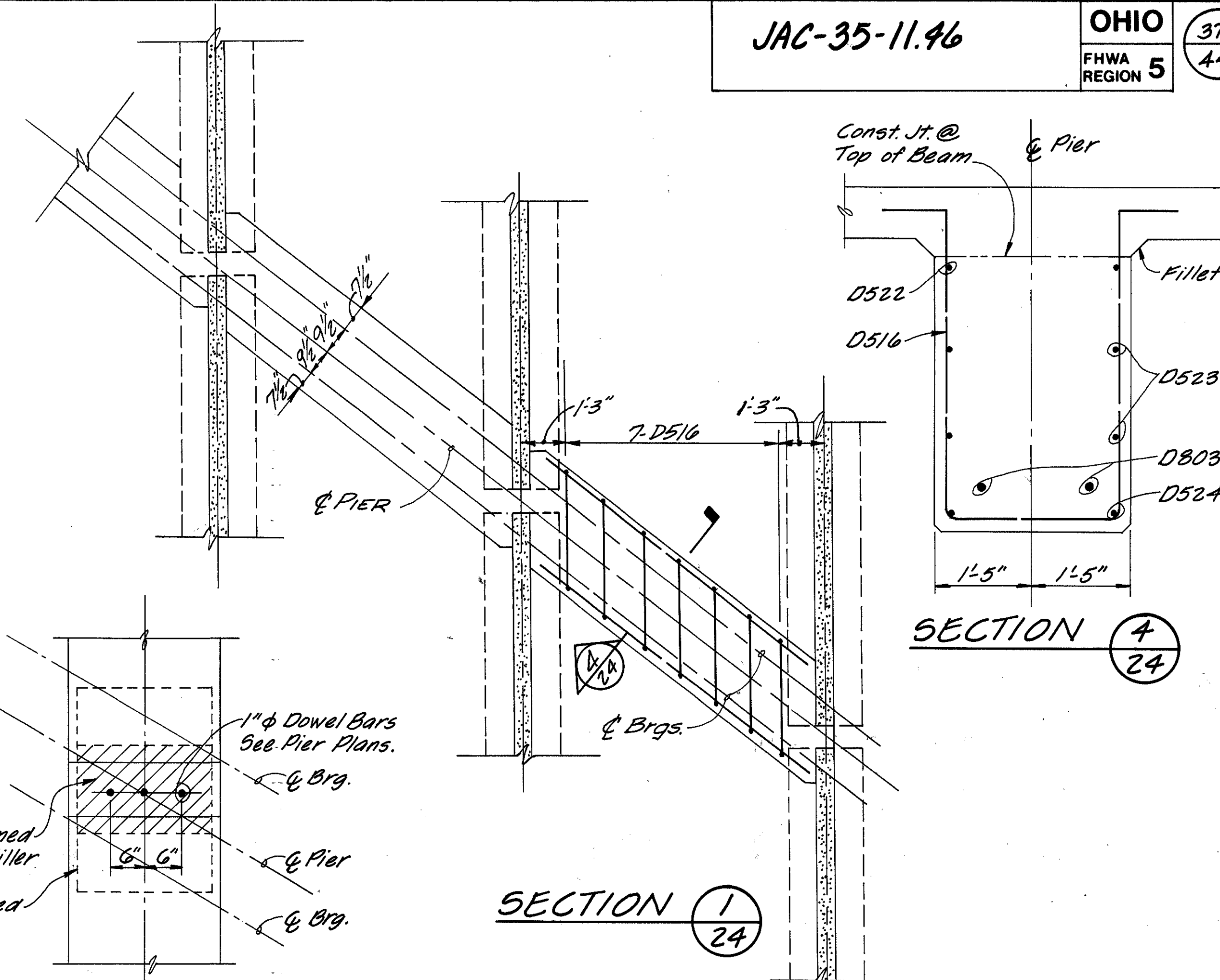
DIAPHRAGM DETAILS
LEFT BRIDGE

BRIDGE NO. JAC-35-1220 L/R
OVER STATE ROUTE 788

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	LEP	-	GTW	WBS	5/9/86	

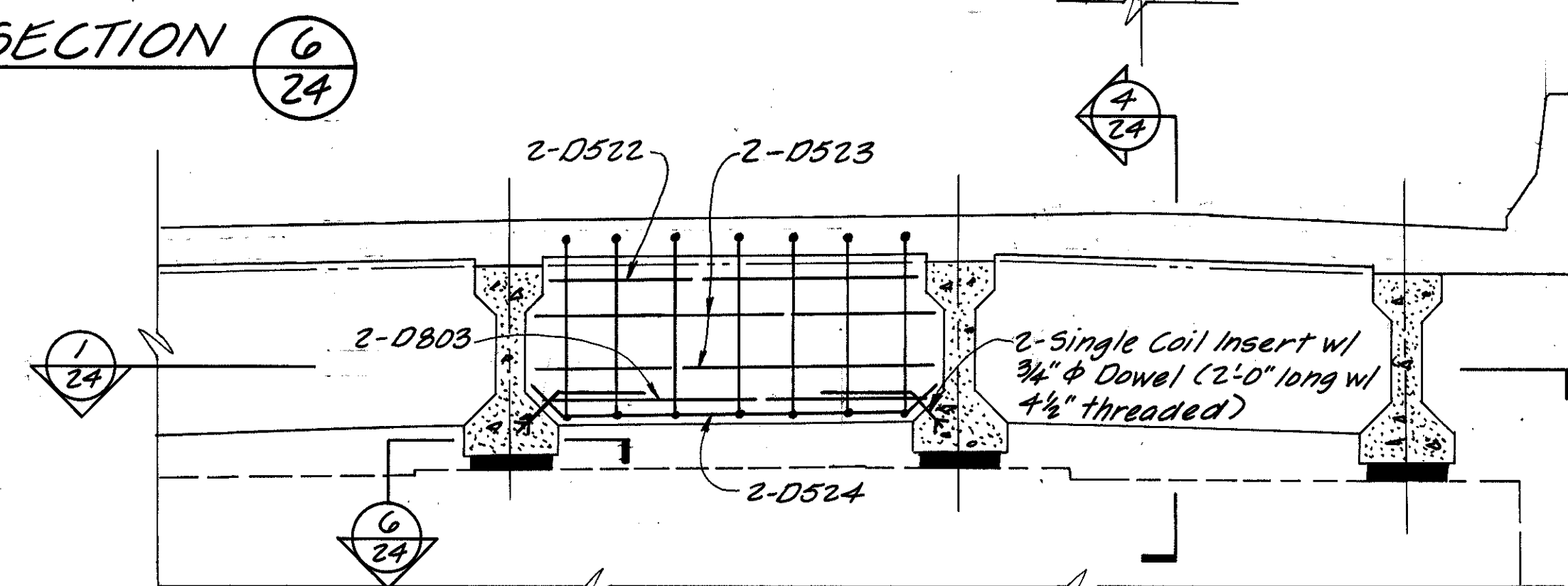
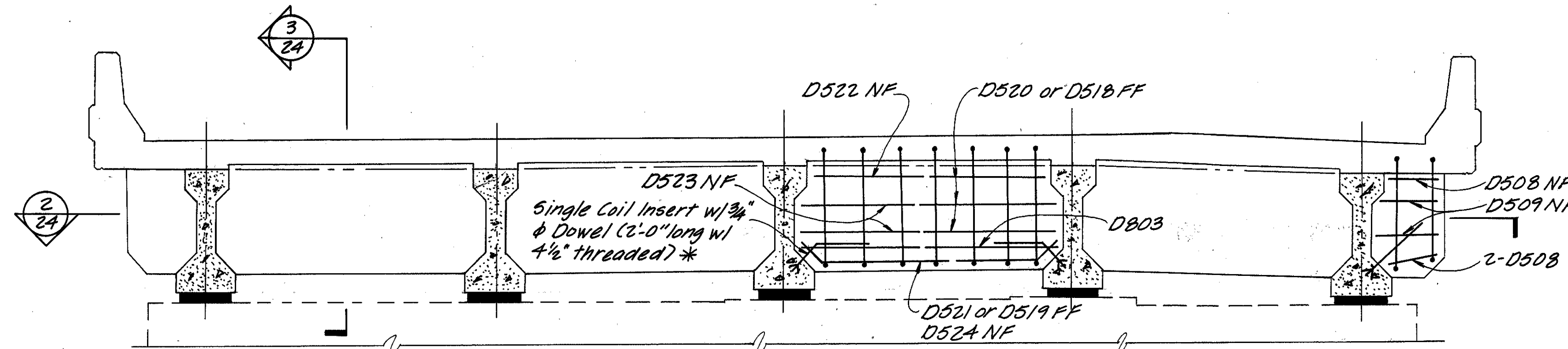


SECTION 2/24



SECTION 4/24

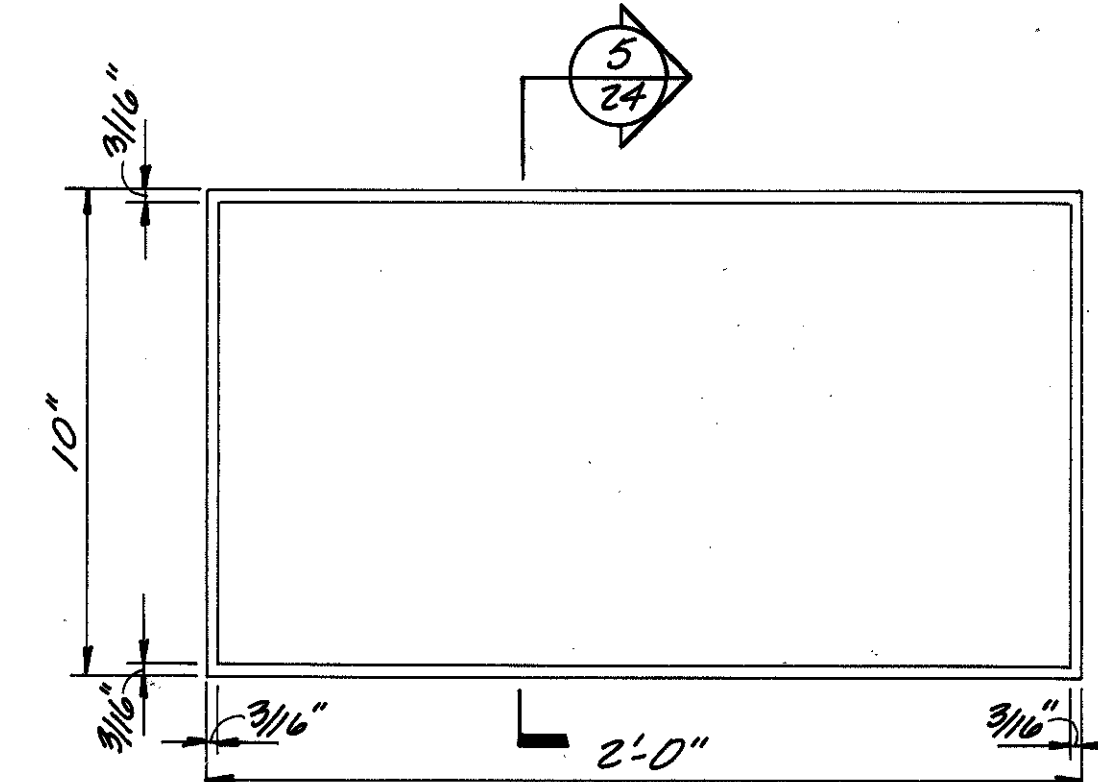
SECTION 6/24



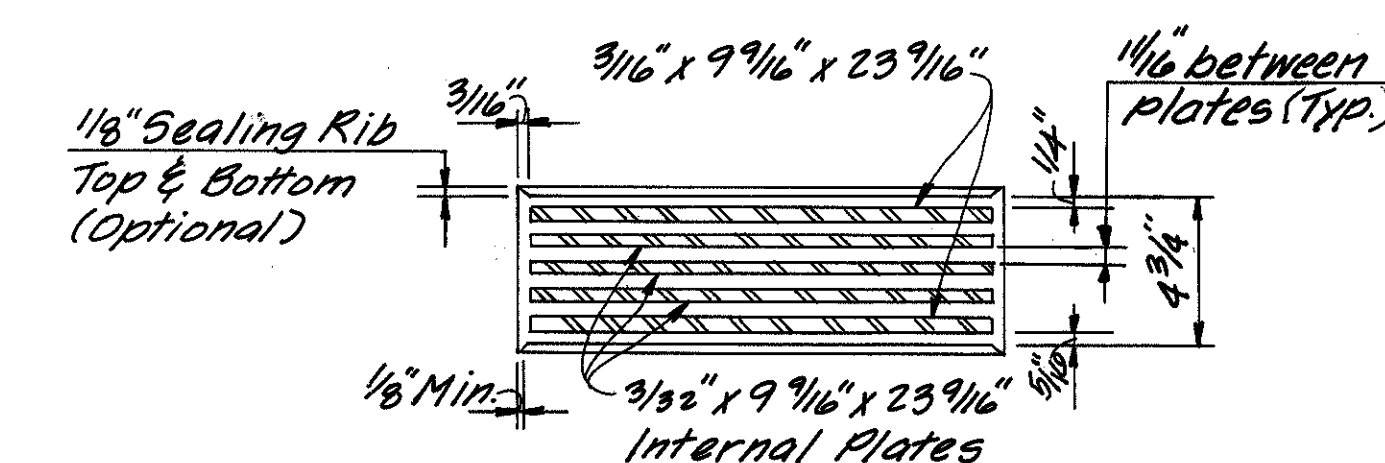
DIAPHRAGM AT PIERS

DIAPHRAGM AT ABUTMENTS

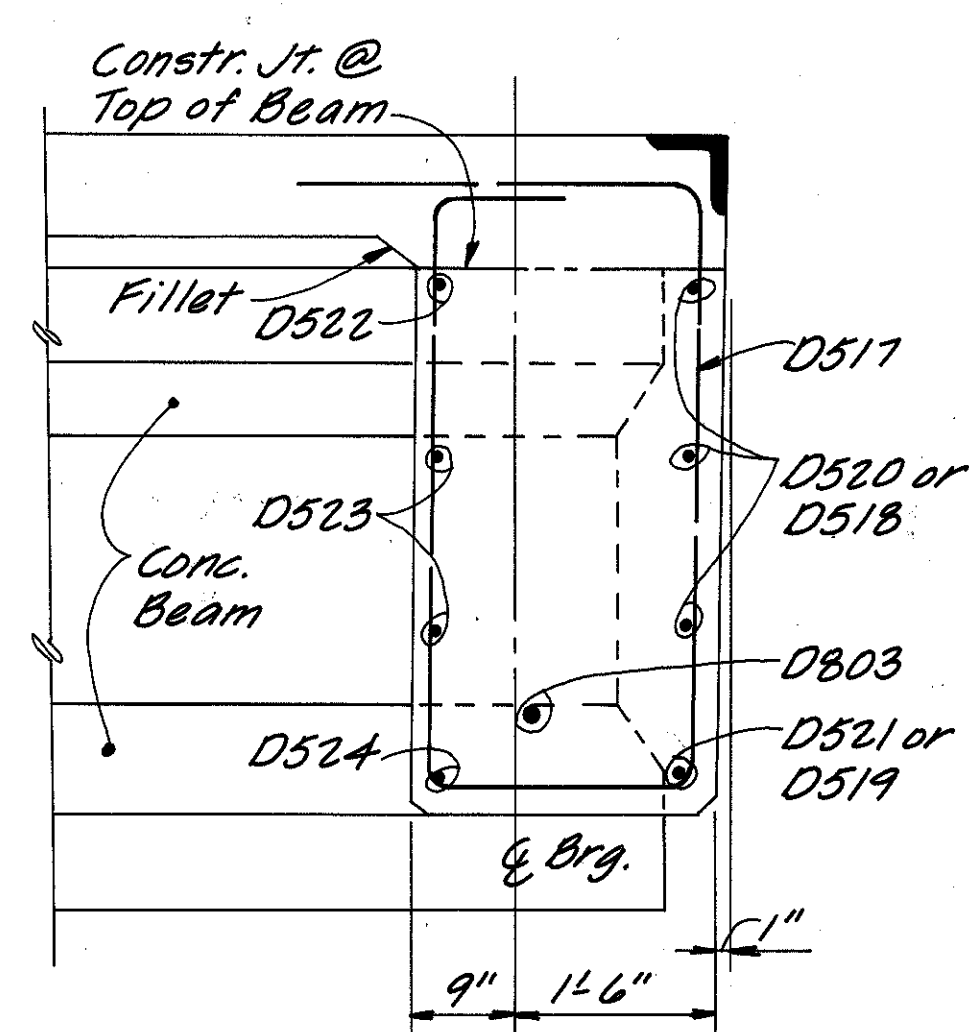
* Include all threaded rods with Item 515 for payment.



