

The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:
[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)

Please Let Us Know If You Plan To Bid

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456



CITY OF TAMPA

STRUCTURES PLANS

LAUREL STREET BRIDGE REPAIR BRIDGE NO. 105503

CITY PROJECT NO. 4871



PROJECT LOCATION

VICINITY MAP

0 1000 2000 FT

INDEX OF DRAWINGS

- | | |
|----|------------------------|
| 1 | KEY SHEET |
| 2 | SUMMARY OF PAY ITEMS |
| 3 | GENERAL NOTES (1 OF 3) |
| 4 | GENERAL NOTES (2 OF 3) |
| 5 | GENERAL NOTES (3 OF 3) |
| 6 | PLAN AND ELEVATION |
| 7 | LOCATIONS OF WORK |
| 8 | STEEL REPAIRS (1 OF 5) |
| 9 | STEEL REPAIRS (2 OF 5) |
| 10 | STEEL REPAIRS (3 OF 5) |
| 11 | STEEL REPAIRS (4 OF 5) |
| 12 | STEEL REPAIRS (5 OF 5) |
| 13 | MAINTENANCE OF TRAFFIC |

BX-1 TO BX-53 EXISTING PLANS

COMPONENT PLANS UNDER SEPARATE COVER SHEET NO.

LIST OF REVISED INDEX DRAWINGS

INDEX NO. SHEET NO.

AUGUST 2017

DEPARTMENT OF TRANSPORTATION AND STORMWATER SERVICES

CITY OF TAMPA, FLORIDA

GOVERNING STANDARDS & SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, FY2017-18 DESIGN STANDARDS eBOOK (DSeB) AND APPLICABLE DESIGN STANDARD REVISIONS (DSRs) AT THE FOLLOWING WEBSITE:
<http://www.fdot.gov/roadway/DesignStandards/Standards.shtm>

FLORIDA DEPARTMENT OF TRANSPORTATION, JULY 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks/>

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

KCA 201 N. Franklin Street, Suite 400
KISINGER CAMPO Tampa, Florida 33602
& ASSOCIATES Florida Certificate of Authorization No. 02317

APPROVED BY:

ALTAFHUSEN BUKHARI, P.E.
PROJECT ENGINEER
DEPARTMENT OF TRANSPORTATION AND STORMWATER SERVICES

CERTIFICATE OF LICENSE

Sheet 1 to 13 Inclusive, Certified By:

DAVID B. THOMPSON, P.E.
P.E. No 45403

NO 45403
STATE OF FLORIDA
PROFESSIONAL ENGINEER
10-25-17

LAUREL STREET BRIDGE REPAIR

ITEM NUMBER	ITEM DESCRIPTION
101- 1	MOBILIZATION
102- 1	MAINTENANCE OF TRAFFIC
460- 1- 15	STRUCTURAL STEEL REHAB, MISCELLANEOUS
460-81	RIVETS-HIGH STRENGTH BOLTS, REPLACE
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)

UNIT	QUANTITY
LS	1
LS	1
LB	3,060
LB	20
LS	1



NOTE:
THE CITY OF TAMPA RESERVES THE RIGHT TO REMOVE
ANY PORTION OF THE WORK.

BRIDGE NO. 105503

REVISIONS						ENGINEER OF RECORD, Kisinger Campo and Associates Corp. One Tampa City Center 201 N. Franklin St., Suite 400 TAMPA, FLORIDA 33602 FL Certificate of Authorization No. 0237 David B. Thompson, P.E. No. 45403	LOGO:  KISINGER CAMPO & ASSOCIATES	 CITY OF TAMPA	SUMMARY OF PAY ITEMS		SHEET NO. 2
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				PROJECT NAME:		
									LAUREL STREET BRIDGE REPAIR		

BRIDGE PLAT STATION TEXT BRIDGE

DESIGN SPECIFICATIONS:

- 1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS. (7TH EDITION) AND APPROVED INTERIMS AS SPECIFIED IN THE STRUCTURES DESIGN GUIDELINES.
- 2. AASHTO LRFD MOVABLE HIGHWAY BRIDGE DESIGN SPECIFICATIONS (2ND EDITION) INCLUDING THE CURRENT INTERIM REVISIONS.
- 3. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STRUCTURES MANUAL (JANUARY 2017 EDITION).
- 4. FDOT PLANS PREPARATION MANUAL (JANUARY 2017 EDITION).
- 5. MEMBERS REPLACED IN KIND SHALL CONFORM TO THE SPECIFICATIONS OF THE ORIGINAL DESIGN.

PRIMARY SCOPE OF WORK:

THE WORK UNDER THIS CONTRACT IS FOR REPLACEMENT AND STRUCTURAL STEEL REPAIRS REQUIRED FOR REHABILITATION OF A SINGLE-LEAF BASCULE BRIDGE.

SITE VISIT:

ALL BIDDERS MUST CONDUCT A SITE VISIT PRIOR TO BID TO BECOME FAMILIAR WITH THE SPECIFIED SCOPE OF WORK.

DRAWINGS AND DIMENSIONS:

- 1. BRIDGE ELEMENT NUMBERING IS BASED FIRST ON THE DIRECTION OF STATIONING AND THEN ORIENTED FROM LEFT TO RIGHT. MAY NOT CORRESPOND TO NOMENCLATURE IN EXISTING PLANS.
- 2. DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT GIVEN.
- 3. VERIFY ALL EXISTING FIELD CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING REPAIRS OR ORDERING ANY MATERIALS. NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND.

MATERIAL PRODUCTS:

- 1. EXCEPT FOR THOSE MATERIAL PRODUCTS SPECIFICALLY CALLED FOR IN THE PLANS AND SPECIFICATIONS, ALL MATERIAL PRODUCTS SPECIFIED FOR THIS PROJECT SHALL BE ON THE FDOT APPROVED PRODUCTS LIST.
- 2. MATERIALS MEETING THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL:

UNLESS MEMBER IS DESIGNATED OTHERWISE IN EXISTING PLANS AND REQUIRES HIGHER GRADE TO REPLACE IN KIND, ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ASTM A709, GRADE 36 (AASHTO DESIGNATION M270, GRADE 361). MAXIMUM ULTIMATE DESIGN STRESSES ARE AS FOLLOWS:

GRADE 36
TENSION 36,000 PSI
SHEAR 21,000 PSI

STEEL CONNECTIONS

- 1. ALL BOLTED CONNECTIONS FOR STRUCTURAL STEEL (SHOP OR FIELD) SHALL BE MADE WITH 7/8" DIAMETER ASTM A325 (TYPE 1) HIGH STRENGTH BOLTS PLACED IN 15/16" DIAMETER HOLES (UNLESS OTHERWISE NOTED). BEVELED PLATE WASHERS SHALL BE UTILIZED AT TAPERED FLANGE SURFACES. HIGH STRENGTH BOLTS AND THEIR COMPATIBLE NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50. THE NUTS SHALL BE OVERTAPPED TO THE MINIMUM AMOUNT REQUIRED FOR THE FASTENER ASSEMBLY AND SHALL BE LUBRICATED WITH A LUBRICANT CONTAINING A VISIBLE DYE SO A VISUAL CHECK CAN BE MADE FOR THE LUBRICANT AT THE TIME OF THE INSTALLATION. STEEL CONNECTION COMPUTED RESISTANCE IS BASED ON A CLASS A (SLIP COEFFICIENT 0.33) CONTACT SURFACE PER AASHTO.
- 2. NO EXISTING RIVETS, BOLTS, WASHERS, OR NUTS SHALL BE REUSED.
- 3. NEW BOLTS SHALL BE TENSIONED PER SECTION 460 OF THE FDOT STANDARD SPECIFICATIONS.
- 4. NEW STEEL ELEMENTS SHALL BE FABRICATED WITH BOLT HOLES, TO BE SHOP OR FIELD DRILLED AS DETAILED IN THE CONTRACTOR'S REQUIRED SUBMITTAL OF SHOP DRAWINGS FOR THE REPAIRS. DO NOT FABRICATE NEW STEEL ELEMENTS UNTIL THE REQUIRED SHOP DRAWINGS ARE APPROVED BY THE ENGINEER.
- 5. FIELD WELDING SHALL NOT BE ALLOWED FOR MAKING REPAIRS EXCEPT AS NOTED HEREIN OR AS APPROVED BY THE ENGINEER. CONTRACTOR TO SUBMIT PROPOSED WELDING PROCEDURES & WELDER QUALIFICATIONS FOR APPROVAL BY THE ENGINEER.
- 6. WHERE THE NUMBER OF BOLTS IN A CONNECTION ARE NOT SPECIFIED, VERIFY THE NUMBER REQUIRED IN THE FIELD AND SUBMIT TO THE ENGINEER FOR APPROVAL.

CHARPY V-NOTCH:

ALL ASTM A709 STRUCTURAL STEEL AS DESIGNATED ON THE PLANS SHALL RECEIVE CHARPY V-NOTCH TESTING IN ACCORDANCE WITH ASTM A709. ALL OTHER STRUCTURAL STEEL SHALL MEET THE CHARPY V-NOTCH TEST REQUIREMENTS SPECIFIED IN SPECIFICATIONS SECTION 962.

RIVET AND BOLT REPLACEMENT:

- 1. SUBMIT TO THE ENGINEER FOR APPROVAL THE PROPOSED METHOD FOR EXISTING RIVET REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION 5-1 OF THE FDOT STANDARD SPECIFICATIONS.
- 2. IN THE EVENT THAT THE ENGINEER DETERMINES THAT RIVET REMOVAL WORK IS RESULTING IN DAMAGE TO THE EXISTING STEEL, THE CONTRACTOR SHALL CEASE RIVET REMOVAL OPERATIONS AND SUBMIT A NEW METHOD OF REMOVAL FOR APPROVAL BY THE ENGINEER.
- 3. RIVETS TO BE REMOVED SHALL HAVE THEIR HEAD(S) CHIPPED OFF AND THE SHANK DRIVEN, DRILLED, CORED, OR JACKED OUT AS REQUIRED. CARE SHALL BE TAKEN NOT TO DAMAGE REMAINING MATERIAL. BURNING WILL NOT BE PERMITTED. HEAT RESULTING FROM ANY REMOVAL METHOD SHALL NOT DAMAGE RIVET HOLES OR THE SURROUNDING MATERIALS.
- 4. WHERE EXISTING RIVETS ARE REMOVED, AND THE RESULTING HOLES REQUIRE ENLARGEMENT, THE HOLES SHALL BE ENLARGED BY NOT MORE THAN 1/16" IN DIAMETER GREATER THAN THE NOMINAL BOLT DIAMETER SHOWN IN THE PLANS. HOLE ENLARGEMENT, WHERE REQUIRED, SHALL BE ACCOMPLISHED BY REAMING.
- 5. AT LOCATIONS WHERE THE RIVET HOLE AREA CONTAINS CRACKED, TORN, OR OTHERWISE DAMAGED MATERIAL DUE TO CONDITIONS OTHER THAN THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REAM THE HOLE AND INSTALL AN OVERSIZED BOLT.
- 6. AT LOCATIONS WHERE SURROUNDING MATERIAL HAS BEEN DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS, THE SURROUNDING MATERIAL SHALL BE REPAIRED. WHEN REAMING OF MORE THAN 1/16" IN DIAMETER GREATER THAN THE NOMINAL BOLT DIAMETER SHOWN ON THE PLANS AND INSTALLING AN OVERSIZE BOLT IS REQUIRED FOR THE REPAIR, THE REAMING, FURNISHING, AND INSTALLING OF OVERSIZED BOLTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 7. INSIDE SURFACES OF HOLES EXPOSED AFTER RIVET REMOVAL SHALL BE PAINTED IN ACCORDANCE WITH SECTIONS 560 AND 975 OF THE FDOT STANDARD SPECIFICATIONS.
- 8. NO SEPARATE MEASUREMENT OR PAYMENT IS MADE FOR RIVETS OR BOLTS THAT ARE REPLACED BY HIGH STRENGTH BOLTS THAT ARE ASSOCIATED WITH STEEL REPAIRS DETAILED IN THE PLANS AND THE CONTRACTOR'S APPROVED SHOP DRAWINGS.
- 9. SEVERELY DETERIORATED RIVETS AND BOLTS AT LOCATIONS NOT SPECIFICALLY ASSOCIATED WITH STEEL REPAIRS SHALL BE IDENTIFIED BY CONTRACTOR FOR PROPOSED REPLACEMENT, SUBJECT TO APPROVAL BY THE ENGINEER.

CLEANING AND COATING EXISTING AND NEW STEEL:

- 1. AT THE LOCATIONS OF THE REQUIRED STEEL REPAIRS, THE EXISTING ADJACENT LOCALIZED STEEL SURFACES (TO REMAIN) SHALL BE CLEANED, INCLUDING THOSE SURFACES EXPOSED UPON THE REMOVAL OF STEEL ELEMENTS TO BE REPLACED, PER THE REQUIREMENTS OF SECTION 561 OF THE FDOT STANDARD SPECIFICATIONS.
- 2. LOCALIZED CLEANING OF STEEL SURFACES IS TO BE ACCOMPLISHED BY MEANS WHICH PROVIDE FULL CONTAINMENT AND COLLECTION OF MATERIALS AT THE WORK SURFACES, SUCH AS PROVIDED BY NEEDLE-GUNS WITH VACUUM-HEAD ATTACHMENTS.
- 3. EXISTING STEEL SURFACES THAT HAVE BEEN CLEANED PER THE SPECIFICATIONS AND APPROVED BY THE ENGINEER, SHALL BE FIELD PAINTED WITH A PRIMER COAT, FROM THOSE APPROVED PRODUCTS ON THE FDOT APPROVED PRODUCTS LIST.
- 4. NEW STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH ITS PRIMER COAT PER THE REQUIREMENTS OF SECTION 560 OF THE FDOT STANDARD SPECIFICATIONS.
- 5. CLEANING OF THE EXISTING STEEL REFERS TO A SSPC SP11 "POWER TOOL CLEANING TO BARE METAL".
- 6. COATINGS ON THE EXISTING AND NEWLY INSTALLED STRUCTURAL STEEL THAT HAVE BEEN DISTURBED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS, AS IDENTIFIED BY THE ENGINEER, SHALL BE COATED OR RECOATED PER THE REQUIREMENTS OF FDOT SPECIFICATIONS 560 AND 561.
- 7. PREPARE FAYING SURFACES IN REPAIR AREAS OF EXISTING STEEL BY CLEANING AND COATING IN ACCORDANCE WITH FDOT SPECIFICATION 460-5.4.2. ALL FAYING SURFACES SHALL BE PRIME COATED ONLY.
- 8. PROVIDE A MINIMUM CLASS 2A CONTAINMENT WHEN ABRASIVE BLAST CLEANING. PROVIDE A MINIMUM CLASS 2W CONTAINMENT DURING WET CLEANING AND WASHING PROCEDURES.
- 9. THE APPLIED COATING SYSTEM SHALL BE A THREE COAT SYSTEM IN ACCORDANCE WITH FDOT SPECIFICATION 975. PAINT COLOR SHALL BE "ANSI #70 GRAY", OR APPROVED SIMILAR. SUBMIT PAINT COLOR AND MANUFACTURER FOR APPROVAL FROM CITY PRIOR TO ORDERING PAINT.

STRUCTURAL STABILITY AND ALIGNMENT:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY AND ALIGNMENT OF THE BASCULE LEAF, TRUNNION TOWERS, AND ATTACHED MEMBERS DURING REPAIRS AND MODIFICATIONS, AND SHALL STAGE THE WORK AND/OR FURNISH AND INSTALL TEMPORARY RESTRAINTS OR OTHER DEVICES AS REQUIRED TO MAINTAIN THE STABILITY AND ALIGNMENT WHILE THE REPAIRS AND MODIFICATIONS ARE PERFORMED.
- 2. SURVEY AND MAKE OTHER MEASUREMENTS AS NECESSARY TO RECORD THE ALIGNMENT BEFORE AND AFTER THE REPAIRS AND MODIFICATIONS ARE PERFORMED TO DEMONSTRATE THAT THE ALIGNMENT OF THE BASCULE LEAF STEEL FRAMING, TRUNNIONS, AND DRIVE MACHINERY HAS BEEN RESTORED OR MAINTAINED WITHIN SPECIFIED TOLERANCES.
- 3. TEMPORARY SHORING AND BRACING REQUIRED FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WITH SHOP DRAWINGS TO BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE CONTRACTOR BEGINNING REMOVAL OF EXISTING STEEL.

BRIDGE NO.105503



REVISIONS						ENGINEER OF RECORD Kisinger Campo and Associates Corp. One Tampa City Center 201 N. Franklin St., Suite 400 TAMPA, FL 33602 FL Certificate of Authorization No. 02317 David B. Thompson, P.E. No. 45403	LOGO 		CITY OF TAMPA	SHEET 11 OF 11	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					GENERAL NOTES (1 OF 3)	
										PROJECT NAME	
										LAUREL STREET BRIDGE REPAIR	
										SHEET NO.	
										3	

***** PLOT STATION TEXT HERE *****

STRUCTURAL STEEL REPAIRS:

- 1. REPAIR PLANS ARE BASED ON INFORMATION PROVIDED IN THE EXISTING PLANS. SHOULD INFORMATION SHOWN IN PLANS CONFLICT WITH FIELD MEASUREMENTS OR MATERIALS CONTACT THE ENGINEER PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH REPAIR.
- 2. IF ANY STEEL PLATES ADJACENT TO THE REPAIR PLATE LOCATIONS MUST BE REMOVED FOR ADEQUATE REPAIR ACCESS, SUBMIT A PROCEDURE OF PLATE REMOVAL FOR APPROVAL FROM THE ENGINEER BEFORE REMOVING ANY PLATE.

WELDING:

- 1. WELDING DETAILS AND OPERATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE. WELDING PROCEDURES SHALL BE SUBMITTED AND APPROVED PRIOR TO WELDING ON THE PROJECT. WELDS REQUIRING NON-DESTRUCTIVE TESTING SHALL BE RADIOGRAPHICALLY INSPECTED, EXCEPT WHERE THE GEOMETRY OF THE REGION OF THE WELD WILL NOT PERMIT SATISFACTORY INFORMATION TO BE SECURED FOR VERIFICATION OF THE WELD QUALITY. WHEN SUCH GEOMETRICAL CONDITIONS EXIST, OTHER INSPECTION PROCEDURES OR COMBINATIONS OF PROCEDURES SUCH AS ULTRASONIC INSPECTION, DYE PENETRANT INSPECTION, AND/OR MAGNETIC PARTICLE INSPECTION, SHALL BE USED. NON-DESTRUCTIVE TESTING SHALL BE PERFORMED AS REQUIRED BY THE CURRENT EDITION OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE.
- 2. FIELD WELDING TO ANY STRUCTURAL STEEL FOR THE PURPOSE OF ATTACHING ERECTION HARDWARE SHALL NOT BE PERMITTED, UNLESS OTHERWISE SHOWN. SHEAR CONNECTOR INSTALLATION IS GOVERNED BY OSHA STEEL ERECTION RULE.

UTILITIES:

- 1. NO UTILITY ADJUSTMENTS OR RELOCATION WORK IS ANTICIPATED. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION.
- 2. CONTACT SUNSHINE AT (800) 432-4770 AND ANY OTHER LOCAL UTILITIES TO VERIFY EXISTING UTILITIES AT SITE OF CONSTRUCTION.
- 3. PROTECT UTILITIES DURING ALL PHASES OF CONSTRUCTION. IF ANY EXISTING UTILITIES CONFLICT WITH PROPOSED CONSTRUCTION METHODS, MATERIALS, OR EQUIPMENT, NOTIFY THE ENGINEER.
- 4. SPECIAL ATTENTION SHALL BE GIVEN TO NOT DAMAGE THE SUBMARINE CABLE ACROSS THE CHANNEL.

DATUM:

ALL ELEVATIONS REFER TO NGVD 1929 UNLESS OTHERWISE NOTED.

POLLUTION CONTROL:

- 1. SUBMIT A POLLUTION CONTROL PLAN TO THE ENGINEER, IN ACCORDANCE WITH THE SPECIFICATIONS, FOR APPROVAL PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
- 2. DO NOT ALLOW, AT ANY TIME, ANY DISCHARGE OR MATERIALS TO FALL INTO THE WATER.
- 3. SUBMIT TO THE ENGINEER AN EROSION CONTROL PLAN (ECP) AS REQUIRED IN THE SPECIFICATIONS. THIS ECP SHALL INCLUDE THE AREA REQUIRED FOR STAGING OF EQUIPMENT AND MATERIAL.

SITE CONDITIONS:

- 1. BE AWARE OF THE SITE CONDITIONS WITH REGARD TO WATER DEPTH. NATURAL HABITAT SHALL NOT BE DISTURBED.
- 2. MAINTAIN THE STABILITY OF THE STRUCTURE AT ALL TIMES DURING REPAIR PROCEDURES.
- 3. ISOLATE WORK SITES FROM PUBLIC ACCESS WITH BARRICADES, FENCING, OR OTHER MATERIALS AS APPROVED BY THE CITY.
- 4. PROVIDE SAFE ACCESS TO ALL WORK AREAS FOR INSPECTION PERSONNEL.
- 5. BARGES, SCAFFOLDING AND EQUIPMENT MAY BE TEMPORARILY TIED OFF TO THE STRUCTURE IN ACCORDANCE WITH THE SPECIFICATIONS. ANY DAMAGE INCURRED AS A RESULT OF THESE PROCEDURES IS THE RESPONSIBILITY OF THE CONTRACTOR.

BRIDGE BALANCING:

THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY AND STRUCTURAL INTEGRITY OF THE BRIDGE AND SHALL MAINTAIN THE BALANCED CONDITION OF THE SINGLE LEAF THROUGHOUT THE COURSE OF THE REPAIR WORK. ALL INTERIM WORK REQUIRED TO MAINTAIN LEAF BALANCE SHALL BE INCIDENTAL TO THE INDIVIDUAL REPAIR ITEMS. AFTER COMPLETION OF ALL REPAIR TASKS, THE LEAF IS TO BE ACCURATELY BALANCED. THIS WORK SHALL BE COVERED UNDER THE PAY ITEM FOR STRUCTURAL STEEL REPAIR, 460-1-15.

EXISTING PLANS:

EXISTING PLANS INCLUDED WITH PLANS SET ARE INCLUDED FOR REFERENCE AND INFORMATION ONLY (MODIFICATIONS TO THE STRUCTURE MAY HAVE OCCURRED THAT ARE NOT REFLECTED IN EXISTING PLANS). ALL ASPECTS OF WORK IDENTIFIED IN EXISTING PLANS DOES NOT INDICATE WORK TO BE PERFORMED UNDER THIS CONTRACT.

ASBESTOS SURVEY:

THE FOLLOWING INFORMATION IS PROVIDED FROM AN ASBESTOS SURVEY COMPLETED BY APOLLO ENVIRONMENTAL, INC. IN DECEMBER 2006 AS WELL AS AN EMERGENCY REPAIR CONDUCTED IN 2014. A COPY OF THE REPORT WILL BE ONSITE DURING CONSTRUCTION ACTIVITIES. THE AREAS IN THE REPORT DESIGNATED AS CONTAINING ASBESTOS WHICH HAVE NOT BEEN REMOVED BY THE 2014 REPAIR (SUMMARIZED IN THE TABLE BELOW) SHALL NOT BE DISTURBED BY ANY CONSTRUCTION PROCEDURES. IF OTHER SUSPECTED MATERIALS ARE FOUND THAT WERE NOT INCLUDED IN THE REPORT, ANALYSIS OF MATERIALS WILL BE REQUIRED BY THE CITY PRIOR TO ITS DISTURBANCE.

ASBESTOS CONTAINING MATERIALS SUMMARY TABLE		
BETWEEN SHEET METAL LAYERS OF BRIDGE ELECTRIC LOCK MECHANICAL BOX ON NORTH UNDERSIDE OF BRIDGE AND MANUAL LOCK BOX	TAR PAPER GASKETS (ACM)	180 SF

TRAFFIC CONTROL:

- 1. MAINTAIN TRAFFIC IN ACCORDANCE WITH FDOT DESIGN STANDARDS, INDEX 600 SERIES.
- 2. PREPARE AND SUBMIT AN MOT PLAN, SIGNED AND SEALED BY A REGISTERED FLORIDA PROFESSIONAL ENGINEER FOR ALL ANTICIPATED TRAFFIC DISRUPTIONS INCLUDING LANE CLOSURES, SIDEWALK CLOSURES, MARINE TRAFFIC, PEDESTRIAN TRAFFIC, VEHICLE TRAFFIC, AND DETOURS.

COAST GUARD:

- 1. NOTIFY SEVENTH DISTRICT COAST GUARD ADMINISTRATIVE OFFICE IN MIAMI, FLORIDA ((305) 415-6800) 60 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- 2. NOTIFY THE US COAST GUARD MARINE SAFETY OFFICE IN TAMPA ((813) 228-2189) 60 DAYS IN ADVANCE OF ACTIONS DURING BRIDGE CONSTRUCTION OR DEMOLITION THAT COULD POTENTIALLY AFFECT WATERWAY USERS AND PRIOR TO PLACEMENT OF ANY PAINT CONTAINMENT OR FLOATING CONSTRUCTION EQUIPMENT IN THE WATERWAY.

PERMITS:

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ADDITIONAL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

MARINE TRAFFIC:

BE RESPONSIBLE FOR MAINTAINING ALL MARINE TRAFFIC THROUGHOUT CONSTRUCTION INCLUDING NAVIGATION LIGHTS AND SIGNS.

MARINE SAFETY:

PROVIDE A SAFETY BOAT TO ENSURE WORKER SAFETY OVER WATER.

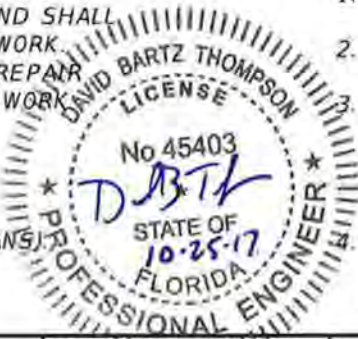
BRIDGE OPERATION

CONTACT THE CITY OF TAMPA AT (813) 323-8422 TO COORDINATE OPERATING AND MAINTENANCE RELATED ISSUES PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL OPERATE AND MAINTAIN THE BRIDGE THROUGHOUT THE CONSTRUCTION DURATION.

PAY ITEM NOTES:

- 1. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BID ITEMS CONTAINED IN THIS CONTRACT.
- 2. THE COST OF FURNISHING AND INSTALLING THE MANATEE SIGNS SHALL BE INCLUDED IN PAY ITEM 101-1, MOBILIZATION.
- 3. PAY ITEM 460-1-15, STRUCTURAL STEEL - REHABILITATION, MISCELLANEOUS INCLUDES THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING STEEL TO BE REMOVED. ALL COSTS ASSOCIATED WITH REPAIRING STEEL MEMBERS INCLUDING MATERIALS, EQUIPMENT, LABOR, FASTENERS, CLEANING, COATING, TEMPORARY SHORING, AND ANY OTHER ITEMS ASSOCIATED WITH REPLACING STEEL MEMBERS IS INCLUDED IN PAY ITEM 460-1-15.
- 4. STRUCTURAL STEEL REPAIRS MAY REQUIRE THE DISASSEMBLY AND RE-INSTALLATION OF ADJACENT STEEL ELEMENTS. ALL COSTS ASSOCIATED WITH DISASSEMBLY AND RE-INSTALLATION OF ADJACENT ELEMENTS, INCLUDING FASTENERS, IS INCLUDED IN PAY ITEM 460-1-15.

BRIDGE NO. 105503



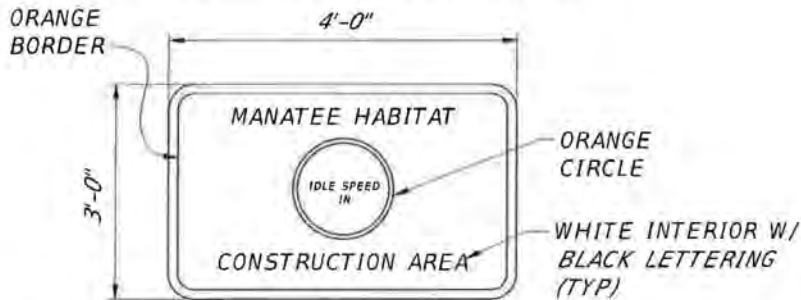
REVISIONS						ENGINEER OF RECORD: Kisinger Campo and Associates Corp. One Tampa City Center 201 N. Franklin St., Suite 400 TAMPA, FLORIDA 33602 FL Certificate of Authorization No. 02317 David B. Thompson, P.E. No. 45403	LOGO: 		GENERAL NOTES (2 OF 3)		SHEET NO. 4
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
					DRAWN BY	PDM	03/17				
					CHECKED BY	SAB	04/17				
					DESIGNED BY	PDM	03/17				
					CHECKED BY	SAB	04/17				
					APPROVED BY	D. B. THOMPSON					

SPECIAL MANATEE PROTECTION CONDITIONS:

MANATEES MAY BE PRESENT IN THE AREA. COMPLY WITH THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION'S STANDARD MANATEE PROTECTION CONSTRUCTION CONDITIONS FOR IN-WATER WORK:

- A. INSTRUCT ALL PERSONNEL ASSOCIATED WITH THE PROJECT ABOUT THE PRESENCE OF MANATEES AND MANATEE SPEED ZONES, AND THE NEED TO AVOID COLLISIONS WITH AND INJURY TO MANATEES. ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT, THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.
- B. OPERATE ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT AT "IDLE SPEED/NO WAKE" AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.
- C. SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.
- D. ALL ON-SITE PROJECT PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF MANATEE(S). ALL IN-WATER OPERATIONS, INCLUDING VESSELS, MUST BE SHUTDOWN IF A MANATEE(S) COMES WITHIN 50 FEET OF THE OPERATION. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50-FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF THE OPERATION. ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.
- E. REPORT ANY COLLISION WITH OR INJURY TO A MANATEE IMMEDIATELY TO THE FWC HOTLINE AT 1-888-404-FWCC. ALSO REPORT COLLISION AND/OR INJURY TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-232-2580) FOR NORTH FLORIDA OR VERO BEACH (1-561-562-3909) FOR SOUTH FLORIDA.
- F. POST TEMPORARY SIGNS CONCERNING MANATEES PRIOR TO AND DURING ALL IN-WATER PROJECT ACTIVITIES. ALL SIGNS ARE TO BE REMOVED BY THE PERMITTEE UPON COMPLETION OF THE PROJECT. AWARENESS SIGNS THAT HAVE ALREADY BEEN APPROVED FOR THIS USE BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) MUST BE USED. ONE SIGN MEASURING AT LEAST 3 FT. BY 4 FT. WHICH READS "CAUTION: MANATEE AREA" MUST BE POSTED. A SECOND SIGN MEASURING AT LEAST 8 1/2" BY 11" EXPLAINING THE REQUIREMENTS FOR "IDLE SPEED/NO WAKE" AND THE SHUT DOWN OF IN-WATER OPERATIONS MUST BE POSTED IN A LOCATION PROMINENTLY VISIBLE TO ALL PERSONNEL ENGAGED IN WATER RELATED ACTIVITIES.
- G. FOR ADDITIONAL INFORMATION, SEE www.dot.state.fl.us/specificationsoffice/implemented/URLinSpecs/files/endangeredwildlifeguidelines.pdf

ALL SIGNS ARE TO BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.



SPECIAL SEA TURTLE AND SMALLTOOTH SAWFISH CONDITIONS:

- 1. INSTRUCT ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE POTENTIAL PRESENCE OF THESE SPECIES AND THE NEED TO AVOID COLLISIONS WITH SEA TURTLES AND SMALLTOOTH SAWFISH. ALL CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF THESE SPECIES.
- 2. ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING SEA TURTLES OR SMALLTOOTH SAWFISH, WHICH ARE PROTECTED UNDER THE ENDANGERED SPECIES ACT OF 1973.
- 3. SILTATION BARRIERS SHALL BE MADE OF MATERIAL IN WHICH A SEA TURTLE OR SMALLTOOTH SAWFISH CANNOT BECOME ENTANGLED, BE PROPERLY SECURED, AND BE REGULARLY MONITORED TO AVOID PROTECTED SPECIES ENTRAPMENT. BARRIERS MAY NOT BLOCK SEA TURTLE OR SMALLTOOTH SAWFISH ENTRY TO OR EXIT FROM DESIGNATED CRITICAL HABITAT WITHOUT PRIOR AGREEMENT FROM THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION, ST. PETERSBURG, FLORIDA.
- 4. OPERATE ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT AT "NO WAKE/IDLE" SPEEDS AT ALL TIMES WHILE IN THE CONSTRUCTION AREA AND WHILE WATER DEPTHS WHERE DRAFT OR VESSEL PROVIDES LESS THAN A FOUR FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL PREFERENTIALLY FOLLOW DEEP-WATER ROUTES (E.G., MARKED CHANNELS) WHENEVER POSSIBLE.
- 5. IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN 100 YARDS OF THE ACTIVE DAILY CONSTRUCTION/DREDGING OPERATION OR VESSEL MOVEMENT, IMPLEMENT ALL APPROPRIATE PRECAUTIONS TO ENSURE ITS PROTECTION. THESE PRECAUTIONS INCLUDE CESSATION OF OPERATION OF ANY MOVING EQUIPMENT CLOSER THAN 50 FEET OF A SEA TURTLE OR SMALLTOOTH SAWFISH. CEASE OPERATION OF ANY MECHANICAL CONSTRUCTION EQUIPMENT IMMEDIATELY IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN A 50 FEET RADIUS OF THE EQUIPMENT. ACTIVITIES MAY NOT RESUME UNTIL THE PROTECTED SPECIES HAS DEPARTED THE PROJECT AREA OF ITS OWN VOLITION.
- 6. REPORT ANY COLLISION WITH AND/OR INJURY TO A SEA TURTLE OR SMALLTOOTH SAWFISH IMMEDIATELY TO THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION (727-824-5312) AND THE LOCAL AUTHORIZED SEA TURTLE STRANDING/RESCUE ORGANIZATION.
- 7. ANY SPECIAL CONSTRUCTION CONDITIONS, REQUIRED OF THE PROJECT, OUTSIDE THESE GENERAL CONDITIONS WILL BE ADDRESSED IN THE PRIMARY CONSULTATION.

BAT CONDITIONS

BATS MAY CURRENTLY INHABIT THE BRIDGE WITHIN THE DECK JOINTS OF THE CONCRETE APPROACH SPANS. IT HAS BEEN DETERMINED THE PROPOSED WORK WILL NOT HARM THE BATS AND EXCLUSION WILL NOT BE NECESSARY. DO NOT INTERFERE WITH THE BAT HABITAT. THE FOLLOWING REQUIREMENTS ARE IN PLACE TO ENSURE THE BATS WILL NOT BE IMPACTED BY CONSTRUCTION:

- 1. WORK MAY ONLY BE CARRIED OUT IN DAYLIGHT HOURS, COMMENCING NO EARLIER THAN ONE HALF HOUR AFTER SUNRISE AND CEASING NO LONGER THAN ONE HOUR BEFORE SUNSET.
- 2. NO LIGHTING, WORK ACTIVITIES, OR MACHINERY OPERATION WILL BE ALLOWED IN THE IMMEDIATE VICINITY OF THE CONCRETE SPAN DECK JOINTS.
- 3. THE ENGINEER WILL MONITOR CONSTRUCTION ACTIVITIES TO ENSURE THERE IS NO BAT ACTIVITY RESULTING FROM CONSTRUCTION OPERATIONS.
- 4. SHOULD ANY BAT ACTIVITY BE OBSERVED RELATED TO THE CONSTRUCTION OPERATIONS, THE ENGINEER WILL HALT WORK AND MAY IMPOSE ADDITIONAL RESTRICTIONS SUCH AS MODIFYING THE ALLOWABLE WORKDAY SCHEDULE. ANY SIGNIFICANT DOWNTIME WILL BE TREATED AS A WEATHER DELAY IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONSTRUCTION SCHEDULE WILL BE EXTENDED TO ACCOUNT FOR ANY SHORTENED WORKDAY HOURS.

