

DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THESE DRAWINGS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD FOR T201107402.

CONTRACT		COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
7511		NEW CASTLE	N/A	2	4

REHABILITATION OF BRIDGE NUMBERS 762, 764, 771, 826A, 826 AND BOX CULVERT NUMBER 828

GENERAL NOTES

- CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO "DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JULY 1985." THE PLANS, AND AS AMENDED BY THE SPECIAL PROVISIONS.
- THE CONTRACTOR AND ALL OTHERS SHALL PERFORM ALL WORK IN A MANNER THAT WILL INSURE THE LEAST PRACTICABLE OBSTRUCTION TO TRAFFIC CONSISTENT WITH SAFETY AND SHALL COMPLY WITH THE MANUAL ENTITLED "DELAWARE TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS AS REVISED MARCH, 1993" ALL CONSTRUCTION SAFETY EQUIPMENT SHALL MEET THE NEW SPECIFICATIONS.
- THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AT ALL TIMES DURING CONSTRUCTION, LOCATIONS OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" TWO CONSECUTIVE WORKING DAYS PRIOR TO ANY EXCAVATION SO THAT ALL AFFECTED UTILITIES MAY RESPOND AND DETERMINE THE EXACT LOCATION OF THEIR EXISTING FACILITIES ON THE JOB SITE.
- THE CONTRACTOR SHALL PROTECT ALL ADJOINING AND NEARBY BUILDINGS, EQUIPMENT, UTILITIES, FENCES, TREES, AND SHRUBBERY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED DIRECTLY OR INDIRECTLY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- DESIGN CRITERIA: 1992 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, WITH INTERIM SPECIFICATIONS TO 1993.
- SPECIFICATIONS: MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE "DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS" DATED JULY 1985, WITH CURRENT MODIFICATIONS, ADDITIONS, SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.

PROJECT NOTES (CONTINUED)

- BRIDGE 771 REPAIR PEDESTALS ON PIER NO. 4 STRINGER NO. 10; CLEAN AND PAINT BEARING ASSEMBLIES ON ABOVE DESCRIBED PEDESTAL. REPLACE ANCHOR BOLTS AND BEARING ASSEMBLIES ON PIER NO. 4, STRINGER NO. 12. SPAN K. REPAIR SPALLED CONCRETE ON PIER NO. 4, CLEAN AND PAINT STRINGERS AND REPAIR SPALLED AREAS OF BRIDGE DECK ALL AS SHOWN ON THE PLANS. REPAIR SLOPE PROTECTION AT ABUTMENT D. CLEAN AND FLUSH ALL SCUPPERS AND JOINTS.
- BRIDGE 826A: REPLACE ANCHOR BOLTS AND BEARING ASSEMBLIES AT STRINGER NOS. 1, 2 AND 7 AT ABUTMENT B. CLEAN AND PAINT BEARING ASSEMBLIES AT ABUTMENT B STRINGERS NO. 3 THRU 6.
- BRIDGE 826: REPLACE ANCHOR BOLTS AND BEARING ASSEMBLIES AT STRINGER NOS. 5 AND 7 AT ABUTMENT B.
- BRIDGE 828: REPAIR SPALLED AREAS AND REBAR WHERE IT HAS BEEN EXPOSED IN CELL NUMBER 1 OF THE TRIPLE CELLBOX CULVERT UNDER I-495.
2. LOADING: THE JACKING BEAM AND JACK CAPACITY SHALL CARRY HS-20 TRUCK LOADINGS.
3. STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM A709 GRADE 36, INCLUDING THE ADDITIONAL REQUIREMENTS FOR CHARPY-V-NOTCH TESTING OF AASHTO M270 FOR PRIMARY LOAD CARRYING MEMBERS. STRUCTURAL TUBING SHALL BE ASTM A500, TYPE B. ALL H.S. BOLTS SHALL BE ASTM A325, TYPE I AND MECHANICALLY GALVANIZED. ANCHOR BOLTS SHALL BE A-36 STEEL, SWEDGE TYPE AND PAINTED.
4. EXISTING STRUCTURE: ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF THE EXISTING STRUCTURE SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY STRUCTURAL STEEL, ETC., IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE L MARKS INDICATE EXISTING DIMENSIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.
5. WELDING: ALL WELDING SHALL CONFORM TO 1988 AASHTO/AWS D1.5 SPECIFICATIONS. ALL FIELD WELDING SHALL BE DONE BY THE SHIELDED METAL-ARC WELDING PROCESS.
6. HYDRAULIC JACKS: EACH HYDRAULIC JACK SHALL HAVE A 50 TON MINIMUM CAPACITY, AND SHALL BE INCIDENTAL TO ITEM 605603-REPLACING BRIDGE BEARINGS.
7. THE PRICE BID FOR ITEM 605616-MOISTURE CURED URETHANE PAINT SYSTEM (RECOATING) SHALL INCLUDE THE PAINTING OF THE NEW BEARING ASSEMBLIES.
8. THE PRICE BID FOR ITEM 602586-REHABILITATION OF CONCRETE STRUCTURES SHALL INCLUDE THE REPAIR OF THE CONCRETE SLOPE PROTECTION FOR BRIDGES 764 AND 771.
9. ALL WORK ASSOCIATED WITH CLEANING AND FLUSHING BRIDGE SCUPPERS AND BRIDGE JOINTS SHALL NOT BE MEASURED FOR PAYMENT, THE COST SHALL BE CONSIDERED INCIDENTAL TO ITEM 605622-CLEANING OF STEEL STRUCTURES BY PRESSURE WASHING.
10. FOR ITEM 602519-REPAIR OF CONCRETE BRIDGE DECK, SIDEWALK, ETC THE DEPTH OF REPAIR WILL BE TO THE TOP OF THE EXISTING REINFORCING STEEL. ADDITIONAL DEPTH REPAIR WILL BE AS DIRECTED BY THE ON SITE ENGINEER. THE PATCH WILL BE SOUNDED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE BOND PRIOR TO ACCEPTANCE. IF SOUNDING INDICATES INADEQUATE BOND THEN THE PATCH WILL BE REMOVED AND REAPPLIED BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.