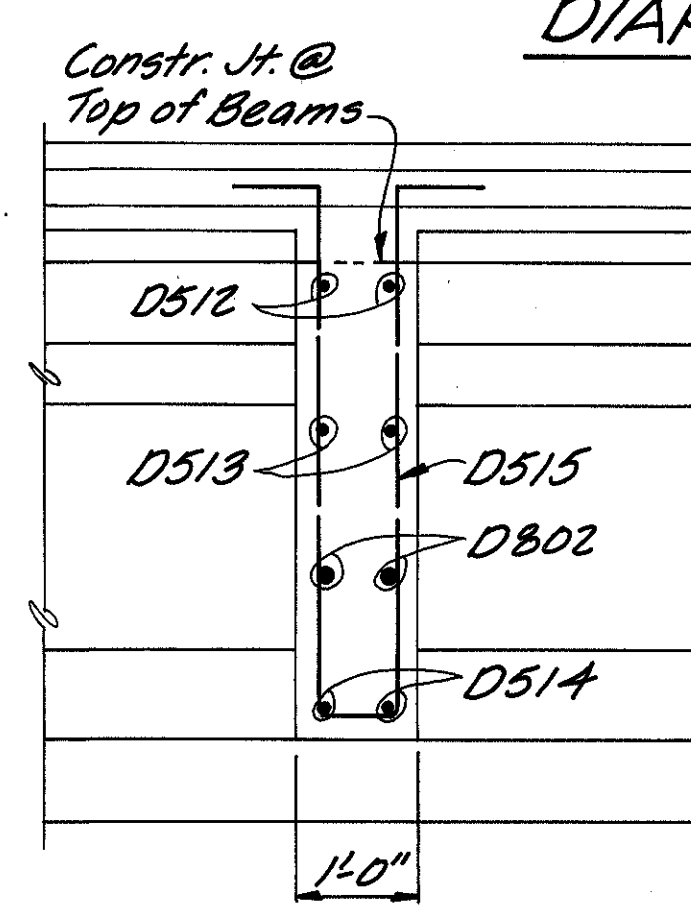
LAMINATED ELASTOMERIC BEARING PAD
(50 Durometer)



SECTION 5/24



SECTION 3/24

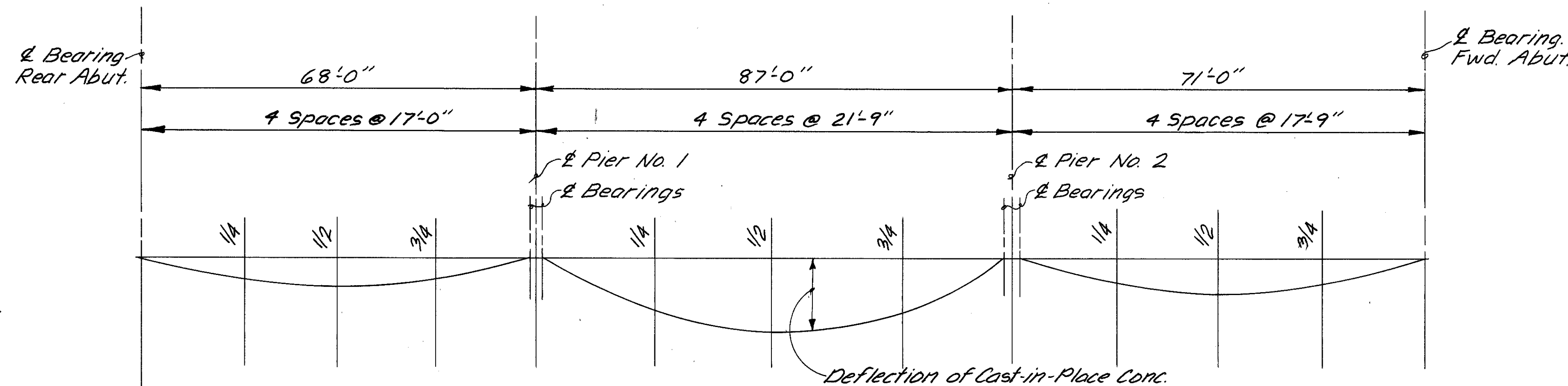


SECTION 1/24

Additional Strip Seal Notes continued
from sheet 28/32

CONSTRUCTION PROCEDURE

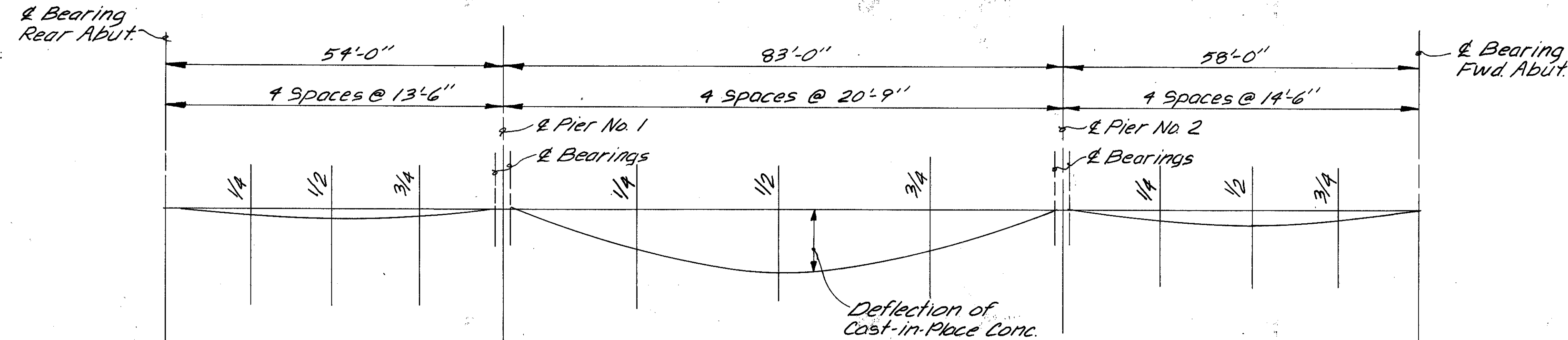
1. ABUTMENT BACKWALL CONCRETE SHALL NOT BE PLACED UNTIL AFTER SUPERSTRUCTURE CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
2. PLACE BACKWALL CONCRETE DURING STABLE OR RISING AMBIENT TEMPERATURES AND CONCLUDE PLACEMENT AT OR IMMEDIATELY BEFORE THE DAY'S PEAK AMBIENT TEMPERATURE.
3. NOT MORE THAN FOUR HOURS PRIOR TO THE DAY'S PEAK AMBIENT TEMPERATURE, SET ABUTMENT EXPANSION JOINT WIDTH TO DIMENSION "A" WHICH SHALL BE DETERMINED FROM TABLE.
4. LOOSEN TEMPORARY JOINT ARMOR BOLTS AFTER INITIAL SET OF CONCRETE, PREFERABLY NOT LATER THAN TWO HOURS AFTER CONCLUSION OF CONCRETE PLACEMENT.



SCREED DIAGRAM & TABLE
Left Bridge

LOCATION	± Brg.	1/4	1/2	3/4	± Pier	1/4	1/2	3/4	± Pier	1/4	1/2	3/4	± Brg.
Lt. Gutter Station	643+60.03	643+77.03	643+94.03	644+11.03	644+28.03	644+49.78	644+71.53	644+93.28	645+15.03	645+32.78	645+50.53	645+68.28	645+86.05
Lt. Gutter Profile Grade	684.724	684.860	685.012	685.178	685.359	685.612	685.889	686.190	686.516	686.799	687.098	687.413	687.745
Lt. Gutter Gutter Elevation	684.849	684.986	685.138	685.304	685.485	685.738	686.015	686.316	686.641	686.925	687.224	687.539	687.870
Lt. Gutter Cast-in-Place Conc. Deflection	0.000	0.027	0.038	0.026	0.00	0.069	0.098	0.069	0.00	0.031	0.045	0.032	0.00
Lt. Gutter Screed Elevation	684.85	685.01	685.18	685.33	685.49	685.80	686.11	686.39	686.64	686.96	687.27	687.57	687.87
Rt. Gutter Station	643+106.4	643+27.64	643+44.64	643+61.64	643+78.64	644+00.39	644+22.14	644+43.89	644+65.64	644+83.39	645+01.14	645+18.89	645+36.64
Rt. Gutter Profile Grade	684.409	684.503	684.612	684.736	684.874	685.072	685.245	685.541	685.812	686.050	686.305	686.576	686.862
Rt. Gutter Gutter Elevation	684.325	684.419	684.528	684.651	684.789	684.988	685.210	685.457	685.727	685.966	686.220	686.491	686.778
Rt. Gutter Cast-in-Place Conc. Deflection	0.000	0.027	0.038	0.026	0.000	0.069	0.098	0.069	0.000	0.031	0.045	0.032	0.00
Rt. Gutter Screed Elevation	684.33	684.45	684.57	684.68	684.79	685.06	685.31	685.53	685.73	686.00	686.27	686.52	686.78

TABLE C (PHYSICAL PROPERTIES OF SEAL ELEMENT)		
PROPERTY	REQUIREMENT	ASTM METHOD
TENSILE STRENGTH, MIN. P.S.I.	2000	D412
ELONGATION AT BREAK, MIN. PERCENT	250	D412
HARDNESS, TYPE A DUROMETER	50 MIN. 65 MAX.	D2240 (MODIFIED)
OVEN AGING, 70 HR. AT 212°F TENSILE STRENGTH, LOSS, MAX. ELONGATION, LOSS, MAX. HARDNESS, TYPE A DUROMETER (POINTS CHANGE)	20 PERCENT 20 PERCENT 0 TO +10	D573
OZONE RESISTANCE 20 PERCENT STRAIN, 300 PPHM, IN AIR AT 104°F (WIPED WITH TOLUENE TO REMOVE SURFACE CONTAMINATION)	NO CRACKS	D1149



SCREED DIAGRAM & TABLE
Right Bridge

LOCATION	± Brg.	1/4	1/2	3/4	± Pier	1/4	1/2	3/4	± Pier	1/4	1/2	3/4	± Brg.
Lt. Gutter Station	642+82.25	642+95.75	643+09.25	643+22.75	643+36.25	643+57.00	643+77.75	643+98.50	644+19.25	644+33.75	644+48.25	644+62.75	644+77.25
Lt. Gutter Profile Grade	684.285	684.339	684.402	684.475	684.557	684.701	684.866	685.054	685.264	685.432	685.594	685.774	685.966
Lt. Gutter Gutter Elevation	684.200	684.254	684.318	684.390	684.472	684.616	684.782	684.970	685.179	685.339	685.509	685.690	685.882
Lt. Gutter Cast-in-Place Conc. Deflection	0.000	0.010	0.015	0.010	0.000	0.058	0.082	0.057	0.000	0.013	0.020	0.014	0.00
Lt. Gutter Screed Elevation	684.20	684.26	684.33	684.40	684.47	684.67	684.86	685.03	685.18	685.35	685.53	685.70	685.88
Rt. Gutter Station	642+51.00	642+64.50	642+78.00	642+91.50	643+05.00	643+25.75	643+46.50	643+67.25	643+88.00	644+02.50	644+17.00	644+31.50	644+46.00
Rt. Gutter Profile Grade	684.195	684.228	684.270	684.321	684.381	684.492	684.625	684.780	684.956	685.093	685.240	685.398	685.566
Rt. Gutter Gutter Elevation	684.321	684.354	684.396	684.447	684.507	684.618	684.751	684.906	685.082	685.219	685.366	685.524	685.692
Rt. Gutter Cast-in-Place Conc. Deflection	0.000	0.010	0.015	0.010	0.000	0.058	0.082	0.057	0.000	0.013	0.020	0.014	0.000
Rt. Gutter Screed Elevation	684.32	684.36	684.41	684.45	684.51	684.68	684.83	684.96	685.08	685.23	685.39	685.54	685.69