SPECIAL EVENTS:

PER FDOT SPECIFICATION 8-6.4, SUSPENSION OF CONTRACTOR'S OPERATIONS - HOLIDAYS AND SPECIAL EVENTS, SPECIAL EVENT DAYS WHEN THE BRIDGE SHALL REMAIN OPEN FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO:

- 1. THE GASPARILLA PARADE
- 2. THE GASPARILLA CHILDREN'S PARADE
- 3. THE GASPARILLA ART FESTIVAL
- 4. THE GASPARILLA MUSIC FESTIVAL
- 5. THE GASPARILLA DISTANCE CLASSIC WEEKEND
- 6. THE GASPARILLA INTERNATIONAL FILM FESTIVAL

CAUTION: MANATEE HABITAT

all project vessels
IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN

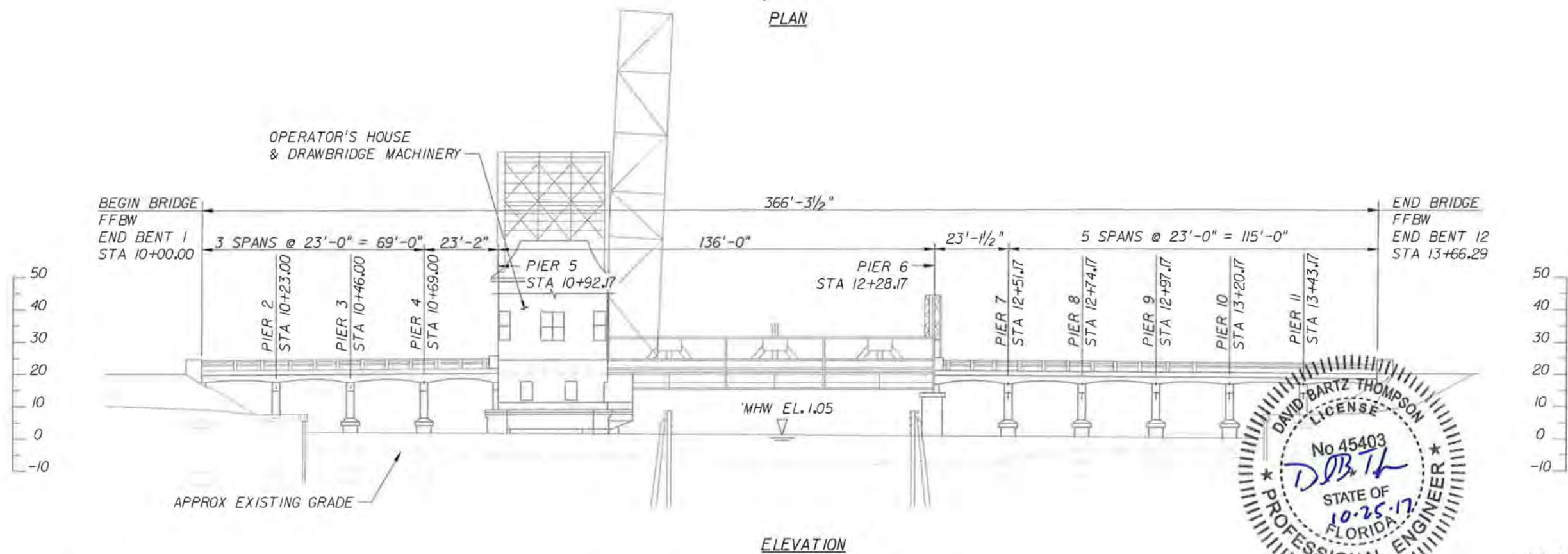
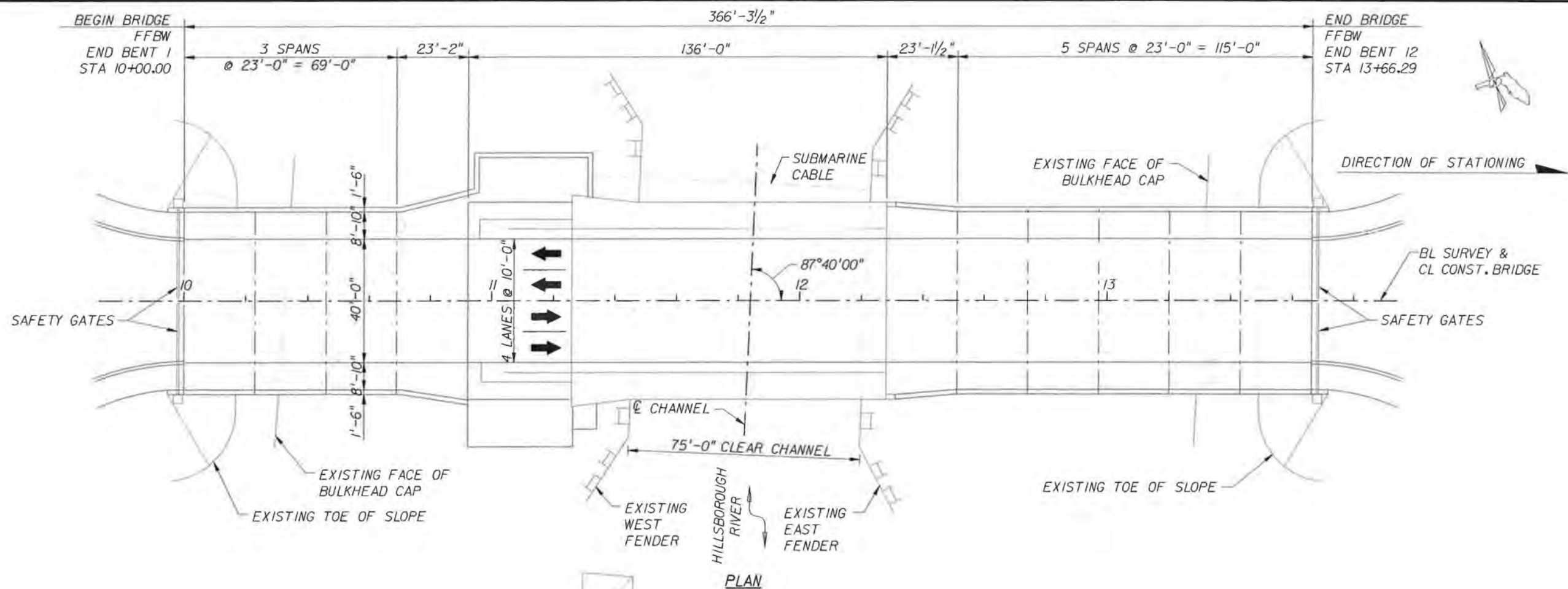
report any collision or injury to:
1-888-404-FWCC (1-888-404-3922)

Florida Fish and Wildlife Conservation Commission



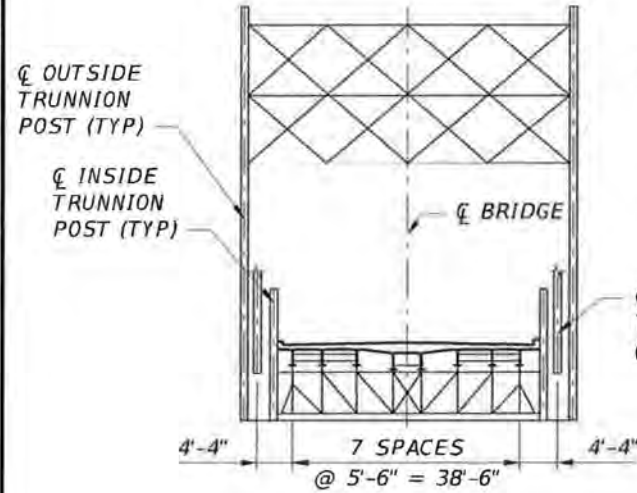
BRIDGE NO. 105503

REVISIONS						ENGINEER OF RECORD		LOGO		SHEET TITLE	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	NAMES	LOGO		PROJECT NAME	SHEET NO.
						DRAWN BY	PDM 03/17	KCS		LAUREL STREET BRIDGE REPAIR	5
						CHECKED BY	SAB 04/17	KCS			
						DESIGNED BY	PDM 03/17	KCS			
						CHECKED BY	SAB 04/17	KCS			
						APPROVED BY	D. B. THOMPSON	KCS			

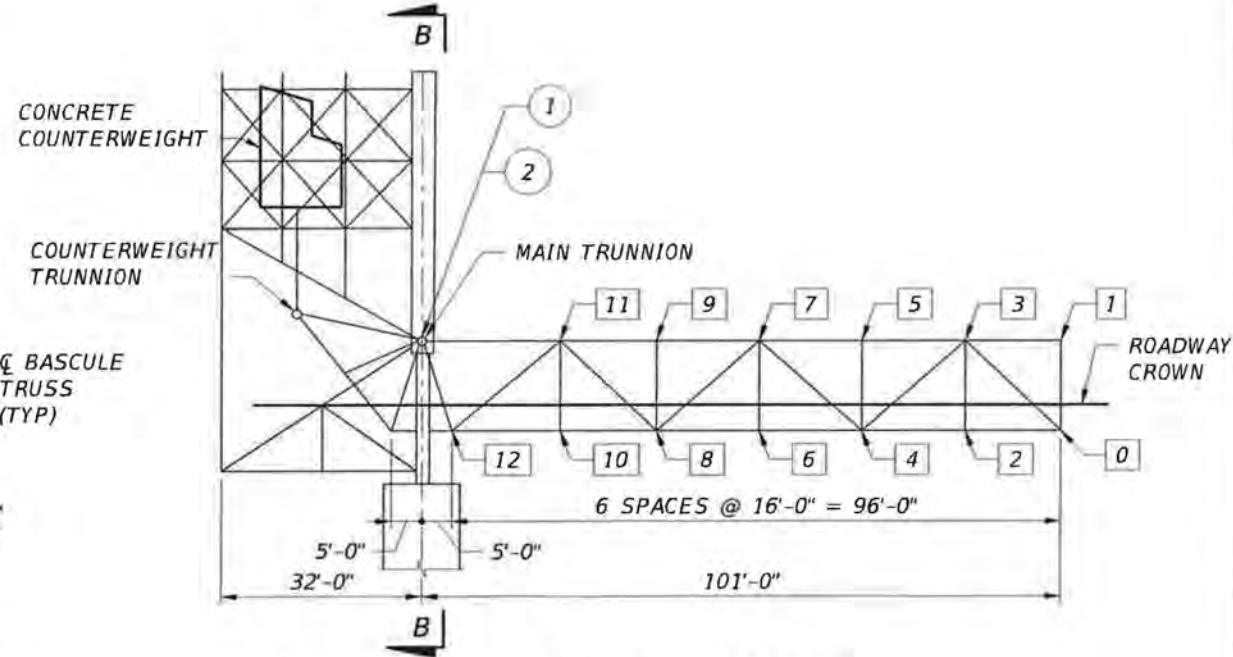


BRIDGE NO. 105503

REVISIONS						NAMES		DATES		ENGINEER OF RECORD		LOGO		CITY OF TAMPA		PLAN AND ELEVATION		PROJECT NAME		SHEET NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	PDM	03/17	Kislinger Campo and Associates Corp.	One Tampa City Center	201 N. Franklin St., Suite 400	TAMPA, FLORIDA 33602	FL Certificate of Authorization No. 02317	David B. Thompson, P.E. No. 45403			CITY OF TAMPA	LAUREL STREET BRIDGE REPAIR	6		
						CHECKED BY	SAB	04/17													
						DESIGNED BY	PDM	03/17													
						CHECKED BY	SAB	04/17													
						APPROVED BY	D. B. THOMPSON														

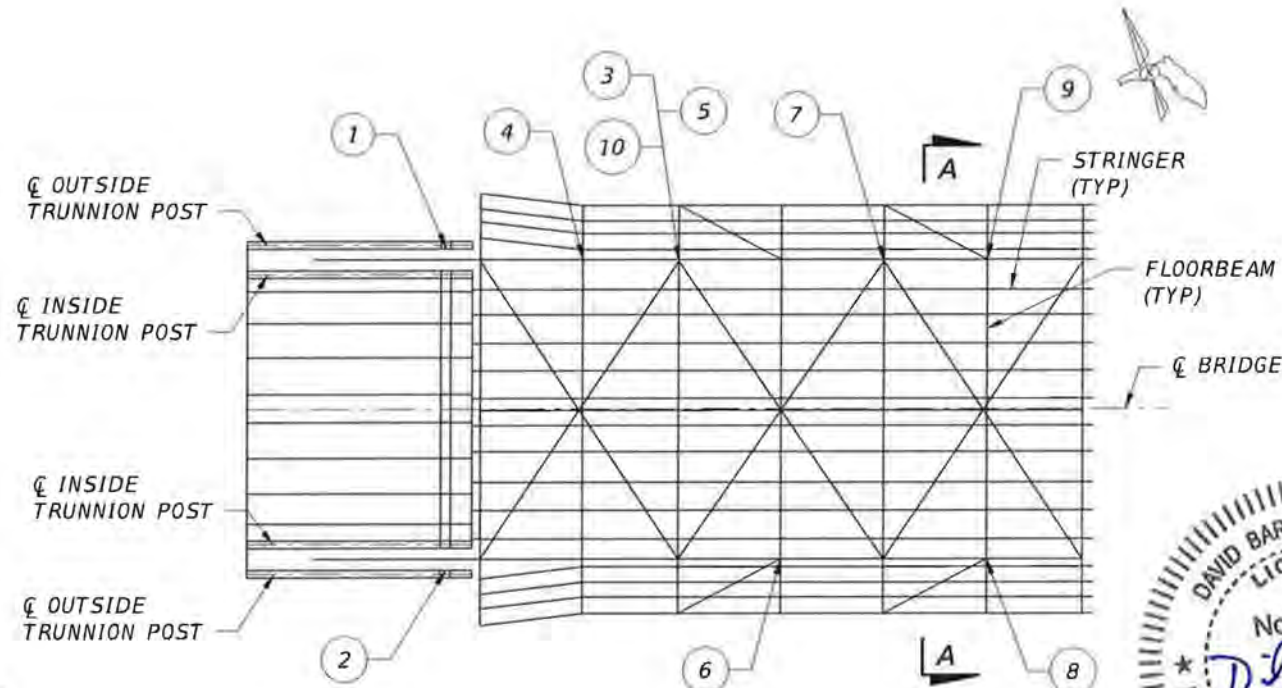


SECTION B-B
SIDEWALKS NOT SHOWN FOR CLARITY

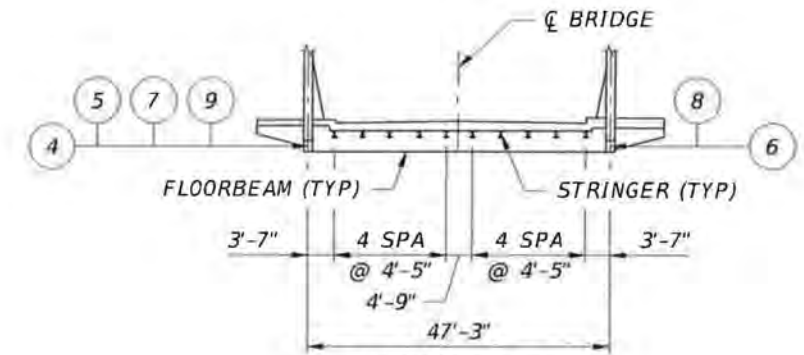


BASCULE ELEVATION

WORK REFERENCE NUMBER	LOCATION	NAME	REPAIR TYPE
1	NORTH OUTSIDE TRUNNION POST, SOUTH GUSSET PLATE, BOTTOM EDGE BELOW MAIN TRUNNION PIN	125N	SUPPLEMENTAL PLATE
2	SOUTH OUTSIDE TRUNNION POST, NORTH GUSSET PLATE, BOTTOM EDGE BELOW MAIN TRUNNION PIN	127S	SUPPLEMENTAL PLATE
3	NORTH TRUSS, BOTTOM CHORD, BOTTOM SOUTH SUPPLEMENTAL ANGLE, EAST OF FLOOR BEAM 8	158N	BOLTED CONNECTION
4	NORTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 10	178N	REPLACE PLATE
5	NORTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 8	179N	REPLACE PLATE
6	SOUTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 6	180S	REPLACE PLATE
7	NORTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 4	181N	REPLACE PLATE
8	SOUTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 2	182S	SUPPLEMENTAL PLATE
9	NORTH TRUSS, BOTTOM CHORD WEB BATTEN PLATE AT FLOOR BEAM 2	183N	SUPPLEMENTAL PLATE
10	NORTH TRUSS, BOTTOM CHORD, TOP NORTH AND SOUTH ANGLES	222N	SUPPLEMENTAL ANGLE



BASCULE PLAN



SECTION A-A

LEGEND:

- # WORK REFERENCE NUMBER
- # TRUSS POINT/FLOOR BEAM NUMBER

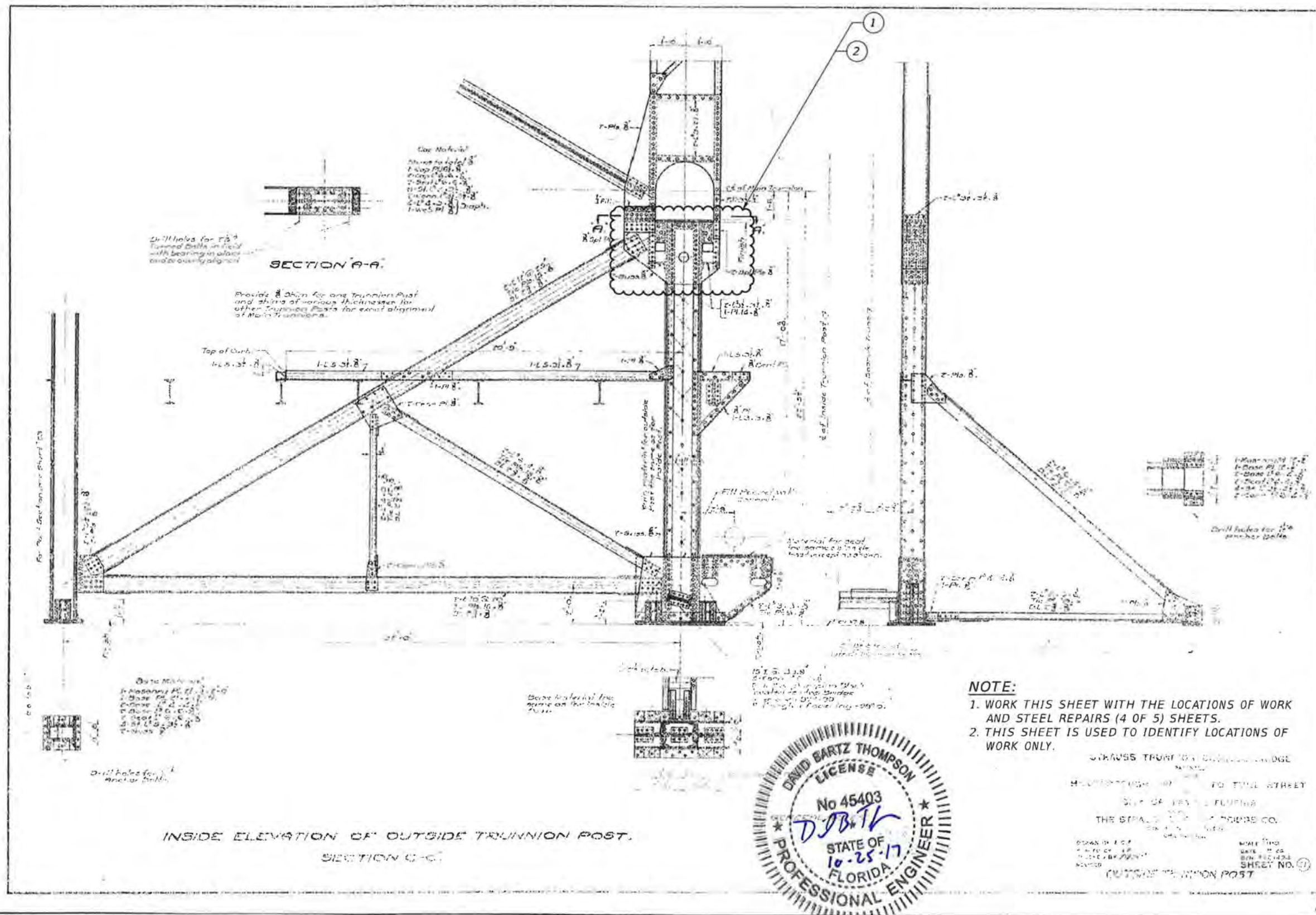
NOTES:

- REPAIRS FOR TRUNNION PLATES 125N AND 127S WILL REQUIRE CONTRACTOR PROVIDED MEANS OF STABILIZING THE STRUCTURE DURING REPAIRS.
- CONTRACTOR SHALL SUBMIT SIGNED AND SEALED DRAWINGS BY A FLORIDA PROFESSIONAL ENGINEER SHOWING ALL REQUIRED CALCULATIONS, METHODS, AND MATERIALS NEEDED TO ENSURE STRUCTURAL STABILITY DURING ALL REPAIRS.
- WORK THIS SHEET WITH STEEL REPAIRS (1 THROUGH 4) SHEETS. LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES. VERIFY ALL LOCATIONS IN THE FIELD AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND.



BRIDGE NO. 105503

REVISIONS						ENGINEER OF RECORD		LOGO		CITY OF TAMPA		LOCATIONS OF WORK	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	NAME	DATES	KCA KISINGER CAMPO & ASSOCIATES			PROJECT NAME: LAUREL STREET BRIDGE REPAIR	SHEET NO: 7
						CHECKED BY	SAB	04/17					
						DESIGNED BY	PDM	03/17					
						APPROVED BY	D. B. THOMPSON	04/17					



NOTE:

1. WORK THIS SHEET WITH THE LOCATIONS OF WORK AND STEEL REPAIRS (4 OF 5) SHEETS.
2. THIS SHEET IS USED TO IDENTIFY LOCATIONS OF WORK ONLY.

STRAUSS TRUST CO. 600 Madison Ave. New York

9-071070 (G) 47 TO TULL STREET

$$S_{11} = 24.175 \pm 0.017 \text{ (100\%)}.$$

THE SPALDING & SWEENEY CO.

022626 176 1 0 0

$\frac{d}{dt} \left(\frac{1}{\rho} \right) = - \frac{1}{\rho^2} \frac{d\rho}{dt}$

2010年12月10日

CUTSHEET FROM POST

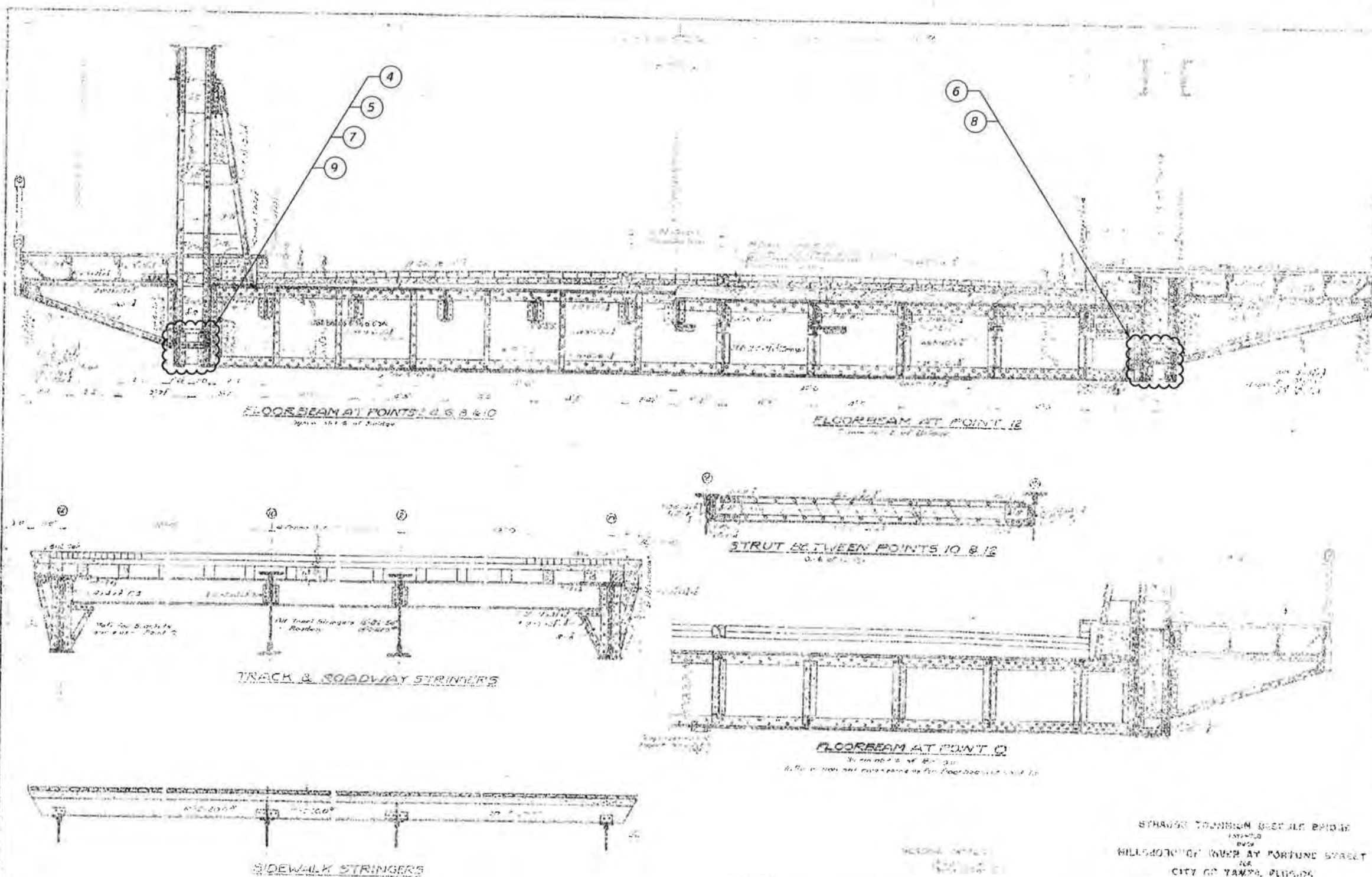
SCALE 1100

DATE: 11-22-2011
BY: [Signature]
TITLE: [Signature]

SHEET NO. 1
POST

BRIDGE NO. 105503

REVISIONS						NAME	DATE	ENGINEER OF RECORD.	LOGO.		SHEET TITLE.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	DATE	 KISINGER CAMPO & ASSOCIATES	PROJECT NAME.		SHEET NO.	
						DRAWN BY	PDM	03/17	Kisinger Campo and Associates Corp. One Tampa City Center 201 N. Franklin St., Suite 400 TAMPA, FLORIDA 33602 FL Certificate of Authorization No. 02317 David B. Thompson, P.E. No. 45403	CITY OF TAMPA	STEEL REPAIRS (1 OF 5)	
						CHECKED BY	SAB	04/17			PROJECT NAME.	SHEET NO.
						DESIGNED BY	PDM	03/17			LAUREL STREET BRIDGE REPAIR	8
						CHECKED BY	SAB	04/17				
						APPROVED BY	D. B. THOMPSON					

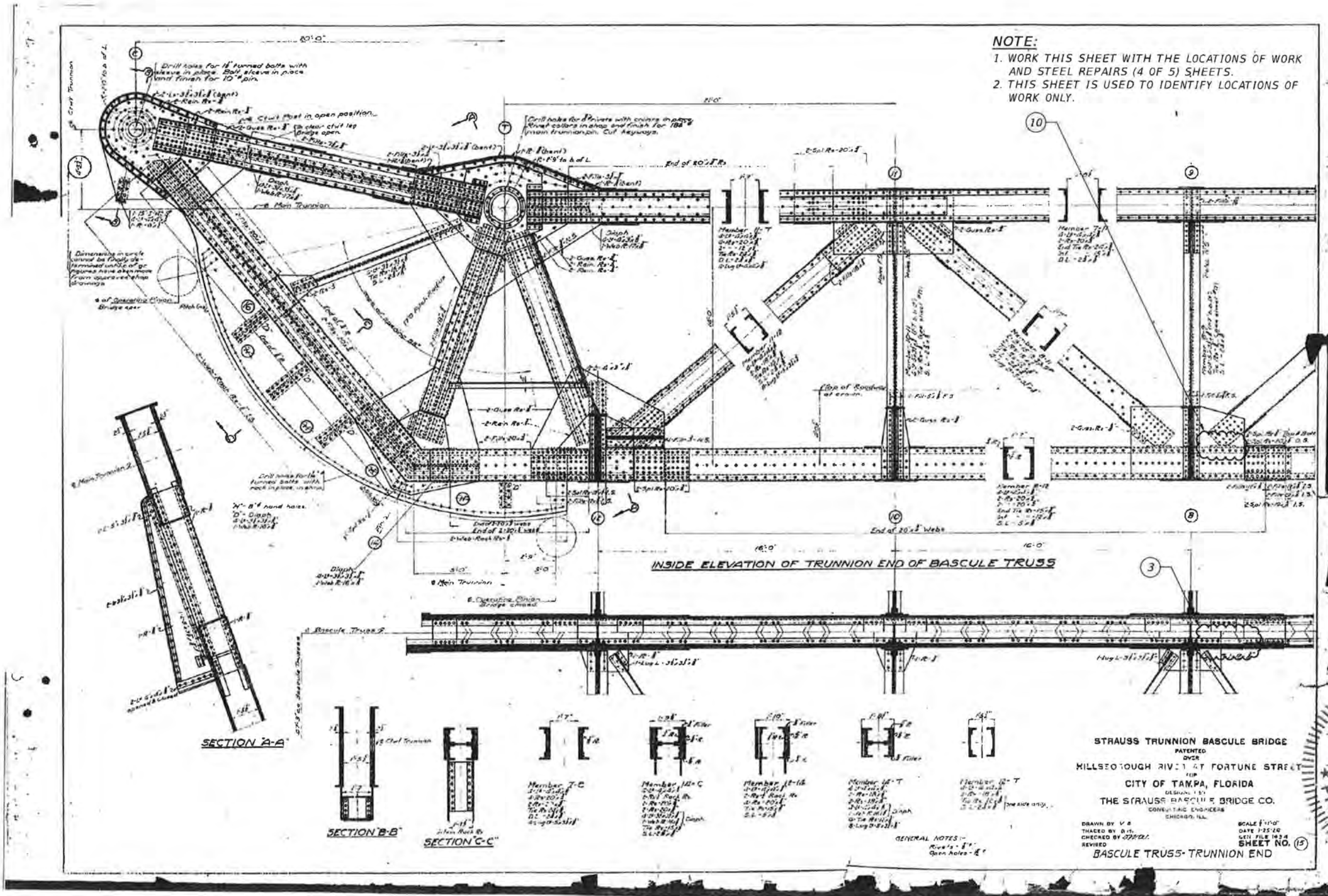


NOTE:
 1. WORK THIS SHEET WITH THE LOCATIONS OF WORK AND STEEL REPAIRS (4 OF 5) SHEETS.
 2. THIS SHEET IS USED TO IDENTIFY LOCATIONS OF WORK ONLY.



BRIDGE NO. 105503

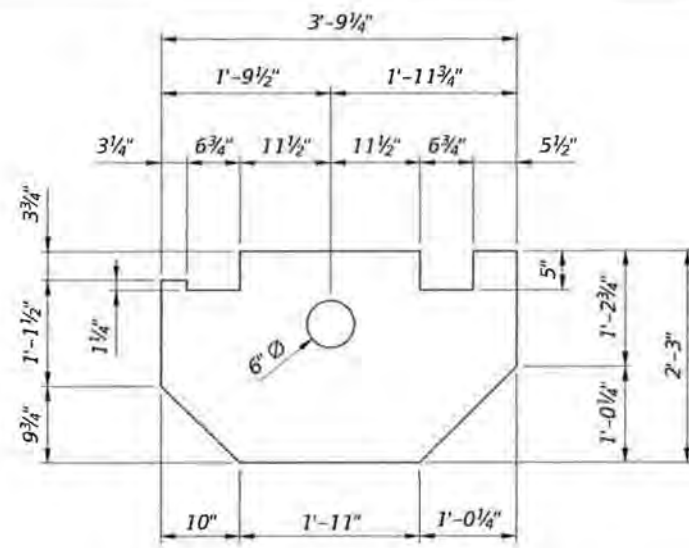
REVISIONS						NAME'S		DATE'S		ENGINEER OF RECORD.		LOGO.		SHEET TITLE.		SHEET NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	PDM	03/17	Kisinger Campo and Associates Corp.		CITY OF TAMPA		CITY OF TAMPA	STEEL REPAIRS (2 OF 5)		PROJECT NAME: LAUREL STREET BRIDGE REPAIR	9
					CHECKED BY	SAB	04/17	One Tampa City Center									
					DESIGNED BY	PDM	03/17	201 N. Franklin St., Suite 400									
					CHECKED BY	SAB	04/17	TAMPA, FLORIDA 33602									
					APPROVED BY	D. B. THOMPSON		FL Certificate of Authorization No. 02317									
								David B. Thompson, P.E. No. 45403									



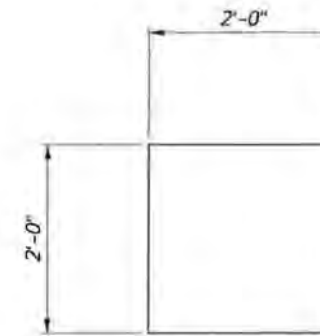
BRIDGE NO. 105503

REVISIONS						NAMES		DATES		ENGINEER OF RECORD		LOGO		CITY OF TAMPA		SHEET TITLE	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	PDM	03/17	Kisinger Campo and Associates Corp.	One Tampa City Center	201 N. Franklin St., Suite 400	TAMPA, FLORIDA 33602	FL Certificate of Authorization No. 02317	David B. Thompson, P.E. No. 45403	CITY OF TAMPA		STEEL REPAIRS (3 OF 5)
						CHECKED BY	SAB	04/17									
						DESIGNED BY	PDM	03/17									
						CHECKED BY	SAB	04/17									
						APPROVED BY	D. B. THOMPSON										

PROJECT NAME		SHEET NO.
LAUREL STREET BRIDGE REPAIR		10



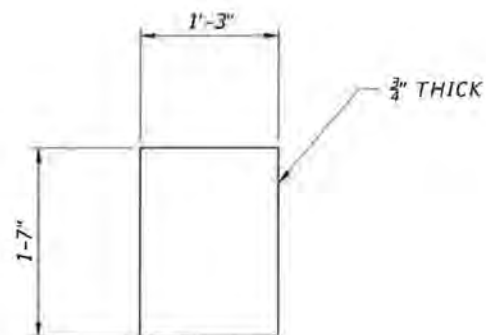
TRUNNION PLATES
"125N" & "127S"



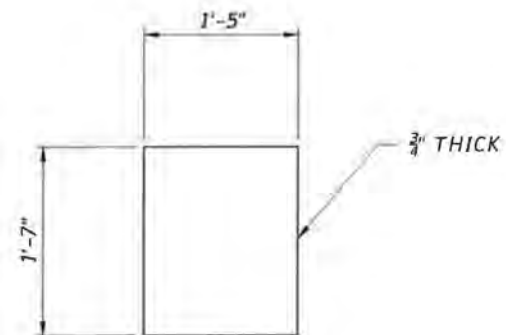
CONNECTION PLATE
"158N"

NOTES:

1. WORK THIS SHEET WITH SHEETS STEEL REPAIRS (1 THROUGH 3).
2. DIMENSIONS ARE APPROXIMATE. VERIFY AND ADJUST DIMENSIONS BEFORE ORDERING ANY MATERIAL.