PROJECT NOTES (CONTINUED)

- THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE CLEANED AND RECOATED IS 1,400 SF FOR ITEMS 605614, 605620 AND 605622.
- ITEMS 605618 AND 605620 ARE ESTIMATED QUANTITIES TO ALLOW FOR CLEANING AND RECOATING OF THE STRUCTURAL STEEL WHERE ADDITIONAL DETERIORATION HAS OCCURED SINCE THE LAST INSPECTION AND/OR AS REQUIRED AND DIRECTED BY THE ENGINEER.
- THE PRICE BID FOR ITEM 605560-DECK JOINT REPAIR, 2" SHALL INCLUDE SAW CUTTING.

EROSION CONTROL NOTES

- ALL WORK ASSOCIATED WITH THE STREAM DIVERSION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK", 1989 AND THE "DELAWARE SEDIMENT AND STORM WATER REGULATIONS, JANUARY 23, 1991.
- INSTALL SANDBAGS AT UPSTREAM END OF CELL NO. 1 TO DIVERT WATER INTO CELL NOS. 2 AND 3. THE MINIMUM HEIGHT OF THE SANDBAGS SHALL BE FOUR (4) FEET.
- INSTALL SANDBAGS AT DOWNSTREAM END OF CELL NO. 1. THE MINIMUM HEIGHT OF THE SANDBAGS SHALL BE FIVE (5) FEET.
- MINIMUM HEIGHT OF SANDBAGS SET AT ONE (1) FOOT ABOVE MEAN HIGH TIDE ELEVATION. HEIGHT TO BE ADJUSTED FOR ACTUAL FIELD CONDITIONS.
- DEWATER CELL NO. 1 BY PUMPING WATER OVER SANDBAGS.
- PERFORM REQUIRED REPAIR WORK IN CELL NO. 1.
- PROVIDE A PORTABLE SEDIMENT TANK FOR WATER CONTAMINATED BY THE REPAIR WORK. SEE EROSION AND SEDIMENT CONTROL STANDARD DETAIL E 17. DIVERT THE STORM DRAIN RUNOFF OUT OF CELL NO. 1 AND OVER THE SANDBAGS.
- IF WORK IS PERFORMED DURING RAINY PERIODS THE 24-INCH RCP STORM DRAIN OUTLET SHALL BE TEMPORARILY SEALED AND A PLASTIC PIPE SHALL BE USED TO
- AFTER ALL REPAIR WORK IS COMPLETED CLEAN ALL DEBRIS AND WASTE MATERIALS FROM CELL NO. 1.
- UPON APPROVAL OF STORM WATER ENGINEER REMOVE PORTABLE SEDIMENT TANK AND 24-INCH STORM DRAIN SEAL AND DIVERSION PIPE.
- REMOVE DOWNSTREAM SANDBAGS FIRST THEN UPSTREAM SANDBAGS.

PROJECT NOTES

MAINTENANCE OF TRAFFIC:

- THE FOLLOWING ARE THE POSSIBLE CASES AS DEPICTED IN THE MANUAL ENTITLED "DELAWARE TRAFFIC CONTROLS FOR STREETS AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS AS REVISED MARCH 1993":
 - BRIDGE 762: CASE NO. 20,
 - BRIDGE 764: CASE NO. 20,
 - BRIDGE 764: CASE NO. 26,
 - BRIDGE 771: CASE NO. 3,
 - BRIDGE 771: CASE NS. 26,

THESE ARE THE "CASES" REQUIRED FOR THIS PROJECT, CHANGING TRAFFIC CONDITIONS AND CONSTRUCTION SEQUENCE MAY WARRANT CONSIDERATION OF OTHERS.

- ALL WARNING SIGNS WILL BE 48"x48" AND REQUIRE 2 RED FLAGS.
- ALL RAMPS SHALL HAVE APPROPRIATE WARNING SIGNS AS REQUIRED.
- THE FOLLOWING CLOSURE WILL BE PERMITTED:
 - DAYTIME - 9:00 A.M. TO 3:00 P.M. MONDAY THRU THURSDAY
 - 9:00 A.M. TO 12:00 NOON FRIDAY
 - NIGHTIME - 8:00 P.M. TO 6:00 A.M. MONDAY THRU FRIDAY
- ONE TRUCK MOUNTED ATTENUATOR WILL BE REQUIRED FOR EACH LANE THAT IS CLOSED.
- ALL ARROW PANELS SHALL BE DIESEL POWERED.

STRUCTURES:

- THE REPAIRS AND REHABILITATION ITEMS FOR THIS CONTRACT CONSISTS OF FURNISHING MATERIALS, LABOR AND EQUIPMENT FOR THE COMPLETION OF THE FOLLOWING ITEMS:

BRIDGE 762 REPAIR SPALLED PEDESTAL ON PIER NO. 1, STRINGER NO. 4; CLEAN AND PAINT TWO BEARING ASSEMBLIES ON ABOVE-DESCRIBED PEDESTAL; REPAIR CRACK AND P.C.C. MASONRY OF UNDERSIDE OF PARAPET ON AND ABOVE SOUTH END OF PIER NO. 1; REPAIR SPALLED CONCRETE ON PIER NO. 2; REPAIR SPALLED AREAS OF BRIDGE DECK AND REPLACE JOINT SEALS ALL AS SHOWN ON THE PLANS. CLEAN AND FLUSH ALL SCUPPERS AND JOINTS

BRIDGE 764 REPAIR SPALLED PEDESTAL ON PIER NO. 1; STRINGER NO. 1 CLEAN AND PAINT BEARING ASSEMBLY ON ABOVE DESCRIBED PEDESTAL. REPAIR SPALLED AREA ON CONCRETE HAUNCH ABOVE EAST END OF PIER NO. 1. CLEAN AND PAINT STRINGERS; REPAIR SPALLED AREAS OF BRIDGE DECK AT JOINTS ALL AS SHOWN ON THE PLANS. REPAIR HOLE IN SLOPE PROTECTION AND SPALLED CONCRETE OF BACKWALL AT ABUTMENT B. CLEAN AND FLUSH ALL SCUPPERS AND JOINTS.