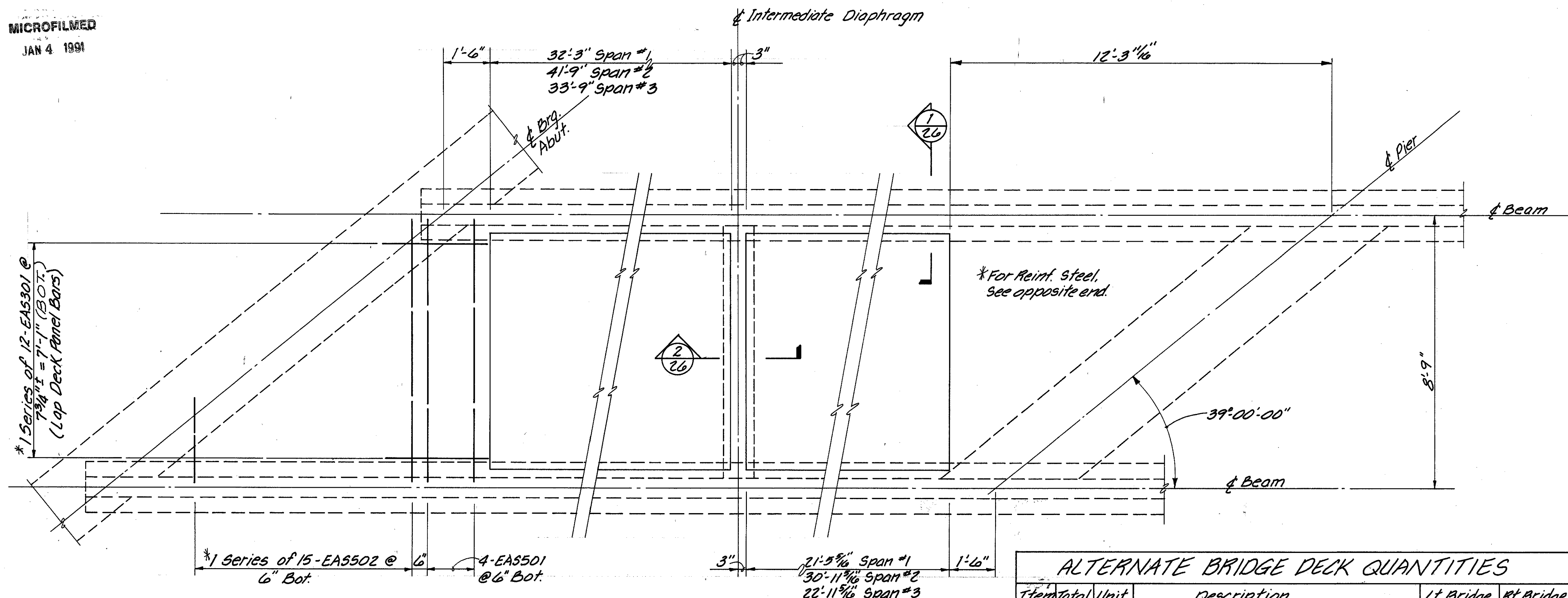
Note: If precast deck panels are used
See Screed Table on sheet 27/32

25/32

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SCREED TABLE
BRIDGE NO. JAC-35-1220 4/4
OVER STATE ROUTE 788

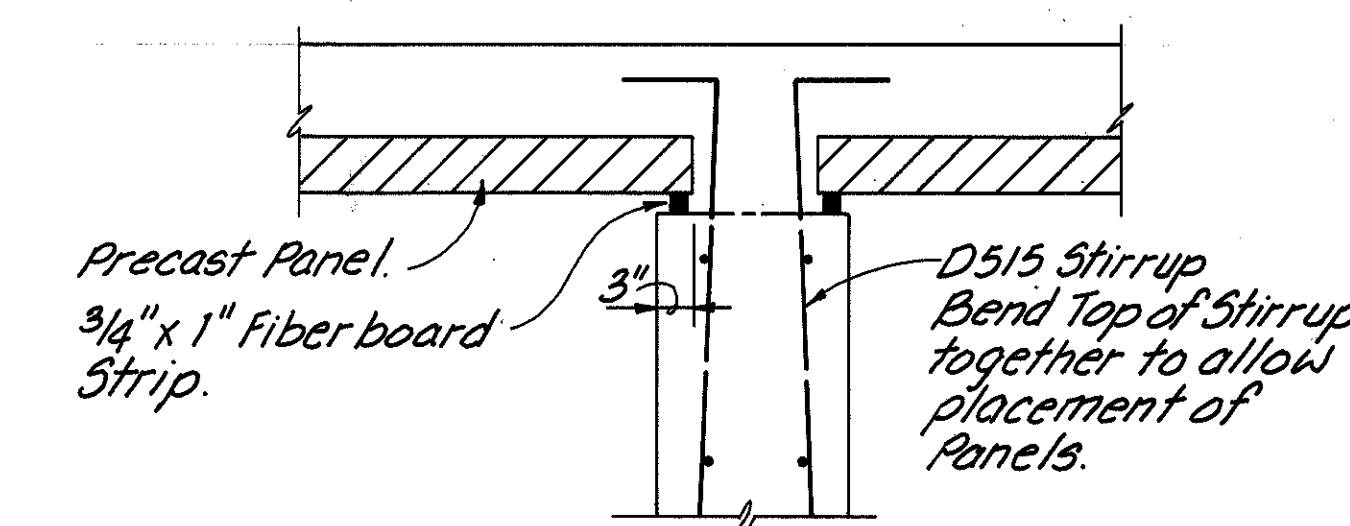
DESIGNED JET	DRAWN KJO	TRACED —	CHECKED GTW	REVIEWED WBS	DATE 5/9/86	REVISED
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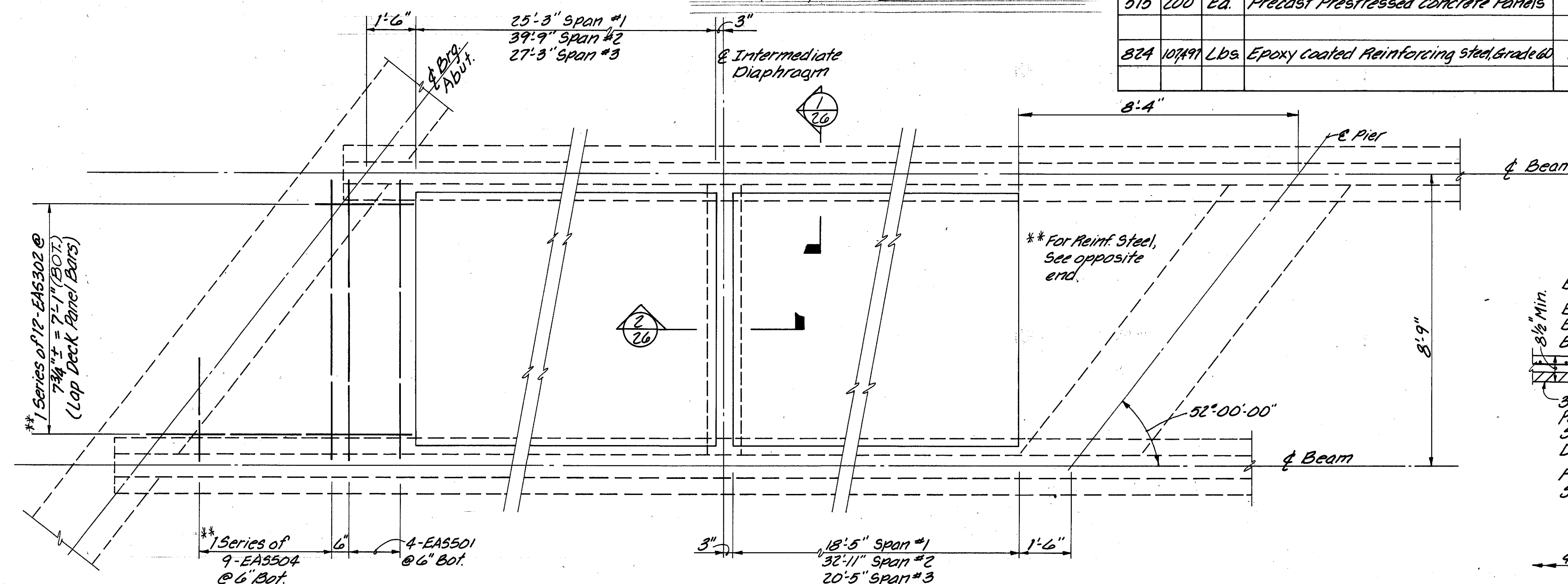
***PARTIAL DECK PLAN**
(Left Bridge)

* For top steel, see Sht. 21/32.

ALTERNATE BRIDGE DECK QUANTITIES				
Item	Total	Unit	Description	
511	467	Cu Yds	Class S Concrete Superstructure	Lt. Bridge Rt. Bridge
				251 216
515	200	Ea.	Precast Prestressed Concrete Panels	104 96
824	107,491	Lbs	Epoxy coated Reinforcing Steel, Grade 60	59,463 48,034

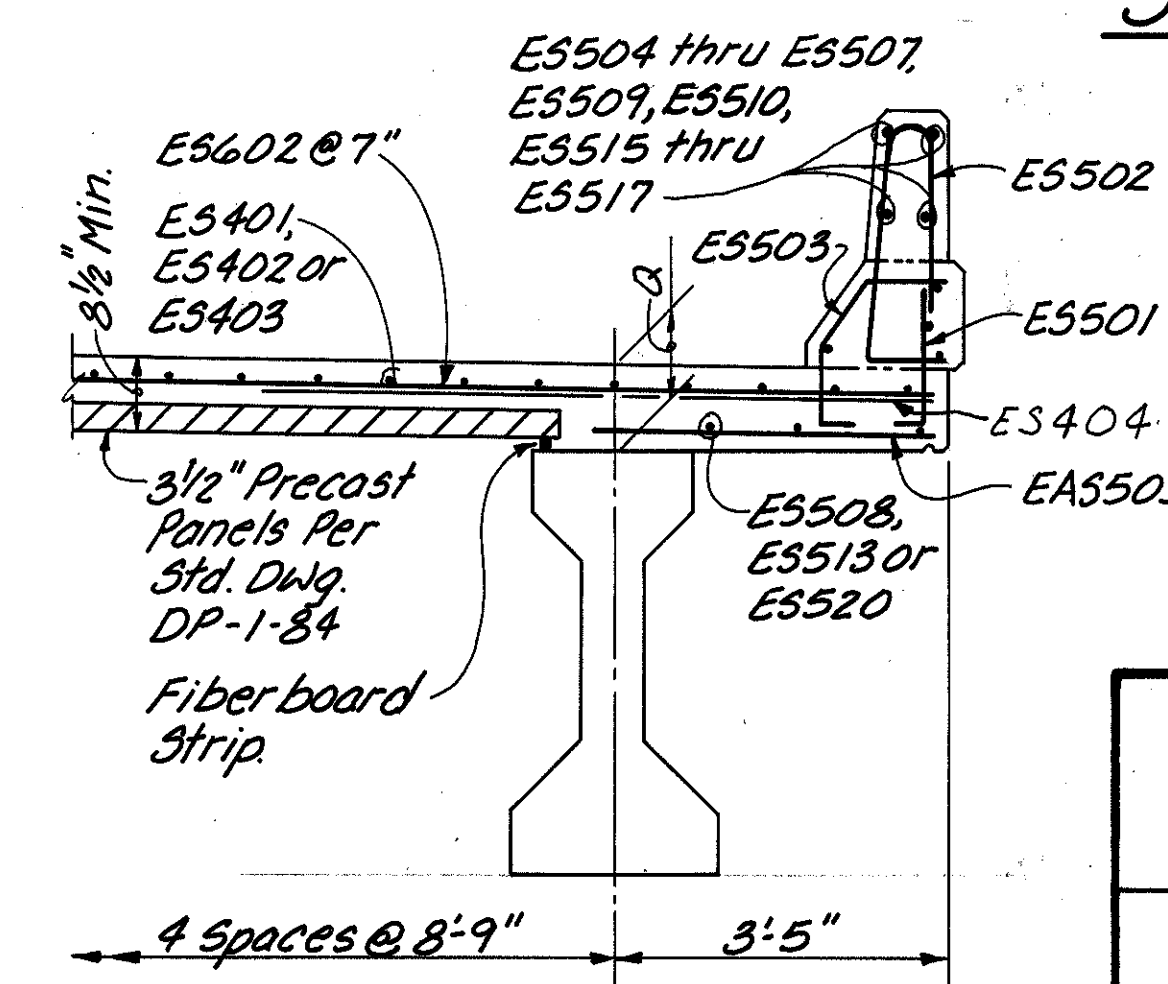


SECTION 2/26



***PARTIAL DECK PLAN**
(Right Bridge)

* For top steel, see Sht. 22/32.



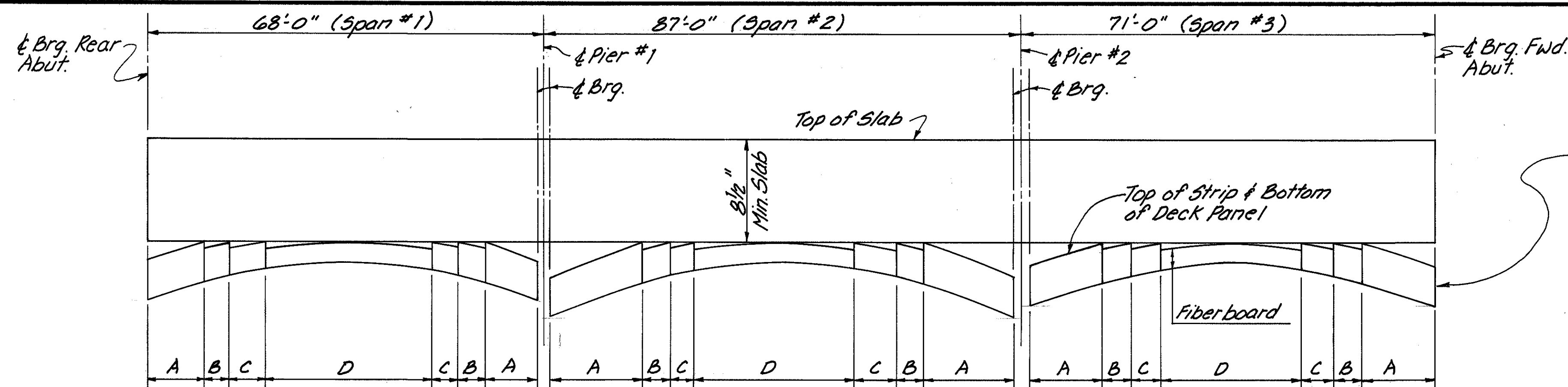
SECTION 1/26

For additional notes & details, see Std. Dwg. DP-1-84

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ALTERNATE DECK PLAN
BRIDGE NO. JAC-35-1220 1/4
OVER STATE ROUTE 788

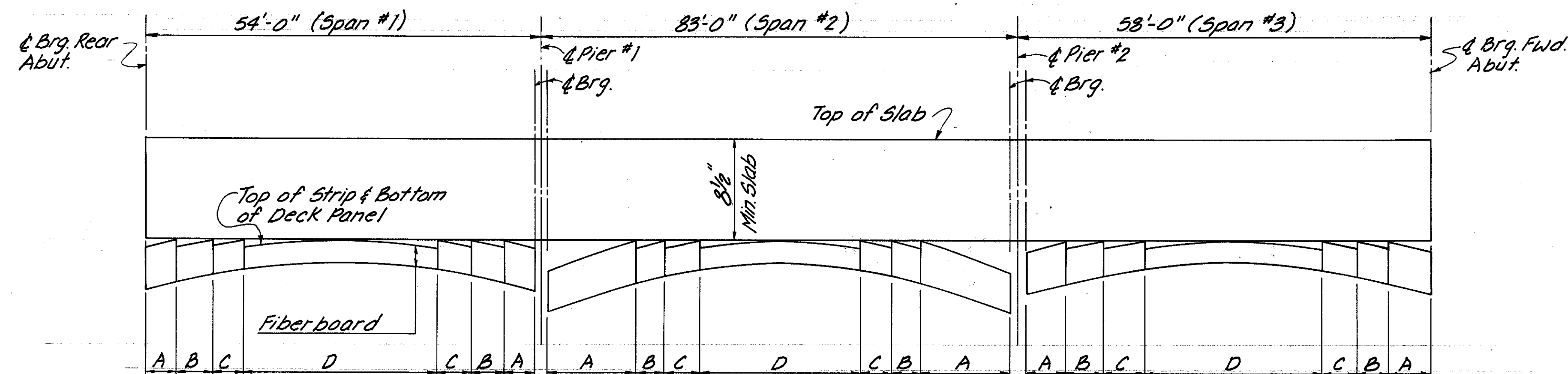
DESIGNED WBS	DRAWN JEB	TRACED -	CHECKED GTW	REVIEWED WBS	DATE 5/9/86	REVISED
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Fiberboard Strips
A = 1 1/2" x 1 1/2"
B = 1 1/4" x 1 1/4"
C = 1" x 1"
D = 3/4" x 1"