WEB BATTEN PLATES
"178N" & "179N"



WEB BATTEN PLATES
"180S", "181N", "182S", & "183N"

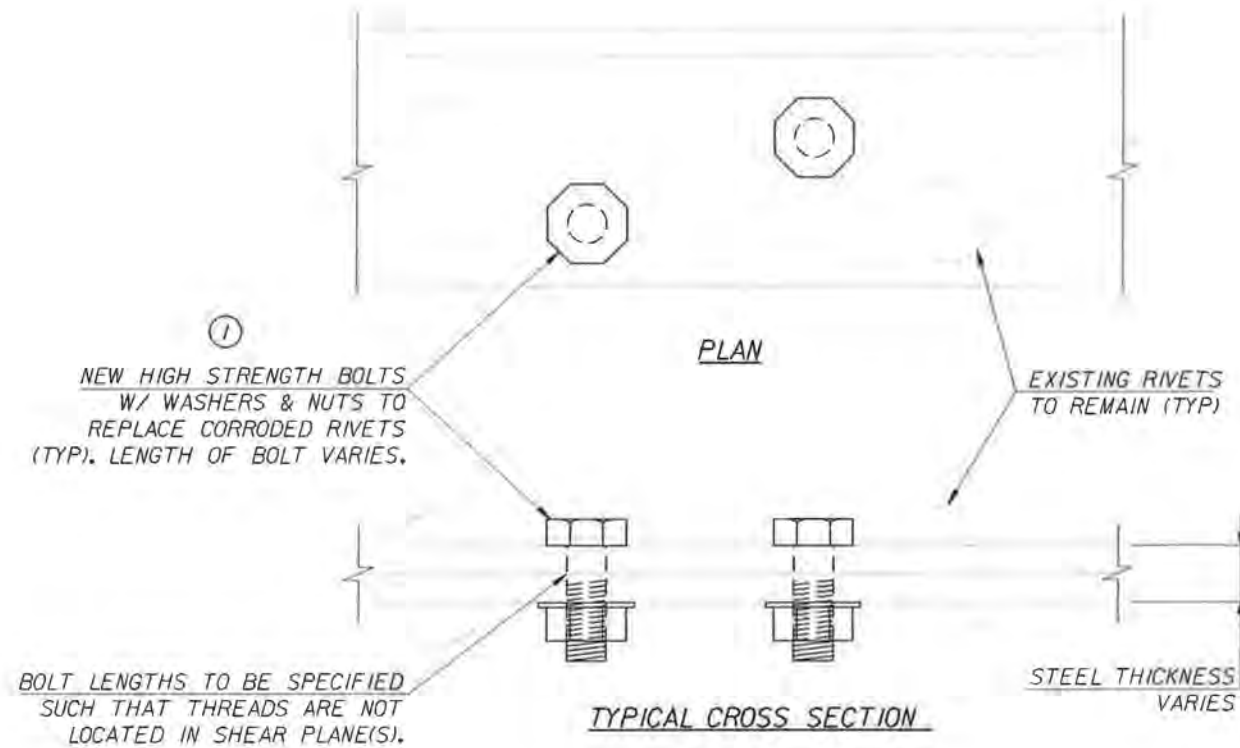


ANGLES
@ "222N"



BRIDGE NO. 105503

REVISIONS						DRAWN BY	CHECKED BY	DESIGNED BY	CHECKED BY	APPROVED BY	NAME	DATE	ENGINEER OF RECORD	LOGO		CITY OF TAMPA	SHEET TITLE	PROJECT NAME	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION														
						PDM	SAB	PDM	SAB	D. B. THOMPSON		03/17	04/17	Kisinger Campo and Associates Corp. One Tampa City Center 201 N. Franklin St., Suite 400 TAMPA, FLORIDA 33602 FL Certificate of Authorization No. 02317 David B. Thompson, P.E., No. 45403	KCA KISINGER CAMPO & ASSOCIATES		STEEL REPAIRS (4 OF 5)	LAUREL STREET BRIDGE REPAIR	11



WORK IDENTIFICATION

① REPLACE DETERIORATED RIVETS WITH HIGH STRENGTH BOLTS

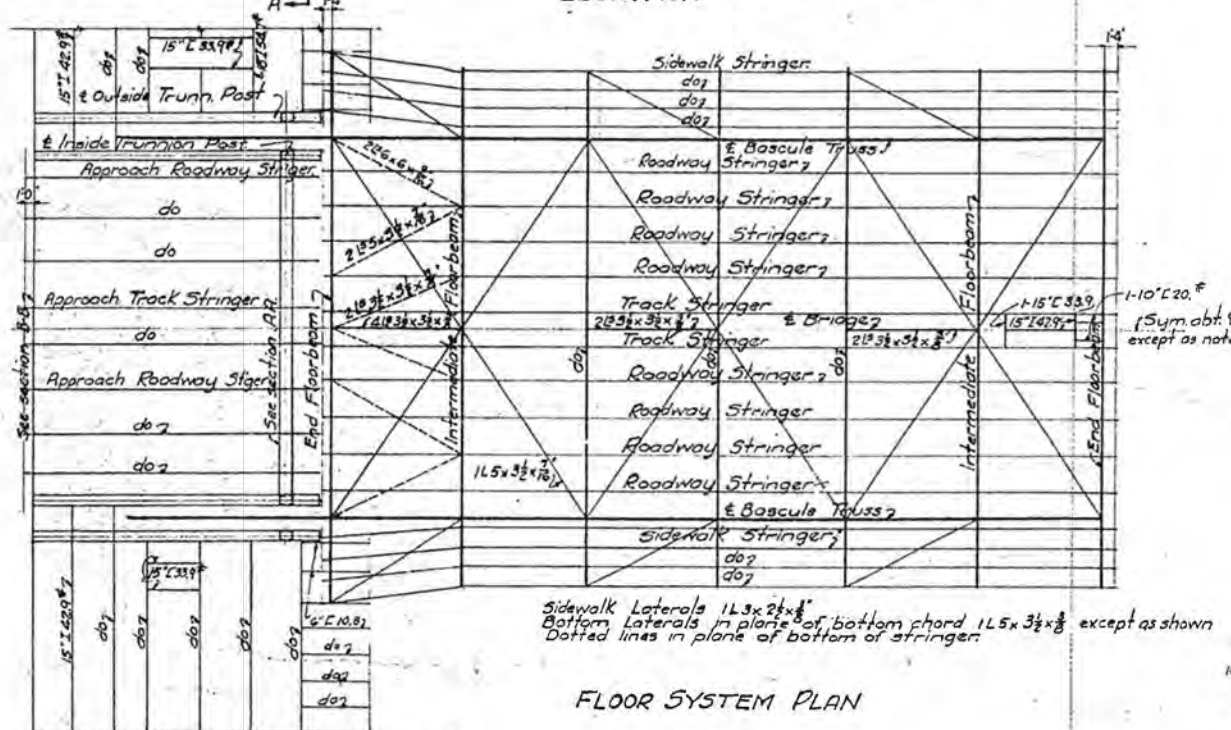
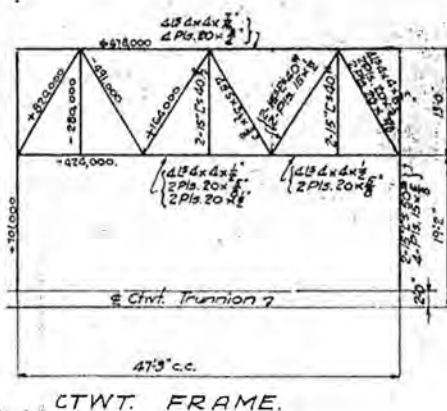
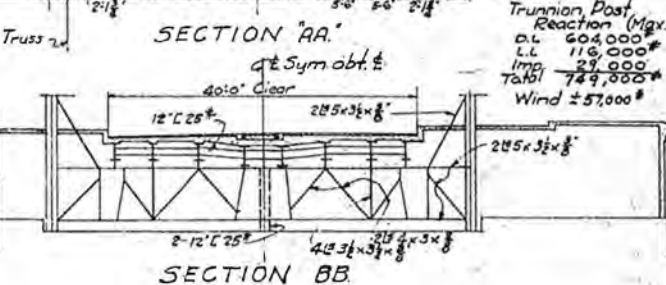
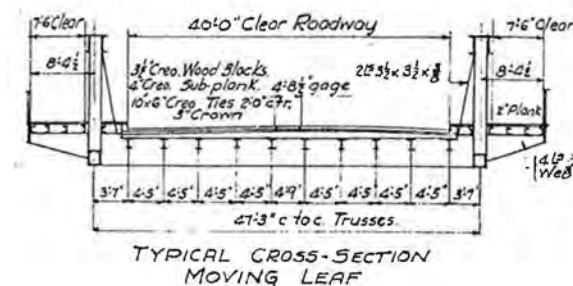
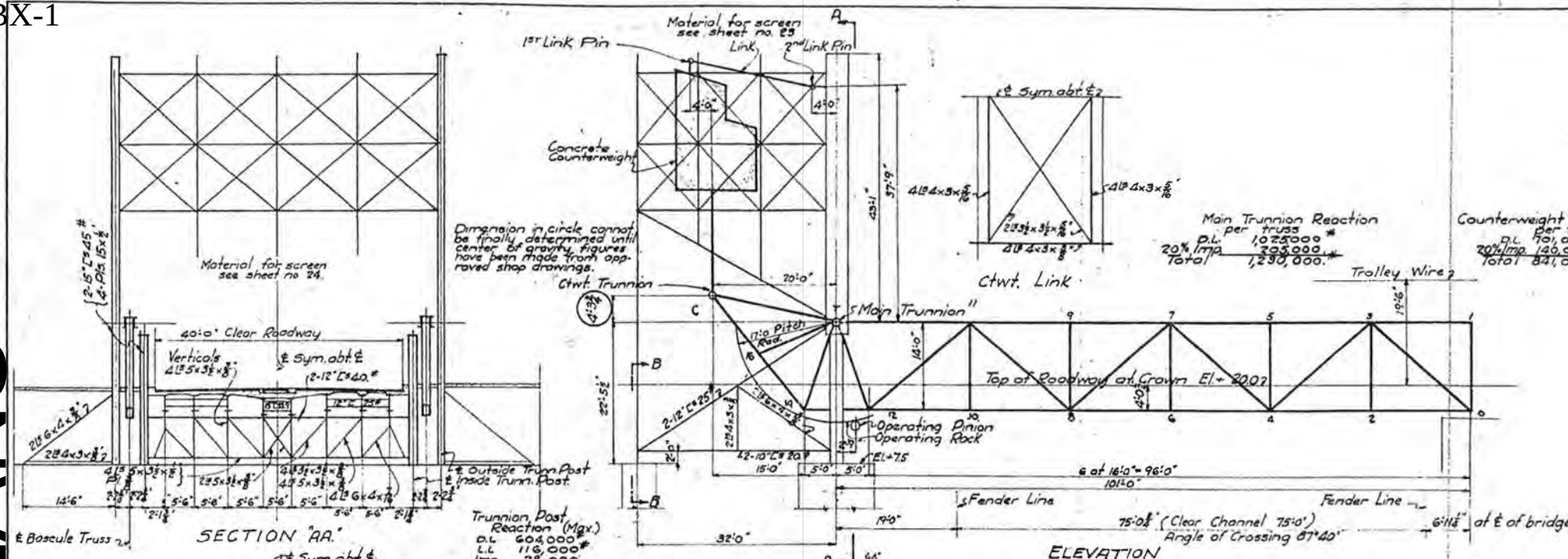
NOTES:

1. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THE PROPOSED METHOD FOR RIVET REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION 5-1 OF THE FDOT STANDARD SPECIFICATIONS.
2. IN THE EVENT THAT THE ENGINEER DETERMINES THAT RIVET REMOVAL WORK IS RESULTING IN DAMAGE TO THE EXISTING STEEL, THE CONTRACTOR SHALL CEASE RIVET REMOVAL OPERATIONS UNTIL A NEW METHOD HAS BEEN APPROVED BY THE ENGINEER.
3. THE DAMAGED RIVET HEAD SHALL BE CHIPPED OFF AND THE SHANK DRIVEN, DRILLED, CORED, OR JACKED OUT AS REQUIRED. CARE SHALL BE TAKEN NOT TO ENLARGE RIVET HOLES OR TO DAMAGE REMAINING MATERIAL. THE USE OF A CUTTING TORCH WILL NOT BE PERMITTED.
4. WHERE EXISTING RIVETS ARE REMOVED, AND THE RESULTING HOLES REQUIRE ENLARGEMENT, THE HOLES SHALL BE ENLARGED BY NOT MORE THAN 1/16" IN DIAMETER GREATER THAN THE NOMINAL BOLT DIAMETER SHOWN ON THE PLANS. WHERE REQUIRED, HOLE ENLARGEMENT SHALL BE ACCOMPLISHED BY REAMING.
5. INSIDE SURFACES OF HOLES EXPOSED AFTER RIVET REMOVAL SHALL BE PAINTED IN ACCORDANCE WITH SECTIONS 560 AND 975 OF THE FDOT STANDARD SPECIFICATIONS AND OTHER NOTES REGARDING CLEANING AND PAINTING OF STRUCTURAL STEEL IN THE TECHNICAL SPECIAL CONDITIONS.
6. INSTALL NEW HIGH STRENGTH BOLT (ASTM A325) WITH HARDENED WASHER AND HEAVY HEX NUT. BOLT DIAMETER IS TYPICALLY 7/8", UNLESS NOTED OTHERWISE. BOLT LENGTHS TO BE APPROVED BY THE ENGINEER.
7. BOLTS SHALL BE PROPERLY LUBRICATED AND TENSIONED ACCORDING TO THE SPECIFICATIONS.
8. CLEAN AND PAINT NEW BOLT AND IMMEDIATE AREA OF REPAIR ACCORDING TO THE SPECIFICATIONS AFTER COMPLETION OF REPAIR.
9. PAY ITEM 460-81, RIVET OR HIGH STRENGTH BOLT REPLACEMENT (EA), SHALL INCLUDE ALL MATERIALS AND WORK DESCRIBED ABOVE FOR THE REMOVAL OF EXISTING RIVET OR BOLT AND INSTALLATION OF NEW BOLTS.
10. AT LOCATIONS WHERE DAMAGE TO THE SURROUNDING MATERIAL OCCURS AS A RESULT OF CONTRACTOR'S OPERATIONS, THE SURROUNDING MATERIAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.



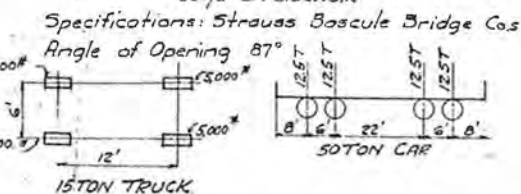
BRIDGE NO. 105503

REVISIONS						ENGINEER OF RECORD.		LOGO.		CITY OF TAMPA		SHEET TITLE.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	DATES	 KCA KISINGER CAMPO & ASSOCIATES	 CITY OF TAMPA	PROJECT NAME.		SHEET NO. 12	
					CHECKED BY		STEEL REPAIRS (5 OF 5)						
					DESIGNED BY		LAUREL STREET BRIDGE REPAIR						
					CHECKED BY								
					APPROVED BY	D. B. THOMPSON							



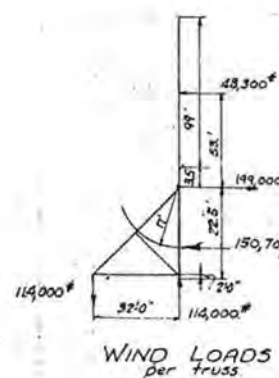
Item	Shears in 1000#			Moments in 1000ft#			Section
	DL	LL	Imp	DL	LL	Imp	
Roadway Stringer	2.0	11.3	2.8	14.1	8.0	100	15" I 44.9
Sidewalk "	0.4	2.0	0.5	2.9	1.6	20	10" I 6.5
Track "	2.4	20.3	5.1	27.8	9.6	66.0	15" B 54.5
End Floorbeam	19.5	50.7	12.7	82.5	230.0	206.0	Web 42x8, 48x6x8, 13x8
Interm. "	26.0	45.3	11.3	82.6	308.0	184.0	Web 40x8, 48x6x8, 13x8
Track Stringer	24.0	28.1	7.0	59.1	142.0	41.0	28" B 110.0
Roadway "	16.6	13.1	3.3	33.0	134.0	92.0	24" B 100.0

GENERAL NOTES.
 DL = Actual weight
 LL = Floor system: Roadway: One 50 Ton Street car and two 15 Ton trucks
 Sidewalk 100 lbs per sq ft
 Trusses: 1800# per lin. ft. of track and 1000# on remainder of roadway.
 80# ft. on sidewalk



STRESSES AND SECTIONS IN BASCULE TRUSS.									
Mem.	DL.	LL	Imp	Total	Unit Stress	Area Req'd	Area Used	Section	
					Gross	Gross	Net	Gross	Net
0-4	+41.0	145.0	36.0	162.0	16.0	10.0	31.44	41.2x4x78	2 P15 20x3
4-6	-237.0	211.0	68.0	-54.0	15.5	25.4	31.44	do	do
6-12	-625.0	78.0	45.0	-616.0	"	60.5	61.44	do	2 P15 20x3, 2 P15 20x3
12-14	+1025.0			176.0	"	93.5	91.44	do	do 2 P15 20x3
14-16	-1185.0			136.0	"	102.2	100.32	do	2 P15 20x3, 2 P15 20x3, 2 P15 20x3
16-17	-724.0	135.0	59.0	282.0	17.2		19.8	2-15" C 33.9	
17-11	-428.0	252.0	63.0	-509.0	16.0	31.8	33.96	41.2x4x78	2 P15 20x3
11-17	-925.0	490.0	12.0	-1110.0	"	69.4	69.40	do	2 P15 20x3, 2 P15 12x3
17-C	-1140.0			-1368.0	"	85.6	103.44	85.65	41.2x4x78, 2 P15 20x3, 2 P15 20x3
0-3	-35.0	193.0	48.0	210.0	12.8	16.7	19.8	2-15" C 33.9	
3-4	+111.0	12.0	33.0	153.0	11.9	12.9	14.64	2-12" C 25.0	
4-7	-169.0	82.0	35.0	-9.0	21.0	16.0	13.5	2-12" C 30.0	
7-8	-228.0	69.0	17.0	-314.0	12.7	24.8	26.34	2-15" C 45.0	
8-11	-294.0	116.0	29.0	-439.0	16.0	27.4	34.80	2-15" C 33.9	2 P15 15x4
11-12	-310.0	174.0	44.0	-588.0	13.2	44.6	25.44	41.2x4x78	2 P15 18x3
12-17	-294.0	144.0	34.0	-474.0	16.0	29.6	35.74	29.72	41.2x4x78, 2 P15 18x3
17-14	-950.0			1160.0	16.0	71.3	65.36	71.05	41.2x4x78, 2 P15 18x3
14-16	-39.0	57.0	14.0	110.0	16.0	6.86	12.20	9.16	41.2x4x78
16-17	+4.0						12.20	do	do
17-16							9.92	41.2x4x78	2-15" C 33.9
1-3							19.8		2-15" C 33.9

* Max. DL + 20% Imp.
 + indicates compression
 Areas in sq. inches
 Stresses in 1000#



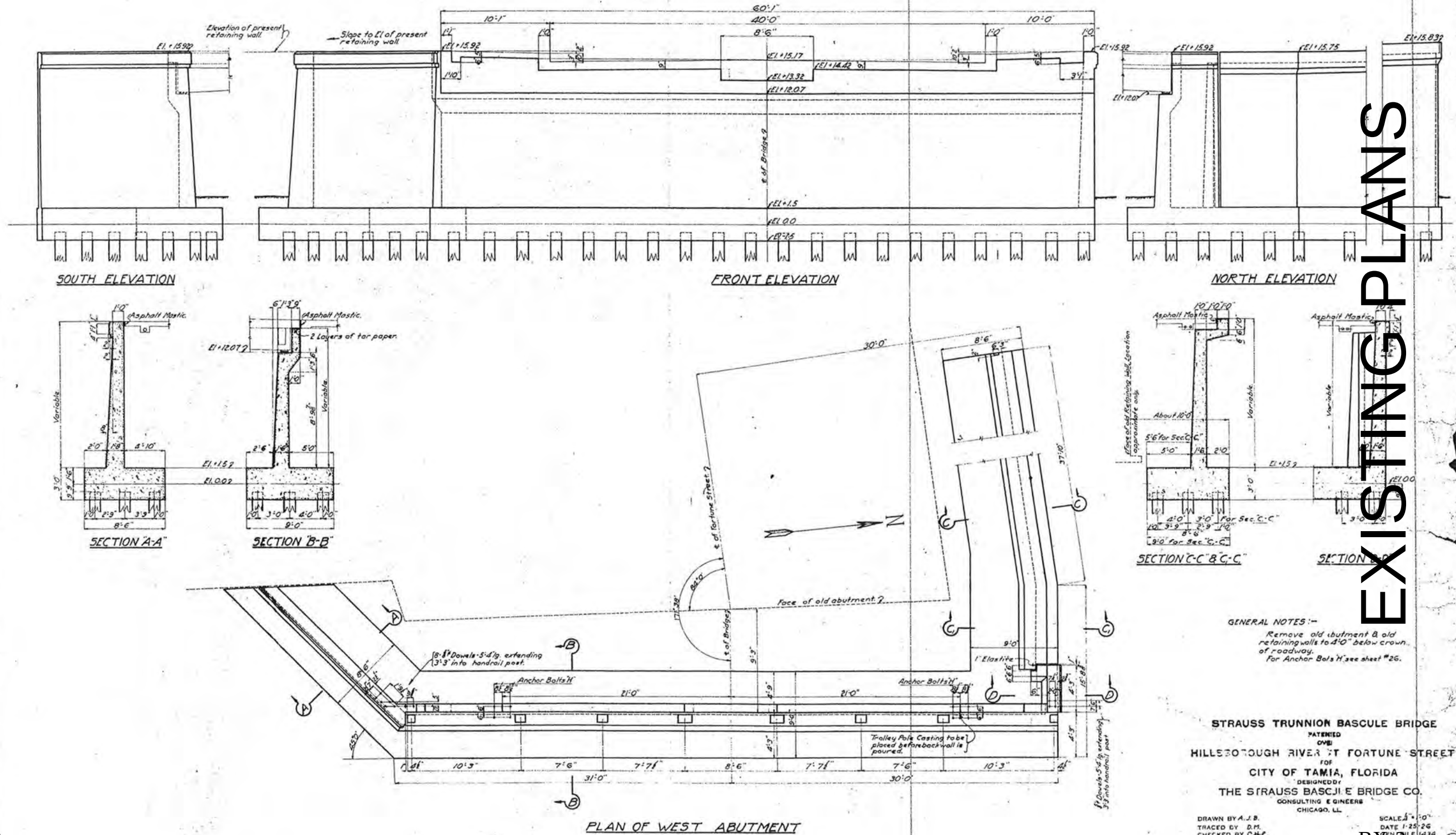
STRAUSS TRUNNION BASCULE BRIDGE
 PATENTED
 OVER
 HILLSBOROUGH RIVER AT FORTUNE STREET
 FOR
 CITY OF TAMPA, FLORIDA
 DESIGNED BY
 THE STRAUSS BASCULE BRIDGE CO.
 CONSULTING ENGINEERS
 CHICAGO, ILL.

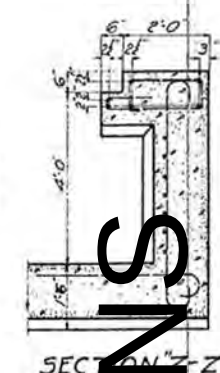
DRAWN BY RT
 TRACED BY RT
 CHECKED BY Q10
 REVISED
 SCALE 1/160
 SHEET NO. 3

STRESS SHEET

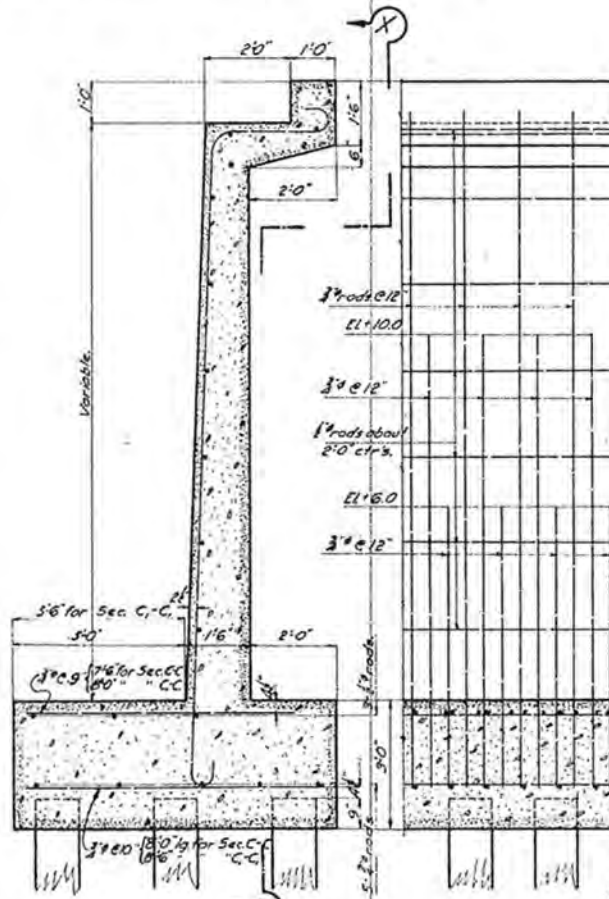
EXISTING PLANS

EXISTING PLANS





TOP REINFORCEMENT OF BASE SLAB
Scale: $\frac{1}{4}'' = 1'-0''$



SECTION "X-X"



SECTION "D-D"

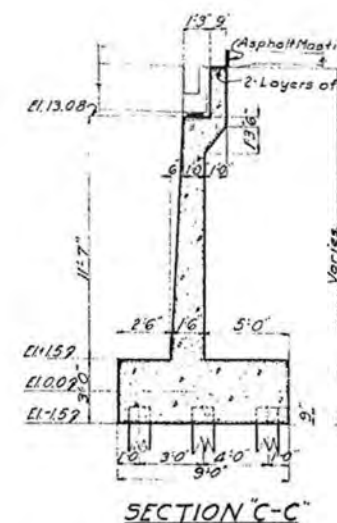
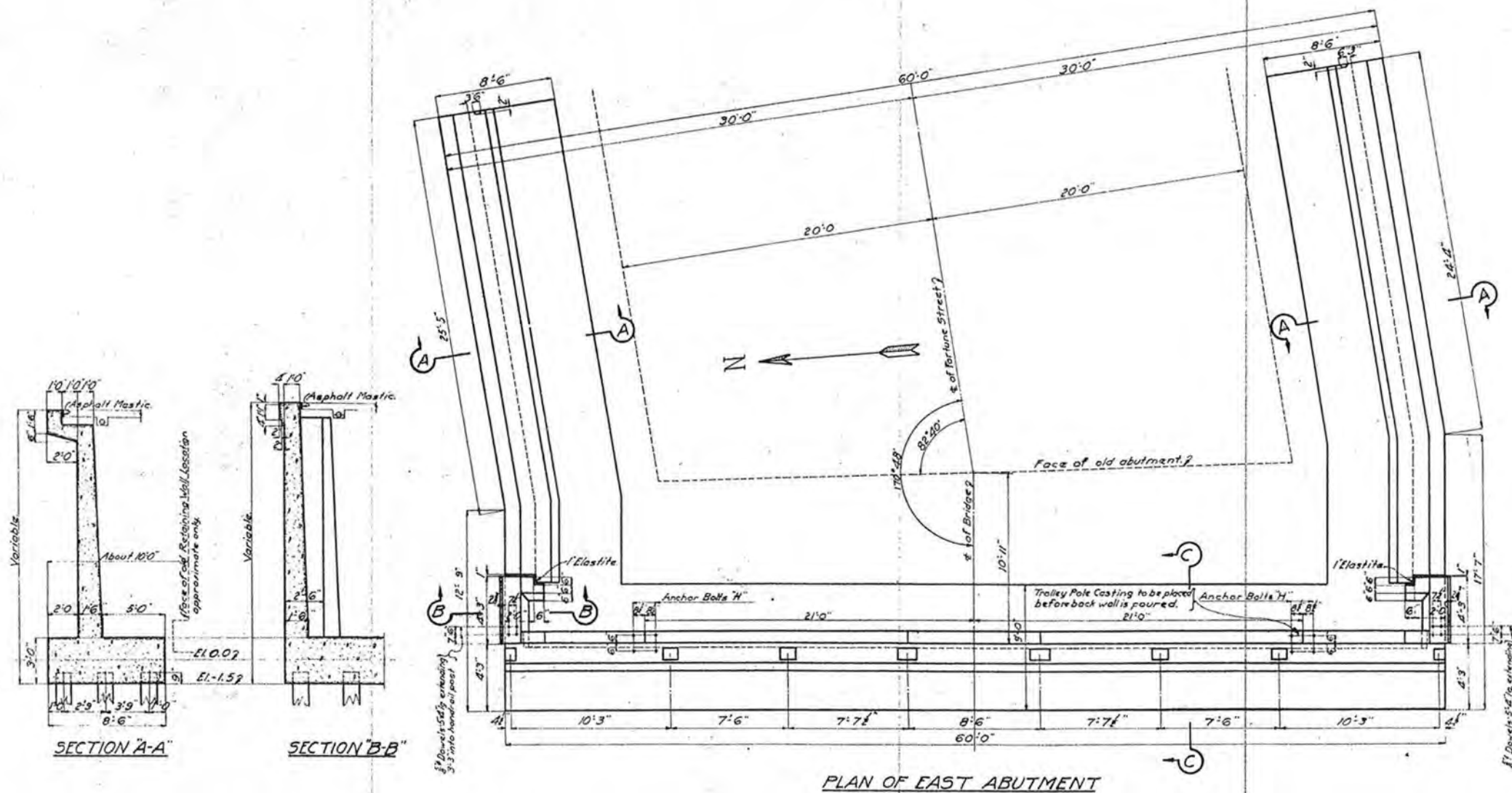
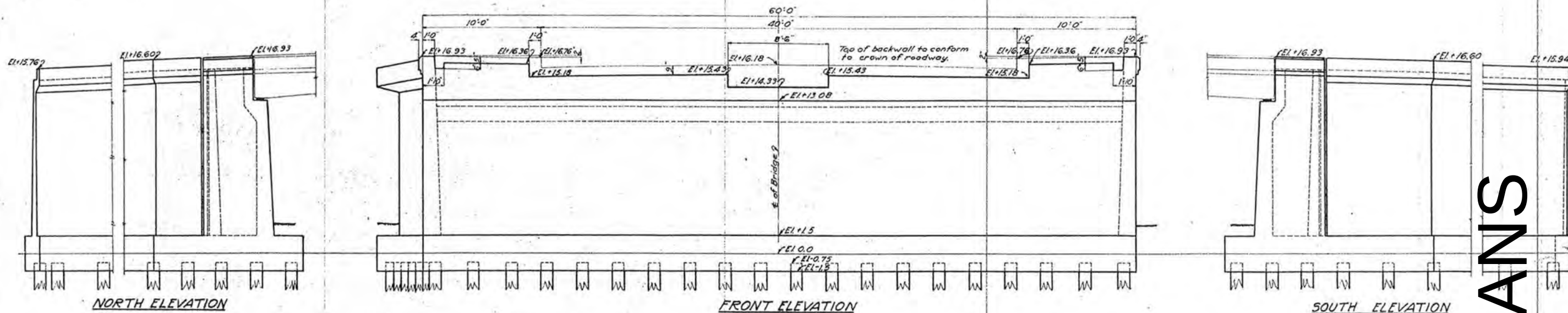
STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULI E BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.

GENERAL NOTES:-
For location of
Sections A-A to
D-D see sheet #2.

DRAWN BY A.J.B.
TRACED BY D.M.
CHECKED BY C.M.C.
REVISED

SCALE: 1" = 6' & 3" = 10'
DATE: 12-25-26
CON. FILE # 494
BOX 3 NO. 5

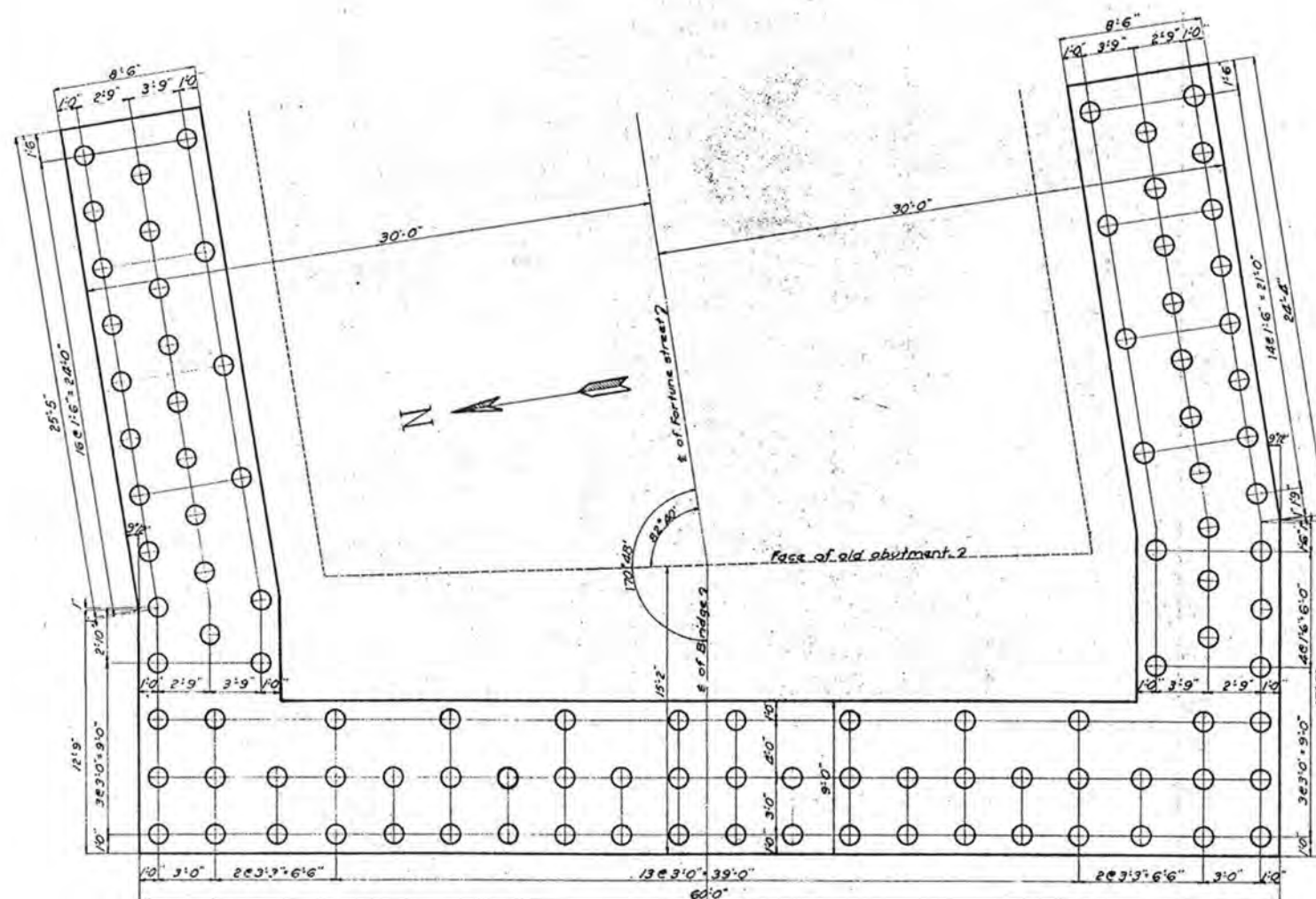
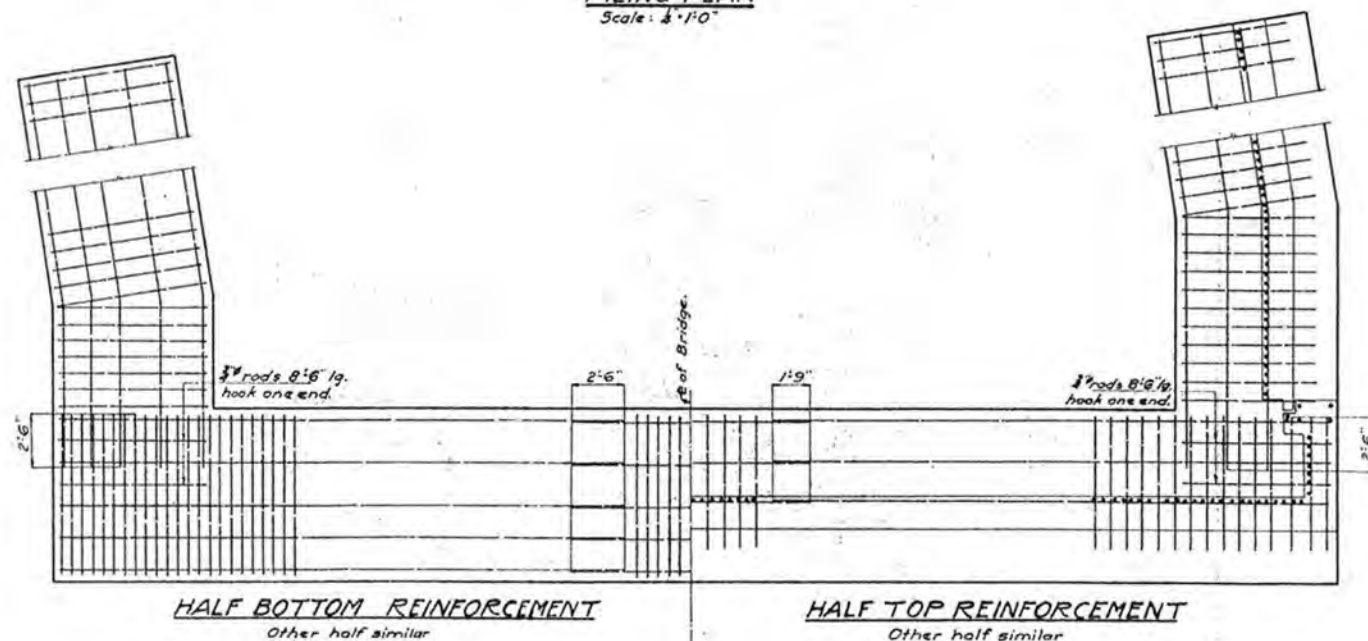
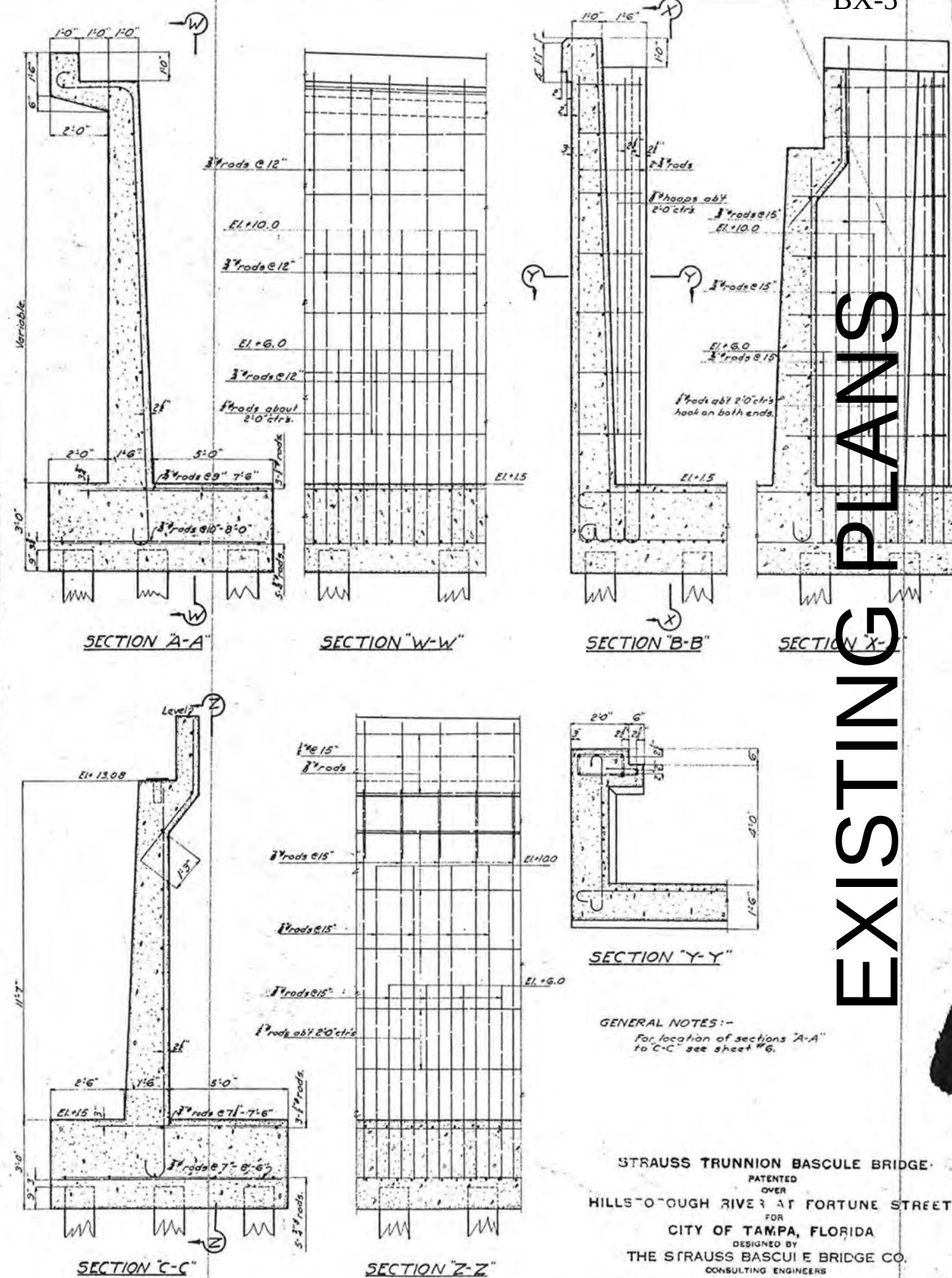
WEST ABUTMENT-DETAILS



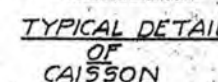
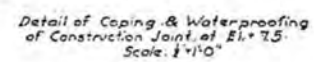
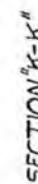
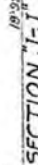
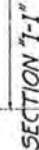
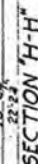
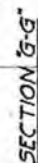
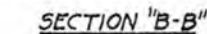
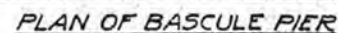
GENERAL NOTES:-
Remove old abutment & old retaining walls to 4'-0" below crown of future roadway.
For Anchor Bolts "H" see sheet # 26

STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLCROFT RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
DRAWN BY A.J.B.
TRACED BY D.M.
CHECKED BY C.W.
REVISED
SCALE 1"=10'
DATE 1-25-26
SHEET NO. 6
EAST ABUTMENT-PLAN

EXISTING PLANS

PILING PLAN
Scale: 1/4" = 1'-0"BASE SLAB
Scale: 1/4" = 1'-0"

EXISTING PLANS

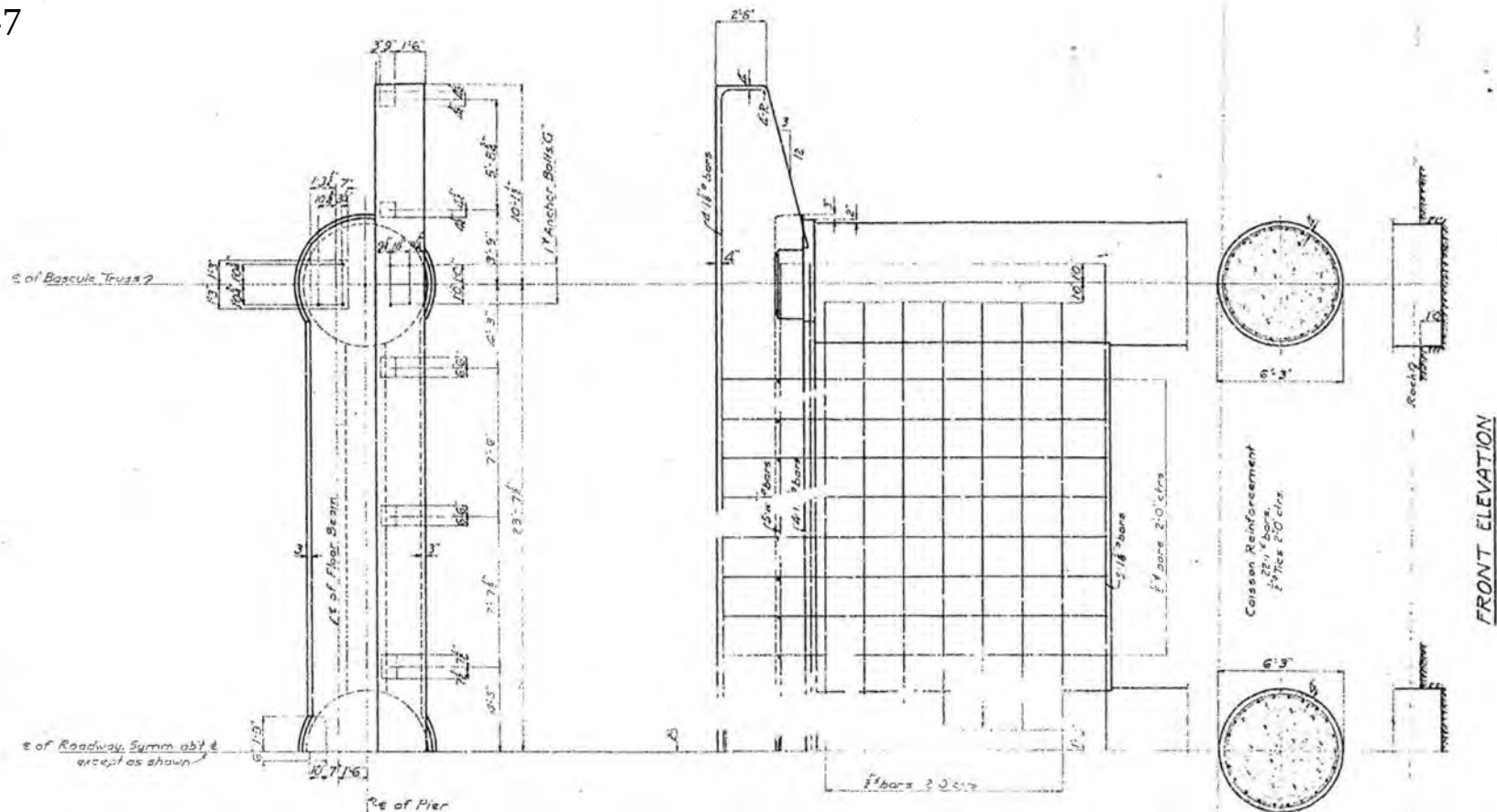


Other coissons similar, except
20-1" bars for 5'-6" coissons,
48-1" for 12'-0" coissons, and
24-1" for 6'-6" coissons.