ITEM	602519	602586	605533	605560	605601	605614	605616	605618	605620	605622	711500	720527	740510	742500*	743500	743501	743504	743512	746587	746588	763000	763500	
REPAIR OF CONCRETE BRIDGE DECK, SIDEWALK, ETC.																							
REHABILITATION OF CONCRETE STRUCTURES																							
CLEANING EXISTING STEEL STRUCTURES (HAZARDOUS)																							
DECK JOINT REPAIR, 2"																							
REPLACING BRIDGE BEARING																							
CLEANING STEEL STRUCTURES WITH VACUUM POWER TOOLS (HAZARDOUS)																							
MOISTURE CURED URETHANE PAINT SYSTEM (RECOATING)																							
CLEANING STEEL STRUCTURES WITH VACUUM POWER TOOLS (HAZARDOUS)																							
MOISTURE CURED URETHANE PAINT SYSTEM (RECOATING)																							
CLEANING OF STEEL STRUCTURE BY PRESSURE WASHING																							
PORTABLE SEDIMENT TANK																							
PLASTIC DRUMS																							
SAND BAGS																							
FLAGGER, NEW CASTLE COUNTY																							
WARNING LIGHTS, TYPE A																							
WARNING LIGHTS, TYPE B																							
WARNING SIGNS																							
FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR																							
FURNISH PORTABLE LIGHT ASSEMBLY																							
MAINTAIN PORTABLE LIGHT ASSEMBLY																							
INITIAL EXPENSE																							
MAINTENANCE OF TRAFFIC																							
UNIT	C.F.	C.F.	L.S.	L.F.	EACH	L.S.	L.S.	S.F.	S.F.	L.S.	EACH	EA-DY	CY	HOUR	EA-DY	EA-DY	EACH	EA-DY	EACH	EA-DY	L.S.	L.S.	
PROJECT	50	300	L.S.	100	6	L.S.	L.S.	70	70	L.S.	1	2060	55	64	85	200	28	18	1	10	L.S.	L.S.	
TOTAL	50	300	L.S.	100	6	L.S.	L.S.	70	70	L.S.	1	2060	55	64	85	200	28	18	1	10	L.S.	L.S.	
PROPOSAL	50	300	L.S.	100	6	L.S.	L.S.	70	70	L.S.	1	2060	55	64	85	200	28	18	1	10	L.S.	L.S.	

* FIXED PRICE

QUANTITY SUMMARY

PREL. TRACING DESIGN CHKD.

DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THESE DRAWINGS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD FOR T201107402.

FRAMING PLANS BRIDGE NOS. 762, 764, 771, 826A, 826 AND PLAN BOX CULVERT NO. 828

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
7518	NEW CASTLE	N/A	3	5

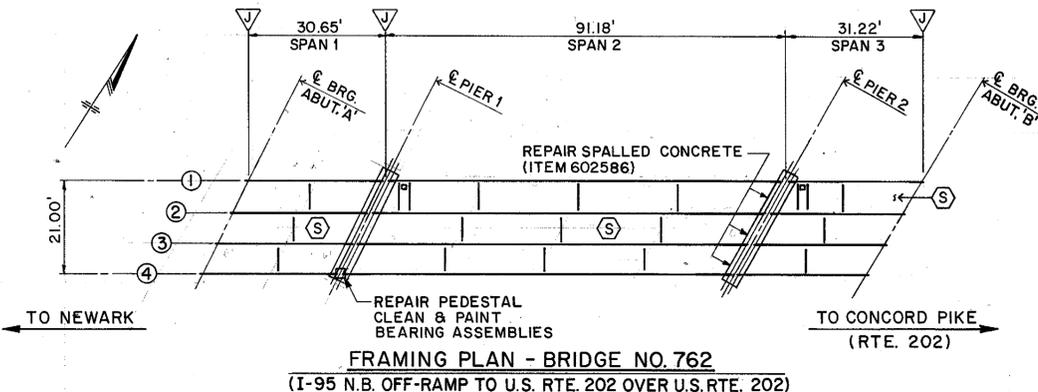
REHABILITATION OF BRIDGE NUMBERS 762, 764, 771, 826A, 826 AND BOX CULVERT NUMBER 828

REVISIONS	

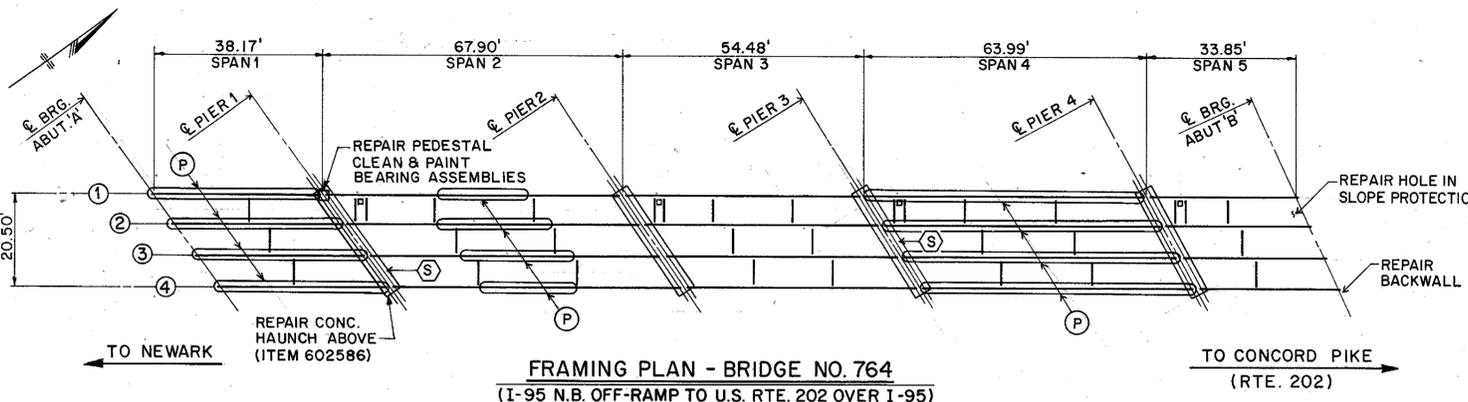
LEGEND

- DENOTES LOCATION OF PEDESTAL TO BE REPAIRED, (ITEM 602586) AND BEARING ASSEMBLIES TO BE CLEANED AND PAINTED, (ITEMS 605533 AND 605616).
- ➔ DENOTES LOCATION OF BEARINGS TO BE REPLACED AND JACKING BEAM. SEE JACKING DETAILS, SHEET NO. 4, (ITEMS 605601)
- Ⓟ DENOTES LOCATION AND APPROXIMATE LENGTH OF THE STEEL STRINGERS (BOTTOM FLANGE AND 1" UP ONTO WEB) TO BE CLEANED AND PAINTED, (ITEMS 605533 AND 605616).
- Ⓢ DENOTES APPROXIMATE LOCATION OF SPALLED AREAS OF THE BRIDGE DECK AND OTHER CONCRETE SURFACES TO BE REPAIRED, (ITEM 602519).
- ▽ DENOTES LOCATION OF JOINT SEALS TO BE REPLACED, (ITEM 605560) OTHER JOINTS SHALL BE CLEANED AND FLUSHED
- Ⓜ DENOTES LOCATION OF SCUPPERS TO BE CLEANED AND FLUSHED.