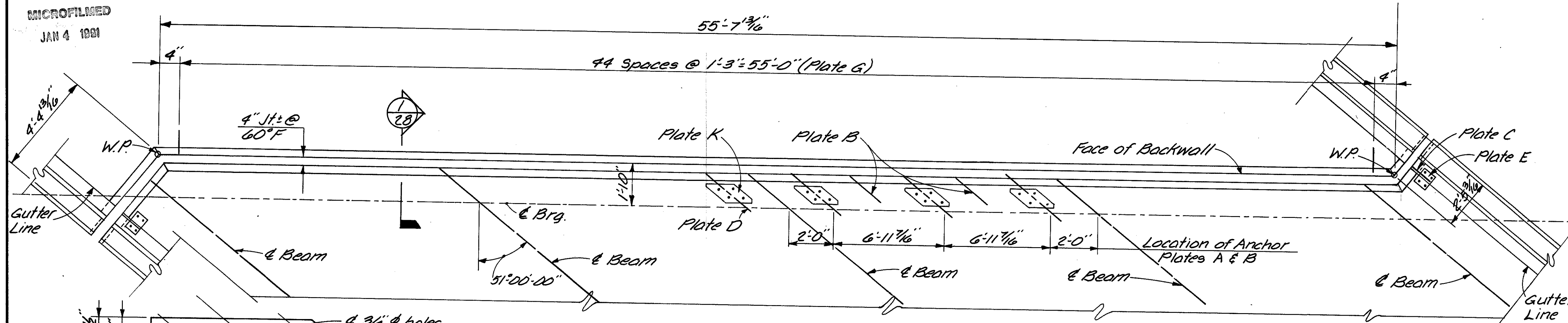
ELEVATION SHOWING FIBERBOARD STRIPS FOR DECK PANEL SUPPORT

SCREED TABLE LEFT BRIDGE													
LOCATION	¢ Brg.	1/4	1/2	3/4	¢ Pier	1/4	1/2	3/4	¢ Pier	1/4	1/2	3/4	¢ Brg.
Lt. Gutter Station	643+60.03	643+77.03	643+94.03	644+11.03	644+28.03	644+49.78	644+71.53	644+93.28	645+15.03	645+32.78	645+50.53	645+68.28	645+86.05
Lt. Gutter Profile Grade	684.724	684.860	685.012	685.178	685.359	685.612	685.889	686.190	686.516	686.799	687.098	687.413	687.745
Lt. Gutter Gutter Elevation	684.849	684.986	685.138	685.304	685.485	685.738	686.015	686.316	686.641	686.925	687.224	687.539	687.870
Lt. Gutter Cast-in-Place Conc. Deflection	0.000	0.022	0.030	0.021	0.00	0.054	0.077	0.054	0.00	0.024	0.039	0.026	0.00
Lt. Gutter Screed Elevation	684.85	685.01	685.17	685.33	685.49	685.79	686.09	686.37	686.64	686.95	687.26	687.57	687.87
Rt. Gutter Station	643+10.64	643+27.64	643+44.64	643+61.64	643+78.64	644+00.39	644+22.14	644+43.89	644+65.64	644+83.39	645+01.14	645+18.89	645+36.64
Rt. Gutter Profile Grade	684.409	684.503	684.612	684.736	684.874	685.072	685.245	685.541	685.812	686.050	686.305	686.576	686.862
Rt. Gutter Gutter Elevation	684.325	684.419	684.528	684.651	684.789	684.988	685.210	685.457	685.727	685.966	686.220	686.491	686.778
Rt. Gutter Cast-in-Place Conc. Deflection	0.000	0.022	0.030	0.021	0.000	0.054	0.077	0.054	0.000	0.024	0.039	0.026	0.00
Rt. Gutter Screed Elevation	684.33	684.44	684.56	684.67	684.79	685.04	685.29	685.51	685.73	685.99	686.26	686.52	686.78



ELEVATION SHOWING FIBERBOARD STRIPS FOR DECK PANEL SUPPORT

SCREED TABLE RIGHT BRIDGE													
LOCATION	¢ Brg.	1/4	1/2	3/4	¢ Pier	1/4	1/2	3/4	¢ Pier	1/4	1/2	3/4	¢ Brg.
Lt. Gutter Station	642+82.25	642+95.75	643+09.25	643+22.75	643+36.25	643+57.00	643+77.75	643+98.50	644+19.25	644+33.75	644+48.25	644+62.75	644+77.25
Lt. Gutter Profile Grade	684.285	684.339	684.402	684.475	684.557	684.701	684.866	685.054	685.264	685.432	685.594	685.774	685.966
Lt. Gutter Gutter Elevation	684.200	684.254	684.318	684.390	684.472	684.616	684.782	684.970	685.179	685.339	685.509	685.690	685.882
Lt. Gutter Cast-in-Place Conc. Deflection	0.000	0.009	0.012	0.008	0.000	0.044	0.064	0.044	0.000	0.010	0.016	0.011	0.00
Lt. Gutter Screed Elevation	684.20	684.26	684.33	684.40	684.47	684.66	684.85	685.01	685.18	685.35	685.53	685.70	685.88
Rt. Gutter Station	642+51.00	642+64.50	642+78.00	642+91.50	643+05.00	643+25.75	643+46.50	643+67.25	643+88.00	644+02.50	644+17.00	644+31.50	644+46.00
Rt. Gutter Profile Grade	684.195	684.228	684.270	684.321	684.381	684.492	684.625	684.780	684.956	685.093	685.240	685.398	685.566
Rt. Gutter Gutter Elevation	684.321	684.354	684.396	684.447	684.507	684.618	684.751	684.906	685.082	685.219	685.366	685.524	685.692
Rt. Gutter Cast-in-Place Conc. Deflection	0.000	0.009	0.012	0.008	0.000	0.044	0.064	0.044	0.000	0.010	0.016	0.011	0.000
Rt. Gutter Screed Elevation	684.32	684.36	684.41	684.46	684.51	684.66	684.82	684.95	685.08	685.23	685.38	685.54	685.69



PLAN AT EXPANSION JOINT
(Left Bridge)

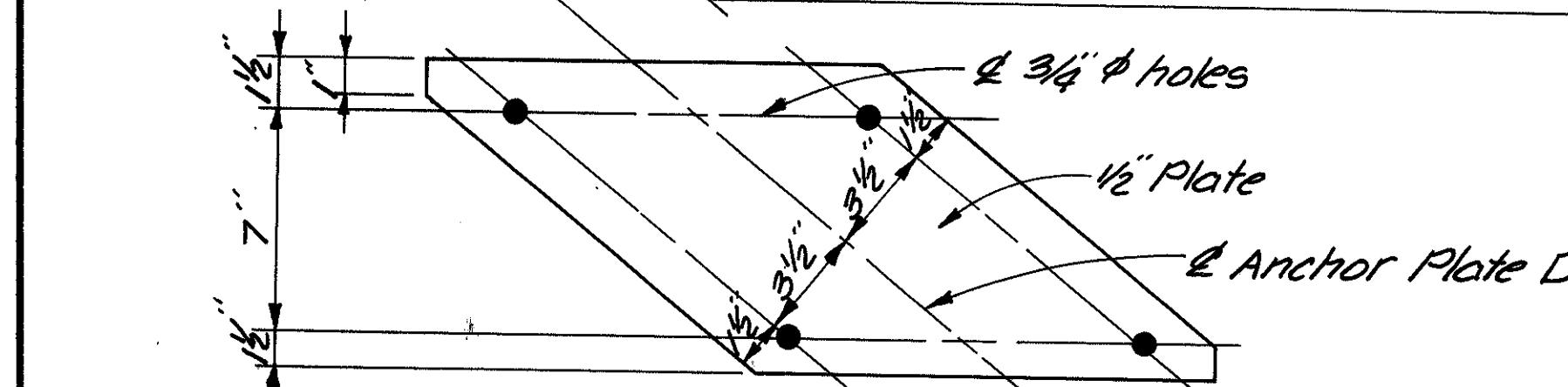
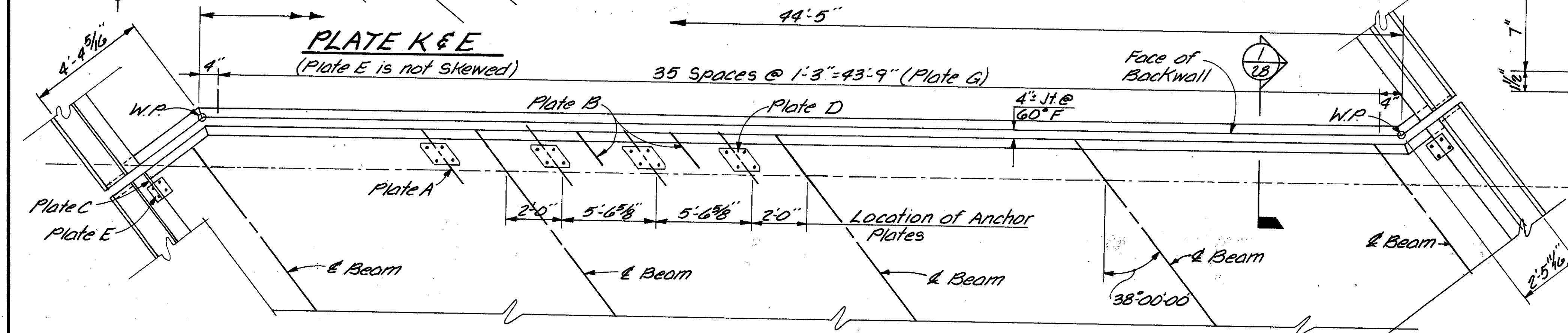


PLATE K & E
(Plate E is not Skewed)



PLAN AT EXPANSION JOINT
(Right Bridge)

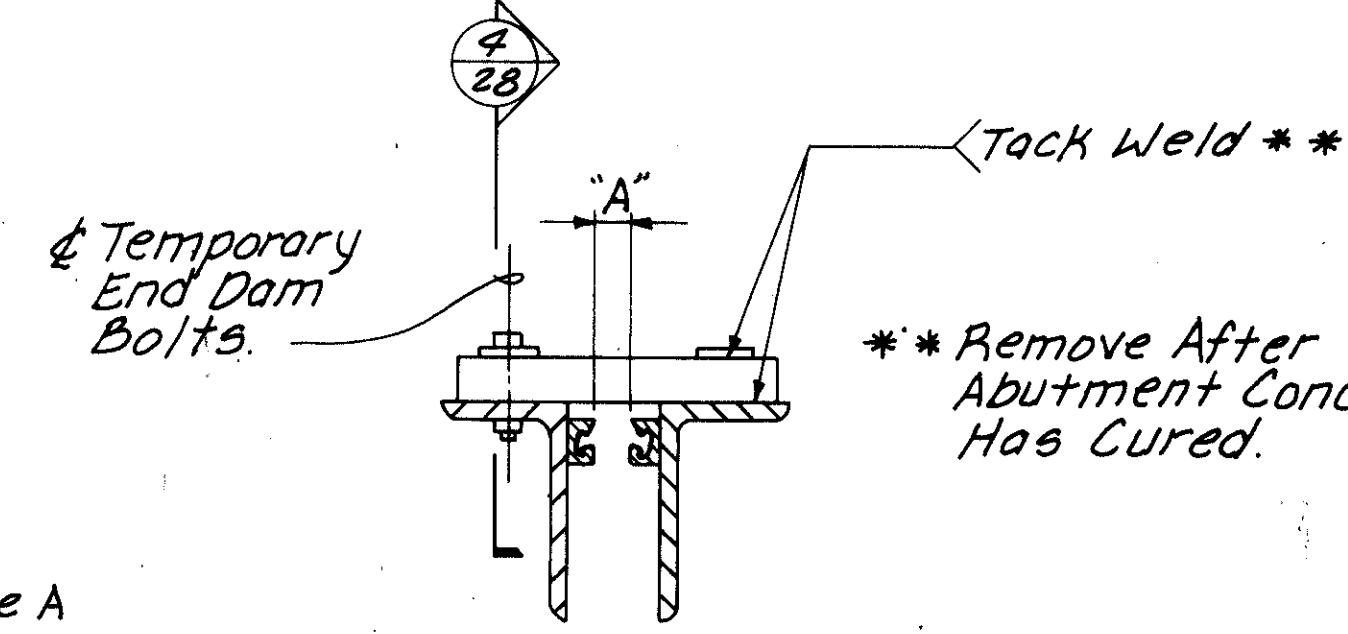


PLATE D & E
(Plate E is not Skewed)

TEMPORARY SUPPORT BARS

STRIP SEAL NOTES

MATERIALS: STRUCTURAL STEEL FOR THE STRIP SEAL CONSTRUCTION SHALL CONFORM TO ASTM A588 OR A36 WITH SYSTEM B FIELD PAINT ON EXPOSED STEEL SURFACES. FIELD PAINT SHALL CONSIST OF TWO PRIME COATS AND ONE FINISH COAT.

THE PREFORMED STRIP SEAL SHALL BE EXTRUDED POLYCHLOROPRENE MATERIAL MEETING THE REQUIREMENTS OF ASTM D2628. DUE TO THE CONFIGURATIONS OF THE STRIP SEAL, THE RECOVERY TESTS ARE NOT APPLICABLE. PHYSICAL PROPERTIES SHALL MEET THE REQUIREMENTS SPECIFIED IN TABLE "C" ON SHEET 25/32.