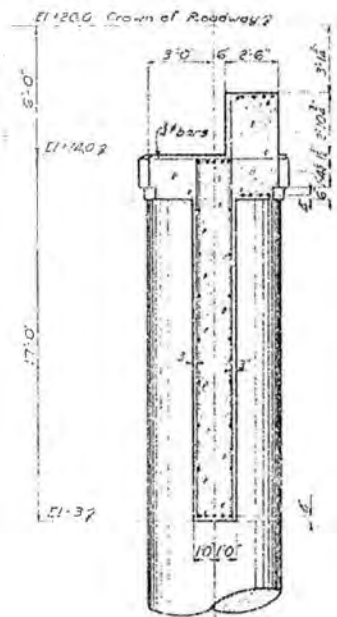
Provide 2" openings as shown, to allow air to escape from pockets under machinery floor at hurricane tides.
For sections C-C, D-D, E-E, F-F, & L-L see sheet #9.
For Anchor Bolts see sheet #26.
For rods in posts of Bent #12 to be placed in caissons see sheet #13.
Hand railing - 1" Gas Pipe with malleable iron fittings.
Slope floor at C-75 slightly to drain to sump.

DRAWN BY E.C.F.
TRACED BY D.H.
CHECKED BY C.H.
REVISED
BASCULE PIER

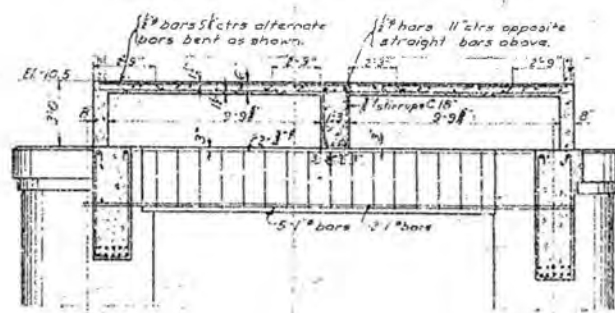
SCALE $\frac{1}{2}$ " = 8'-0"
DATE 1-25-76
GEN. FILE 434
SHEET NO. (8)



PLAN OF REST PIER

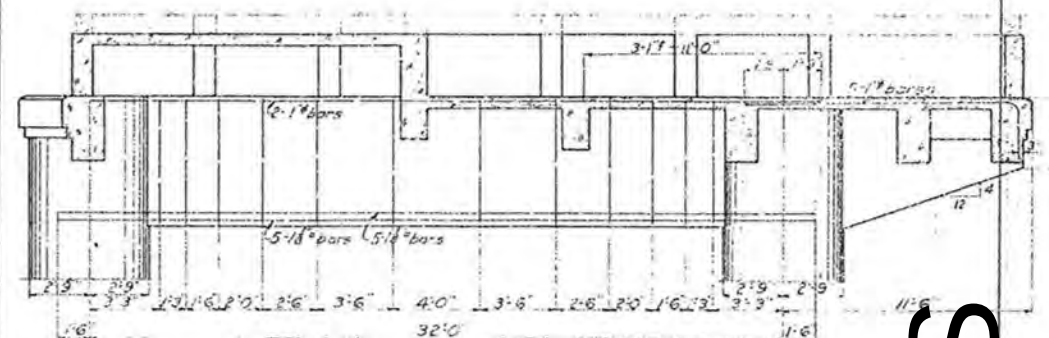


SECTION NEAR E

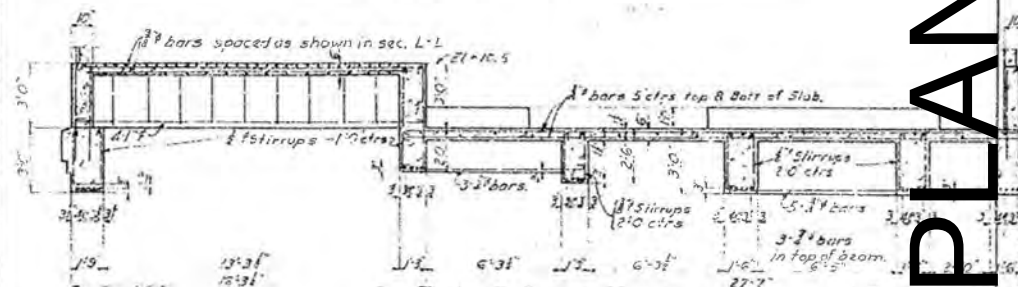


SECTION 'L-L'

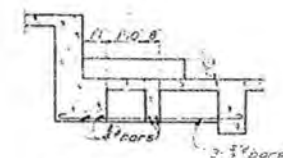
FRONT ELEVATION



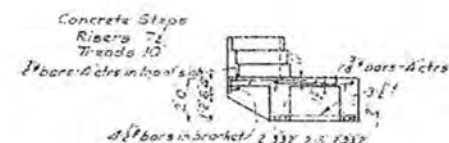
SECTION 'C-C'
Showing also in outside beam.



SECTION 'D-D'



SECTION 'E-E'



SECTION 'F-F'

GENERAL NOTES:-
For location of sections 'C-C', 'D-D', 'E-E', 'F-F', & 'L-L' see sheet 28

STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.

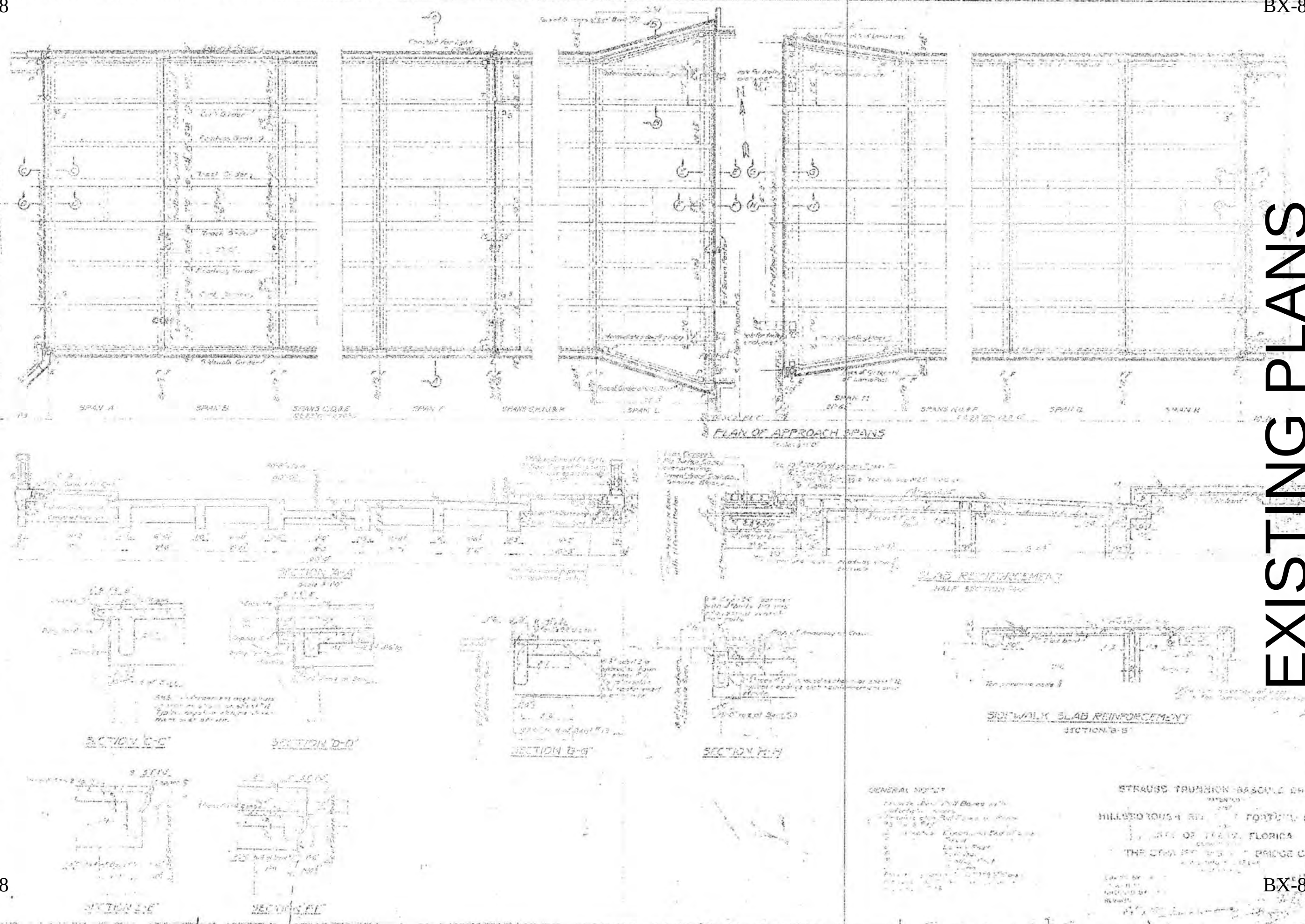
DRAWN BY E.C.F.
TRACED BY D.M.
CHECKED BY C.H.
REVISED

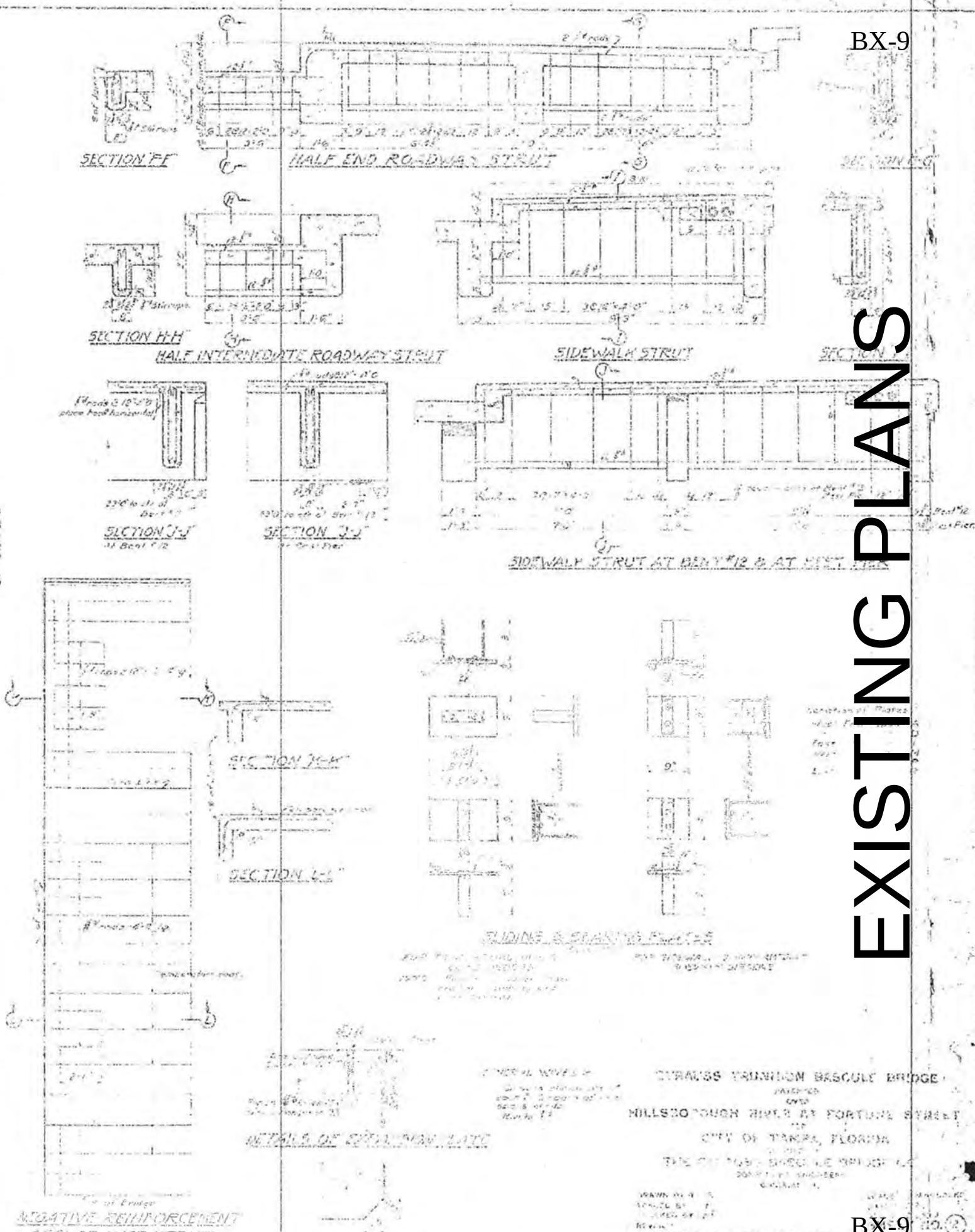
REST PIER

SCALE 1" = 1'-0"
DATE 1-25-26
GEN. FILE 1434
SHEET NO. 9

EXISTING PLANS

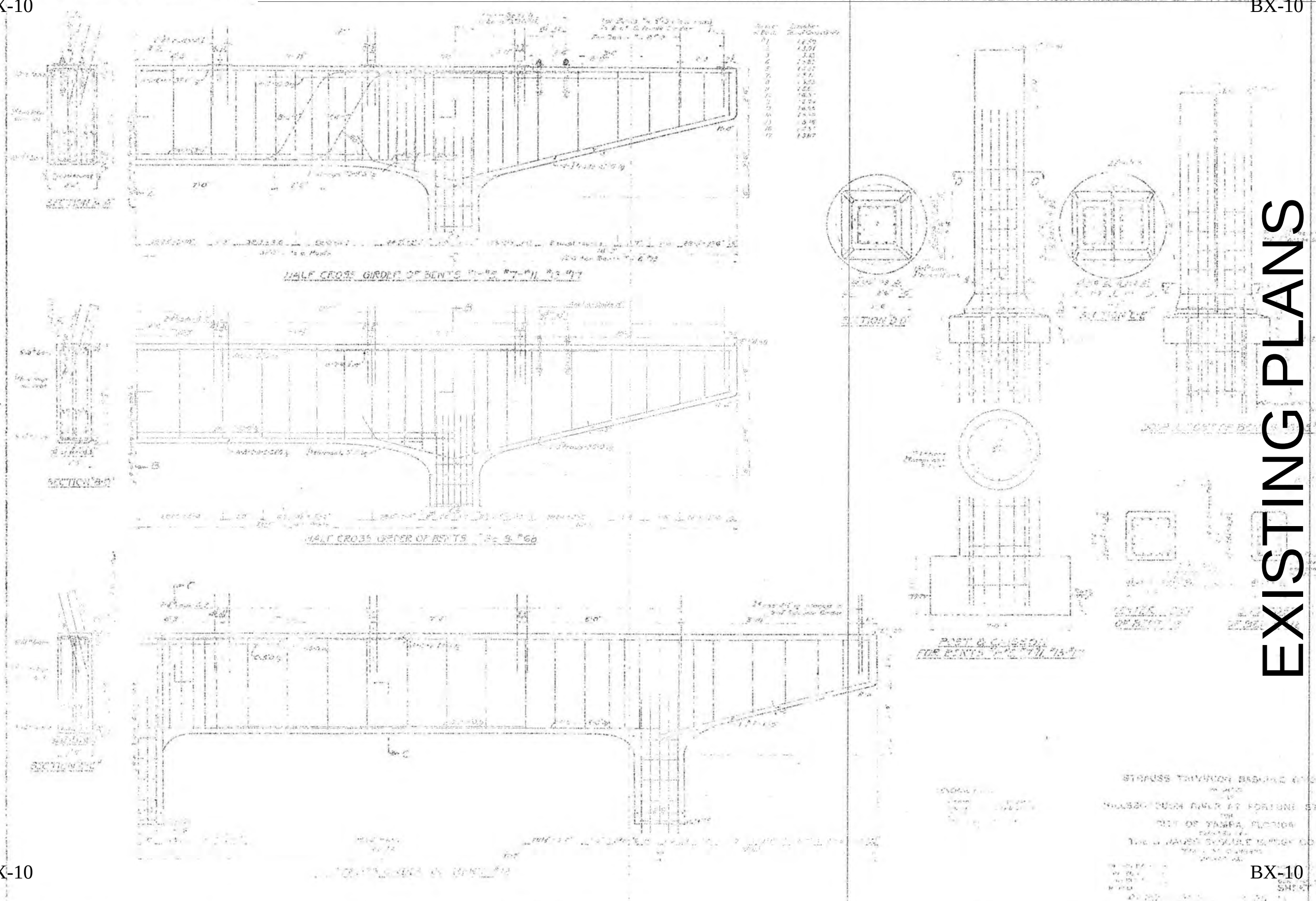
EXISTING PLANS





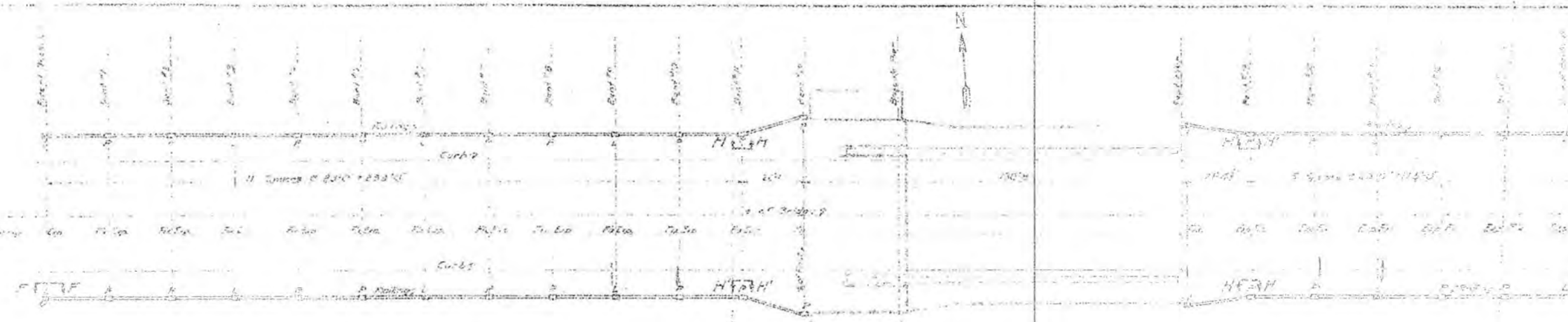
EXISTING PLANS

EXISTING PLANS



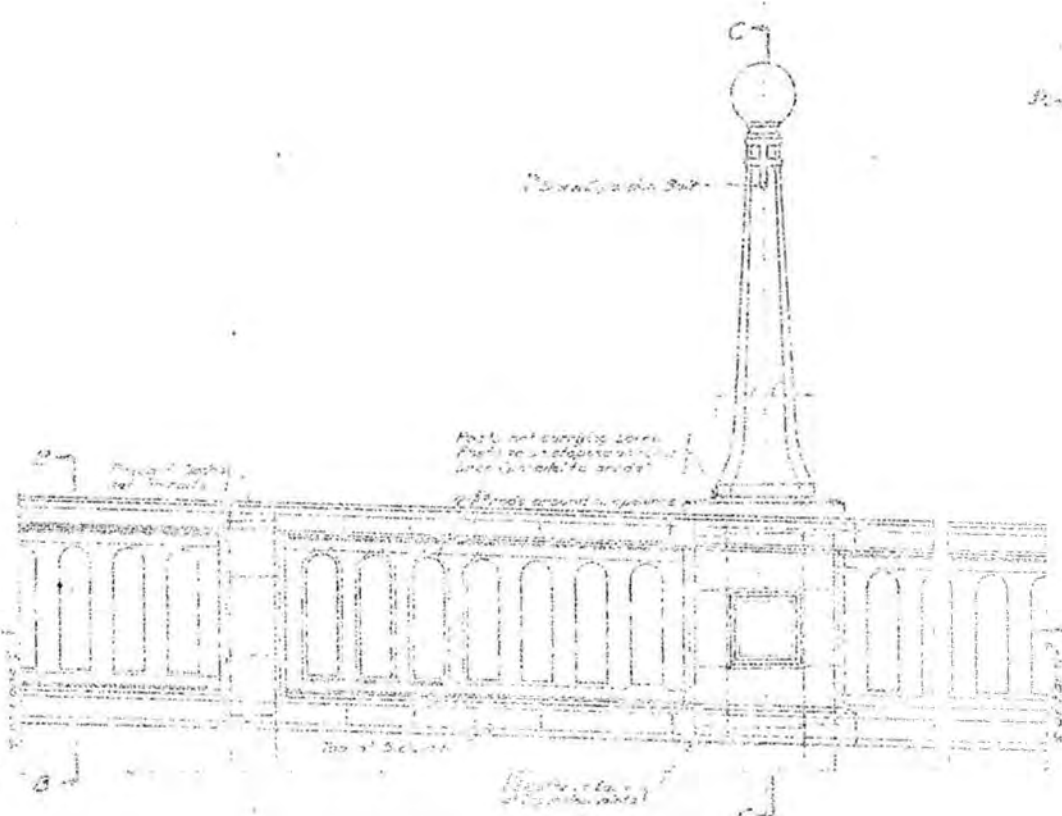
EXISTING PLANS

EXISTING PLANS

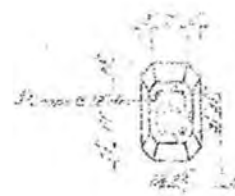


LOCATION PLAN OF POSTS & RAILING

1 - 120 inch Lamin Post & Railing Post
2 - Rolling Post



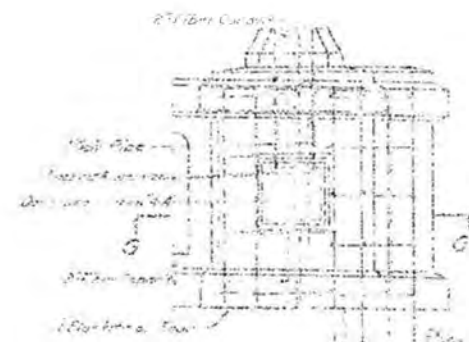
ELEVATION-TYPICAL PANEL OF HANDRAILING



SECTION 'E-E'



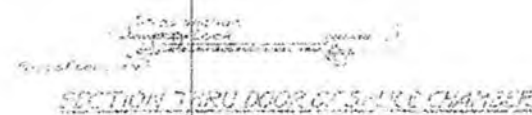
SECTION 'B-B'



SECTION 'F-F'



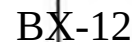
SECTION 'A-A'

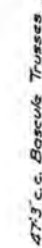


SECTION THRU DOOR OF BRIDGE CHAMBER

STRAUSS TRUNNION CASQUET BRIDGE
PATENT
OVER
MILERS RIVER
FORTUNE STREET
OF TAMPA, FLORIDA
THE
OFFICE
1900

EXISTING PLANS

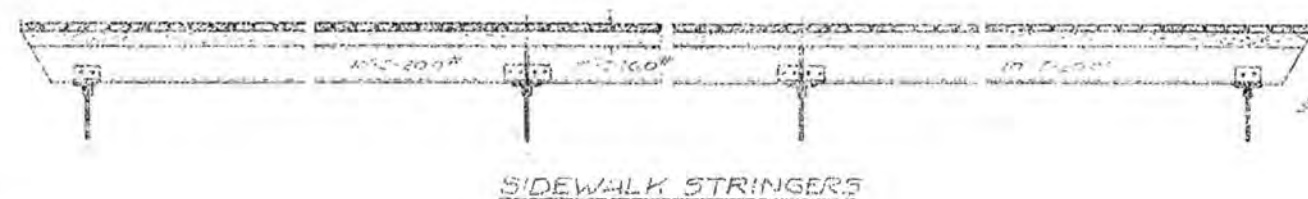
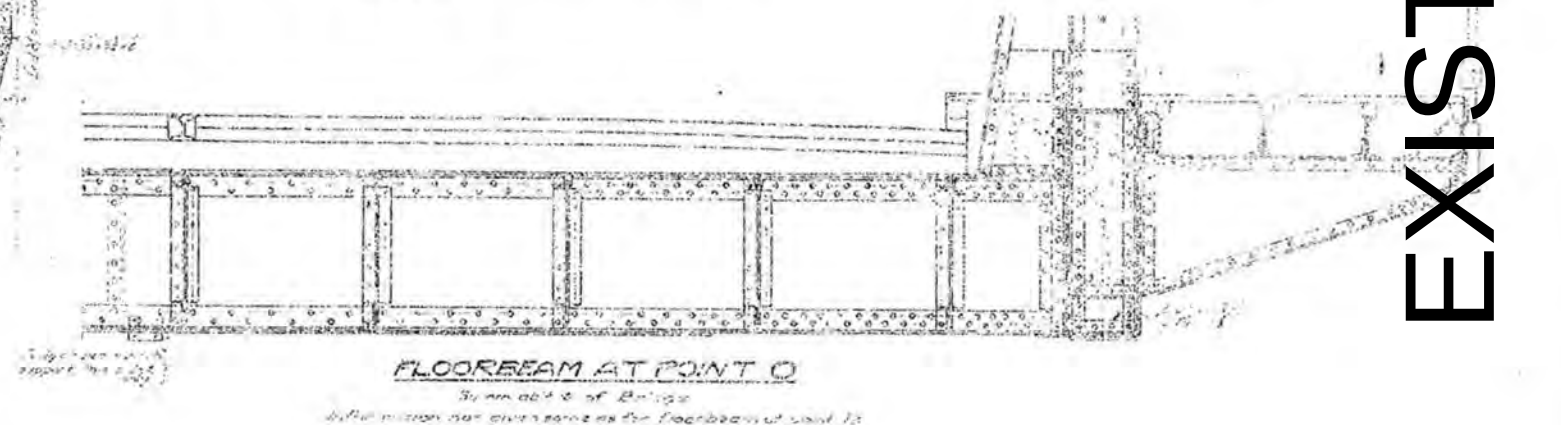
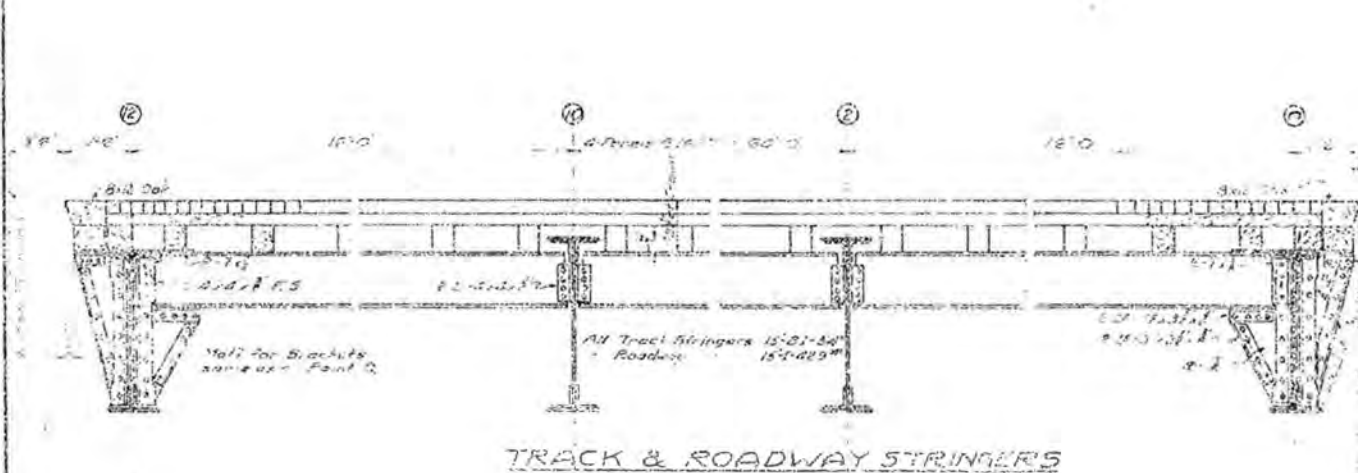




STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.

SCALE 1"=1'-0"
DATE 1-25-26
GEN. FILE 1434
SHEET NO. 16

BASCULE TRUSS FRONT END



SENCRA, 2011-12-12

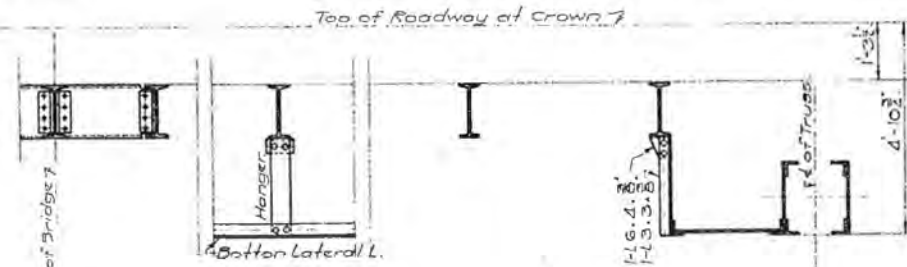
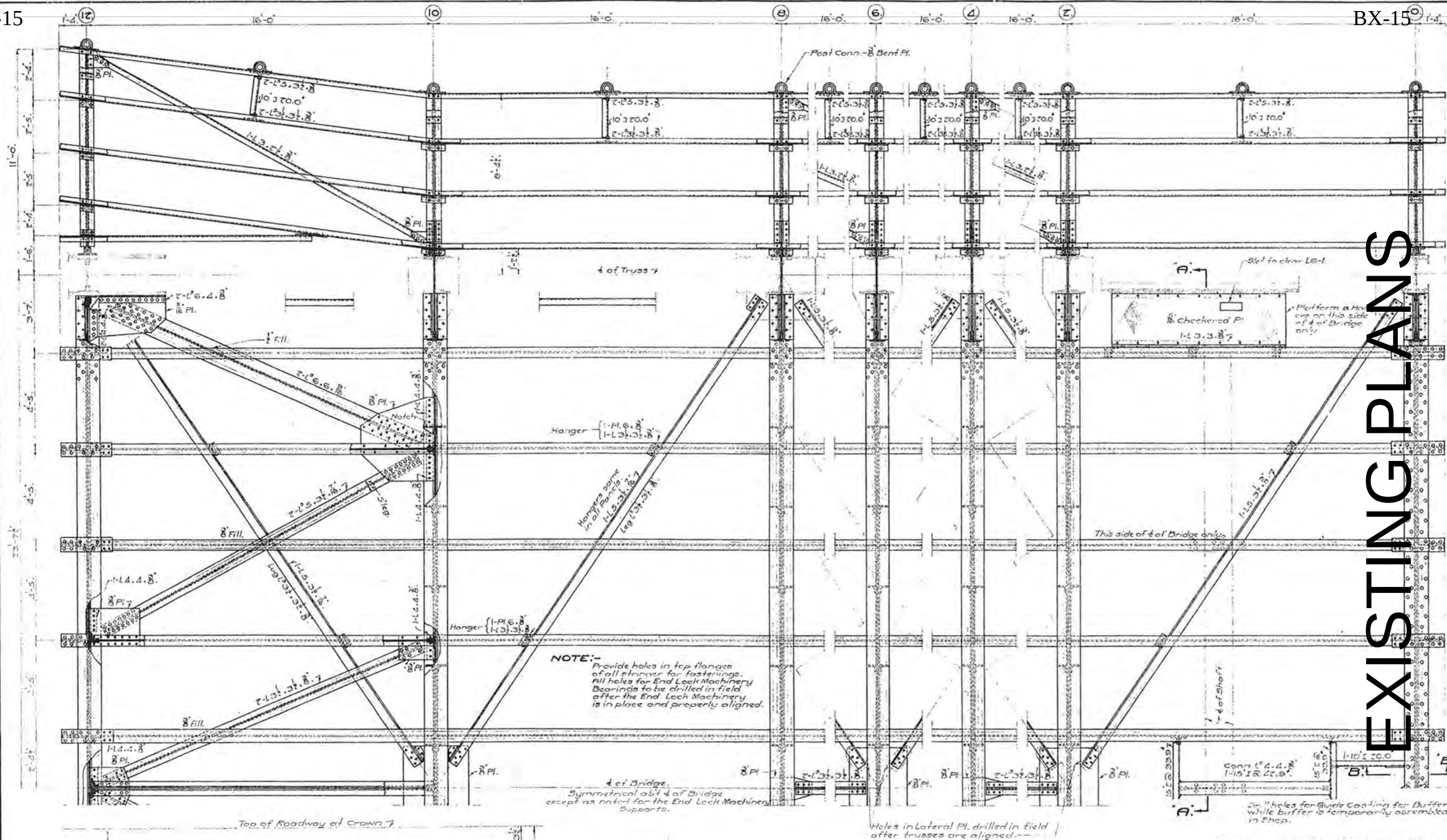
STRAUSS TOWNHOM BASKET BRIDGE
PATENTED
OVER
MILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASKET BRIDGE CO.
CORPORATION
TAMPA, FLA.