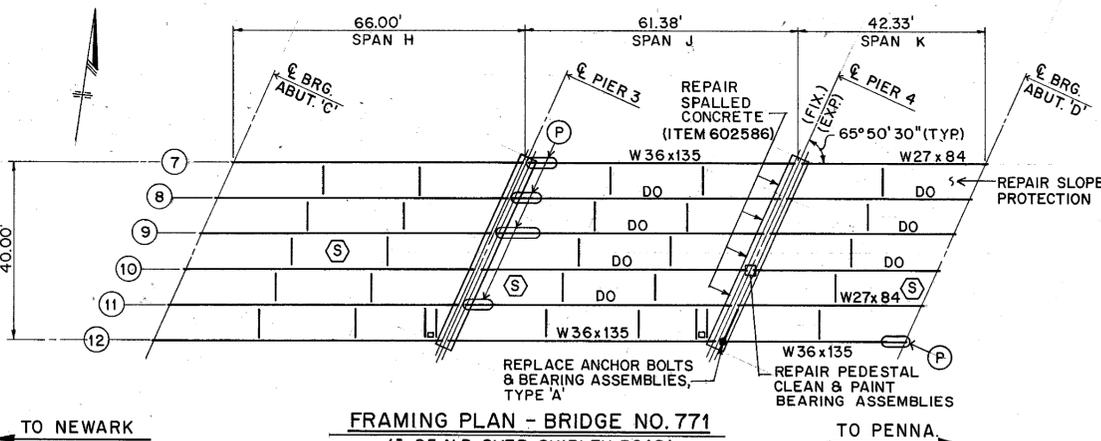
NOTE: (ITEM -----) INDICATES THE ITEMS IN THE SPECIAL PROVISIONS SECTION OF THE SPECIFICATIONS.



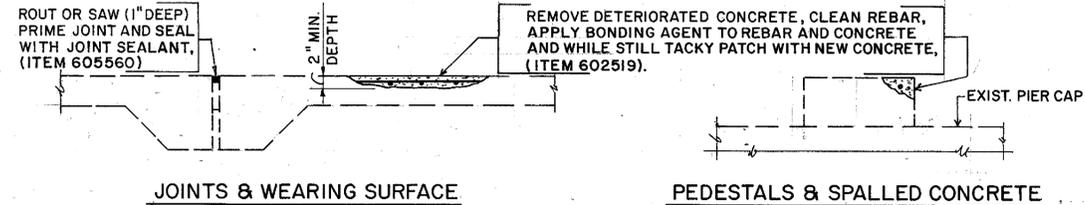
FRAMING PLAN - BRIDGE NO. 762
(I-95 N.B. OFF-RAMP TO U.S. RTE. 202 OVER U.S. RTE. 202)



FRAMING PLAN - BRIDGE NO. 764
(I-95 N.B. OFF-RAMP TO U.S. RTE. 202 OVER I-95)