LUBRICANT-ADHESIVE USED TO INSTALL THE PREFORMED STRIP SEALS SHALL BE A POLYURETHANE AND HYDROCARBON SOLVENT MIXTURE AS SPECIFIED BY THE SEAL MANUFACTURER (UNLESS OTHERWISE APPROVED BY THE DIRECTOR). IT SHALL HAVE SUITABLE CONSISTENCY AT THE TEMPERATURE AT WHICH THE SEALS ARE INSTALLED AND SHALL BE COMPATIBLE WITH THE SEALS AND THE STEEL EXTRUSIONS.

PREPARATIONS FOR INSTALLATION: TO AVOID THE SUBSEQUENT CONTAMINATION OF PREPARED SURFACES, ALL SURFACES OF ELASTOMERIC STRIP SEALS SHALL BE CLEANED WITH METHYL ETHYL KETONE (MEK), TOLUENE (T) OR OTHER APPROVED SOLVENT USING CLEAN DISPOSABLE CLOTHS.

THE BONDING SURFACES OF THE STEEL EXTRUSIONS (THE INTERIOR OF THE ANCHOR GROOVES) SHALL BE PREPARED TO GRADE SA 3, ASTM D2200. PREPARATION SHALL BE ACCOMPLISHED NOT MORE THAN 24 HOURS PRIOR TO ADHESIVE BONDING.

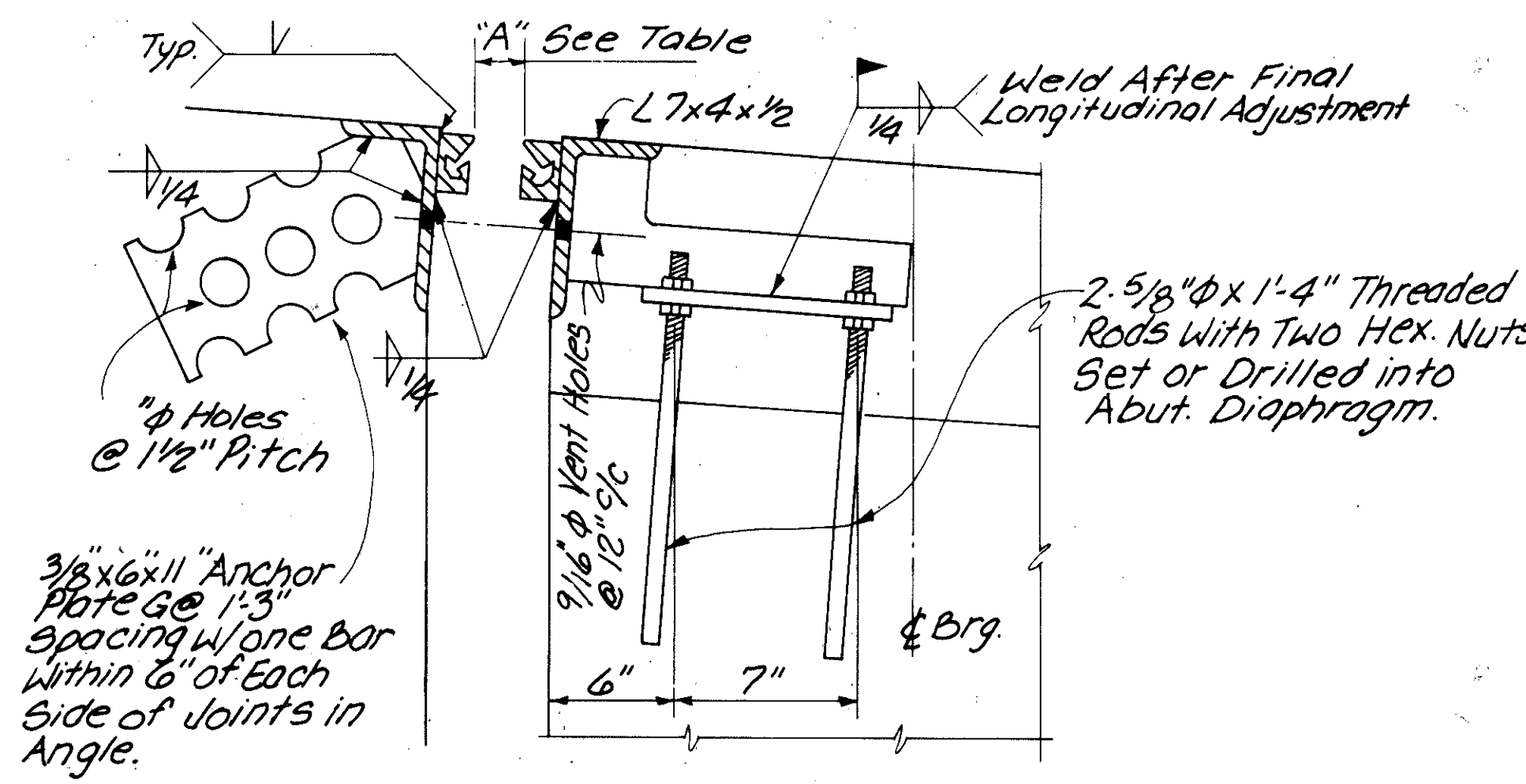
INSTALLATION: IMMEDIATELY PRIOR TO APPLICATION OF LUBRICANT-ADHESIVE, BONDING SURFACES SHALL BE CLEAN, DRY AND WARMER THAN 45°F. AND THEY SHALL BE MAINTAINED AT OR ABOVE THIS TEMPERATURE UNTIL THE ADHESIVE HAS CURED. LUBRICANT-ADHESIVE SHALL BE APPLIED LIBERALLY TO BOTH STEEL AND ELASTOMERIC BONDING SURFACES USING A STIFF BRUSH IF NECESSARY TO ACHIEVE A COMPLETE AND RELATIVELY UNIFORM COATING. THEN THE BULBED EDGES OF THE ELASTOMERIC SEAL SHALL BE INSERTED INTO THE ANCHOR GROOVES. AFTER INSTALLATION, EXCESS LUBRICANT-ADHESIVE SHALL BE REMOVED FROM THE EXPOSED SEAL SURFACES.

MEASUREMENT FOR PAY PURPOSES SHALL BE BASED ON THE LINEAR FOOT OF SEALED JOINT SYSTEM, MEASURED HORIZONTALLY ALONG THE JOINT CENTERLINES AND BETWEEN THE OUTER LIMITS OF THE FABRICATED JOINT, FURNISHED AND PLACED, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE JOINT IN PLACE, WHICH INCLUDES THE JOINT ARMOR, ANCHORING DEVICES, TEMPORARY SUPPORTS AND END CROSSFRAME GUSSET PLATES. PAYMENT SHALL BE MADE PER LINEAR FEET FOR ITEM 516 "STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS."

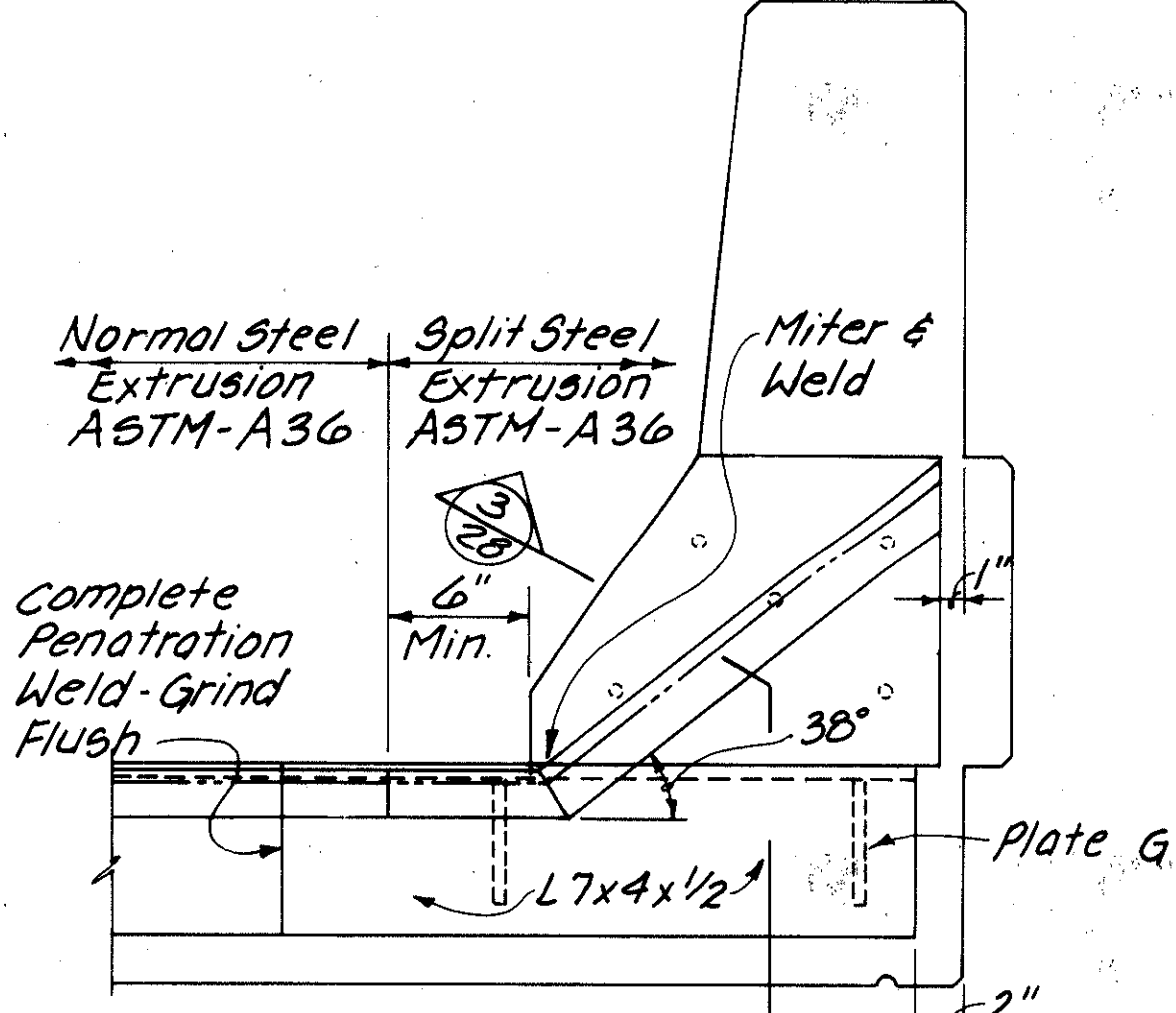
Strip Seal Notes continued on 25/32

DIMENSION "A"		30°F	40°F	50°F	60°F	70°F	80°F	90°F
Right	Rear Abut.	2"	1 1/8"	1 3/16"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Bridge	Fwd. Abut.	1 3/4"	1 1/8"	1 1/8"	1 1/8"	1 1/2"	1 1/2"	1 1/2"
Left	Rear Abut.	2 1/4"	2"	1 1/8"	1 1/8"	1 1/2"	1 1/2"	1 1/2"
Bridge	Fwd. Abut.	1 3/4"	1 3/4"	1 1/8"	1 1/8"	1 1/2"	1 1/2"	1 1/2"

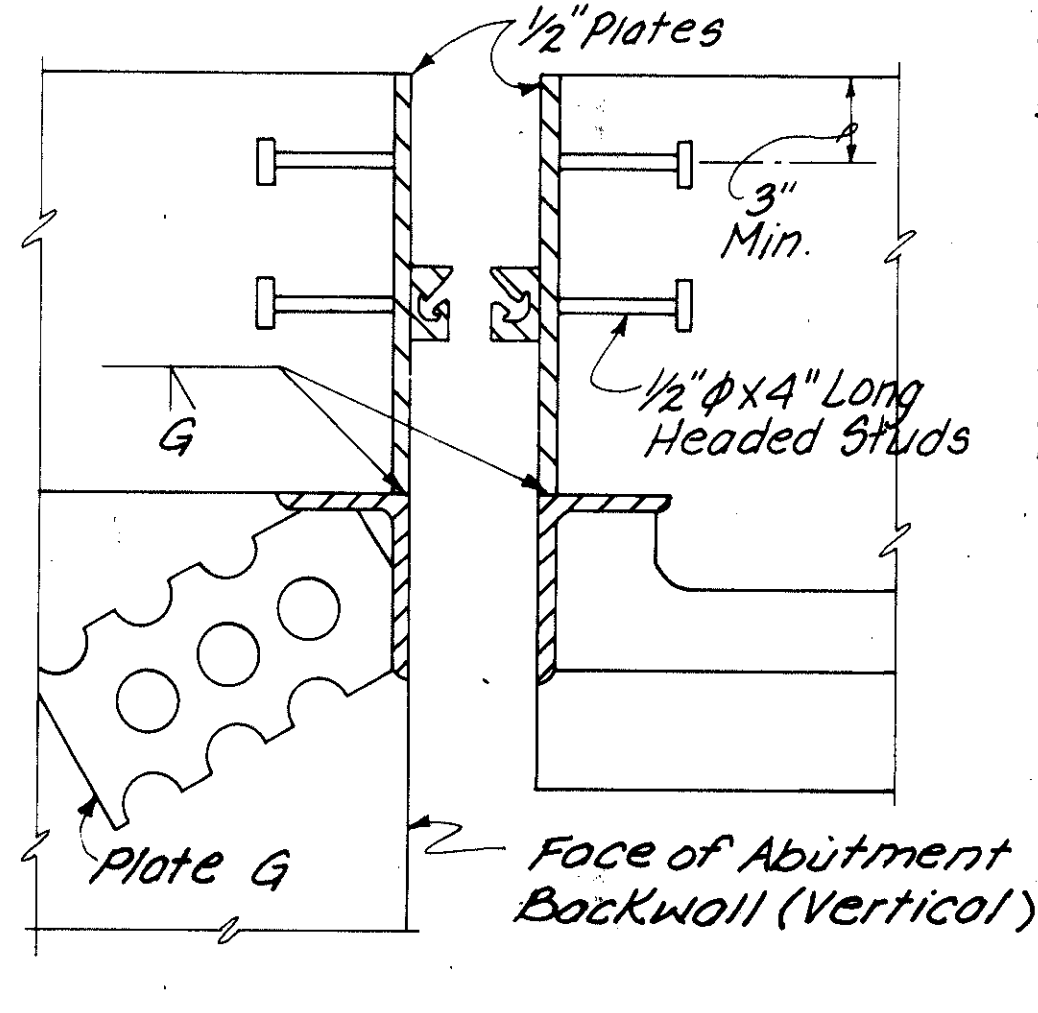
Do not install seal when temperature is above 80°F