DESMON, 107 S. W.
TAKAHASHI, OSAKI, 10
CHIKASAKI, SHINJI, 2-1-1
RICHIE, 5

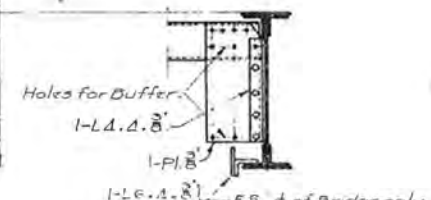
BX-14

EXISTING PLANS

EXISTING PLANS



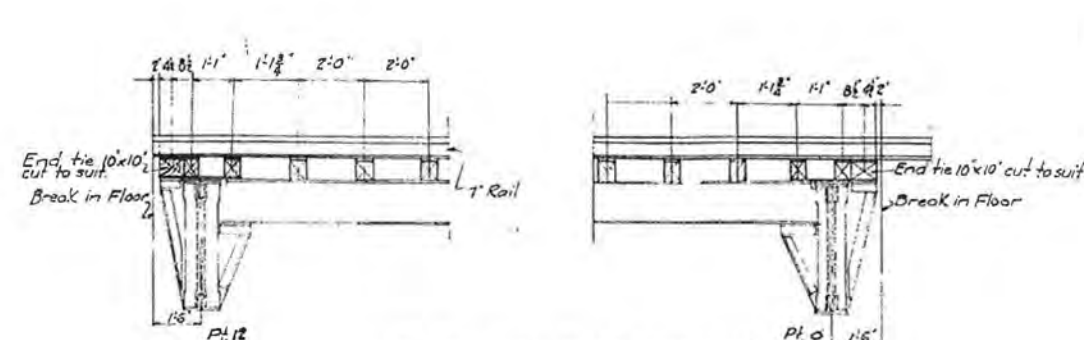
SECTION A-A



SECTION B-B

GENERAL NOTES:-
Rivets - 8" dia.
Open Holes - 1 1/2" dia.

STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSTOUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
DRAWN BY K.R.
TRACED BY J.F.
CHECKED BY J.F.
REVISED
SCALE 1"=10'
DATE 1-25-20
GEN. FILE 1434
SHEET NO. 18
HORIZONTAL TRUSS & LATERALS



120 wire nail every block resting on L

6d wire nail 6" o.c

Galv. L $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ every 12th row of blocks

Fill joints with ppying pitch filler.

1/2 layer of 3ply roofing felt 120 in hot pitch. Top swabbed in hot pitch

5 x 3" boot spike every 8' spike in L slightly smaller than spike.

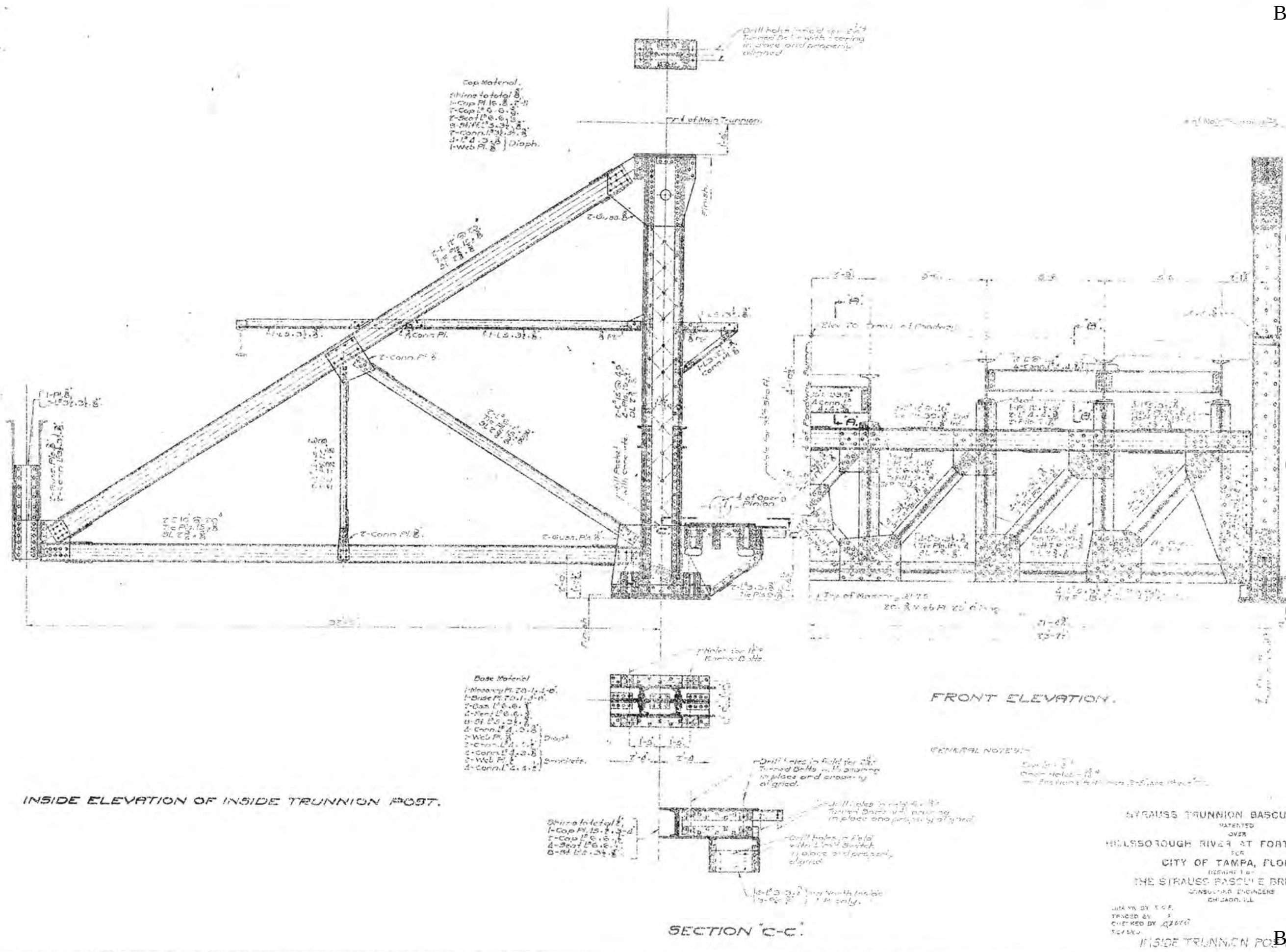
1/2" bolt with 1cup & 1/4" beveled washer

METHOD OF FASTENING BLOCKS & SUB-PLANK

DRAWN BY R T
TRACED BY R T
CHECKED BY *RT*
REVISED

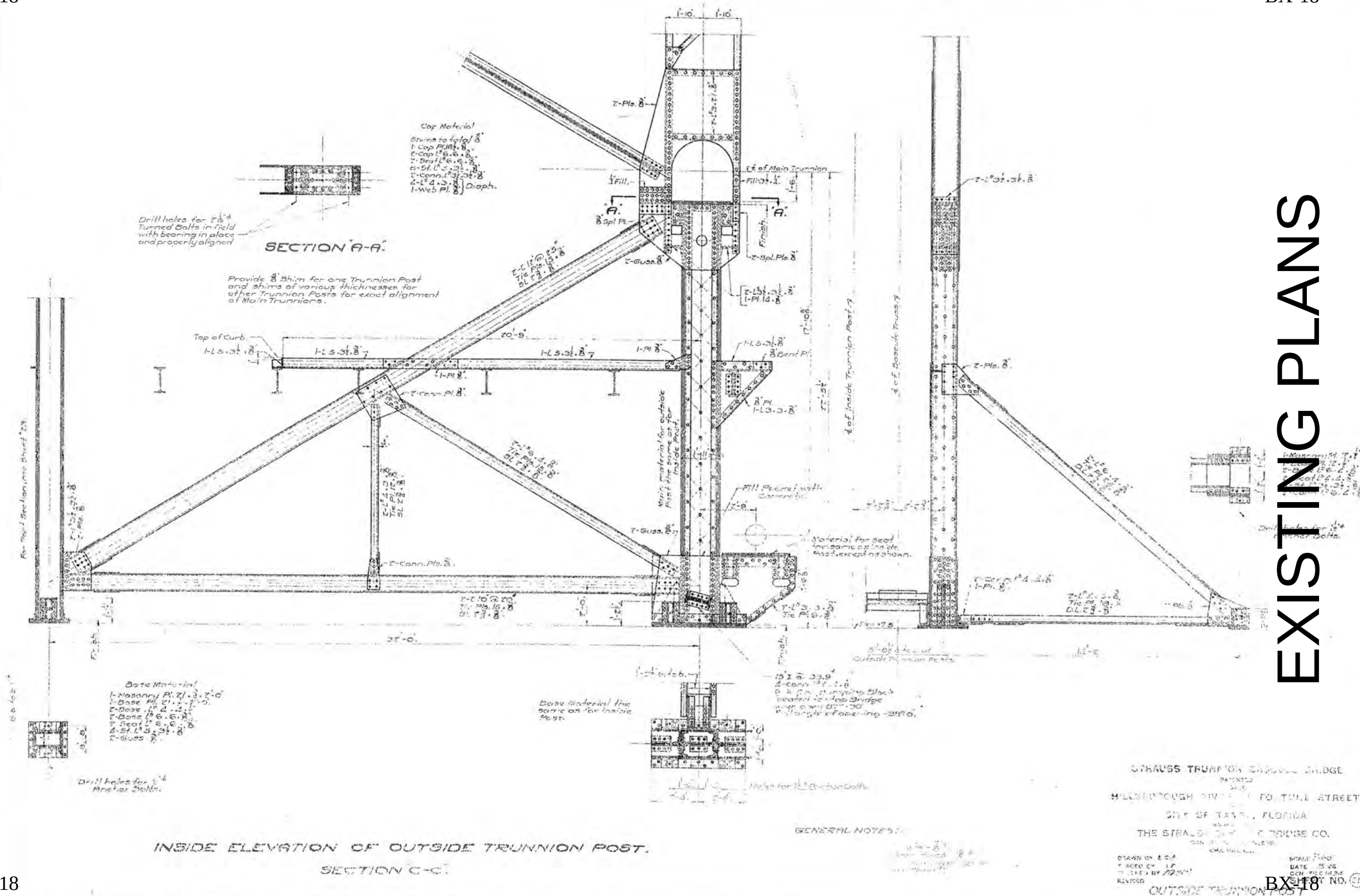
BX-16

EXISTING PLANS



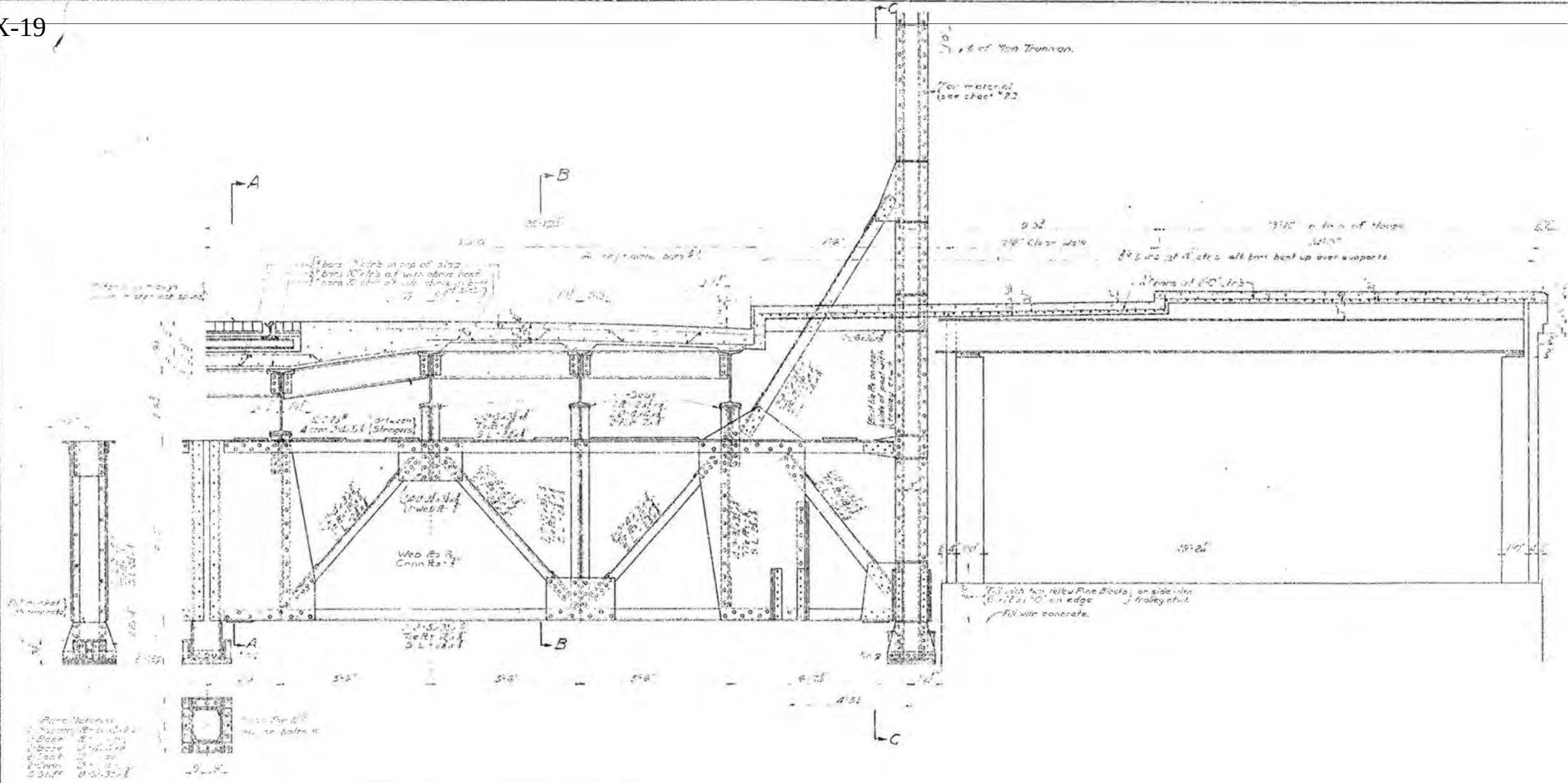
EXISTING PLANS

STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
SCALE 1/4" = 1'-0"
DATE 11-1-1914
DRAWN BY J. J. B.
CHECKED BY J. J. B.
REVIEWED BY J. J. B.
SHEET NO. 10

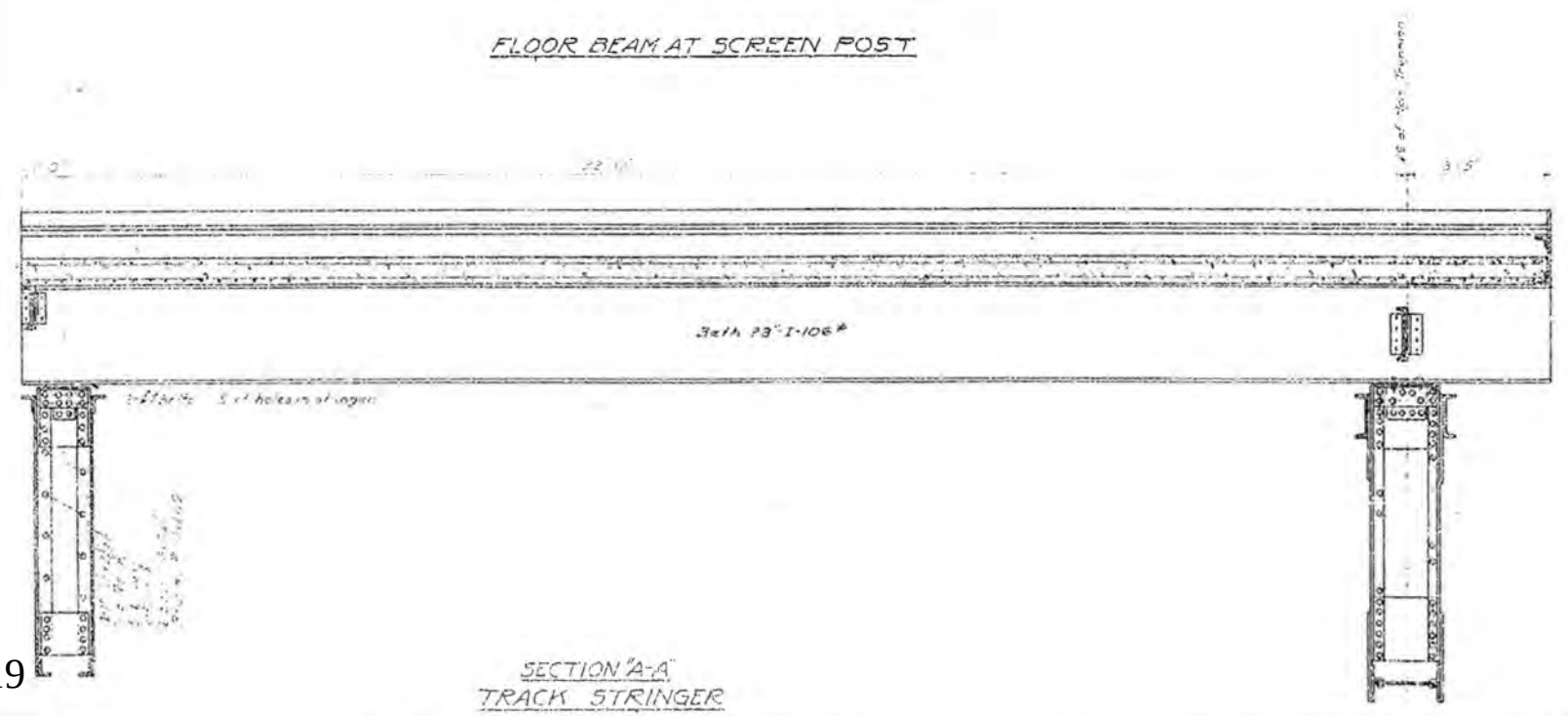


EXISTING PLANS

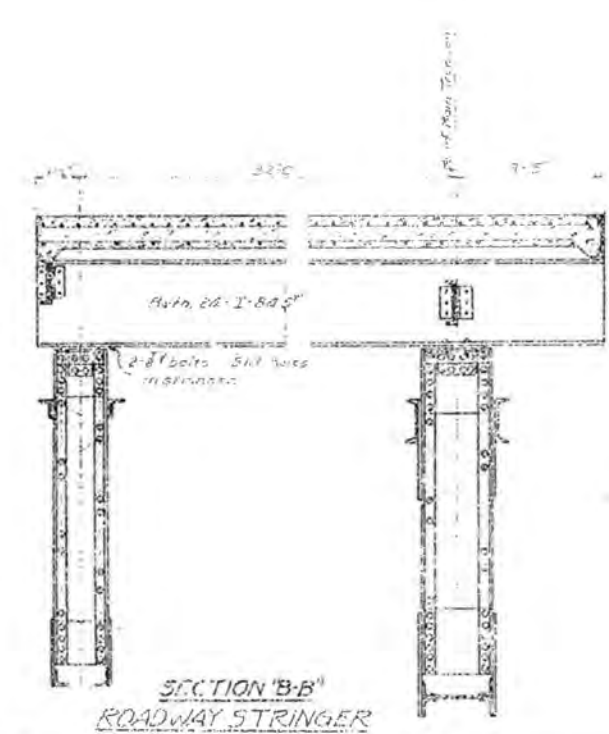
EXISTING PLANS



FLOOR BEAM AT SCREEN POST



SECTION A-A
TRACK STRINGER



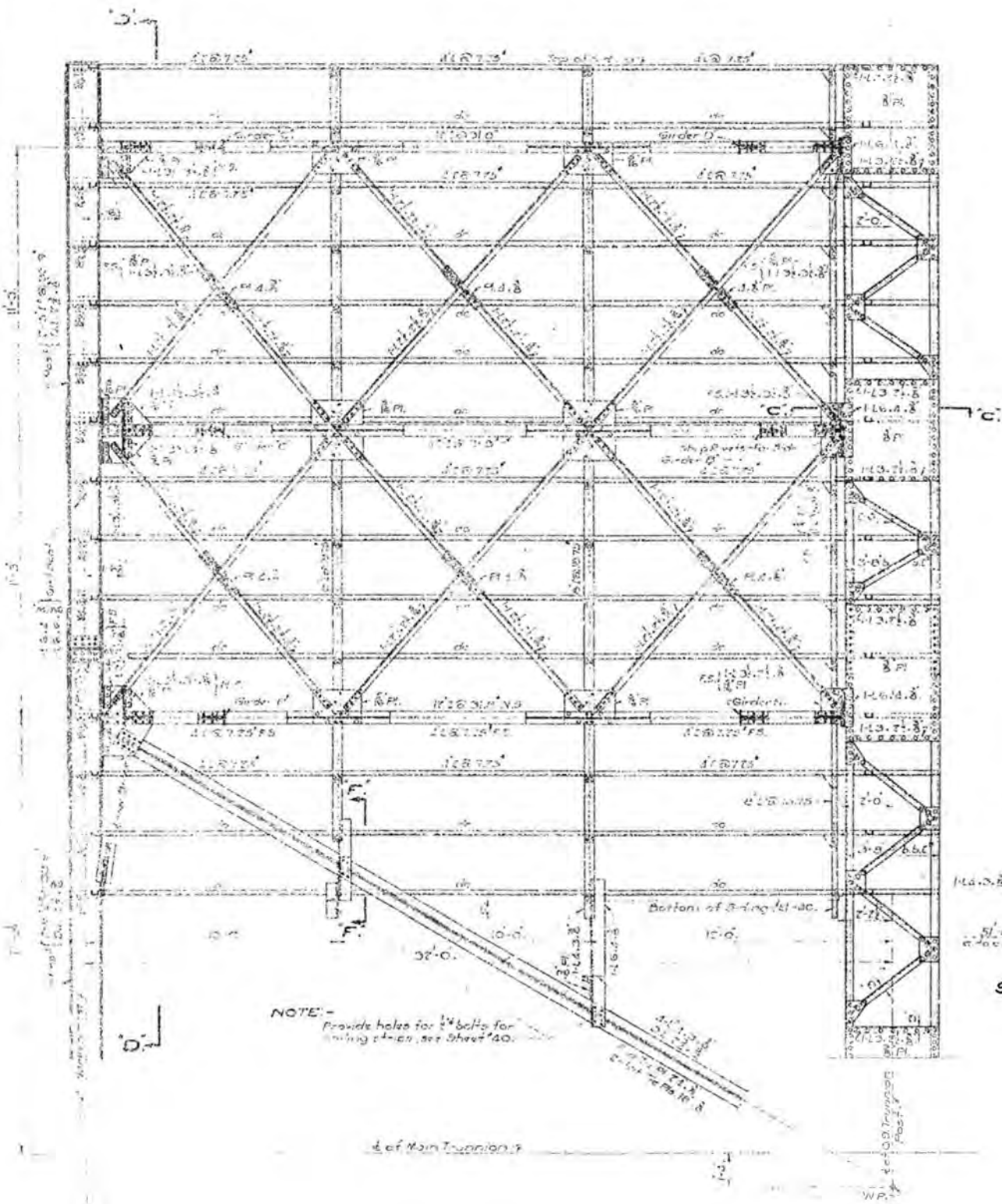
SECTION B-B
ROADWAY STRINGER

GENERAL NOTES:-
R. 24'-8"
1" dia. Holes - 1/2"
For 2-8" B.C. and steel "C"

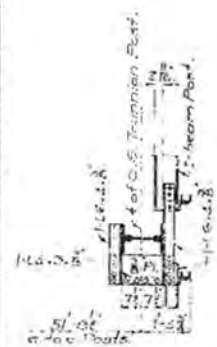
STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER & FORTUNE STREET
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
DRAWN BY E.M.
TRACED BY D.M.
CHECKED BY C.W.
REVISED
SCALE 1"=10'
DATE 1-25-26
NO. 1434
BX-19 NO. 12
FLOOR BEAM AT SCREEN POSTS

EXISTING PLANS

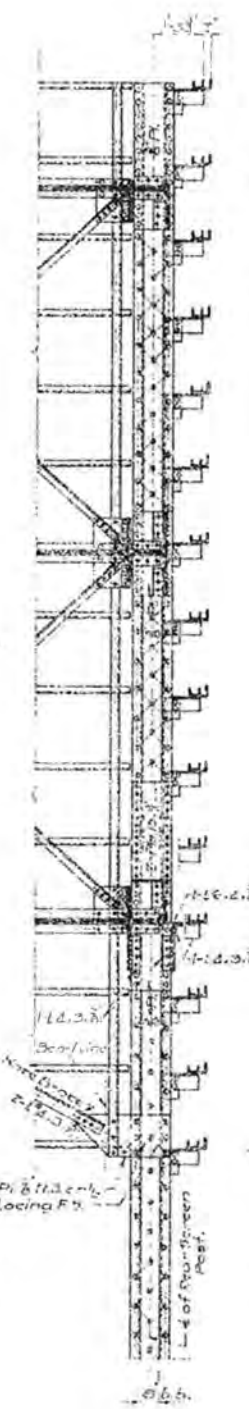
EXISTING PLANS



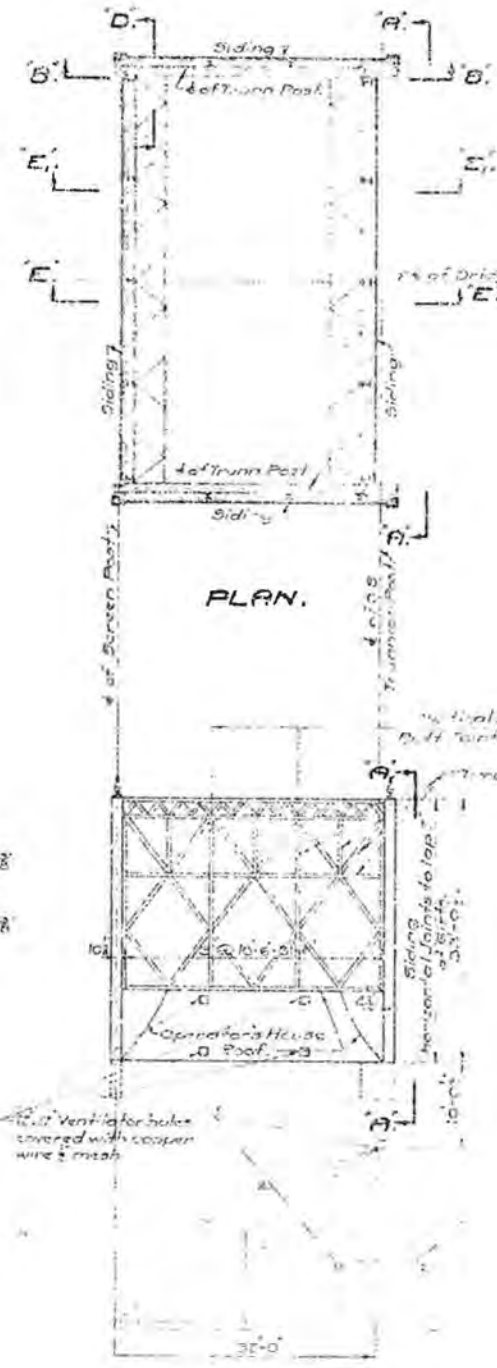
SECTION 'B-B'



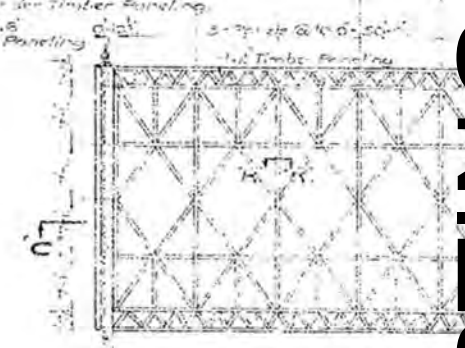
SECTION 'F-F'



SECTION 'D-D'



PLAN



VIEW 'A-A'



SECTION 'K-K'

GENERAL NOTES:-

- Rivets - 3/4 in. in holes at corners of screen, 7/8 in. in all other members.
- Corner Holes - 3/4 in. in holes at corners of screen, except as noted.
- Provide holes in steel where necessary for bracing fastenings.
- Provide 1/4 in. diameter holes in 2-0 steel in webs of all 4-0 girders.
- For Girders A, B, C & D, see Sheet 40.

NOTE:-
Timber Paneling over 5 in. in thickness shall be 1/4 in. bolts to be spaced 12 in. on center.

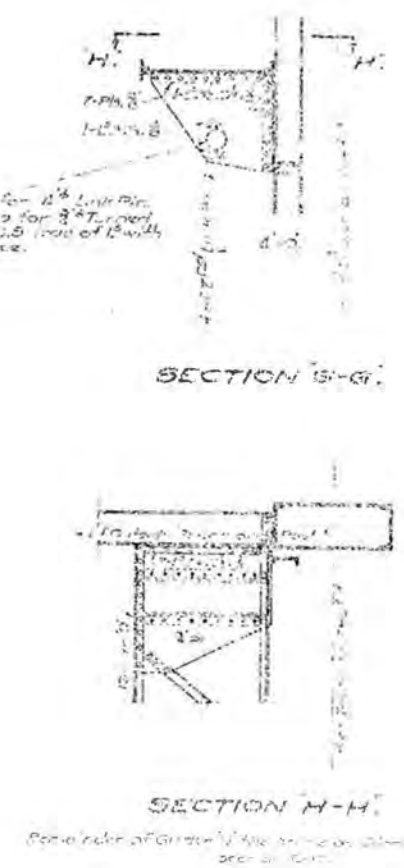
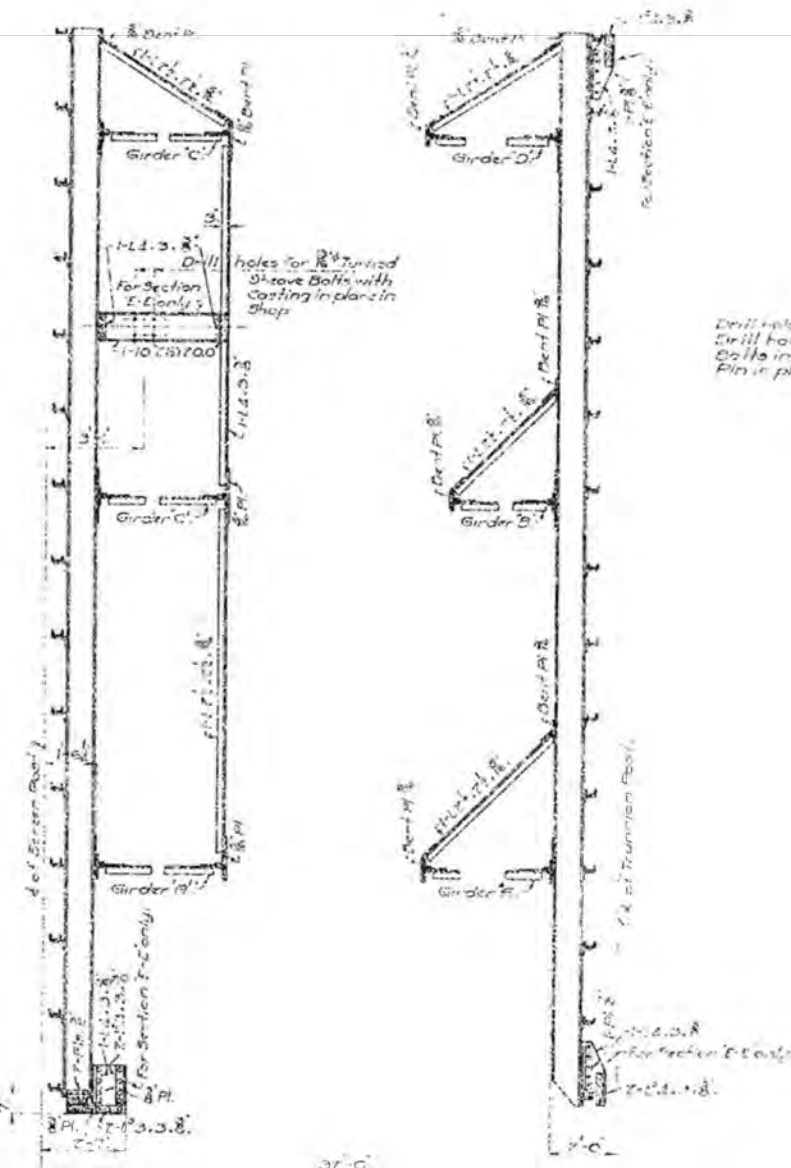
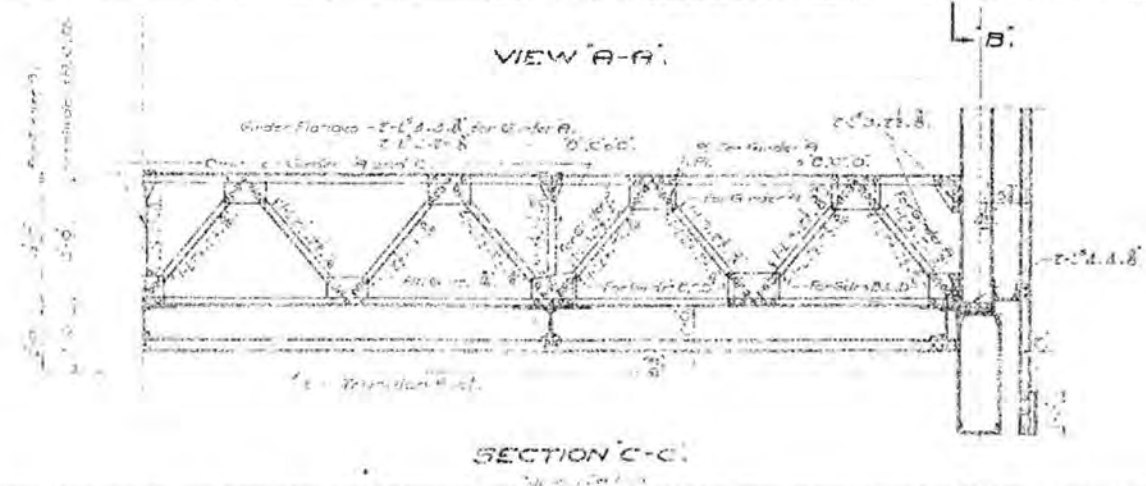
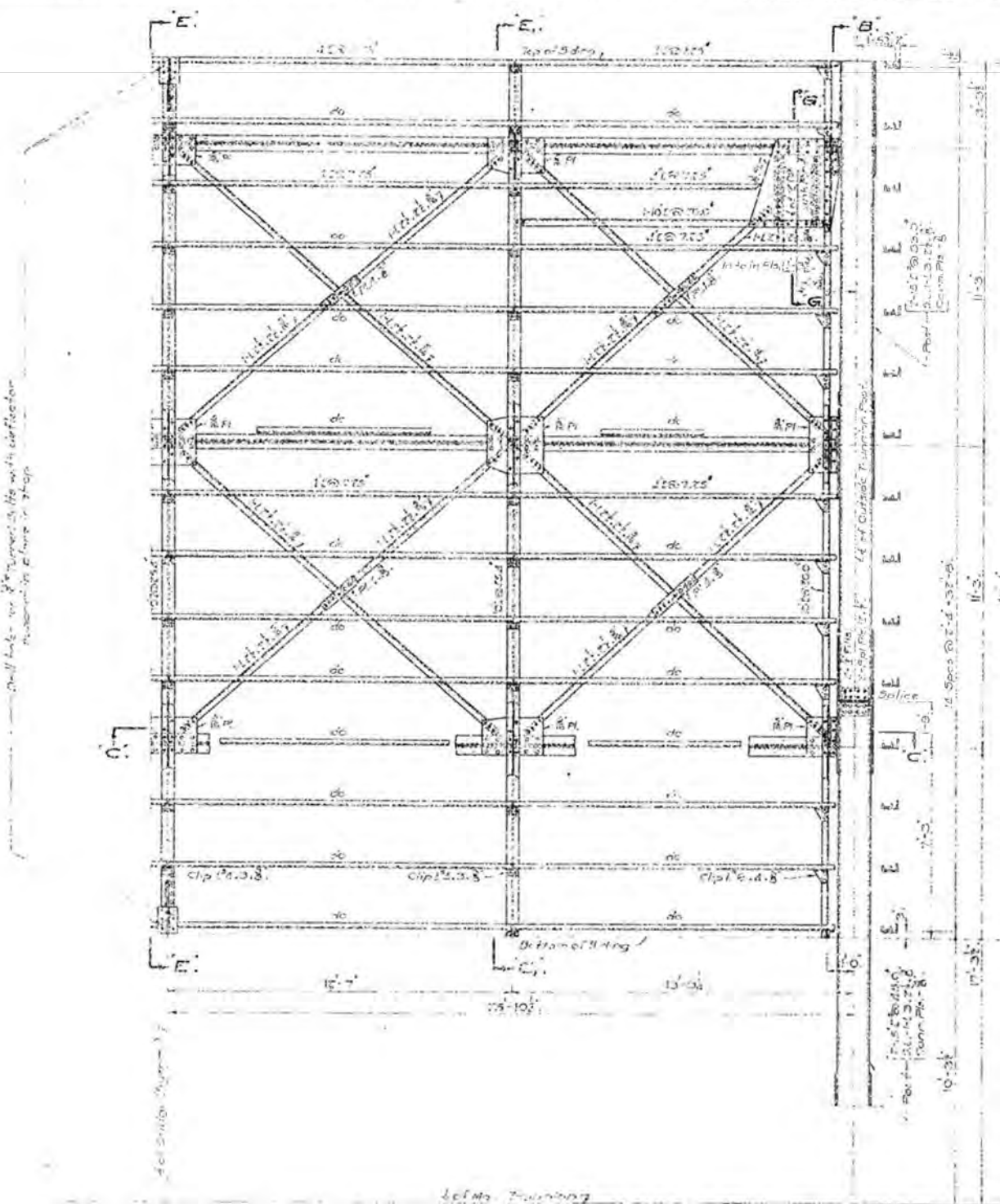
PRINTING:-
Steel to be painted five coats of color the same as the original of the work. Timber Paneling of lower to be painted two coats of the same color as used for structural steel.

STRAUSS TRUNNION BASCULE BRIDGE
OVER
HILLSTOUGH RIVER AT FORTUNE STREET
CITY OF TAMPA, FLORIDA

THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.