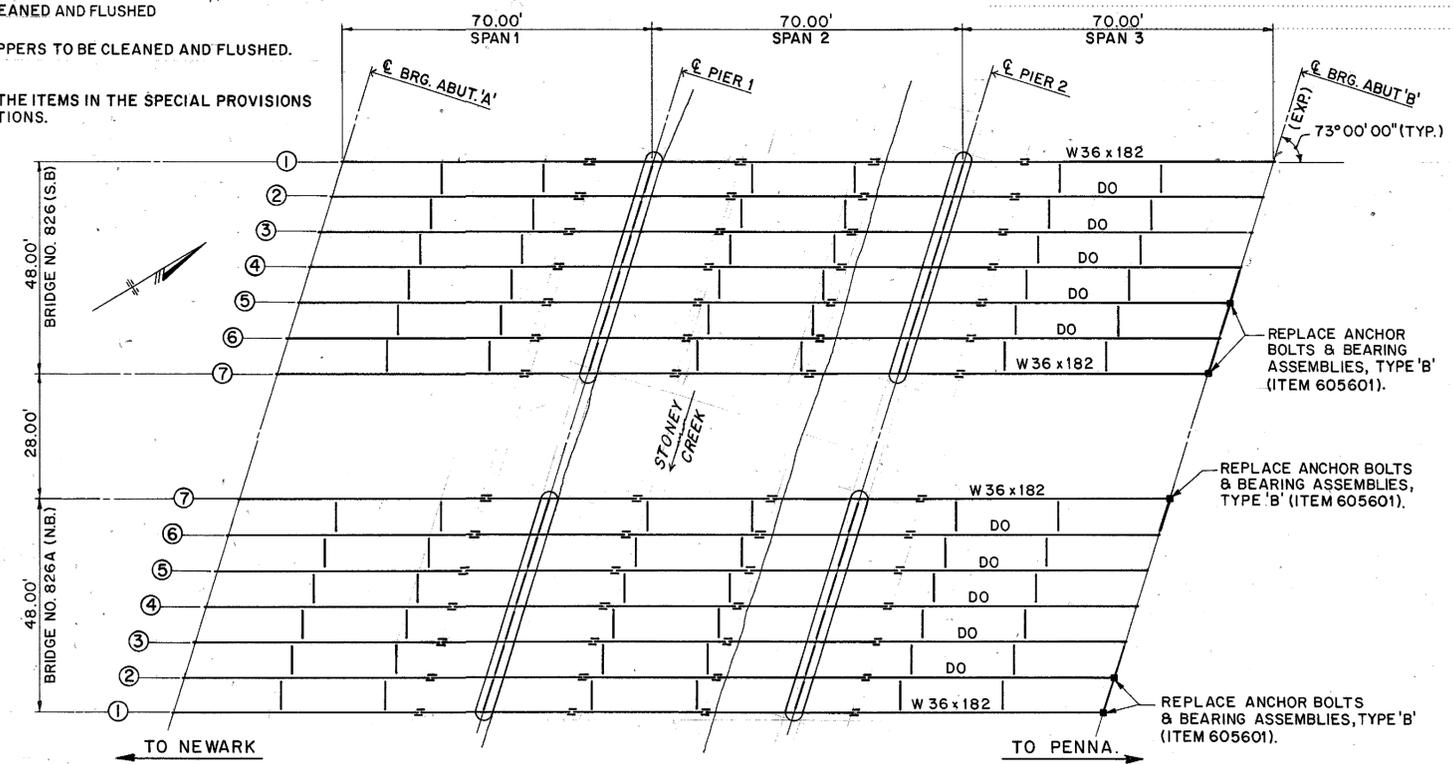


FRAMING PLAN - BRIDGE NO. 771
(I-95 N.B. OVER SHIPLEY ROAD)



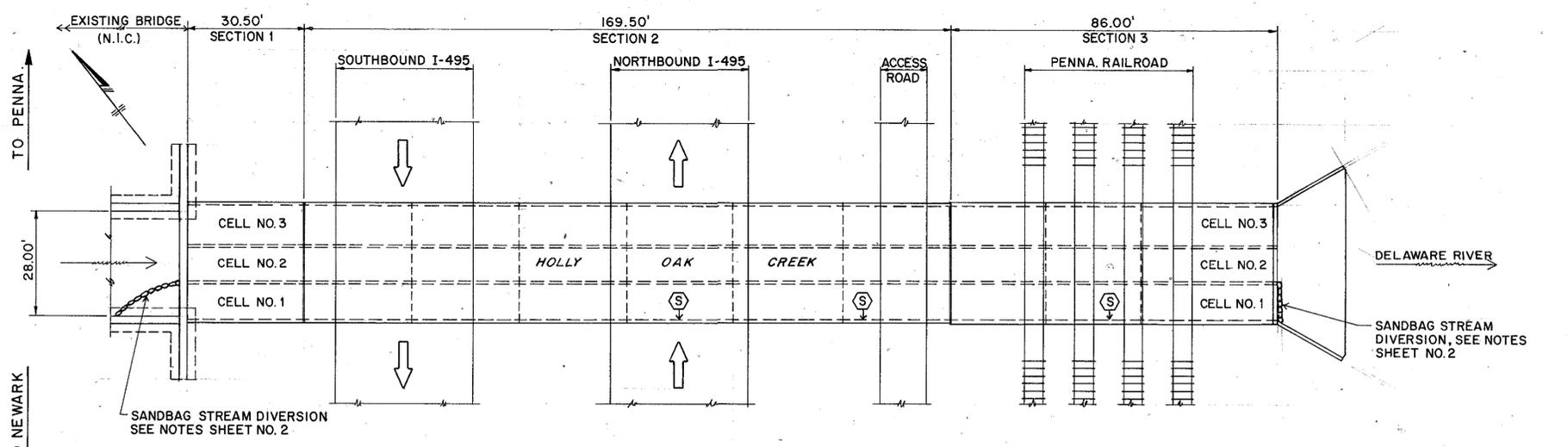
TYPICAL REPAIR DETAILS

NOTE: REPAIR SPALLED CONCRETE AT JOINTS ON BRIDGE NO. 764, (ITEM 605560).



FRAMING PLANS - BRIDGE NO. 826A (N.B.) & NO. 826 (S.B.)
(I-495 N.B. & S.B. OVER STONEY CREEK)

NOTE: CLEAN, PRIME AND PAINT BEARING ASSEMBLIES ON BRIDGE NO. 826A AT ABUT. 'B' STRINGERS NO. 3 THRU NO. 6 (ITEMS 605533 AND 605616).



PLAN - TRIPLE CELL BOX CULVERT NO. 828
(HOLLY OAK CREEK - 1,100' NORTH OF INTERSECTION OF DELAWARE AVE. & GOVERNOR PRINTZ BLVD.)

PREL. TRACING DESIGN CHKD.