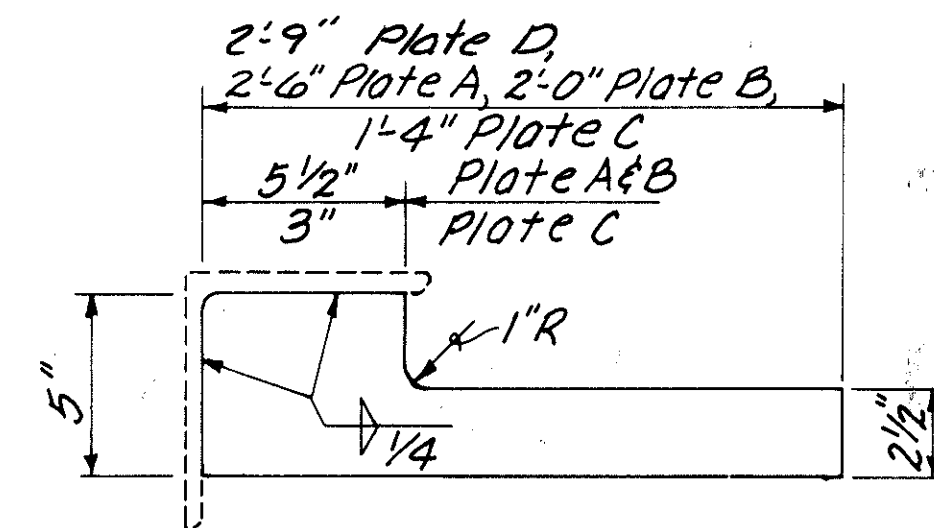
SECTION 1 28



SECTION 2 28



SECTION 3 28



ANCHOR PLATES A, B & C

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EXPANSION JOINT DETAILS
BRIDGE NO. JAC-35-1220 4/4
OVER STATE ROUTE 788

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED
GTW/KJO - JET WBS 5/9/84

Mark	Number	Length	Weight	Shape	Left Bridge		Right Bridge	
Abutments					Rear	Forward	Rear	Forward
EA801	148	5'-1"	2209	Bt.	41	41	33	33
EA601	83	3'-9"	468	Bt.	21	24	19	19
EA602	8	3'-8"	44	Bt.	2	2	2	2
EA603	8	3'-8"	44	Bt.	2	2	2	2
EA604	8	3'-7"	43	Bt.	2	2	2	2
EA605	20	3'-7"	108	Bt.	8	2	8	2
EA606	12	4'-3"	77	Str.		6		6
EA607	212	14'-9"	4,697	Bt.	58	58	48	48
EA608	212	4'-11"	1,566	Bt.	58	58	48	48
EA609	212	6'-11"	2,202	Bt.	58	58	48	48
EA501	75	3'-0"	234	Str.	19	22	17	17
EA502	75	5'-3"	411	Bt.	19	22	17	17
EA503	12	6'-9"	84	Bt.	3	3	3	3
EA504	64	4'-7"	306	Str.	16	16	16	16
EA505	52	2'-8"	145	Bt.	16	10	16	10
EA506	14	23'-9"	347	Str.			7	7
EA507	14	25'-3"	369	Str.			7	7
EA508	64	4'-4"	289	Str.	16	16	16	16
EA509	16	12'-9"	213	Str.			8	8
EA510	16	18'-9"	313	Str.			8	8
EA511	14	33'-0"	482	Str.	7	7		
EA512	14	30'-0"	438	Str.	7	7		
EA513	Not Used							
EA514	8	25'-9"	215	Str.		8		
EA515	8	16'-9"	140	Str.		8		
EA516	8	14'-9"	123	Str.	8			
EA517	8	22'-7"	188	Str.	8			
EA518	6	6'-3"	39	Bt.	3	3		
EA519	6	6'-6"	41	Bt.			3	3
EA801	16	49'-0"	2,093	Str.			8	8
EA802	10	13'-6"	360	Str.			5	5
EA803	2	8'-6"	45	Str.			1	1
EA804	4	22'-3"	238	Bt.			2	2
EA805	6	18'-8"	299	Str.			3	3
EA806	2	14'-0"	75	Str.			1	1
EA807	4	7'-1"	76	Bt.			2	2
EA808	4	6'-6"	69	Str.			2	2
EA809	16	29'-0"	1,239	Str.	8	8		
EA810	7	33'-9"	631	Str.	4	3		
EA811	9	32'-5"	779	Str.	4	5		
EA812	5	17'-6"	234	Str.		5		
EA813	1	13'-0"	35	Str.		1		
EA814	2	6'-3"	33	Str.		2		
EA815	3	25'-8"	206	Str.		3		
EA816	1	20'-6"	55	Str.		1		
EA817	2	28'-7"	153	Bt.		2		
EA818	6	15'-6"	248	Str.	6			
EA819	4	22'-6"	240	Str.	4			
EA820	2	28'-3"	151	Bt.	2			
EA821	2	8'-0"	43	Bt.		2		
EA822	2	9'-3"	49	Bt.	2			
EA601	102	14'-10"	2,273	Bt.		38	32	32
EA602	95	10'-2"	1,451	Bt.	24	27	22	22
EA603	6	9'-1"	82	Str.			3	3
EA604	11	9'-7"	158	Str.			11	

Mark	Number	Length	Weight	Shape	Left Bridge		Right Bridge	
Abutments					Rear	Forward	Rear	Forward
A605	16	3'-7"	32	Str.			2	2
A606	18	9'-5"	255	Str.			12	6
A607	40	14'-7"	876	Bt.	40			
A608	14	10'-6"	221	Str.		14		
A609	2	4'-7"	14	Str.		2		
A610	25	9'-6"	357	Str.		8	6	11
A611	3	9'-3"	42	Str.		3		
A612	7	9'-10"	103	Str.	7			
A613	3	8'-6"	38	Str.	3			
A501	142	9'-5"	1,395	Bt.	40	38	32	32
A502	102	7'-2"	762	Bt.		38	32	32
A503	142	8'-2"	1,210	Bt.	40	38	32	32
A504	101	10'-8"	1,141	Bt.		41	30	30
A505	10	26'-3"	274	Str.			5	5
A506	12	7'-11"	99	Bt.	3	3	3	3
A507	12	23'-0"	288	Str.		2	5	5
A508	14	14'-8"	214	Str.		6	4	4
A509	8	18'-8"	156	Str.		4	2	2
A510	2	7'-0"	15	Str.			1	1
A511	2	11'-0"	23	Str.			1	1
A512	12	10'-8"	134	Str.			6	6
A513	18	9'-2"	172	Str.	12			6
A514	4	6'-6"	27	Bt.		2		2
A515	4	7'-10"	33	Bt.		2		2
A516	4	9'-2"	38	Bt.		2		2
A517	4	10'-6"	44	Bt.		2		2
A518	4	11'-10"	49	Bt.		2		2
A519	6	9'-1"	57	Str.			3	3
A520	28	9'-3"	270	Str.		11	6	11
A521	6	3'-7"	22	Str.	2		2	2
A522	24	7'-6"	187	Bt.	6	6	6	6
A523	14	20'-8"	302	Str.	2		6	6
A524	5	13'-3"	69	Str.	1		2	2
A525	16	7'-6"	125	Str.	4	4	4	4
A526	12	15'-10"	198	Str.			6	6
A527	4	6'-6"	27	Bt.	2		2	
A528	4	7'-6"	31	Bt.	2		2	
A529	4	8'-6"	35	Bt.	2		2	
A530	4	9'-7"	40	Bt.	2		2	
A531	4	10'-9"	45	Bt.	2		2	
A532	40	6'-11"	289	Bt.	40			
A533	10	29'-0"	302	Str.	5	5		
A534	8	30'-0"	250	Str.	4	4		
A535	14	10'-3"	150	Str.		14		
A536	6	27'-8"	173	Str.		6		
A537	2	20'-6"	43	Str.		2		
A538	8	25'-0"	209	Str.			4	4
A539	2	4'-7"	10	Str.		2		
A540	11	9'-4"	107	Str.			11	
A541	1	18'-0"	19	Str.		1		
A542	10	22'-8"	236	Str.		10		
A543	1	11'-3"	12	Str.		1		
A544	1	15'-3"	16	Str.		1		
A545	3	14'-0"	44	Str.			1	1
A546			Not Used					
A547	7	9'-8"	71	Str.	7			
A548	8	25'-3"	211	Str.			4	4
A549	1	12'-0"	13	Str.	1			

Mark	Number	Length	Weight	Shape	Left Bridge		Right Bridge	
Abutments					Rear	Forward	Rear	Forward
A550	8	31'-0"	259	Str.	4	4		
A551	10	31'-6"	329	Str.	5	5		
A552			Not Used					
A553	41	16'-4"	698	Bt.	41			
A554	4	16'-8"	70	Str.	4			
A555	5	16'-0"	83	Str.	1		2	2
A556			Not Used					
A557	1	9'-0"	9	Str.	1			
A558	8	12'-8"	106	Str.	8			
A559	3	8'-6"	27	Str.	3			
A560	2	10'-0"	21	Str.			1	1
A561	6	24'-6"	153	Str.	6			
A562	2	17'-1"	36	Str.	2			
A563	8	19'-8"	164	Str.	8			
A564	Not Used							
A565	24	5'-0"	125	Str.	6	6	6	6
A566	6	8'-6"	53	Bt.	3	3		
A567	120	3'-8"	459	Str.	30	30	30	30
A568	160	2'-10"	473	Str.	40	40	40	40
A569	6	7'-9"	48	Bt.			3	3

NOTES:

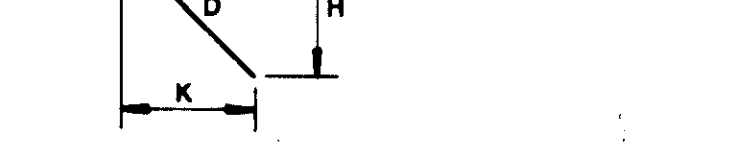
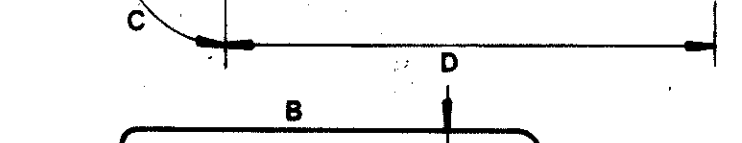
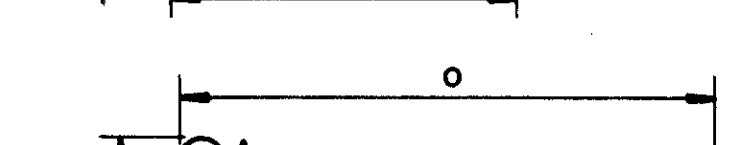
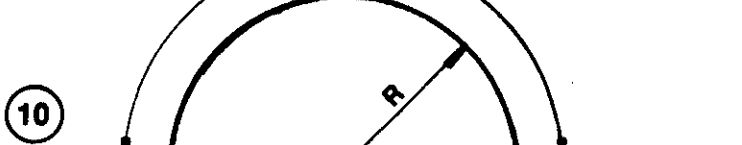
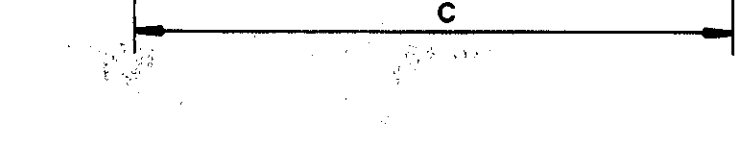
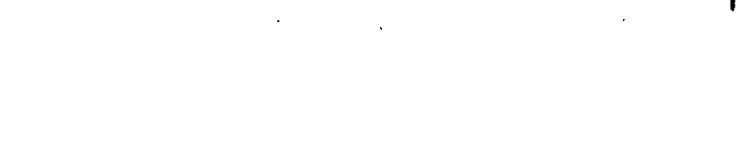
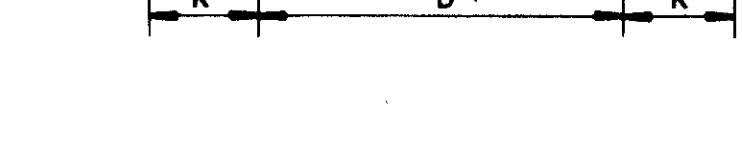
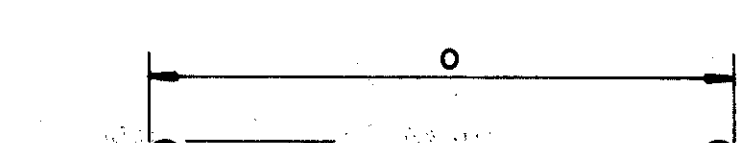
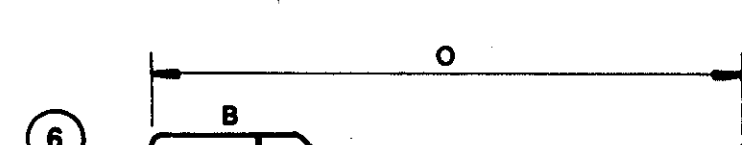
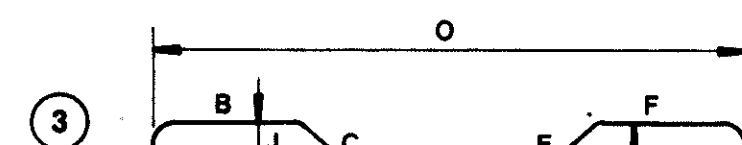
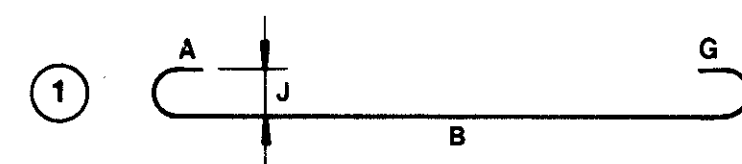
- For Bar Bending Details - See Sheet 30/32
- Refer to CMS Sections 106.03, 700, 709.1 through 709.05 & 709.08. Sufficient Additional Reinf. Steel shall be provided for sampling. Random samples shall be replaced in the structures by the Additional Steel, spliced in accordance with 509.08.
- EA Bars are Epoxy Coated.