SCALE 1/4" = 1'-0"
DATE 1-25-78
BY H.B.G.
CHECKED BY J.E.D.
REVISED

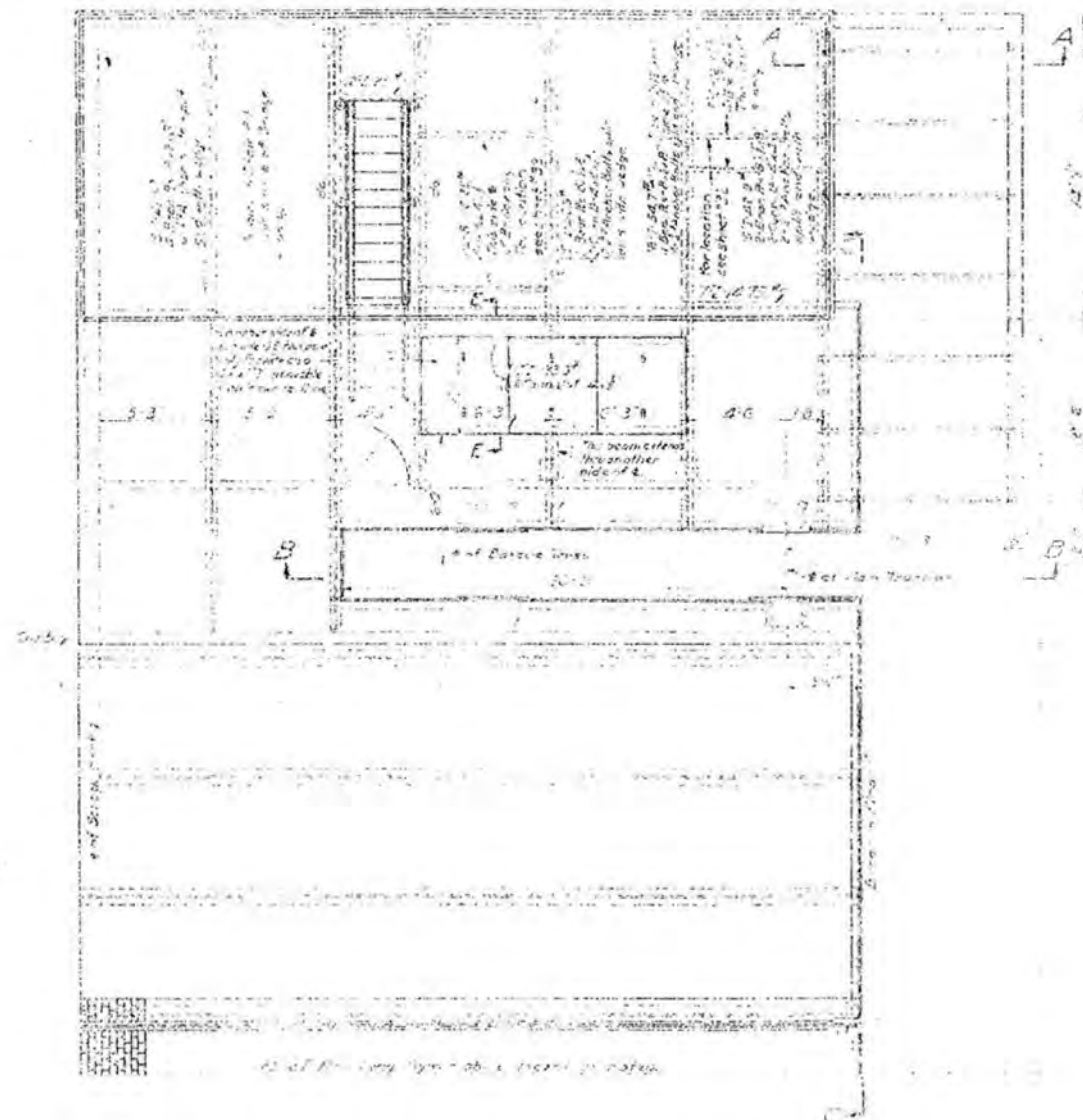
SCREEN TOWER END



GENERAL NOTES:

- Rivets 3/4" dia. in Poles at corners of Screens
- in all other members
- Open holes 1/2" dia. in Poles at corners of Screens
- in all other members
- Provide holes in steel where necessary for sliding fastenings
- Siding to be 1/2" thick Robertson Process Metal not rivets
- Provide 1/2" dia. holes at 1/2" dia. bolts in webs for 1/2" dia.
- for Section G-G, use 2000# 1/2" dia.

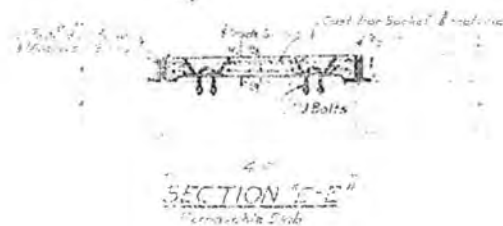
STRAUSS TRUNNION BANGSLE BRIDGE
 PATENTED
 HILLSBOROUGH RIVER AT FORTUNE STREET
 CITY OF TAMPA, FLORIDA
 THE STRAUSS TRUNNION BRIDGE CO.
 CONSULTING ENGINEERS
 CHICAGO, ILL.
 DRAWN BY H.P.
 CHECKED BY J.P.
 SCALE 1" = 10'-0"
 DATE MAY 1913
 SHEET NO. 1 OF 2
 SCREEN TOWER SIDE



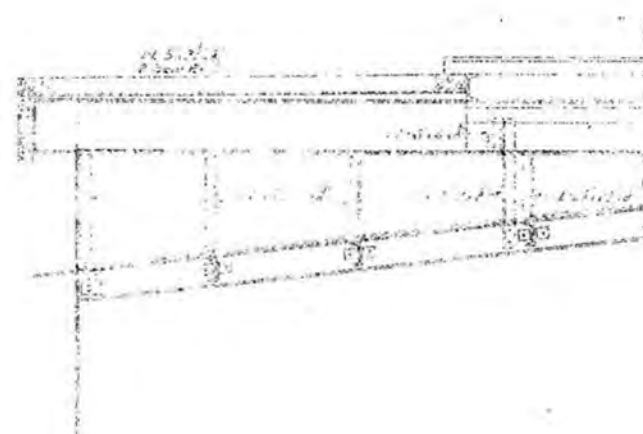
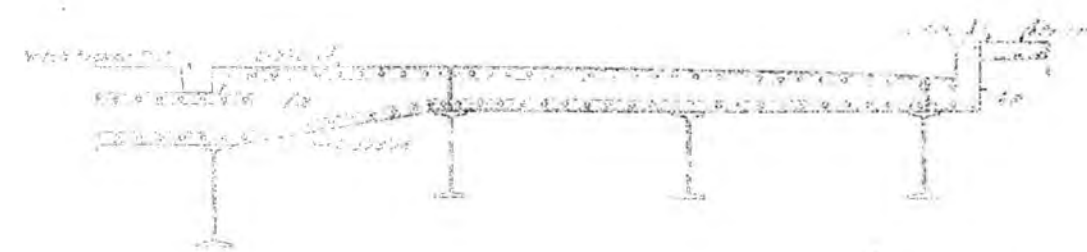
HALF PLAN OF TOWER SPAN FLOOR



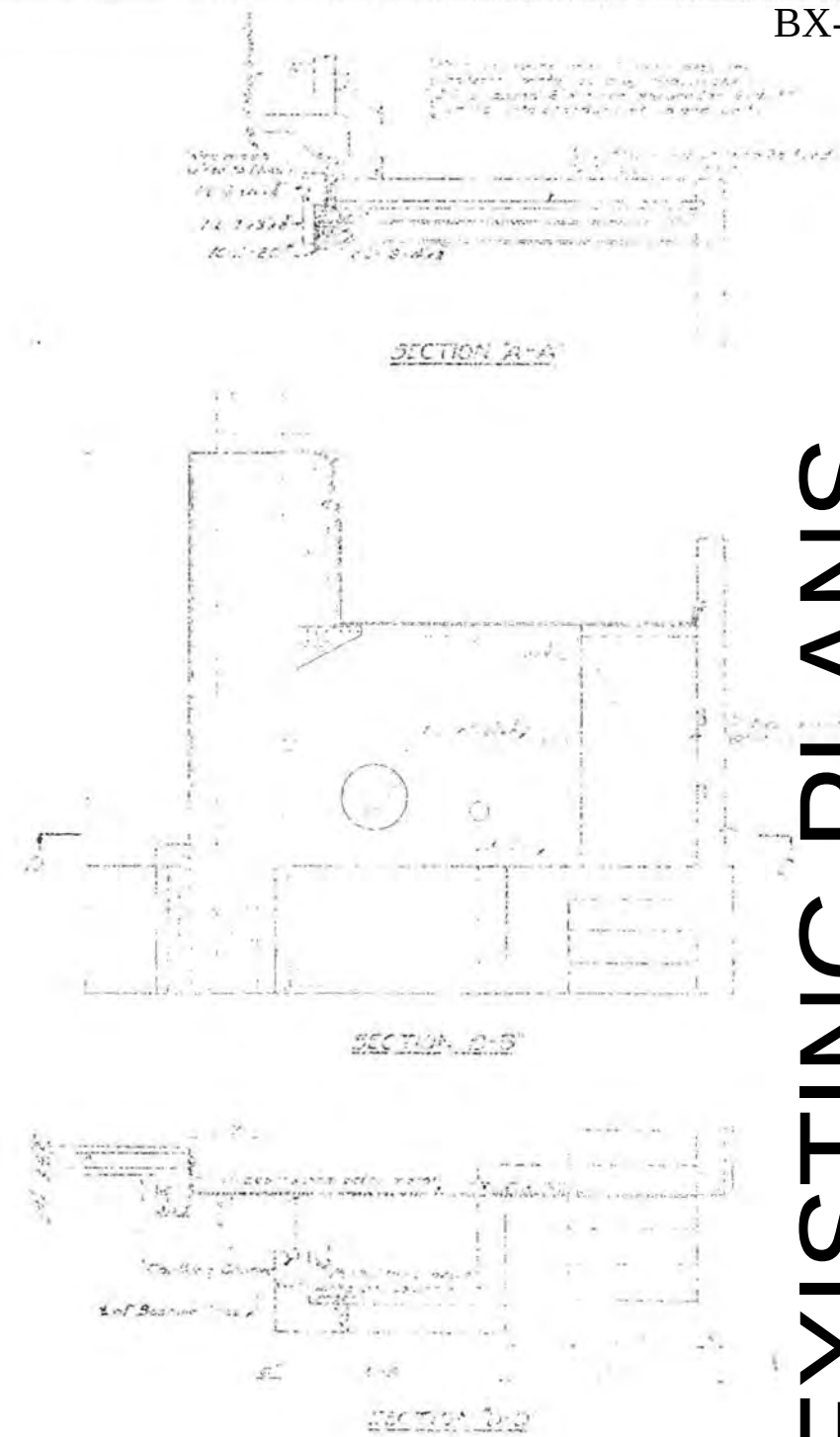
FRONT ELEVATION OF MACHINERY ENCLOSURE



SECTION 1-E
Permanent Slab



SECTION 1-E



SECTION A-A

SECTION 2-B

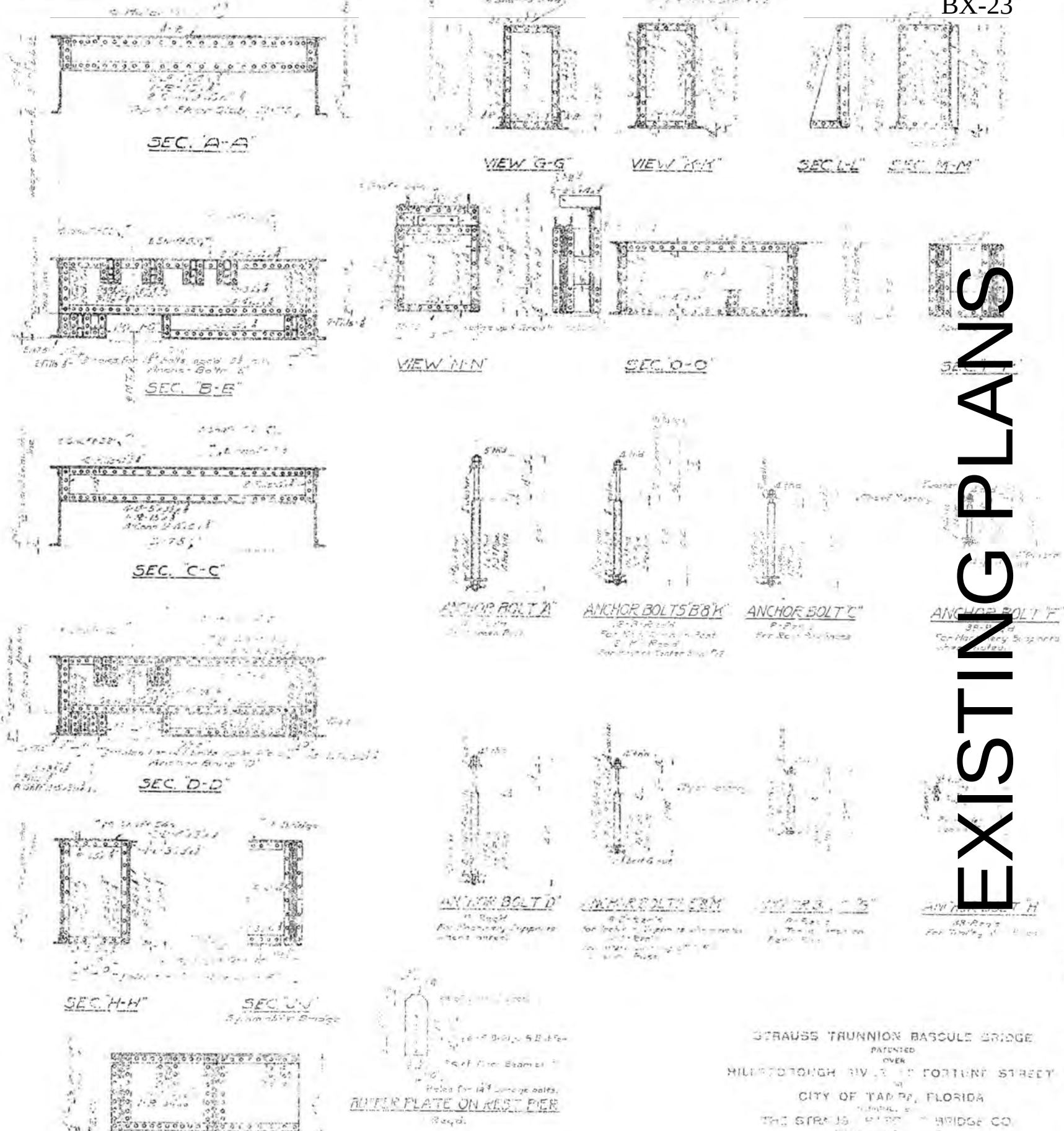
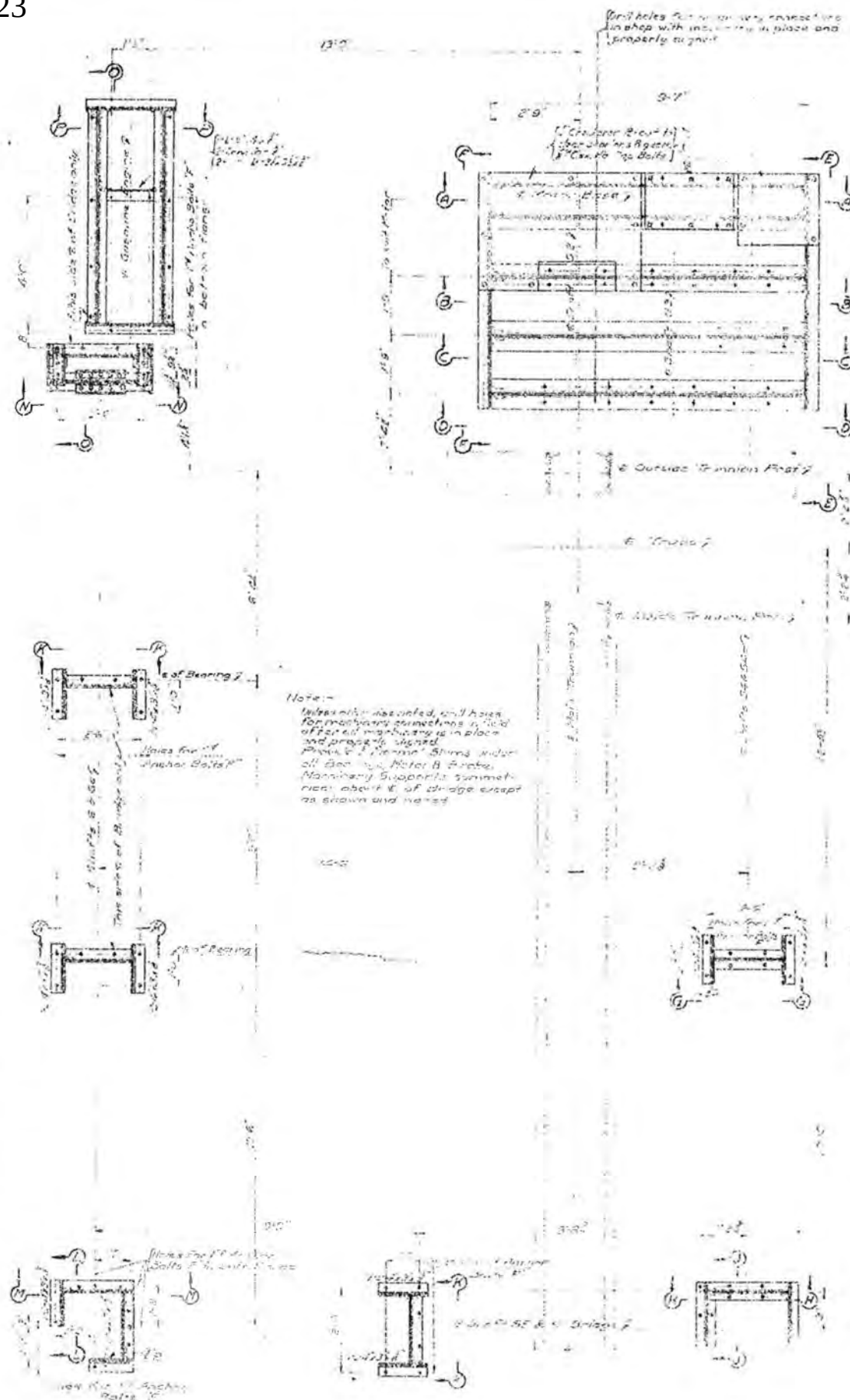
SECTION 2-B

GENERAL NOTES -
1. All work to be in accordance with the specifications for the construction of the bridge.
2. The bridge is to be constructed of steel and concrete.
3. The bridge is to be constructed in accordance with the specifications for the construction of the bridge.
4. The bridge is to be constructed in accordance with the specifications for the construction of the bridge.

STRAUSS TRUNION BASCULE BRIDGE
HILL COUNTRY RIVER AT TOWN OF ST. C.
CITY OF TAMPA, FLORIDA
THE STRAUSS TRUNION BRIDGE
TAMPA, FLORIDA

EXISTING PLANS

EXISTING PLANS

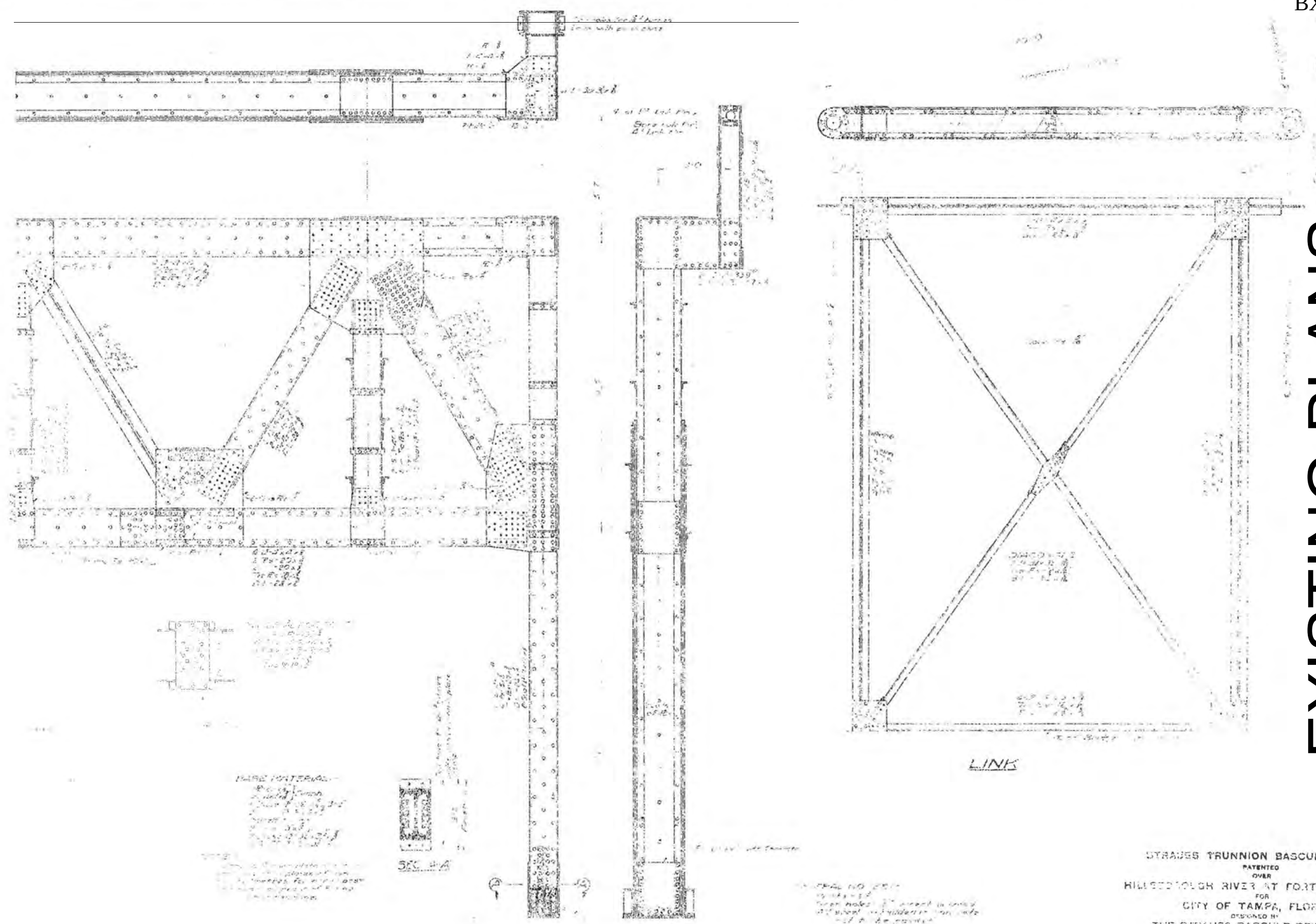


STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSTON TOWNHILL RIV. & FORTUNE STREET
CITY OF TAMPA, FLORIDA
THE STRAUSS TRUNNION BRIDGE CO.
TAMPA, FLORIDA

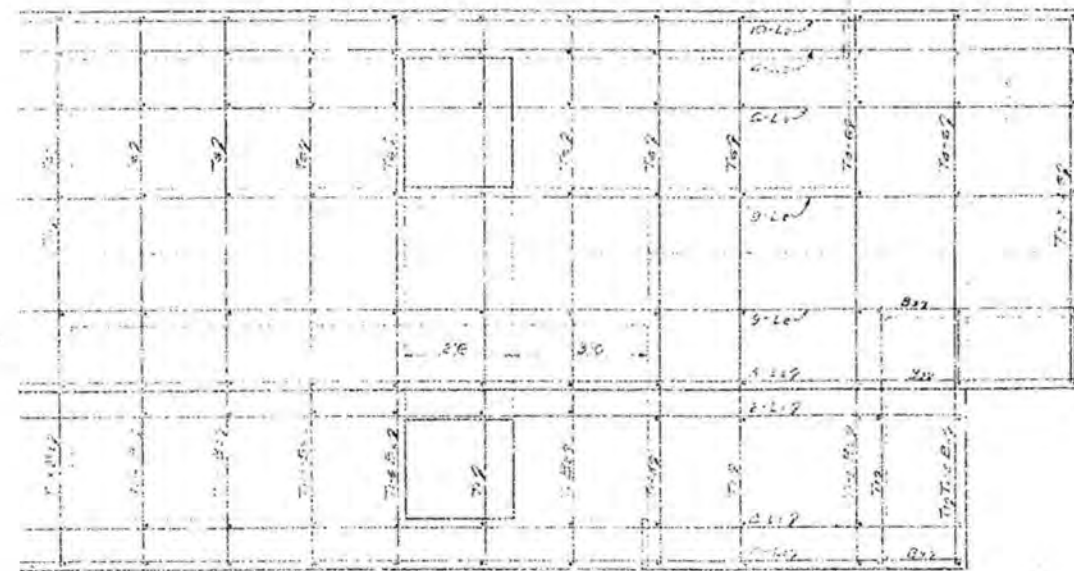
GENERAL NOTES
1. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
2. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
3. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
4. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
5. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
6. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
7. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
8. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
9. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
10. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
11. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
12. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
13. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
14. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
15. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
16. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
17. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
18. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
19. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
20. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
21. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
22. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
23. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
24. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
25. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
26. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
27. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
28. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
29. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
30. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
31. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
32. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
33. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
34. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
35. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
36. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
37. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
38. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
39. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
40. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
41. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
42. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
43. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
44. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
45. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
46. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
47. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
48. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
49. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
50. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
51. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
52. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
53. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
54. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
55. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
56. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
57. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
58. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
59. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
60. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
61. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
62. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
63. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
64. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
65. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
66. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
67. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
68. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
69. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
70. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
71. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
72. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
73. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
74. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
75. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
76. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
77. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
78. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
79. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
80. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
81. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
82. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
83. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
84. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
85. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
86. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
87. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
88. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
89. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
90. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
91. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
92. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
93. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
94. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
95. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
96. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
97. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
98. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
99. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.
100. ALL DIMENSIONS ARE TO BE MAINTAINED IN PLACE AND PROPERLY ALIGNED.

EXISTING PLANS

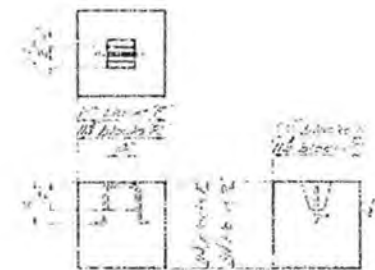
EXISTING PLANS



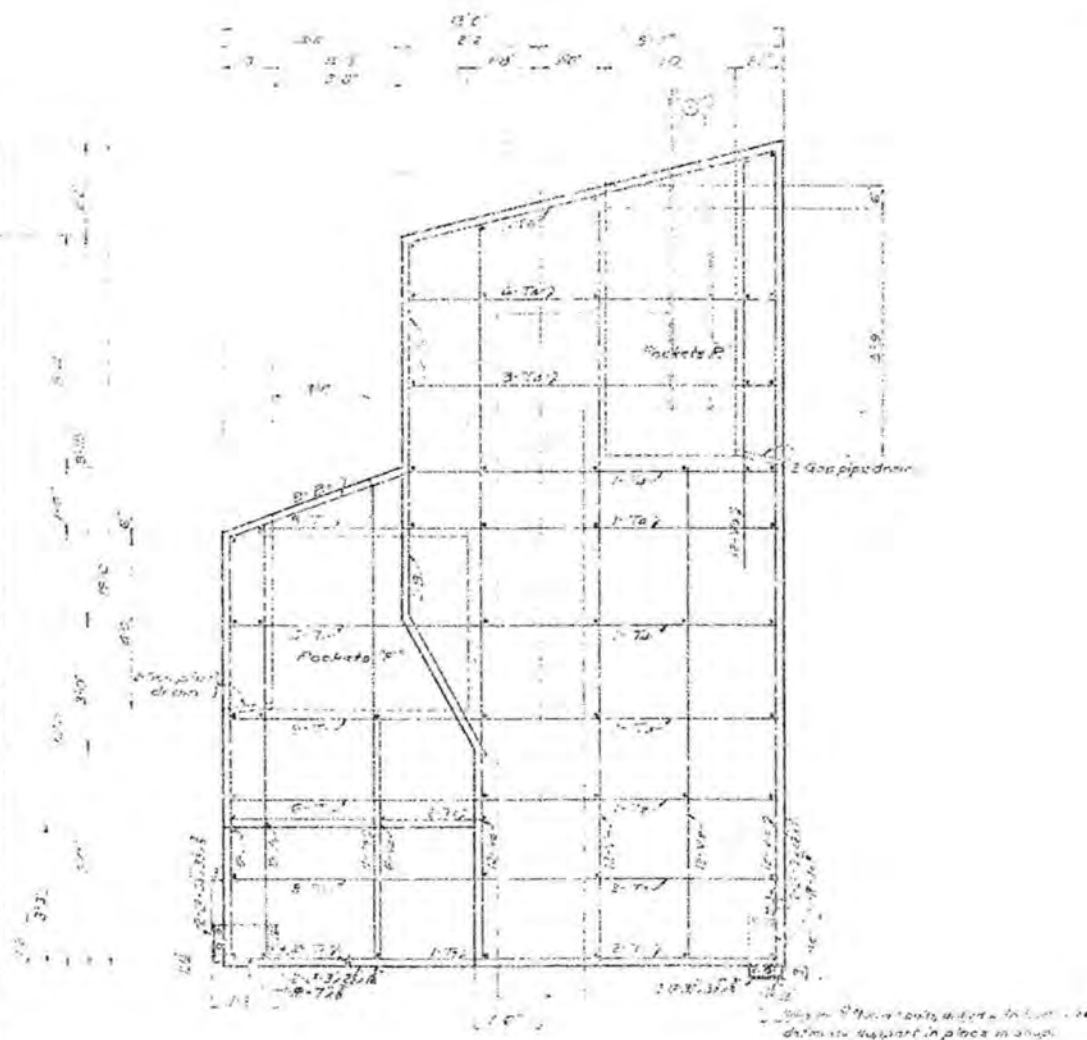
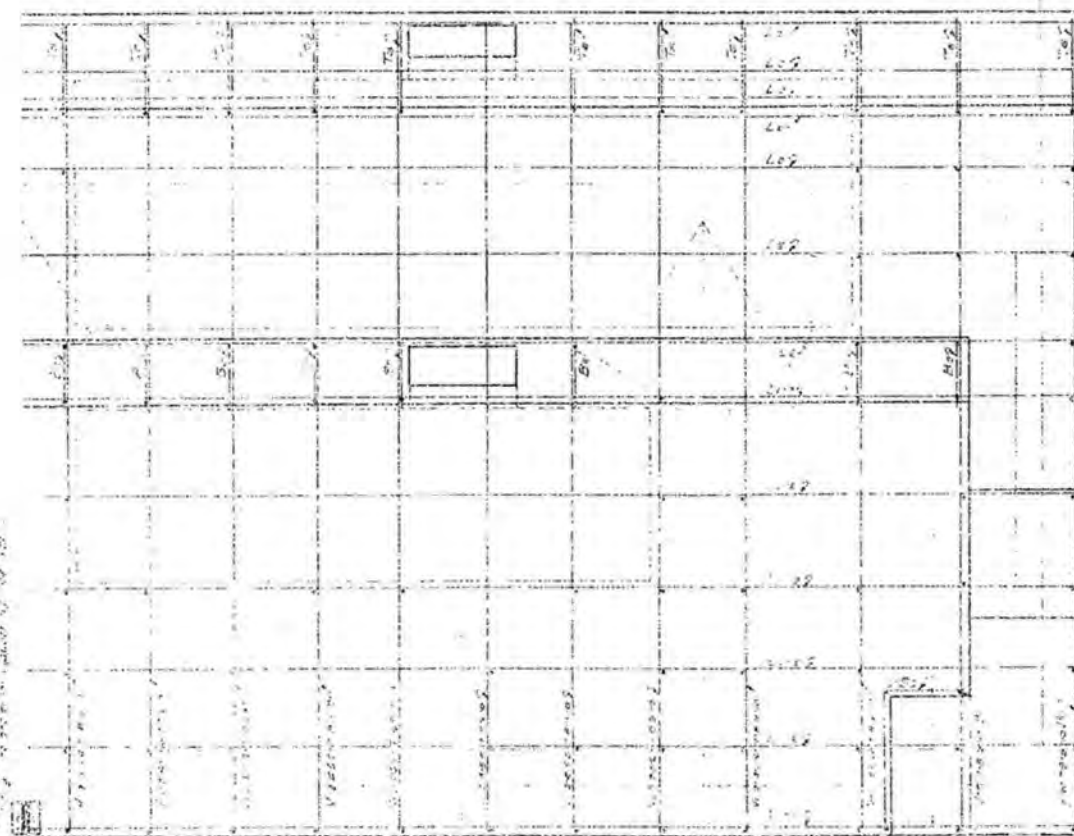
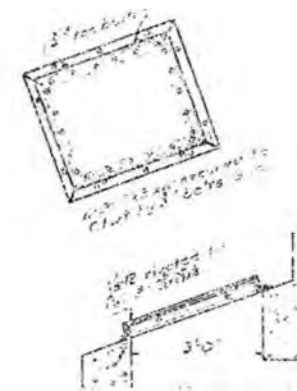
STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
FOR
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
SCALE: 1/4" = 1'-0"
DATE: 12/1/22
SHEET NO. 27
CTWT FRAME & LINK



Punch holes in C-flanges
for reinforcement bars



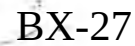
505 #4 blocks required for 10
pockets. Approximate weight 1500 lbs.
450 #4 blocks required for 10
pockets. Approximate weight 1350 lbs.



GENERAL NOTES

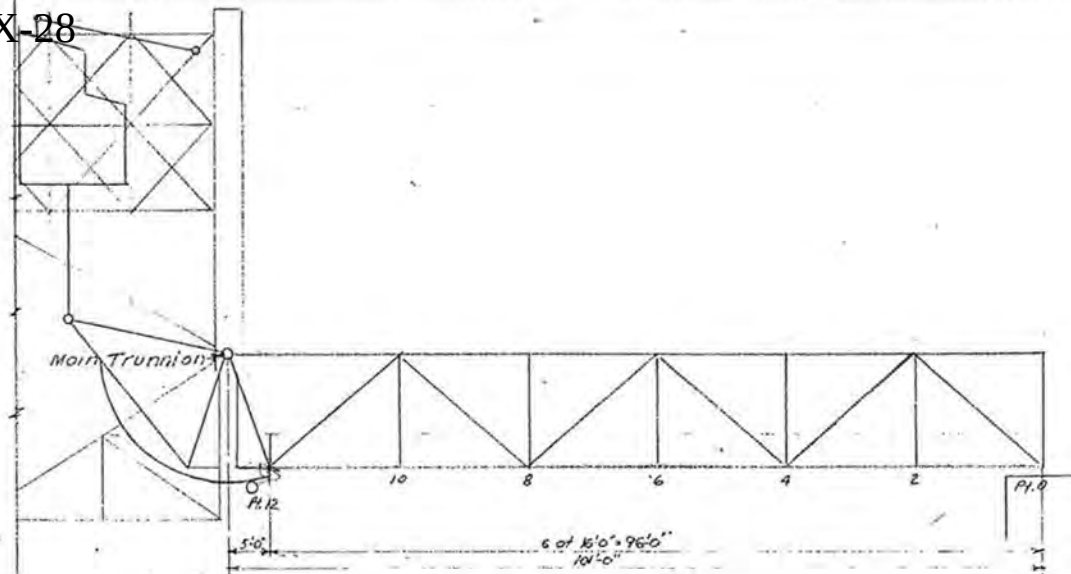
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.
Reinforcing bars to be placed in pockets as shown in detail drawings.