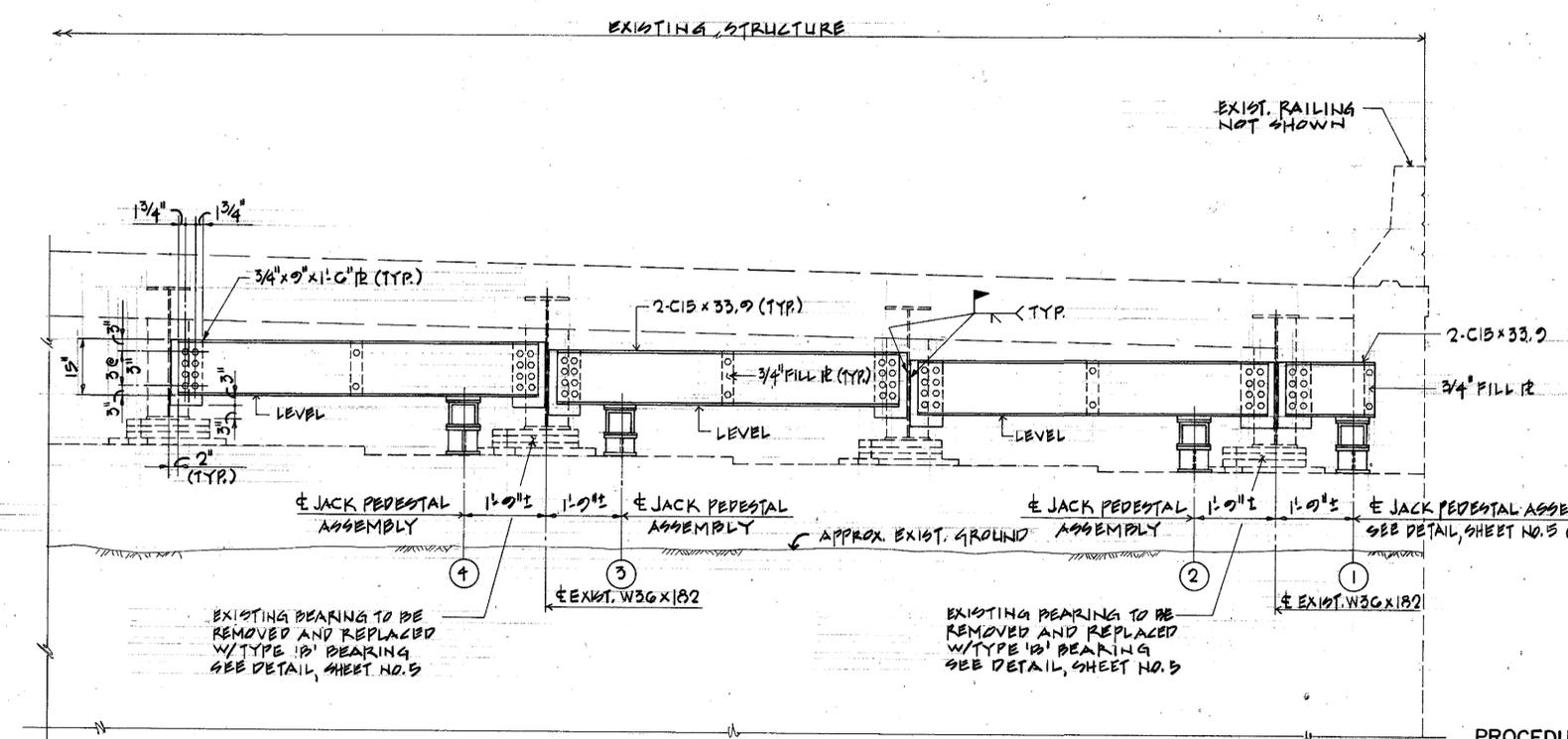
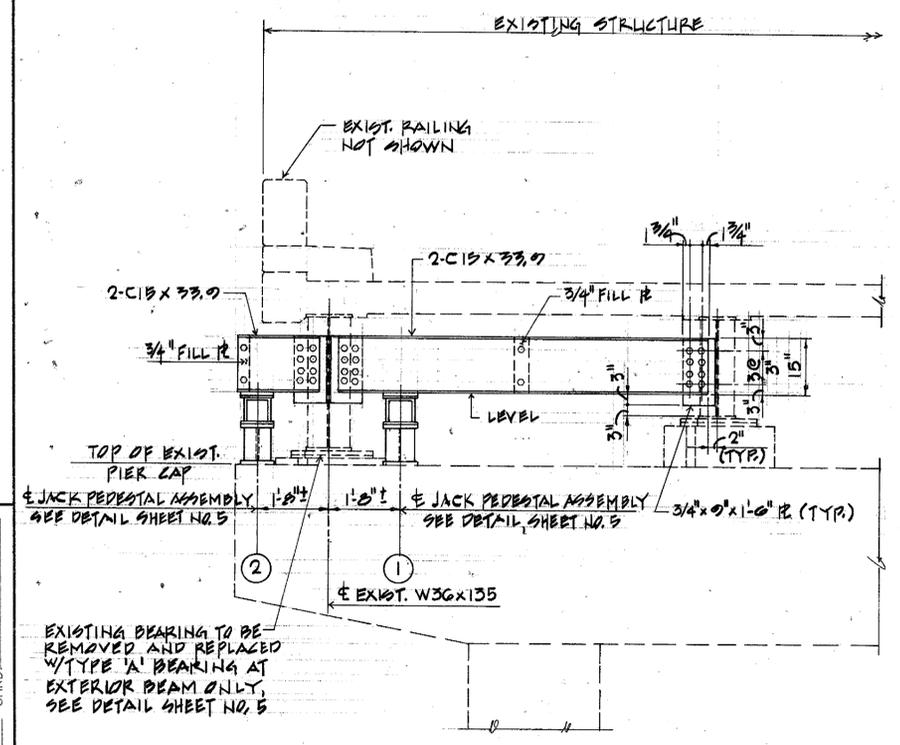
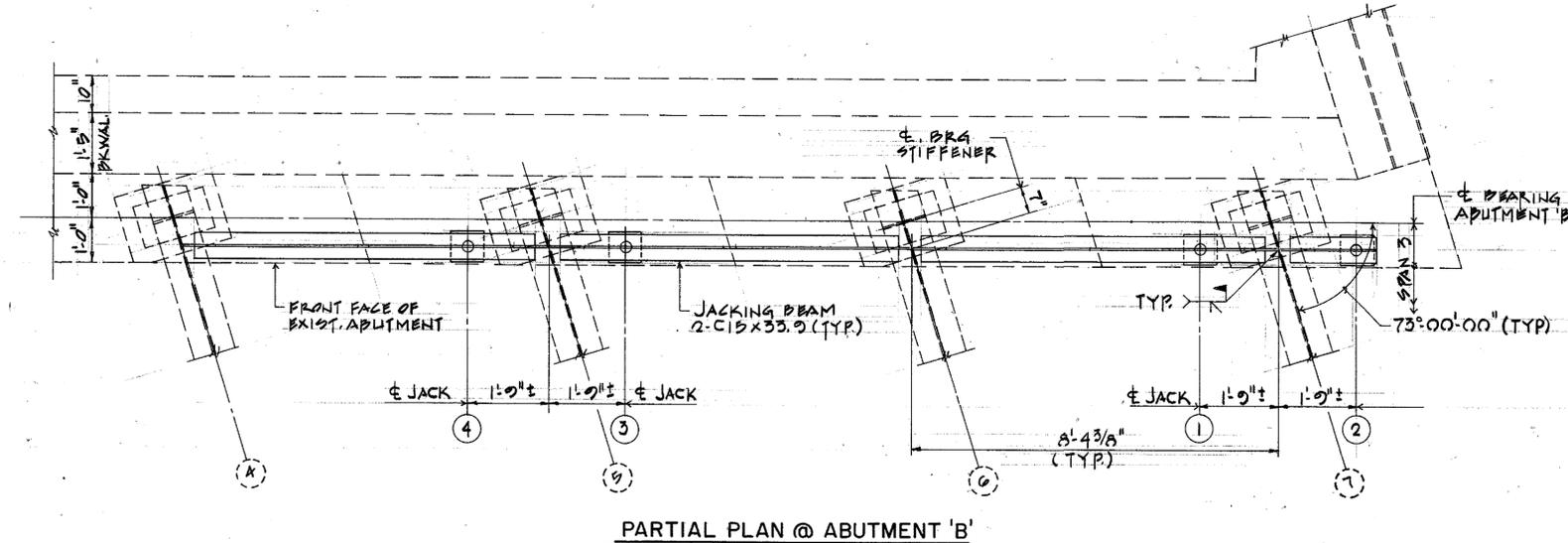
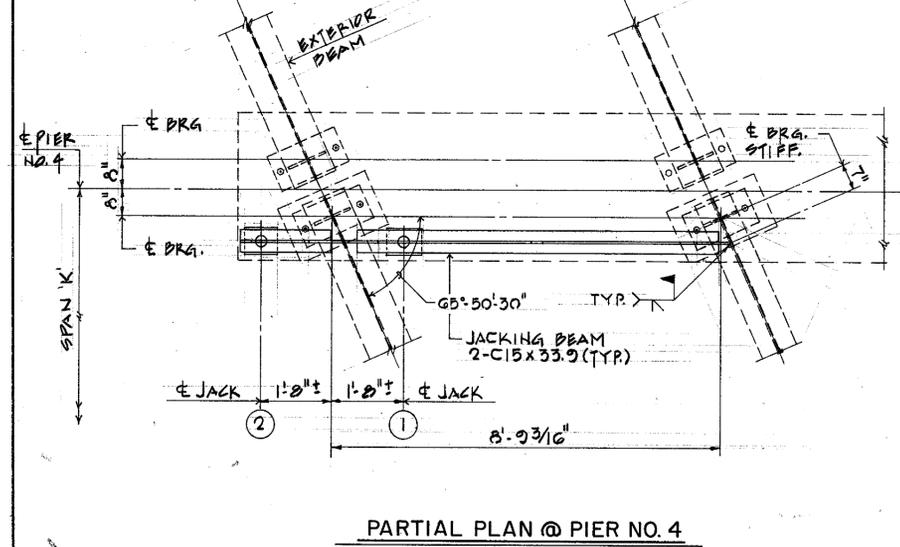
DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THESE DRAWINGS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD FOR T201107402.