KZF		29/32
INCORPORATED		
ARCHITECTS	ENGINEERS	PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246		513/772-1117
REINFORCING STEEL LIST		
BRIDGE NO. JAC-35-1220 1/2 OVER STATE ROUTE 188		
DESIGNED	DRAWN	TRACED
JET	JEB	LEP
CHECKED	REVIEWED	DATE
WBS	5/9/86	

JAN 4 1991

Dimensions For Bending

Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
EA801	3	1'-1"	2'-0"	2'-0"	0	0	0	0	1'-5"	0'-8"			3'-5"
EA601	16	0	0	9"	0'-10 3/8"	2'-5"	0		6"	0	8 1/2"		
EA602	16	0	0	8"	0'-9 7/8"	2'-5"	0		5"	0	8 1/2"		
EA603	16	0	0	8"	0'-9 3/8"	2'-5"	0		4"	0	8 1/2"		
EA604	16	0	0	7"	0'-8 7/8"	2'-5"	0		3"	0	8 1/2"		
EA605	16	0	0	7"	0'-8 3/4"	2'-5"	0		2"	0	8 1/2"		
EA607	S10		6'-11"	1'-3"	6'-11"								
EA608	S10		2'-0"	1'-3"	2'-0"								
EA609	S10		3'-3"	0'-9"	3'-3"								
EA502	22												
EA503	2	2'-5"	4'-6"					0					
EA505	18	0'-7"	2'-1"	0"						0'-5"			
EA518	16	0	2'-5"	1'-9"	2'-5"	0	0		1'-10"	0	1'-6"		
EA519	16	0	2'-5"	2'-0"	2'-5"	0	0		1'-6"	0	1'-11"		
AB04	2	18'-8"	3'-10"					0					
AB07	19		3'-5"	3'-8"	0				2'-1"		2'-8"		6'-4"
AB17	2	25'-8"	3'-2"					0					
AB20	2	22'-6"	6'-0"					0					
AB21	19		3'-5"	4'-7"	0				2'-8"		2'-2"		6'-9"
AB22	19		3'-5"	5'-10"	0				2'-8"		2'-2"		8'-0"
AG01	S10		6'-6"	6'-5"	2'-3"								
AG02	S10		4'-8"	1'-2"	4'-8"								
AG07	S10		6'-3"	6'-5"	2'-3"								
AS01	S10		1'-8"	6'-5"	1'-8"								
AS02	2	6'-6"	0'-10"					0					
AS03	S10		2'-0"	4'-5"	2'-0"								
AS04	T1	0'-5 1/2"	3'-0"	2'-1"	3'-0"	2'-1"		0'-5 1/2"					
AS06	2	4'-7"	3'-6"					0					
AS14	S10		2'-10"	1'-2"	2'-10"								
AS15	S10		3'-6"	1'-2"	3'-6"								
AS16	S10		4'-2"	1'-2"	4'-2"								
AS17	S10		4'-10"	1'-2"	4'-10"								
AS18	S10		5'-6"	1'-2"	5'-6"								
AS22	T1	0'-5 1/2"	1'-0"	2'-6"	1'-0"	2'-6"		0'-5 1/2"					
AS27	S10		2'-9 3/4"	1'-2"	2'-9 3/4"								
AS28	S10		3'-3 1/2"	1'-2"	3'-3 1/2"								
AS29	S10		3'-9 1/2"	1'-2"	3'-9 1/2"								
AS30	S10		4'-4"	1'-2"	4'-4"								
AS31	S10		4'-11"	1'-2"	4'-11"								
AS32	2	6'-3"	0'-10"					0					
AS53	T1	0'-5 1/2"	5'-6"	2'-5"	5'-6"	2'-5"		0'-5 1/2"	1'-10"	0	1'-6"		
AS66	16	0	3'-8"	2'-9"	2'-5"	0	0		1'-6"	0	1'-11"		
AS69	16	0	3'-8"	2'-0"	2'-5"	0	0						



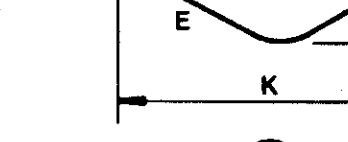
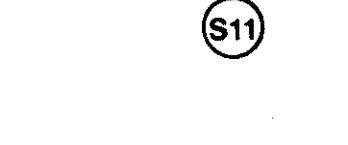
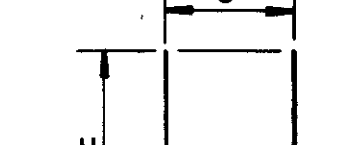
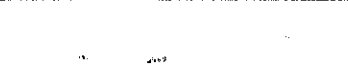
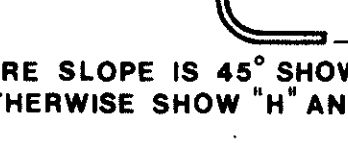
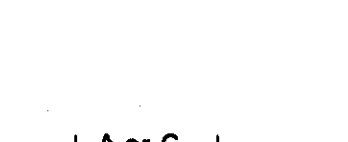
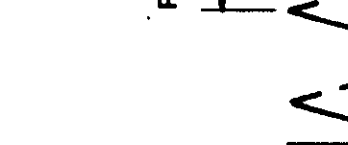
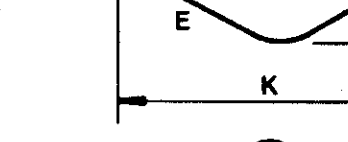
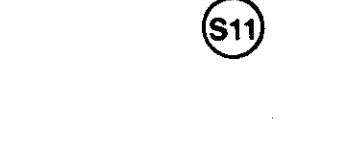
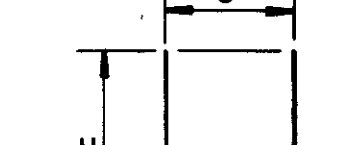
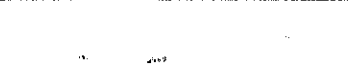
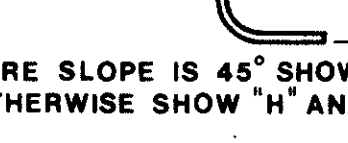
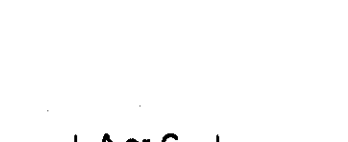
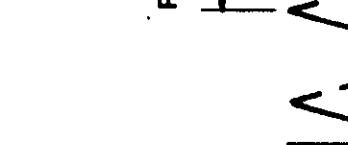
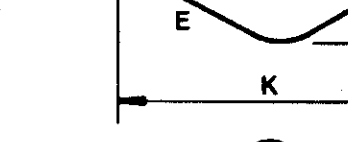
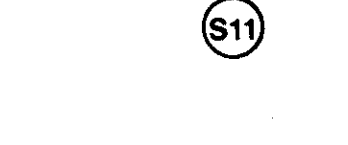
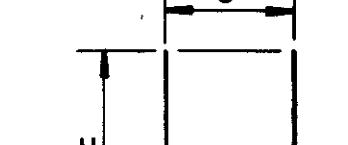
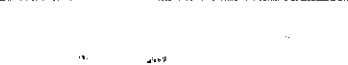
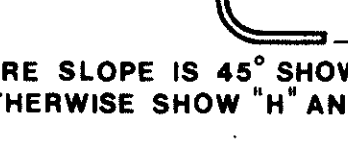
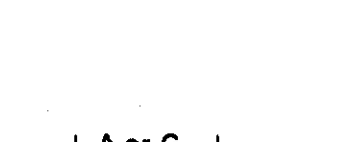
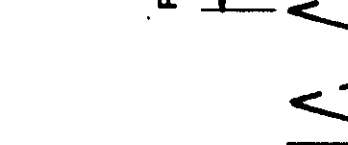
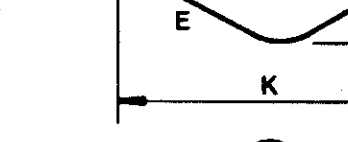
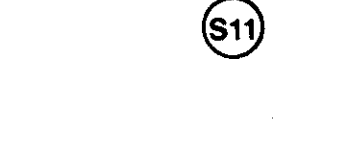
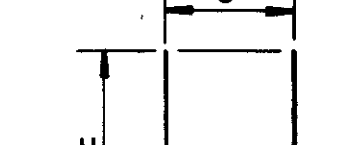
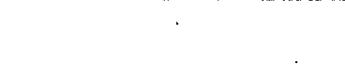
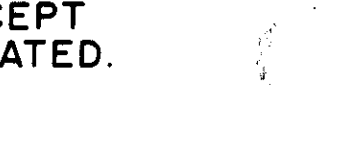
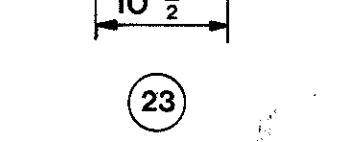
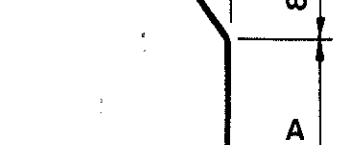
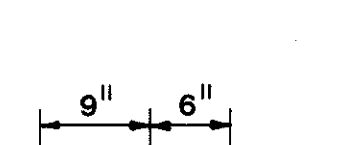
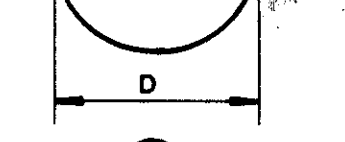
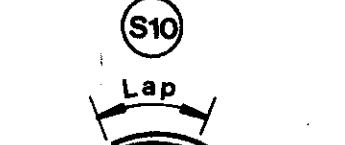
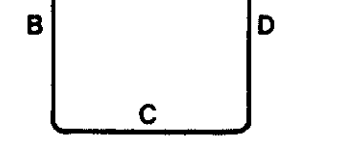
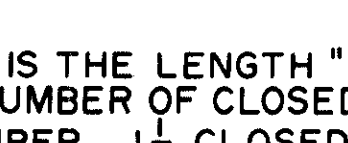
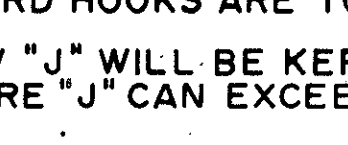
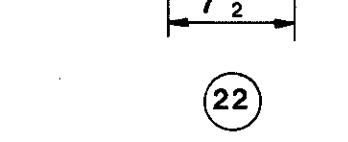
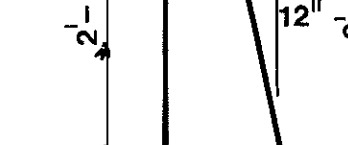
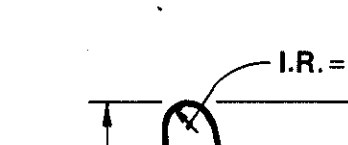
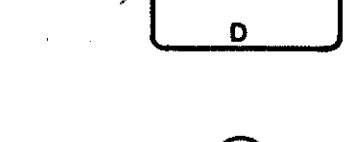
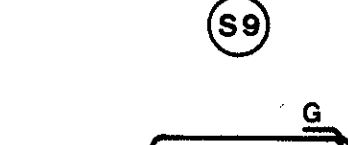
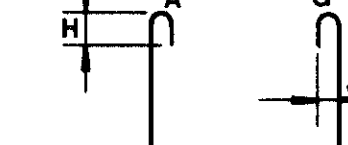
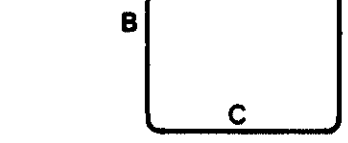
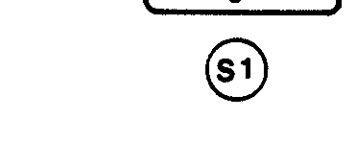
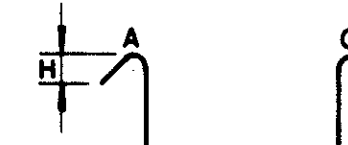
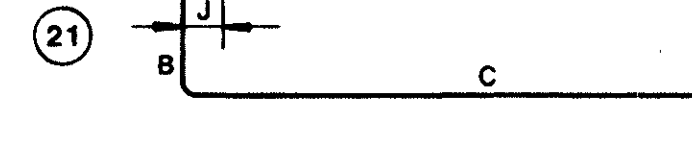
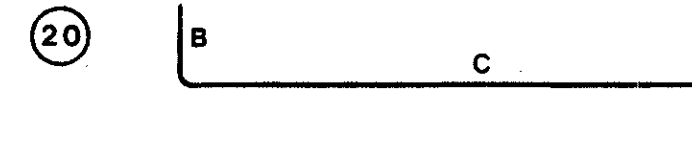
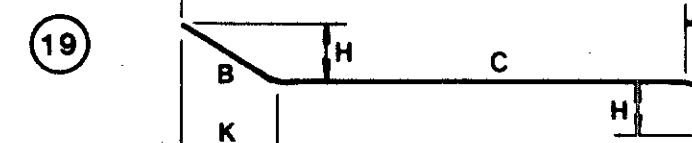
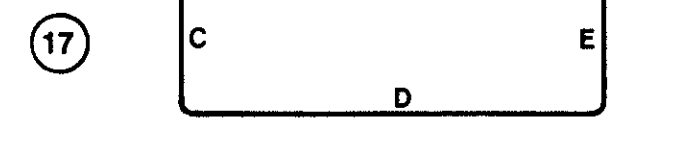
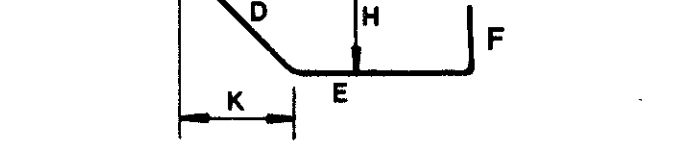
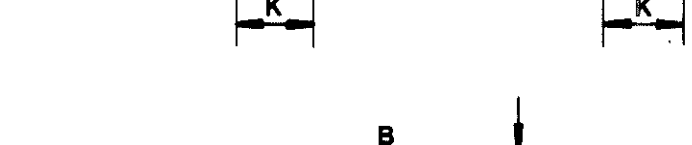
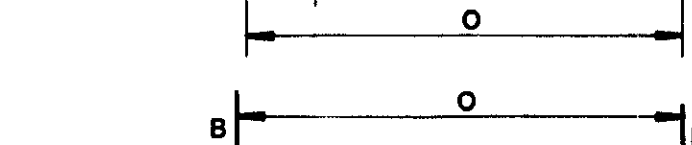
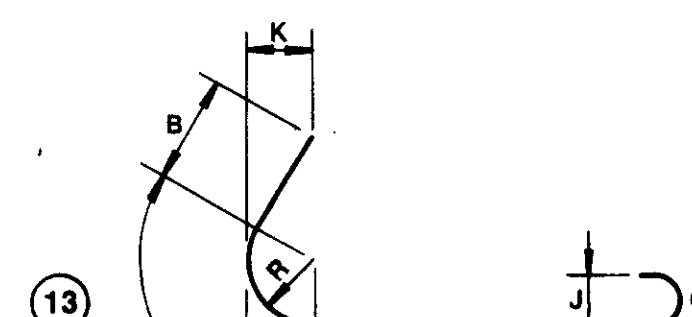
NOTES:

- FIGURES IN CIRCLES SHOW BAR TYPES.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT A & G ON STD. 180° & 135° HOOKS.
- "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
- "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
- ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUP S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
- RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
- THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
- HOOKE AND BENDS SHALL BE IN ACCORDANCE WITH THE LATEST ACI SPECIFICATIONS.
- FOR BAR TYPE SP1, THE NO. OF TURNS "K" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

JAC-35-11.46

OHIO
FHWA
REGION 5383
442

(15) NOT USED



[illegible][illegible][illegible]

‡ Weight to be included with Deck
Option A only.

● Weight to be included with Deck Option B only.