STRAUSS TRUNNION BASCULE BRIDGE
PATENTED
OVER
HILLSBOROUGH RIVER AT FORTUNE STREET
CITY OF TAMPA, FLORIDA
DESIGNED BY
THE STRAUSS BASCULE BRIDGE CO.
CONSULTING ENGINEERS
CHICAGO, ILL.
DRAWN BY E. C. G.
CHECKED BY J. H. G.
DATE 12-1-22
SCALE 1/4" = 1'-0"

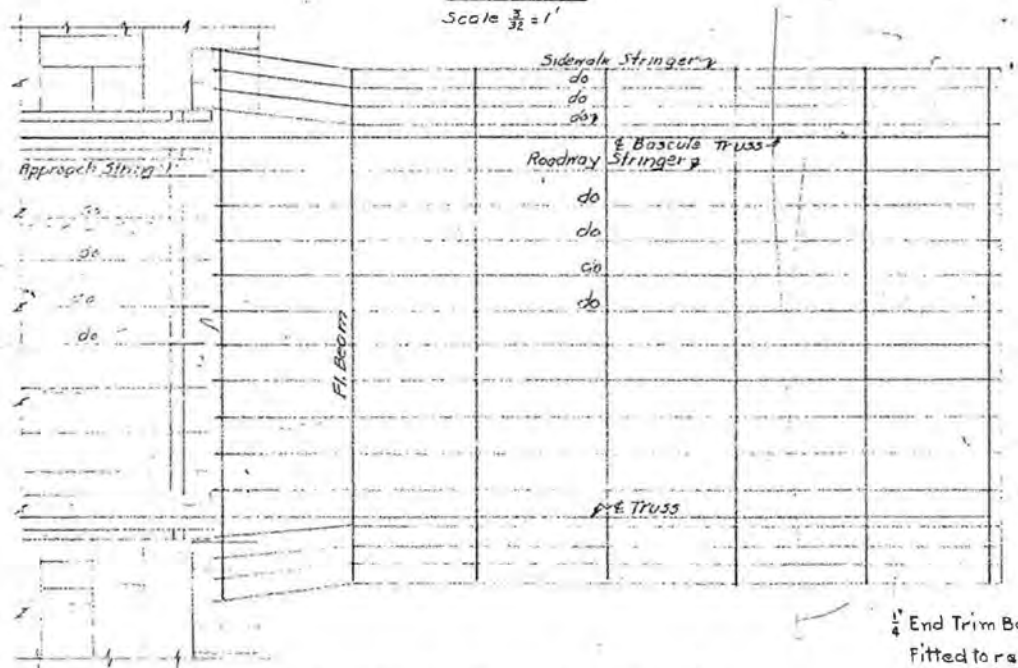


EXISTING PLANS

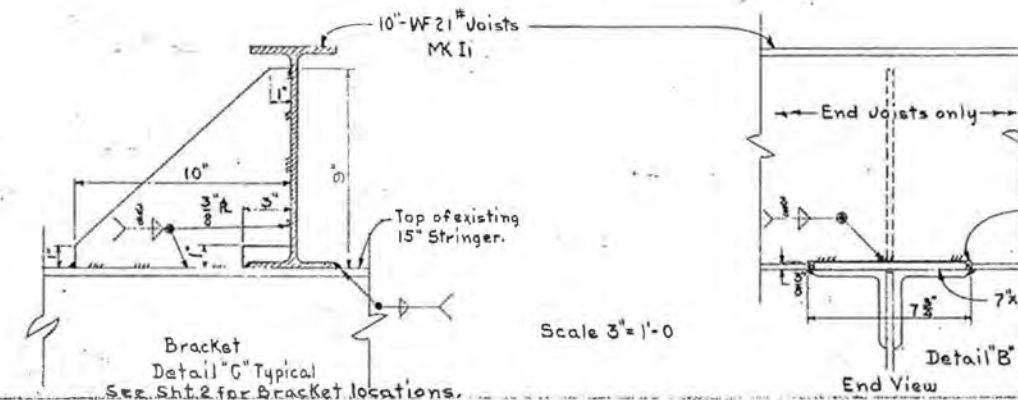
EXISTING PLANS



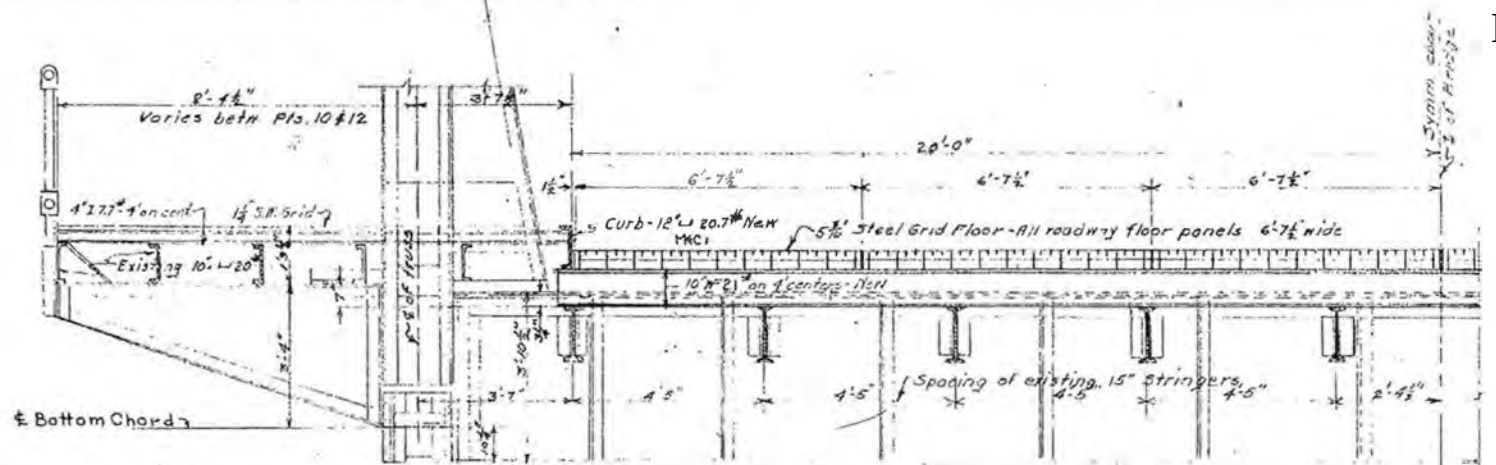
TRUSS
ELEVATION
Scale $\frac{3}{32} = 1'$



EXISTING FLOOR SYSTEM PLAN
Scale $\frac{3}{32} = 1'$

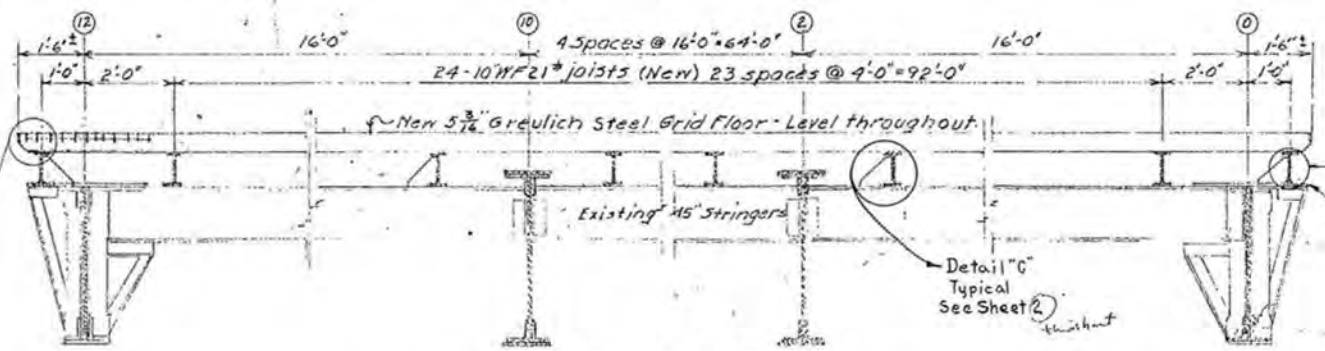


Scale $3" = 1'-0"$



TYPICAL CROSS SECTION
Scale $\frac{1}{2} = 1'$

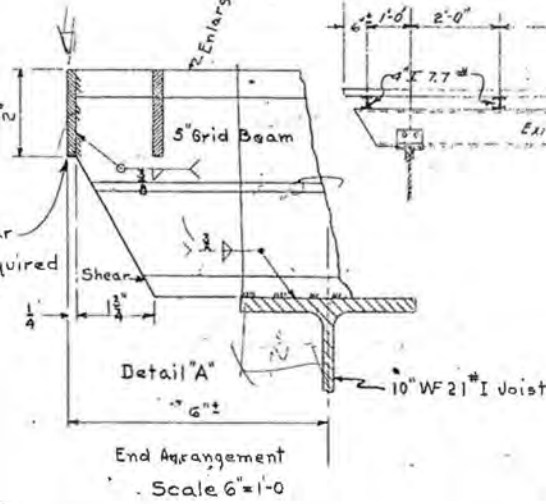
3'-4"
1'-3 1/4"
5'-5 1/2"
4'-10 1/4"
4'-10 1/4"
15'-1 9/16"



LONGITUDINAL SECTION THROUGH ROADWAY
Scale $\frac{1}{2} = 1'$
99'-0"



LONGITUDINAL SECTION THROUGH SIDEWALK
Typical, except see Sheet #3 for variations in joist spacing and openings in sidewalk floor for truss members, hatches, etc.

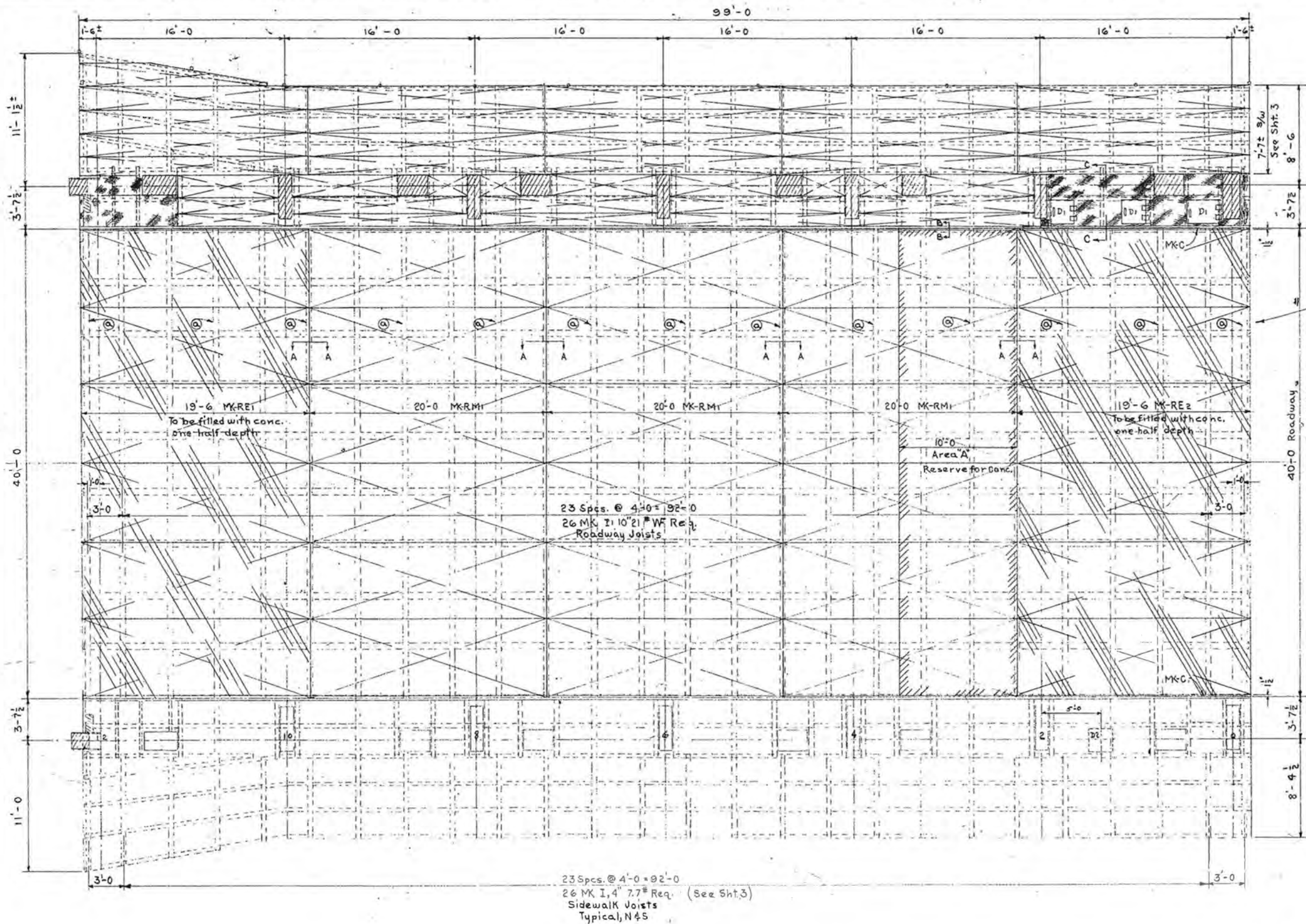


End Arrangement
Scale $6" = 1'-0"$

PUBLIC WORKS DEPARTMENT TAMPA FLORIDA			
FORTUNE STREET BRIDGE PROPOSED STEEL GRID FLOORS ON BASCULE SPAN			
Drawn by	Name	Date	
Checked by	M.E.G.	3-14-4	
Revised			
Project No.	Scales	Sheet No.	File No.
	as noted	1 of 4	B-45

Roy R. Van Camp

EXISTING PLANS



SCHEDULE

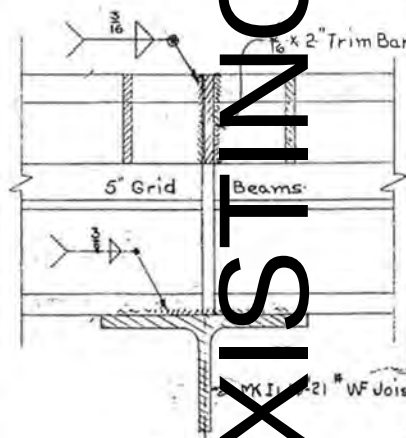
Structural Steel				
Req.	Mk	Length	Lin. Ft.	Wt. #
26	I	41'-0"	1066'	22386
2	C	99'-0"	198'	4099
				Total 26485

130	Brackets	Detail C	744
-----	----------	----------	-----

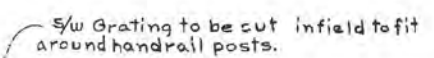
5" Roadway Grid Floor			
6	RE	19'-6"	117'
6	RE	19'-6"	117'
18	RM	20'-0"	360'
Total 7398			

NOTE

All Roadway Joists designated thus-@ to be supported by brackets to each roadway stringer, welded to stringers and Joist as shown: Detail Sheet 1. (13 Joists @ 10 Brackets = 130 Req.)
For Details of areas to be filled with concrete, See Specification.



PUBLIC WORKS DEPARTMENT
TAMPA, FLORIDA
Fortune St. Bridge, Proposed Steel Grid Floors on Bascule Span.
PROJ. NO. _____
SURVEY. _____ BOOK NO. _____
DRAWN M.G. SCALE 1" = 1'-0"
DESIGN. _____ DATE COMP. 3-29-60
CHECKED H.H.P. DATE 4-1-1960
REVIEWED & REC'D H.H.P. DATE 4-1-1960
APPROVED _____ DATE _____
FILE B-4-9 SHT 2 OF 4



A horizontal line representing a beam, divided into two equal segments by a central vertical line. Each segment is labeled "1'-0" above it.



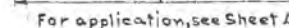
SECT. D-D



SCALE $1\frac{1}{2}''=1'-0$ SECT. B-E
See Sht 4 for other details



Scale $\frac{3}{8}'' = 1'-0''$



Sidewalk Grating					
Req.	MK	Bars	Width"	Length	Wt. #
2	E1	46	31"	SEE #15 59.5MTA	663
12	E2	35	23 1/2"	19'-6"	6896
4	E3	28	19"	19'-6"	1820
2	E4	32	21 1/2"	8'-9"	471
2	E5	22	14 1/2"	8'-9"	321
18	M1	35	23 1/2"	20'-0"	10610
6	M2	28	19"	20'-0"	2808
8	T1	30	21 1/2"	9'-0"	1941
8	T2	30	21 1/2"	8'-6"	755
8	T3	22	13 1/2"	15'-0"	2204
2	C1	22	14 1/2"	#3-3	331
8	C2	22	14 1/2"	20'-0"	2378
TOTAL					31205

Kerrigan T... 3/4 Grating

Sidewalk Joists				
4"-7.7" I Beams				
Req.	Mk.	Length		Wt.
2	12	10'-5"	10	160
2	13	9'-11"	10	152
2	14	9'-11"	6	142
2	15	13'-11"	26-3	202
2	16	7'-11"	15'-10	122
32	17	7'-6"	24	1848
8	18	12'-11"	9'	747
20	19	5'-8"	100'	770
8	110	2'-8"	21-4	164
16	111	2'-9"	44-0	330
Total				4646

Req.	PK	Length	Lin. Ft	Wt. #
14	G1	5'-		630
10	Q2	2'-	26-8	240
		Total	9'-	870

1/2 Checkered Plate			
Req.	PK	Width	Wt.
2	CR1	28" x 16"	841
3	CR2	21" x 10"	550
2	CR3	21" x 3"	139
2	CR4	11" x 4"	88
2	CR5	29" x 5"	435
2	CR6	36" x 1"	325
Total			2378

PUBLIC WORKS DEPARTMENT
TAMPA FLORIDA

PROJECT Fortune St. Bridge. Proposed Steel
Grid Floors on Bascule Span.

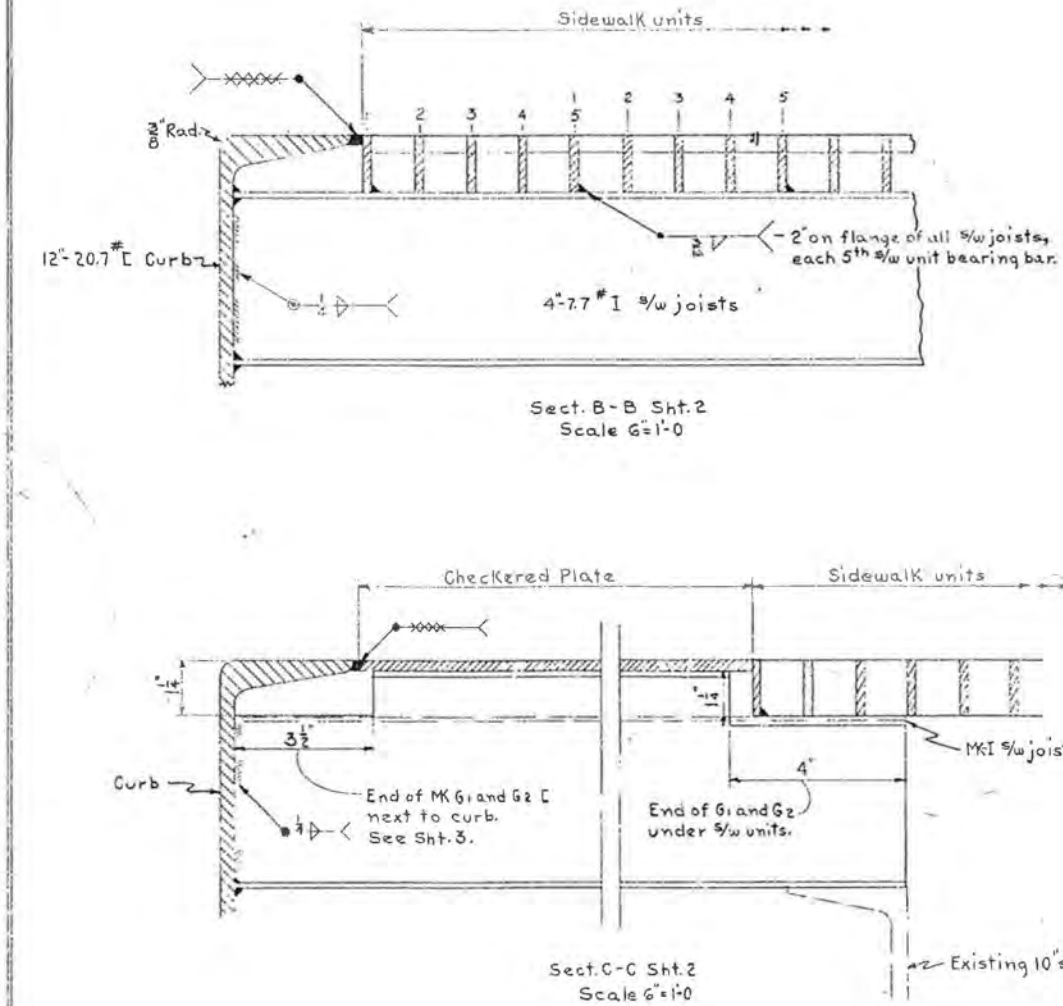
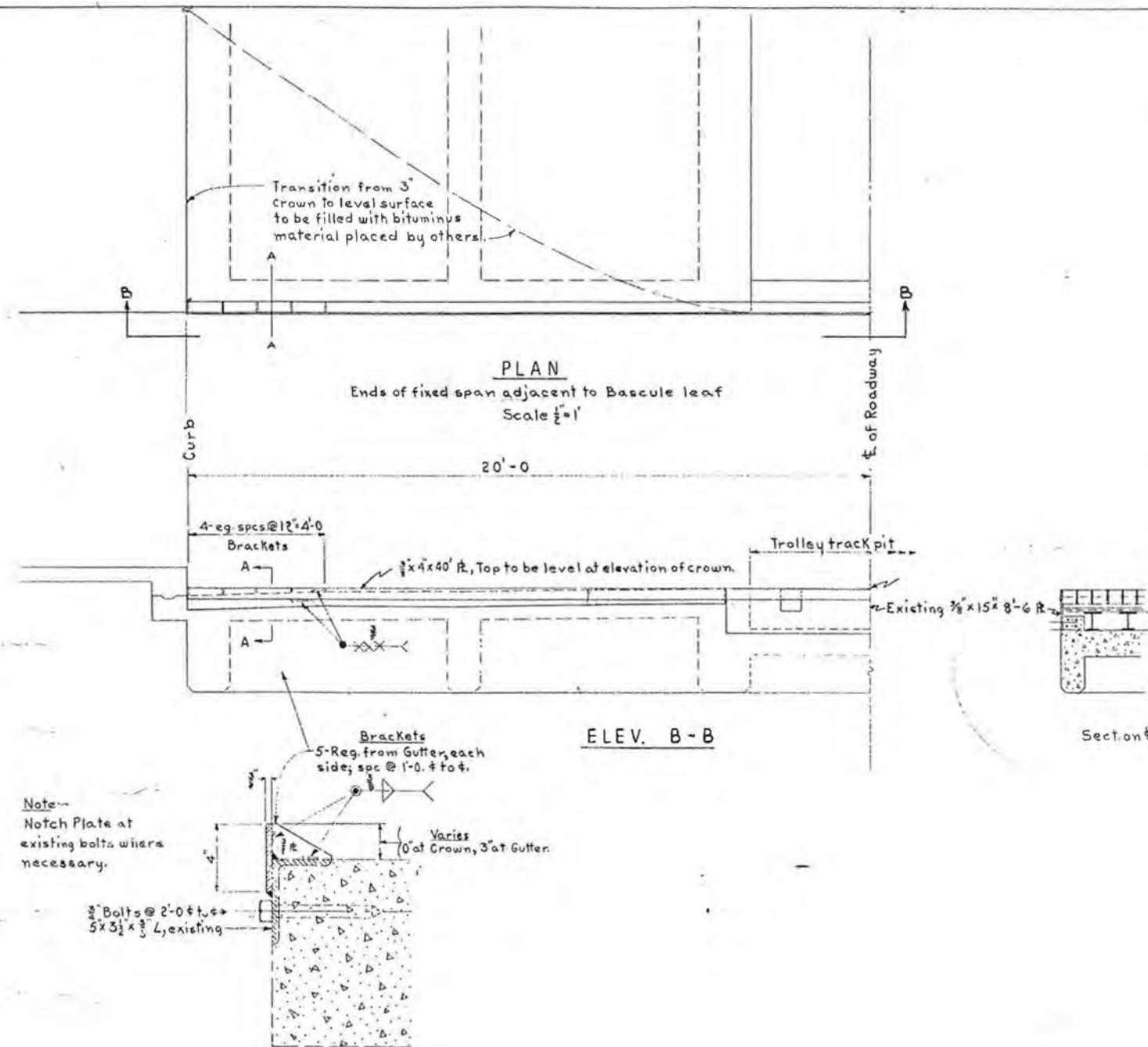
PROJ. NO. _____
SURVEY _____ BOOK NO. _____

W.L.M.G. SCALE AS SHOWN
DATE COMP. 3-28-60

DATE 4-1-1960

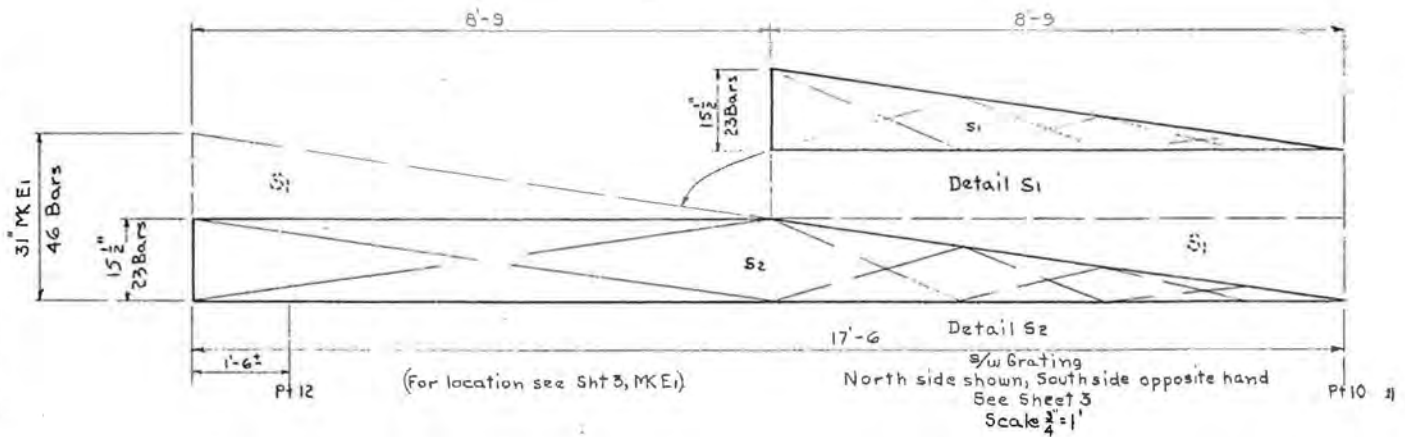
APPROVED & RECOMMENDED H.H.S. DATE 4-1-1960

FILE B-4-9 SHT 3 OF 4



ESTIMATED QUANTITIES

Roadway	Est. Wt#	Sht No.
Steel Grid Floor	73690	2
Floor Joists	22386	2
Floor Joist Brackets	744	2
Curb Channels	4099	2
Approach Span Brackets	408	4
Total-Roadway	101227	
Sidewalk Grating	31209	3
Joists	4646	3
Checkered Plate	2378	3
Total-Sidewalk	38233	



PUBLIC WORKS DEPARTMENT
TAMPA, FLORIDA

PROJECT Fortune St. Bridge, Proposed Steel Grid Floors on Bascule Span

PROJ. NO. _____

SURVEY _____ BOOK NO. _____

SCALE As Shown

DATE COM. 3-18-60

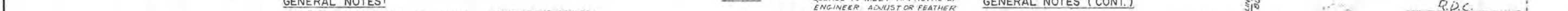
DATE 4-1-60

REVIEWED & RECD. Roy A. Van Sledright

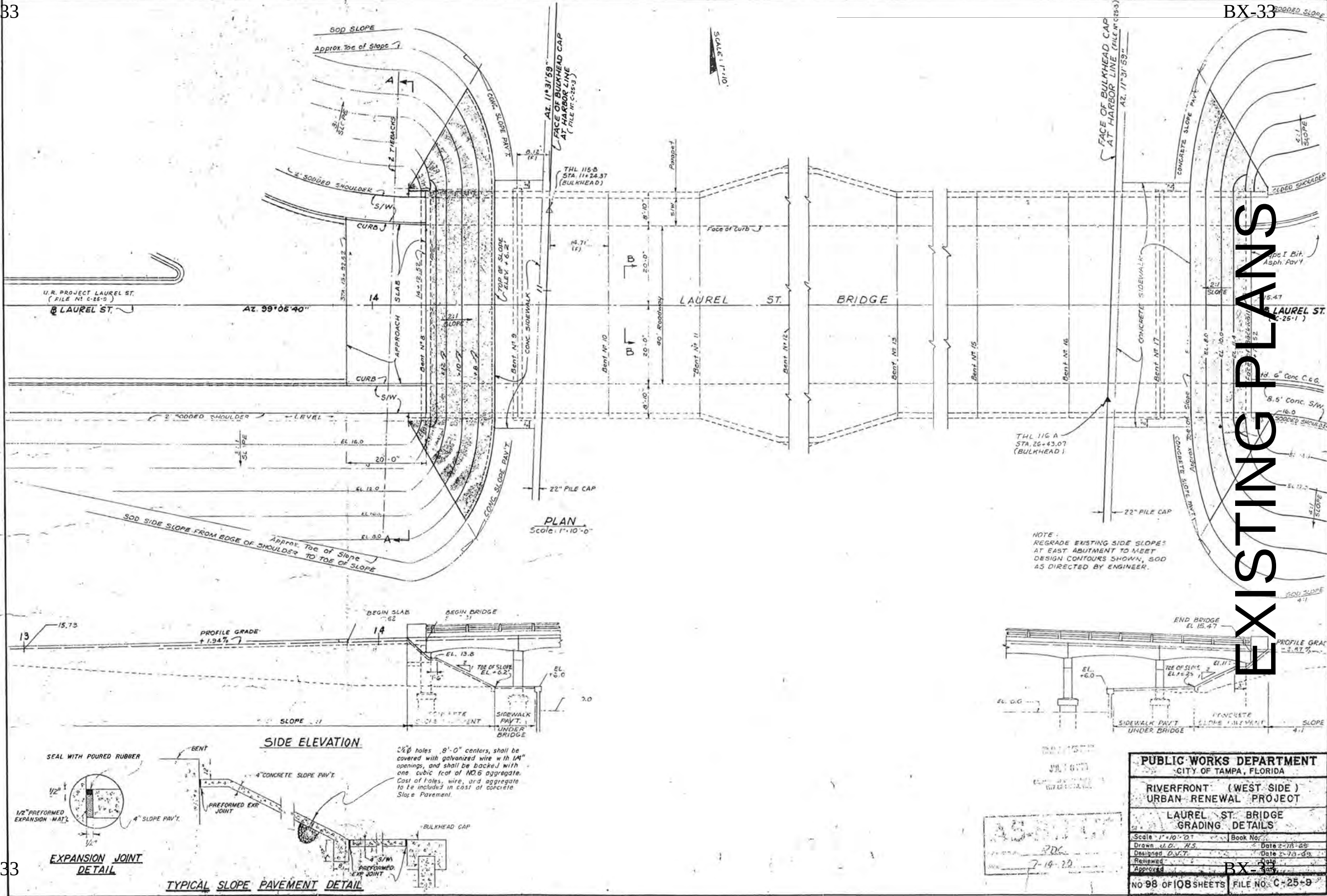
36
18

FILE B-4-9 SHT 4 OF 4

#(4)8 INDICATES 4 BARS PER BLOCK, AND A TOTAL NO OF 8.



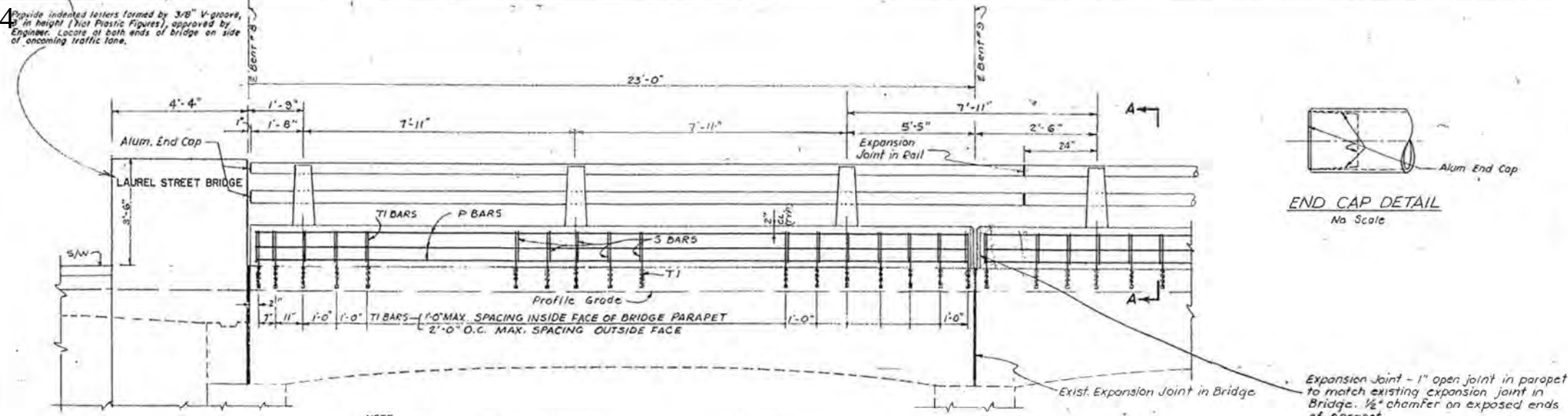
- | | | |
|---|--------------|-----------------|
| PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA | | |
| RIVERFRONT (WEST SIDE)
URBAN RENEWAL PROJECT | | |
| LAUREL ST. BRIDGE
STRUCTURAL MODIFICATIONS | | |
| Scale 1" = 20' | Book No. | |
| Drawn J.O. HS. | Date 2-18-63 | |
| Designed P.V.T. | Date 2-18-63 | |
| Reviewed | Date | |
| Approved: | BY | 32 |
| NO. 97 OF 108 SHEETS | | FILE NO. C-25-9 |



PUBLIC WORKS DEPARTMENT			
CITY OF TAMPA, FLORIDA			
RIVERFRONT (WEST SIDE) URBAN RENEWAL PROJECT			
LAUREL ST. BRIDGE GRADING DETAILS			
Scale 1"=10'-0"	Book No.	Drawn U.D. H.S.	Date 2-78-88
Designed D.V.T.		Reviewed	Date 2-78-88
Approved			
NO 98 OF 108 SHEETS		FILE NO. C-25-9	

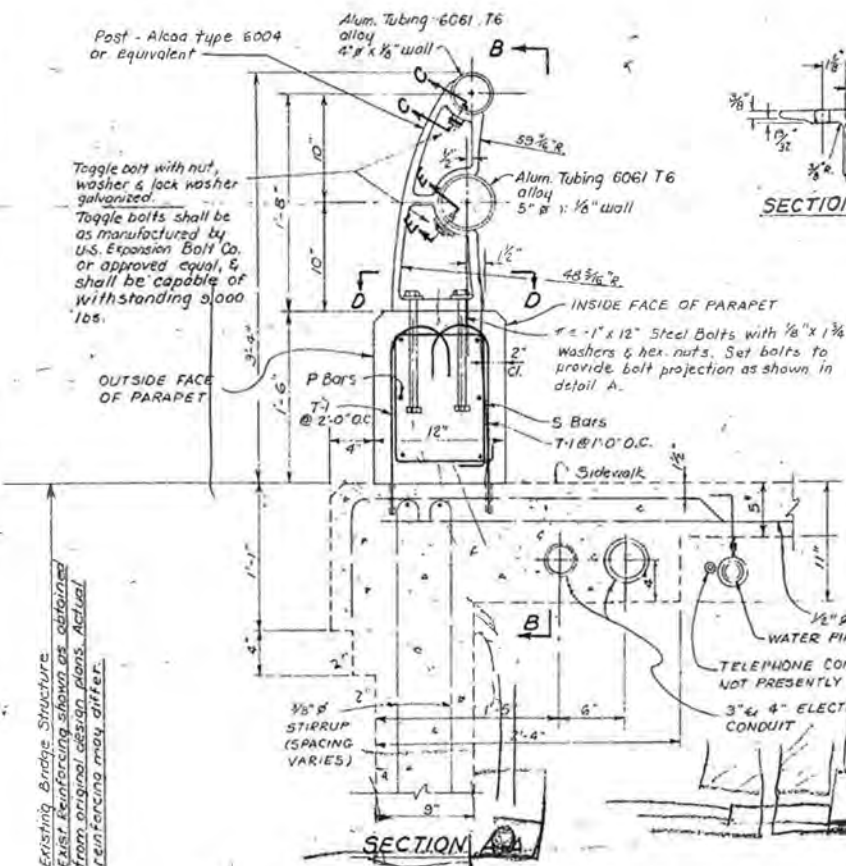
EXISTING PLANS

EXISTING PLANS



NOTE:
Existing vertical 5/8" ϕ reinforcing bars shall be preserved when concrete railing is removed, and used in lieu of masonry anchors and T-Bars. See Sheet 102 for location of bars.

PART ELEVATION OF HANDRAIL AND PARAPET
Not to Scale



SECTION C-C

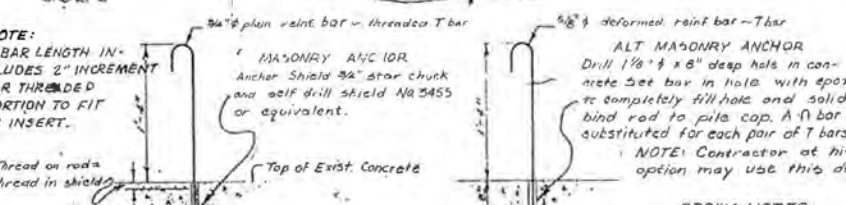
SECTION E-E

SECTION B-B
Scale: 1 1/2" = 1'-0"

SECTION D-D

DETAIL A
No Scale

NOTE: Alum. end caps shall be placed in tubing ends of handrail.



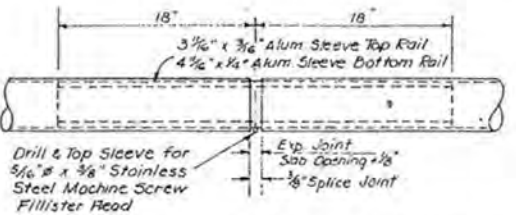
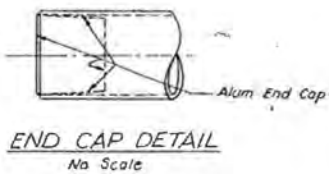
T BAR ALTERNATE DETAIL

HANDRAIL NOTES:

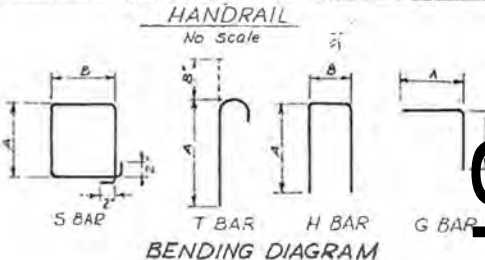
1. ALUMINUM POSTS SHALL BE CAST AND SHALL BE ALUMINUM ASSN. ALLOY A344-T6.
2. ALUMINUM RAILING SHALL CONFORM TO THE REQUIREMENTS OF ASTM B 221, ALLOY 6061-T6 OR 6062-T6.
3. ANCHOR BOLTS, NUTS AND WASHERS FOR THE ALUMINUM HANDRAIL SHALL BE HOT DIP GALVANIZED STEEL.
4. EXPANSION JOINT IN RAILING SHALL BE PROVIDED TO CORRESPOND TO THE EXPANSION JOINTS IN THE BRIDGE DECK. THE SHORT DISTANCE BETWEEN EXPANSION JOINTS SHOULD ELIMINATE THE NEED FOR ADDITIONAL CONTROL JOINTS IN THE RAILING.
5. CONTRACTOR SHALL SUBMIT, FOR APPROVAL OF THE ENGINEER, SHOP DRAWINGS COVERING THE FABRICATION INFORMATION AND DIMENSIONS OF THE HANDRAIL. ALL DIMENSIONS SHALL BE CONFIRMED IN FIELD BY CONTRACTOR PRIOR TO SUBMITAL OF SHOP DRAWINGS.