JACKING DETAILS
BRIDGE NOS. 771, 826 AND 826A

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
7518	NEW CASTLE	N/A	4	5

REHABILITATION OF BRIDGE NUMBERS
762, 764, 771, 826A, 826 AND
BOX CULVERT NUMBER 828

REVISIONS



NOTE: ALL CONNECTION BOLTS SHALL BE 1\"/>

JACKING DETAILS - BRIDGE NO. 771
(SEE FRAMING PLAN SHEET NO. 3)

JACKING DETAILS - BRIDGE NO. 826 SHOWN BRIDGE NO. 826A SIMILAR
(SEE FRAMING PLAN SHEET NO. 3)

PROCEDURES FOR REPLACING EXISTING BEARINGS

1. INSTALL CONNECTION PLATES, JACKING BEAM AND JACK PEDESTAL ASSEMBLIES AS SHOWN FOR BEAM TO BE JACKED.
2. CAREFULLY JACK UNTIL ALL THE LOAD HAS BEEN REMOVED FROM THE BEARING AREA, RAISE BEAM 1/16\"/>

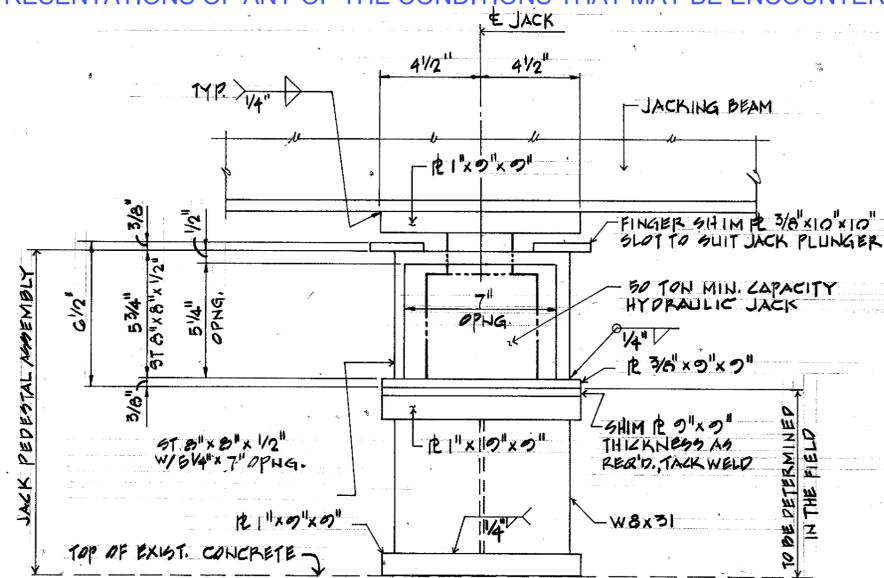
PREL. TRACING DESIGN CHKD.

DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THESE DRAWINGS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD FOR T20107402

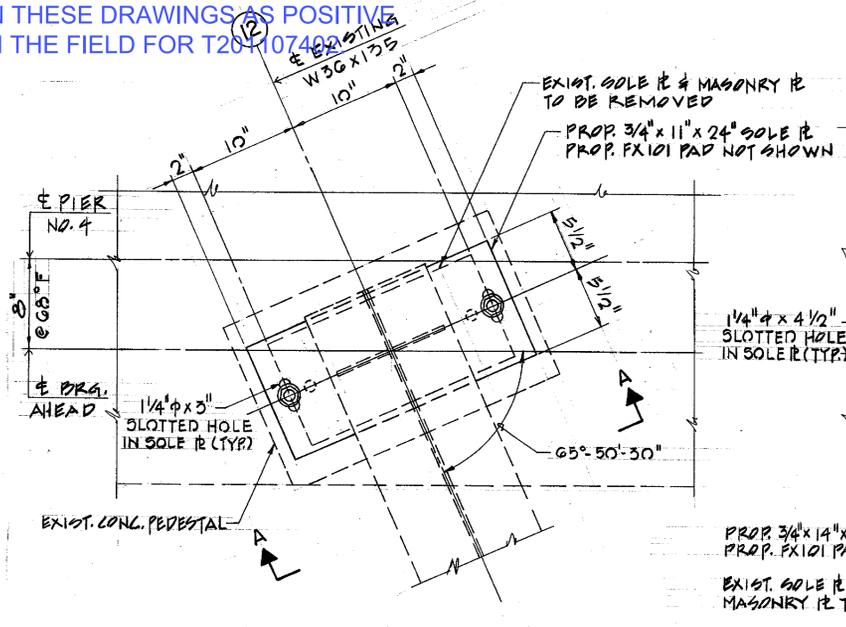
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
7518	NEW CASTLE	N/A	5	5