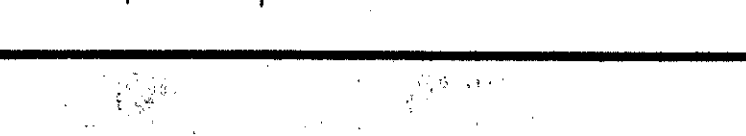
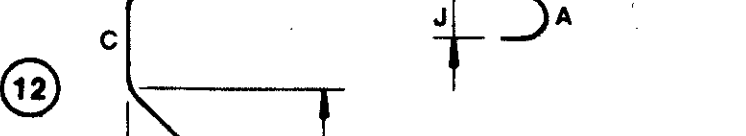
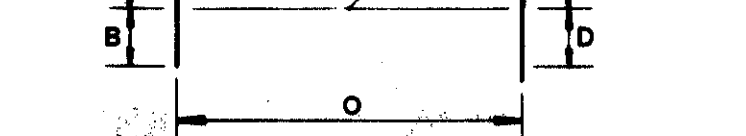
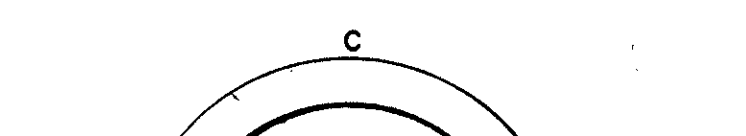
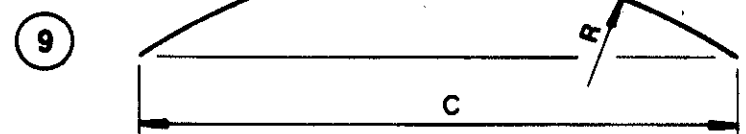
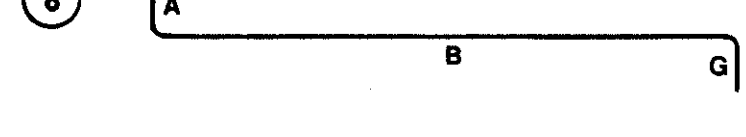
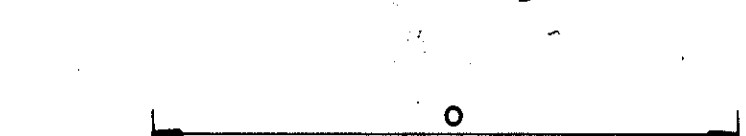
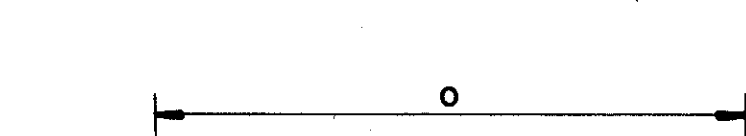
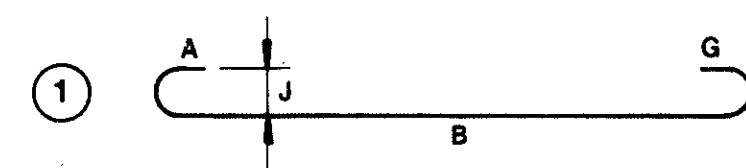
▲ Weight to be included with Deck
Option A and Deck Option B.

NOTES:

1. For Bar Bending Details - See Sheet 32/32
2. Refer to CMS Sections 106.03, 700, 709.1 through 709.05 & 709.08. Sufficient Additional Reinf. Steel Shall be Provided for Sampling Random Samples Shall be Replaced in the Structures by the Additional Steel, Spliced in Accordance with 509.08.
- 3.EAS & ES Bars are Epoxy Coated.
4. SP Bars are Spiral Bars. The Weight of these Bars include 4 - 1x1x1/8 Spacer Angles.

Dimensions For Bending

Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
P1101	2	2'-0"	9'-8"					0"					
P902	14		0"	4'-5"	39'-9"	4'-5"	0"		1'-0"		4'-4"		48'-5"
P903	2	3'-6"	48'-5"					3'-6"					
P904	19		4'-5"	27'-10"	0"	0"	0"		1'-0"		4'-4"		32'-2"
P905	2	3'-6"	20'-11"					0"					
P907	1	1'-3"	20'-11"					0"		0'-11 1/4"			
P908	1	1'-3"	48'-5"					1'-3"		0'-11 1/4"			
P801	2	1'-4"	6'-2"					0"					
P501	T1	5 1/2"	3'-8"	4'-8"	3'-8"	4'-8"		5 1/2"					
P504	T1	5 1/2"	3'-8"	3'-9"	3'-8"	3'-9"		5 1/2"					
P505	T1	5 1/2"	3'-8"	4'-0 1/2"	3'-8"	4'-0 1/2"		5 1/2"					
P506	T1	5 1/2"	3'-8"	4'-4"	3'-8"	4'-4"		5 1/2"					
P507	T1	5 1/2"	3'-8"	4'-7 1/2"	3'-8"	4'-7 1/2"		5 1/2"					
P508	S10		1'-8"	3'-6"	1'-8"								
P401	S10		1'-0"	3'-8"	1'-0"								
SP401	SP1		4 1/2"	15'-6"	2'-8"						45		
SP402	SP1		4 1/2"	17'-6"	2'-8"						50		
SP403	SP1		4 1/2"	16'-0"	2'-8"						46		
SP404	SP1		4 1/2"	16'-8"	2'-8"						48		
ES501	2	0'-10 1/2"	1'-8"					0"					
ES502	22												
ES503	23	0'-9"											
D501	19		1'-6"	28'-6"	0				1'-2"		0'-11"		29'-5"
D502	19		1'-0"	28'-6"	0				0'-9"		0'-7 1/2"		29'-1 1/2"
D503	19		3'-3"	29'-7"	0				2'-6"		2'-0 1/2"		31'-7 1/2"
D504	19		2'-9"	29'-7"	0				2'-1 1/2"		1'-9"		31'-4"
D507	14		0	0'-10"	10'-5"	0'-10"	0		0'-7"		0'-7"		11'-7"
D510	S6	0'-10"	4'-6"	3'-0"	4'-6"			4'-0"					
D511	S4	1'-0"	4'-6"	4'-2"	4'-6"			1'-0"					
D515	S4	1'-0"	4'-6"	0'-8"	4'-6"			1'-0"					
D516	S4	1'-0"	4'-6"	3'-3"	4'-6"			1'-0"					
D517	S6	0'-10"	4'-6"	2'-6"	4'-6"			3'-6"					
D518	19		3'-3"	18'-4"	0				2'-0"		2'-6"		20'-10"
D519	19		2'-9"	18'-4"	0				1'-8"		2'-2"		20'-6"
D520	19		1'-6"	28'-6"	0				0'-11"		1'-2"		29'-8"
D521	19		1'-0"	28'-6"	0				0'-7 1/2"		0'-9 1/2"		29'-3 1/2"
D524	14		0	0'-10"	8'-2"	0'-10"	0		0'-7"		0'-7"		9'-4"
D525	S6	0'-10"	4'-6"	1'-4"	4'-6"			2'-6"					
D514	14		0	0'-10"	6'-5"	0'-10"	0		0'-7"		0'-7"		7'-7"

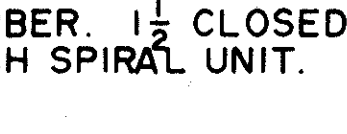
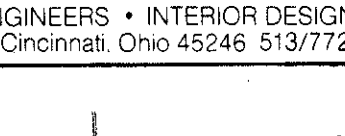
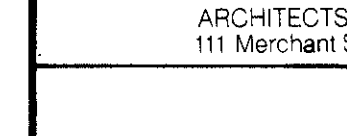
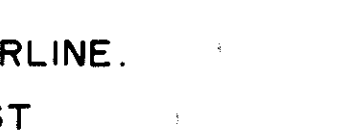
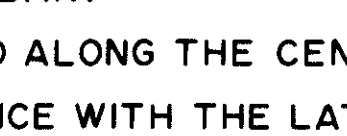
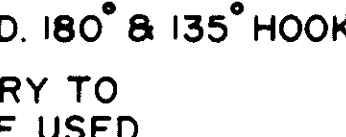
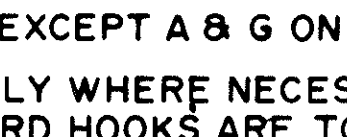
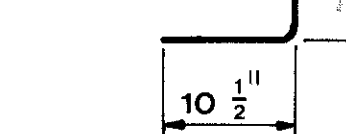
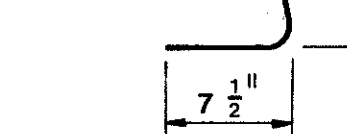
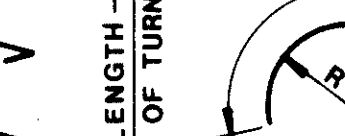
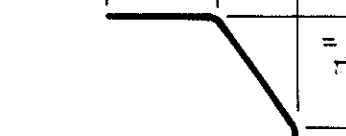
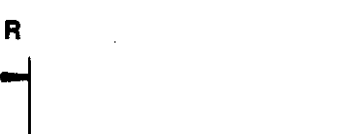
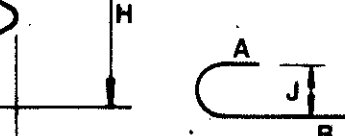
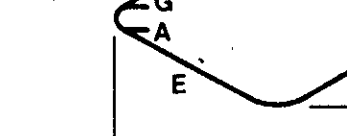
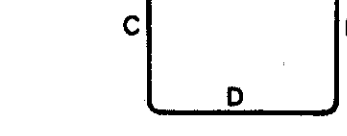
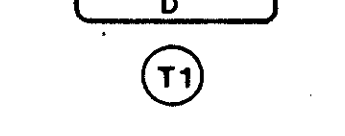
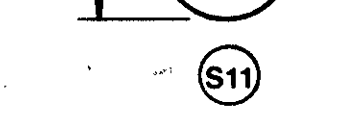
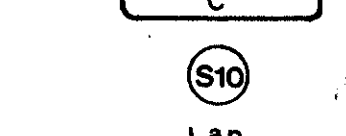
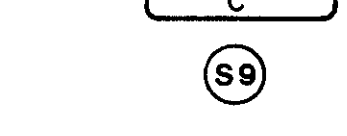
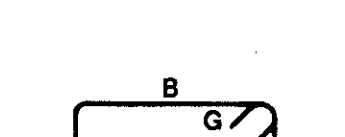
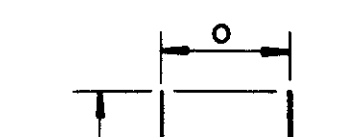
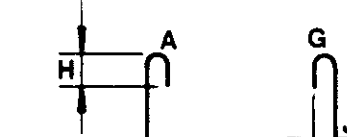
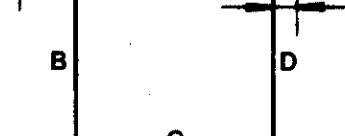
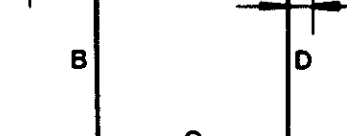
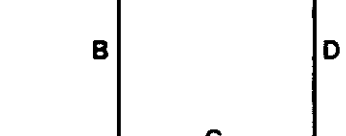
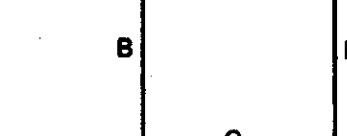
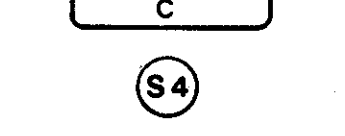
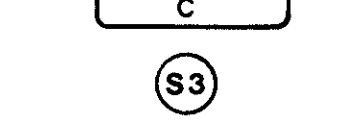
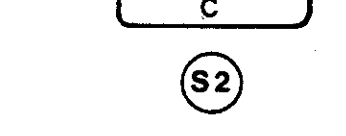
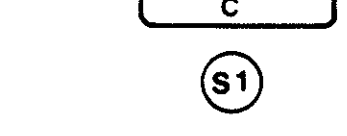
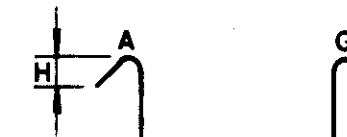
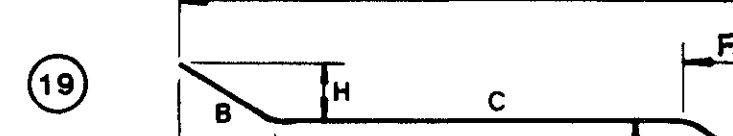
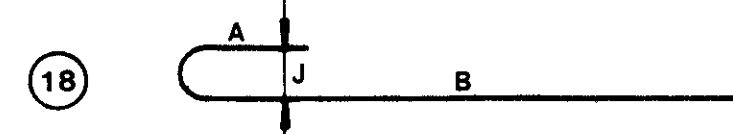
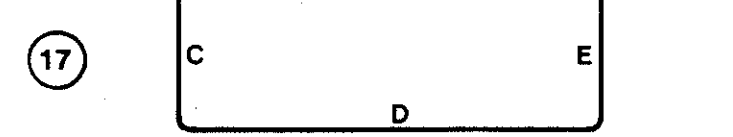
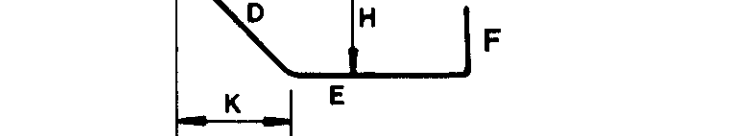
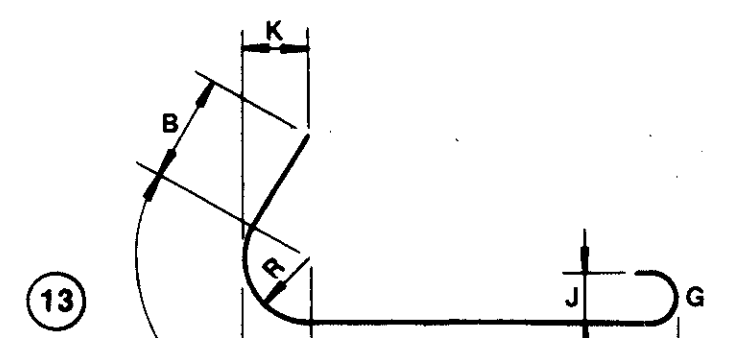


JAC-35-11.46

OHIO
FHWA
REGION 5

385
442

15 NOT USED



NOTES:

- FIGURES IN CIRCLES SHOW BAR TYPES.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT A & G ON STD. 180° & 135° HOOKS.
- "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
- "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
- ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUP S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
- RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
- THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
- HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE LATEST ACI SPECIFICATIONS.
- FOR BAR TYPE SP1, THE NO. OF TURNS "K" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

WHERE SLOPE IS 45° SHOW "H" ONLY OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING BAR BENDING DETAILS

INCORPORATED

ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS

111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

32/32

BAR BENDING DETAILS

BRIDGE NO. JAC-35-1220 1/4

OVER STATE ROUTE 788

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
LEP	KJO	-	GTW	WBS	5/9/86