REHABILITATION OF BRIDGE NUMBERS 762, 764, 771, 826A, 826 AND BOX CULVERT NUMBER 828

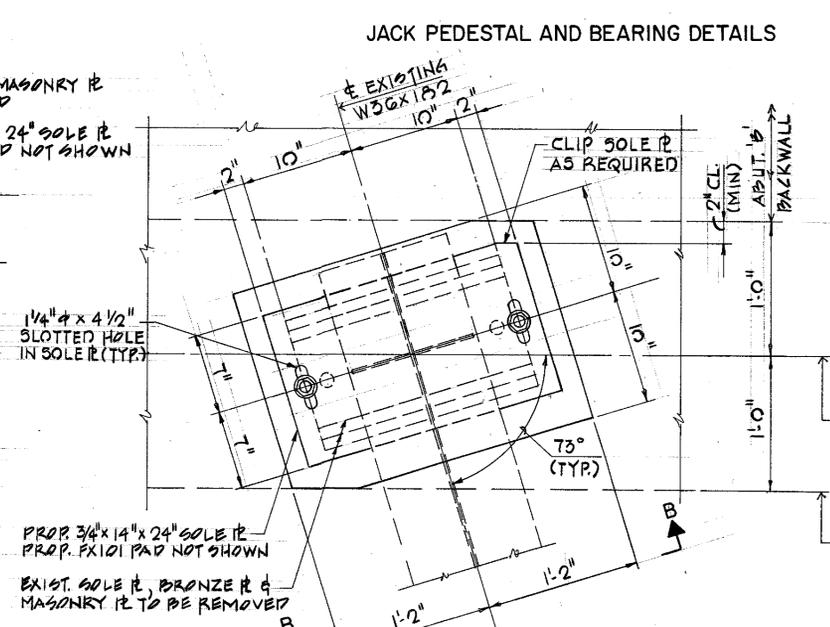
REVISIONS	



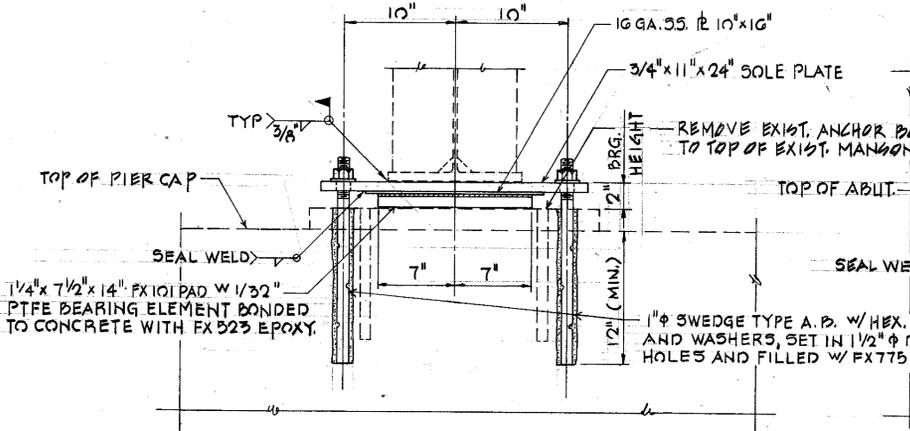
JACK PEDESTAL DETAIL
SCALE: 3/4"=1'-0"



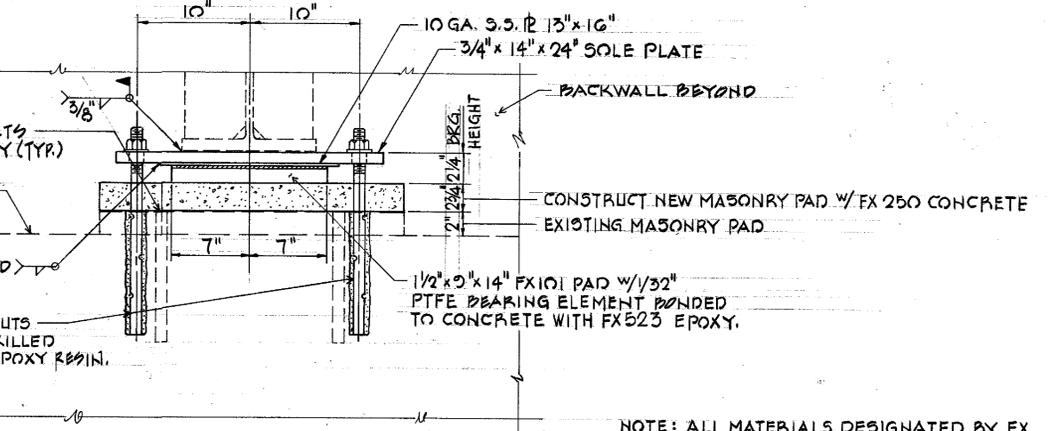
PLAN



PLAN



SECTION A-A
TYPE 'A' - BRIDGE NO. 771



SECTION B-B
TYPE 'B' - BRIDGES NO. 826A & NO. 826

BEARING DETAILS
SCALE: 1 1/2"=1'-0"

NOTE: ALL MATERIALS DESIGNATED BY FX SHALL BE AS MANUFACTURED BY FOX INDUSTRIES INC., BALTO. MD. OR AN APPROVED EQUAL.

PREL. TRACING... DESIGN... CHKD...