EPOXY NOTES:

1. ALL EPOXY COMPOUNDS AND THE USE OF SAME ON THIS PROJECT SHALL CONFORM TO REQUIREMENTS OF FLORIDA S.R.D. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 326, 1966 EDITION.
2. SAND USED FOR EPOXY MORTAR SHALL BE 100% DRY. SOLVENTS SHALL NOT BE USED ON THE EPOXY UNLESS DIRECTED BY THE ENGINEER.



EXPANSION JOINT & SPLICE JOINT DETAIL



PARAPET AND END BLOCKS
BILL OF REINFORCING STEEL

MARK	SIZE	NO. REQ'D.	A	B	LENGTH	REMARKS
G	5	6	1'-7"	1'-7"	3'-1 1/2"	SEE BENDING DIAGRAM
H	5	26	3'-4"	8"	7'-5"	"
J1	4	44			4'-0"	"
J2	4	6			3'-8"	"
J3	4	14			2'-9"	"
J4	4	8			2'-6"	"
J5	4	8			2'-9"	"
K1	5	8			2'-6"	"
K2	5	2			7'-5"	"
K3	5	2			6'-10"	"
P1	5	24			12'-7"	"
P2	5	26			22'-6"	"
P3	5	12			24'-6 1/2"	NOTE: SEE SHEET 102 FOR DETAILS
P5	5	12			23'-0"	"
P6	5	12			22'-9 1/2"	"
P7	5	12			22'-5 1/2"	"
P8	5	12			23'-2 1/4"	"
S	4	438	1'-2"	5"	4'-0"	SEE BENDING DIAGRAM
T1	5	620	1'-6"		2'-2"	"
T2	5	16	10'-1"		10'-8"	"

BACKWALL

E1	5	12			29'-10"	
E2	5	8			8'-2"	
F1	6	18			3'-7"	
F2	6	18			2'-7"	
F3	6	20			3'-10"	

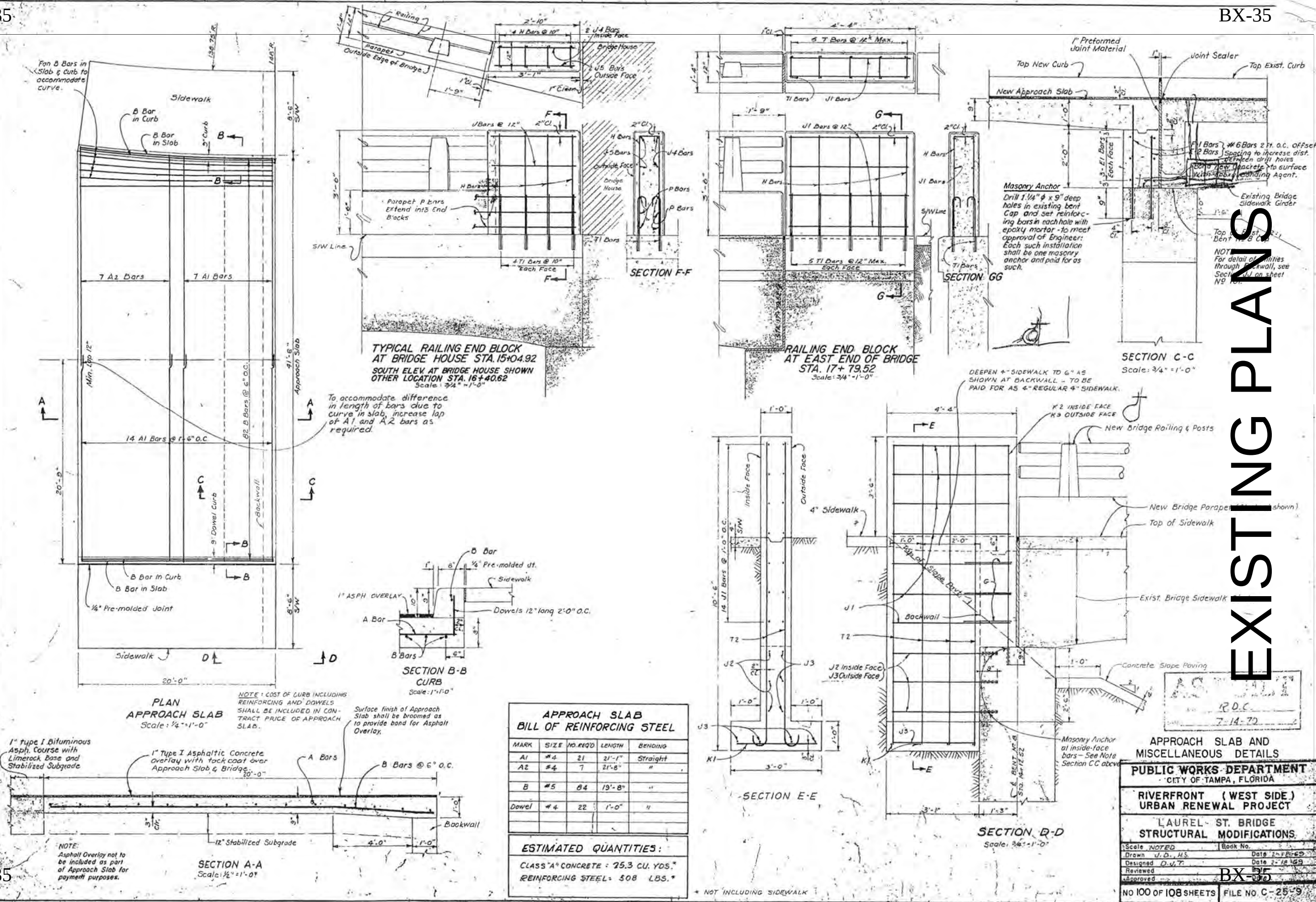
* USE NO. 5 BAR WITH ANCHOR SHIELD ALTERNATE.

RAILING DETAILS

PUBLIC WORKS DEPARTMENT CITY OF TAMPA, FLORIDA	
RIVERFRONT (WEST SIDE) URBAN RENEWAL PROJECT	
LAUREL ST. BRIDGE STRUCTURAL MODIFICATIONS	
Scale: NOTED	Book No.
Drawn: J.D. W.S.	Date: 2-18-69
Designed: O.D.F.	Date: 2-18-69
Reviewed:	Date:
Approved:	Date:
No. 99 OF 108 SHEETS FILE NO. C-25-9	

EXISTING PLANS

EXISTING PLANS



APPROACH SLAB AND MISCELLANEOUS DETAILS

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

RIVERFRONT (WEST SIDE) URBAN RENEWAL PROJECT

LAUREL ST. BRIDGE STRUCTURAL MODIFICATIONS.

Scale: NOTED Book No. _____

Drawn: J.D. H.S. Date: 2-1-69

Designed: D.V.T. Date: 2-1-69

Reviewed: _____

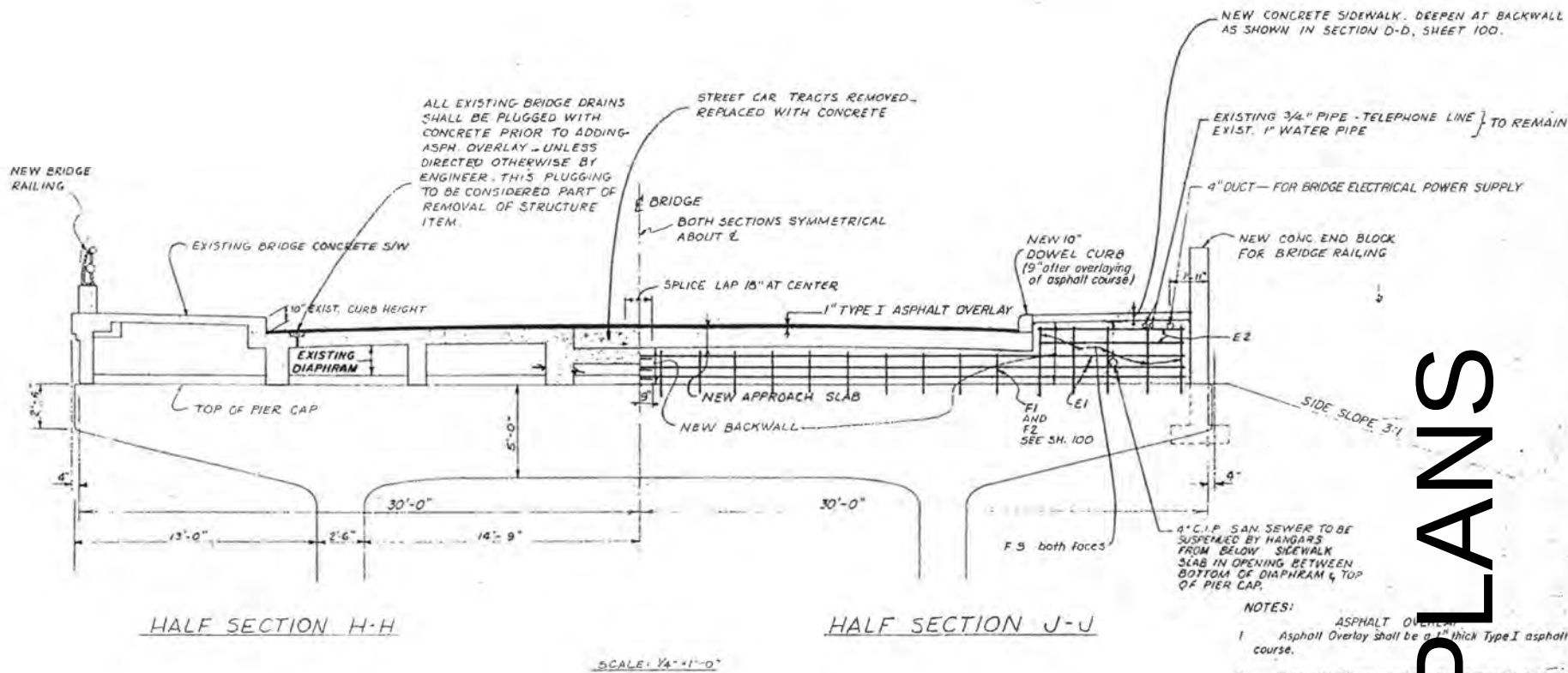
Approved: _____

BX-35

No 100 OF 108 SHEETS FILE NO C-25-9

EXISTING PLANS

EXISTING PLANS

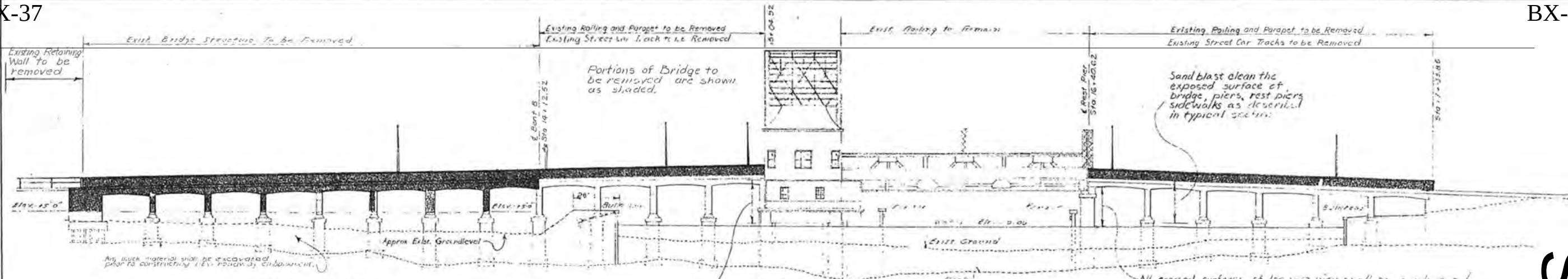


AS-BUILT
RDC
7-14-70

PUBLIC WORKS DEPARTMENT CITY OF TAMPA, FLORIDA	
RIVERFRONT (WEST SIDE) URBAN RENEWAL PROJECT	
LAUREL ST. BRIDGE DETAILS	
Scale NOTED	Book No.
Drawn J.D.H.S.	Date 2-18-68
Designed D.J.T.	Date 2-18-68
Reviewed	Date
Approved	Date
NO. 101 OF 108 SHEETS FILE NO C-25-9	

EXISTING PLANS

EXISTING PLANS



ELEVATION
Scale - 1" = 20'-0"

Notes: Removal of Structure

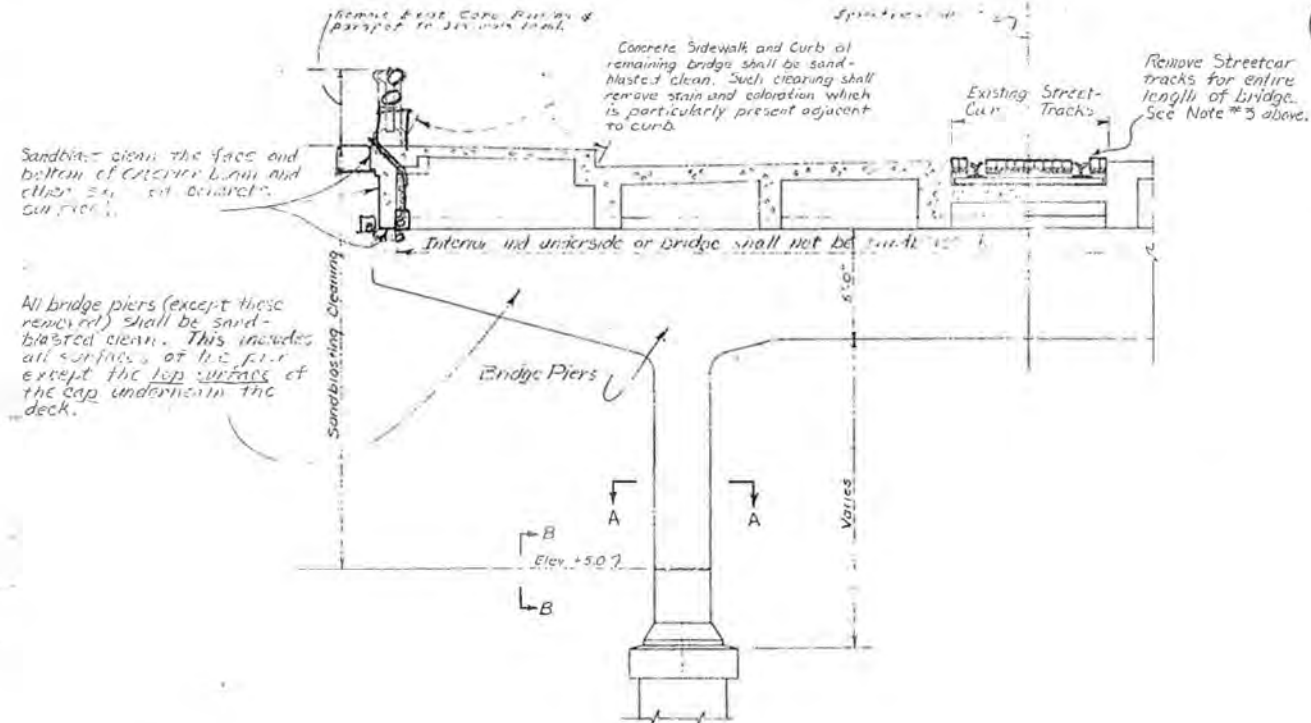
1. Remove existing Bridge Structure to a minimum distance of 2 feet below the finished excavation surface or the original ground surface. Pier columns shall be removed to +5.0 Elev. unless approved otherwise by the Engineer.
2. Removal of Bridge Structure shall be carried to sufficient depth so that any remaining portions of structure shall not cause any interference with the paving and compaction of the roadway embankment.

Notes: Removal of Structure Continued

3. Remove granite blocks and supporting mortar to top of cross-tie for entire width of car track section the full length of the bridge. Replace with Class "A" concrete to conform to the existing cross-grade of the roadway with a parabolic transition at the center. Where track has already been removed and replaced with concrete, the bridge concrete shall be cut down to conform to above described cross-section.

All exposed surfaces of concrete lower portion of both bridge houses shall be sandblast cleaned.

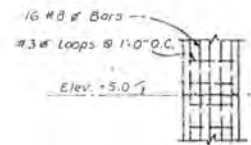
Where removed block or post exposes a wide area that the new project will cover, concrete not covered by the parapet shall be retained to finish sidewalk. The rest of this remaining concrete shall be removed in the bridge removal.



TYPICAL SECTION
Scale - 1/4" = 1'-0"

SECTION A-A

Reinforcing shown is as per original design drawings. Existing rebar may differ.



SECTION B-B

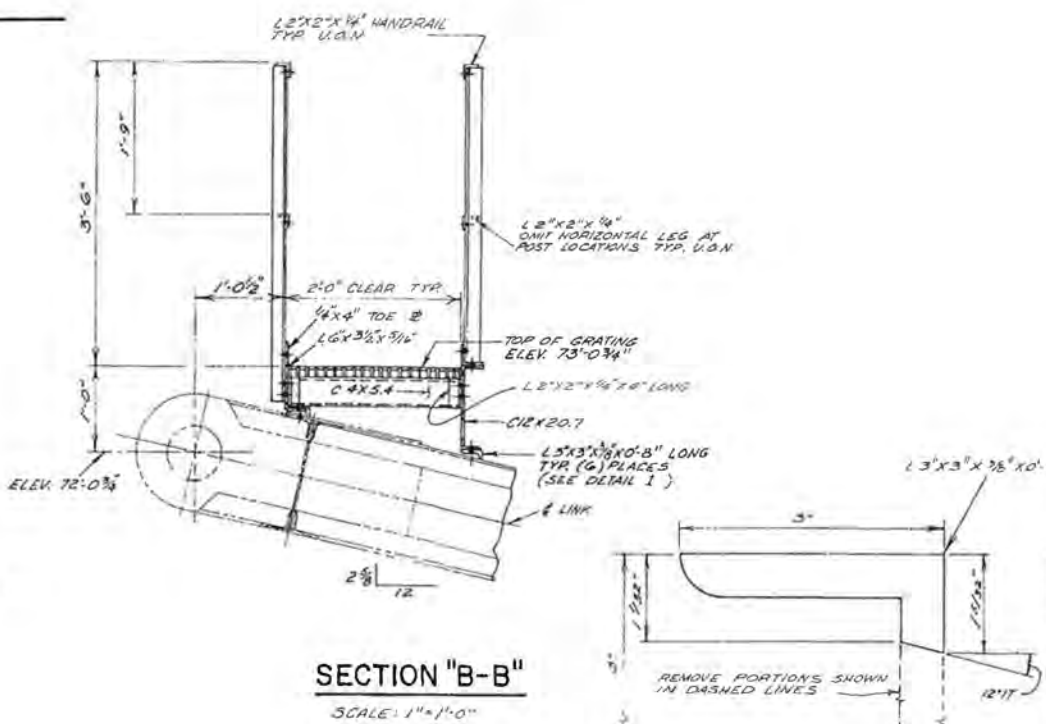
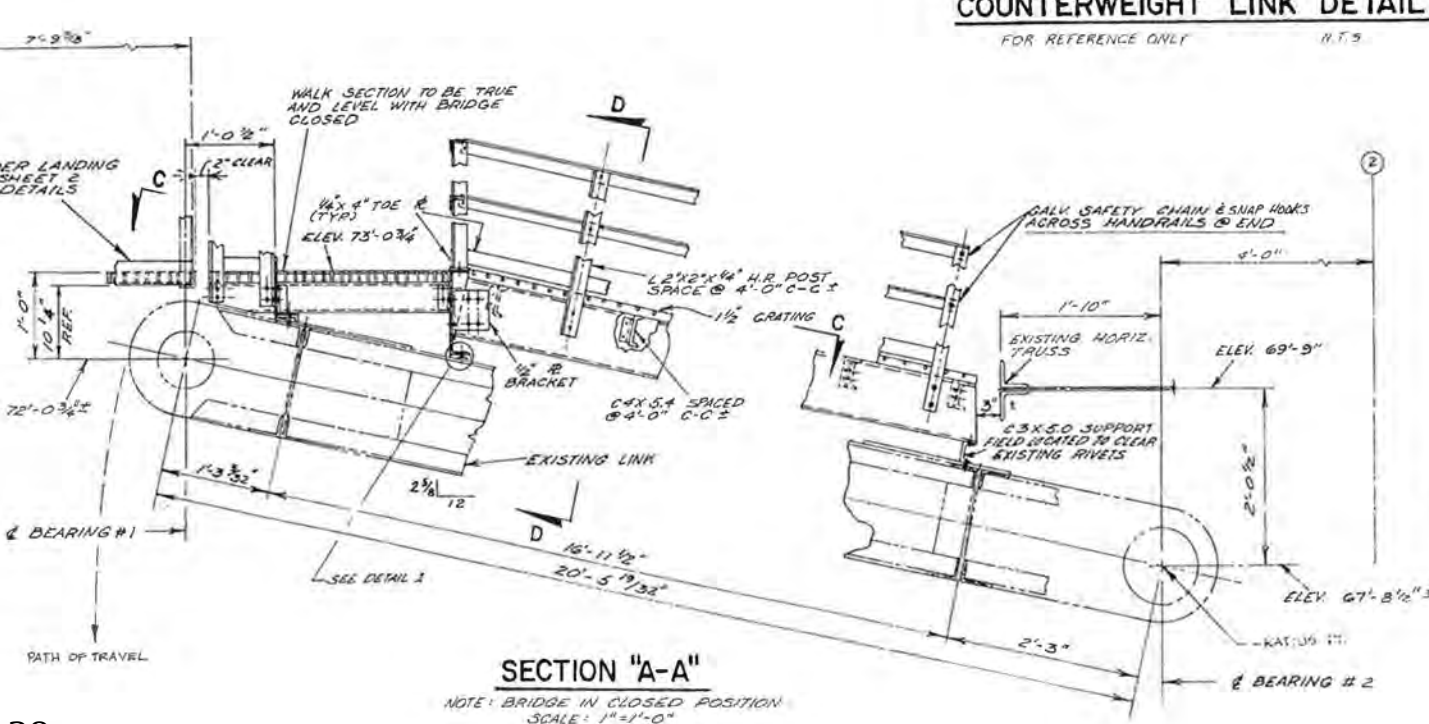
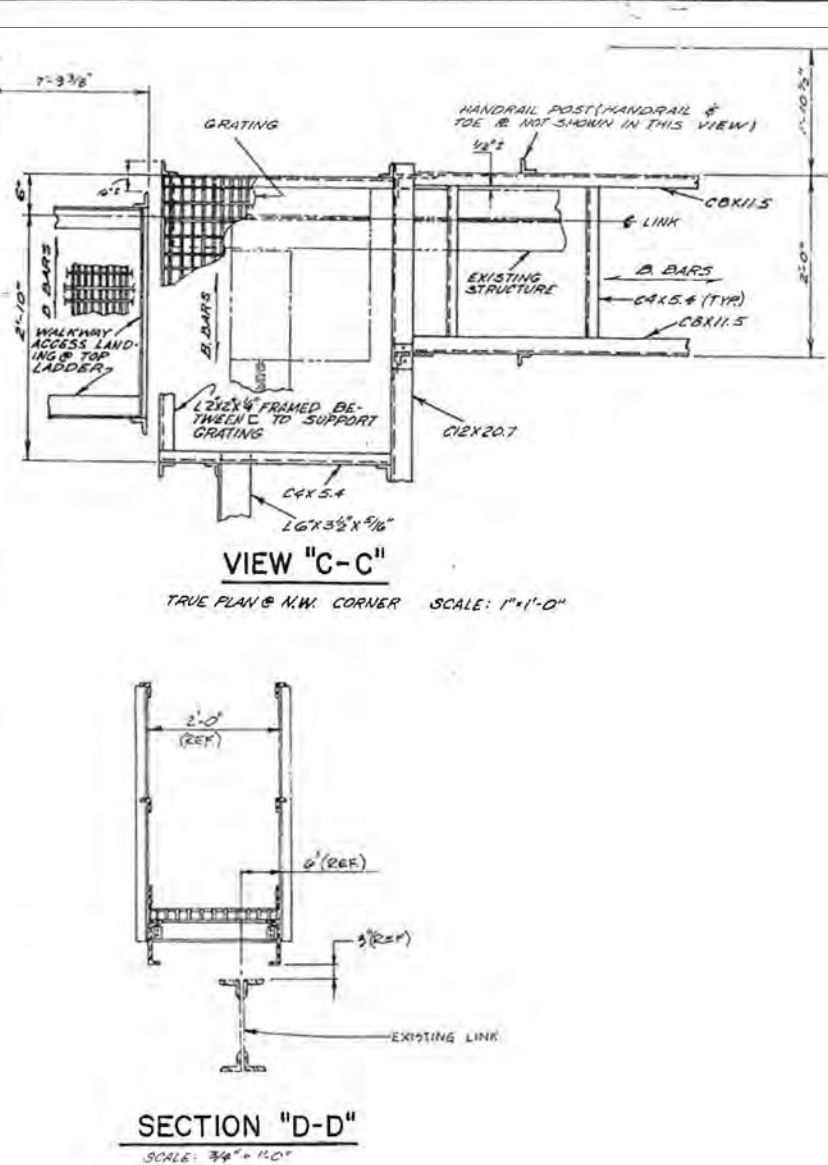
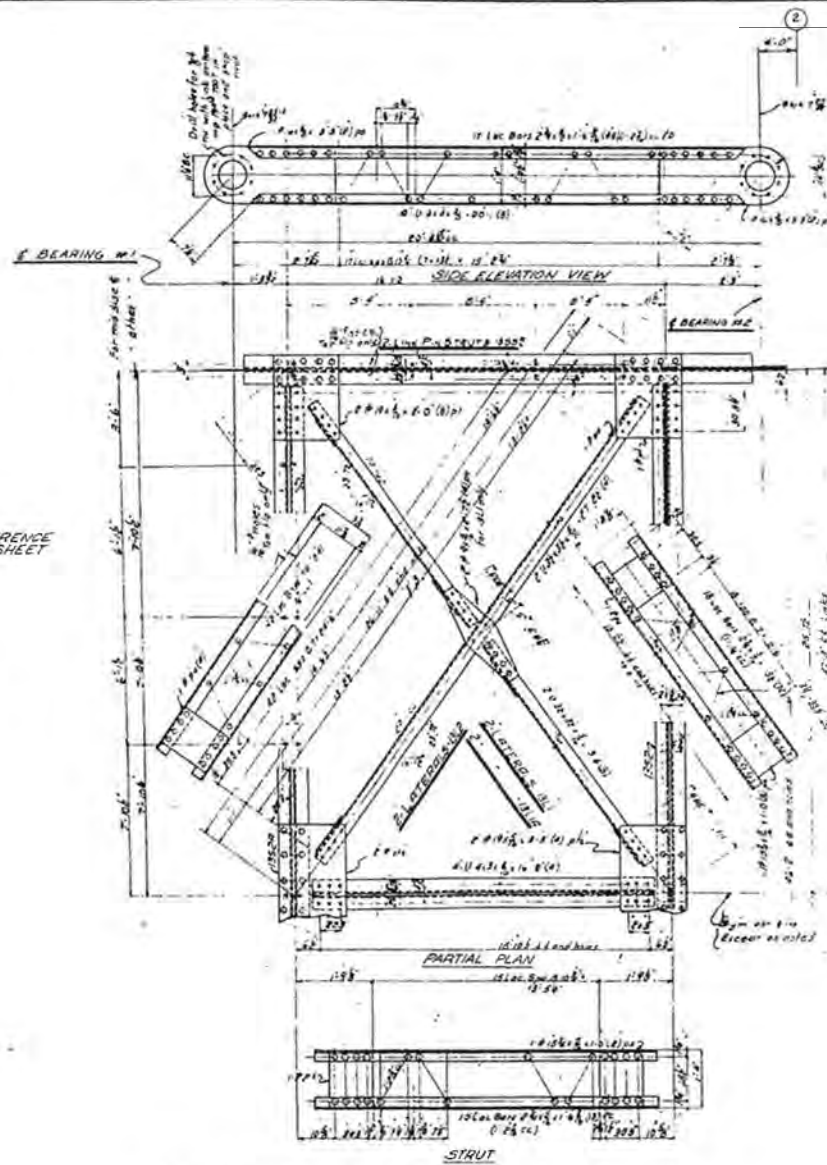
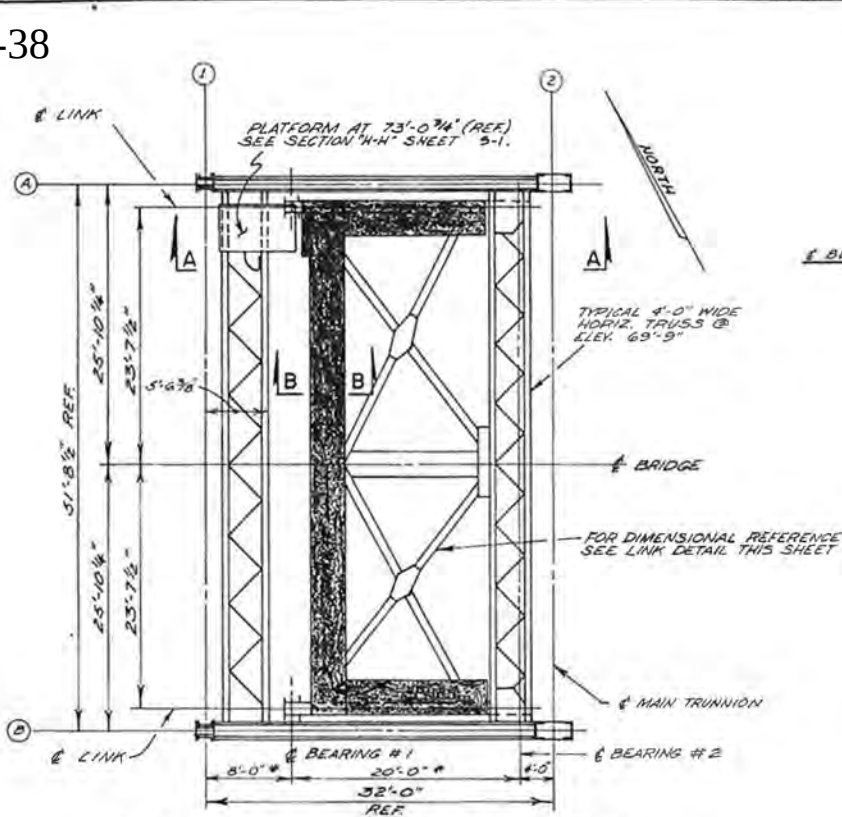
SANDBLAST CLEANING

1. SANDBLAST CLEANING SHALL NOT BE DONE TO THOSE PORTIONS OF THE BRIDGE WHICH ARE TO BE REMOVED OR COVERED.
2. ALL EXPOSED SURFACES OF THE EXTERIOR OF THE BRIDGE LOWER CONCRETE STEEL OF BRIDGE HOUSES, AND ALL THE PIER AND REST PIER SURFACES SHALL BE SANDBLASTED CLEAN TO MEET SPECIFICATIONS AND TO PRESENT A CLEAN AND UNIFORM FINAL FINISHED APPEARANCE. A SAMPLE OF SANDBLAST CLEANING HAS BEEN DONE ON THE INSIDE SURFACE OF THE PIER CAP AND AT THE EXTERIOR PIER SURFACE OF BENT NO. 8. THE SANDBLAST CLEANING SHALL ACHIEVE THE SAME OR BETTER RESULT.
3. THE SIDEWALK SANDBLAST CLEANING DOES NOT HAVE TO BE AS THOROUGH AS THAT OF THE BRIDGE PORTIONS DESCRIBED IN PARAGRAPH 2. THE PRINCIPAL PURPOSE IS TO REMOVE THE STAIN AND COLORATION PRESENT NEAR CURB, AND TO PROVIDE A UNIFORM AND PLEASING SIDEWALK SURFACE WHICH WILL BLEND WITH THE RENOVATED BRIDGE.

Notes:
Vertical bars of railing posts and blocks shall be preserved and incorporated in the new parapet. At such locations, masonry anchors shall be installed as necessary. If these bars are not preserved, masonry anchors shall be supplied and installed by the contractor at no cost to the City as replacement.

PUBLIC WORKS DEPARTMENT CITY OF TAMPA, FLORIDA	
RIVERFRONT (WEST SIDE) URBAN RENEWAL PROJECT	
REMOVAL OF PORTIONS OF LAUREL ST. BRIDGE	
Scale: 1" = 20'-0"	Book No.:
Drawn: H.S.	Date: 2-18-69
Designed: C.L.	Date: 2-18-69
Reviewed:	Date:
Approved:	Date:

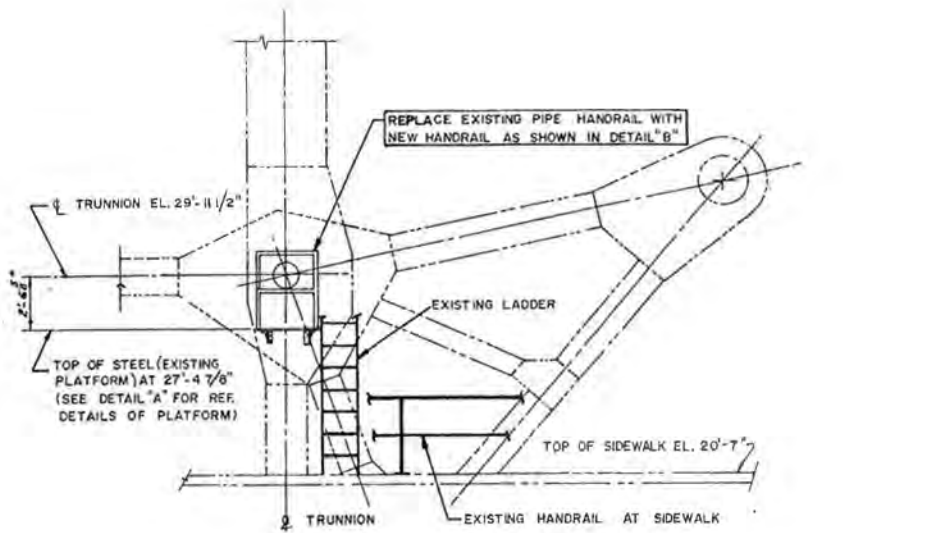
NOI020F108 SHEETS FILE NO C-25-9



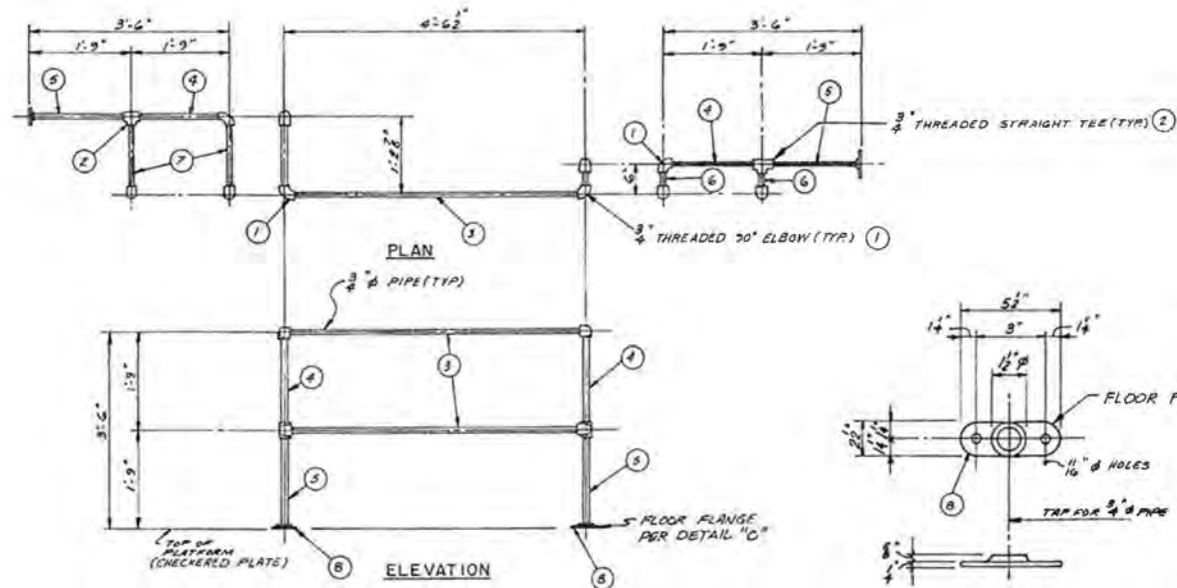
CATWALK ASSEMBLY AT TOP OF COUNTERWEIGHT TOWER BRIDGE NO. 105503	
KISINGER CAMPO & ASSOCIATES CORP. CONSULTING ENGINEERS AND LAND SURVEYORS TAMPA, FLORIDA	
LAUREL STREET BRIDGE OVER HILLSBOROUGH RIVER	
DESIGNED BY CM	DATE MARCH 14, 1985
DRAWN BY SA	SCALE AS NOTED
CHECKED BY KM	NO. 105503
SHEET S-2 OF	
REVISIONS	
Florida Registered Engineer No.	

EXISTING PLANS

EXISTING PLANS

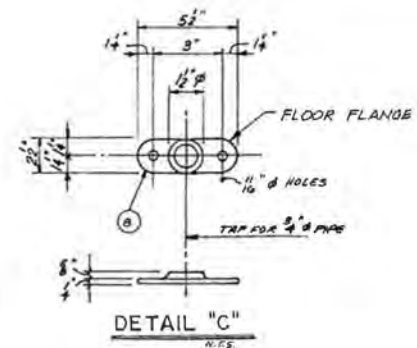


ELEVATION LOOKING SOUTH AT TRUNNION BEARING ACCESS PLATFORM
(NORTH TRUNNION LOCATED NEXT TO CONTROL HOUSE) N.T.S.

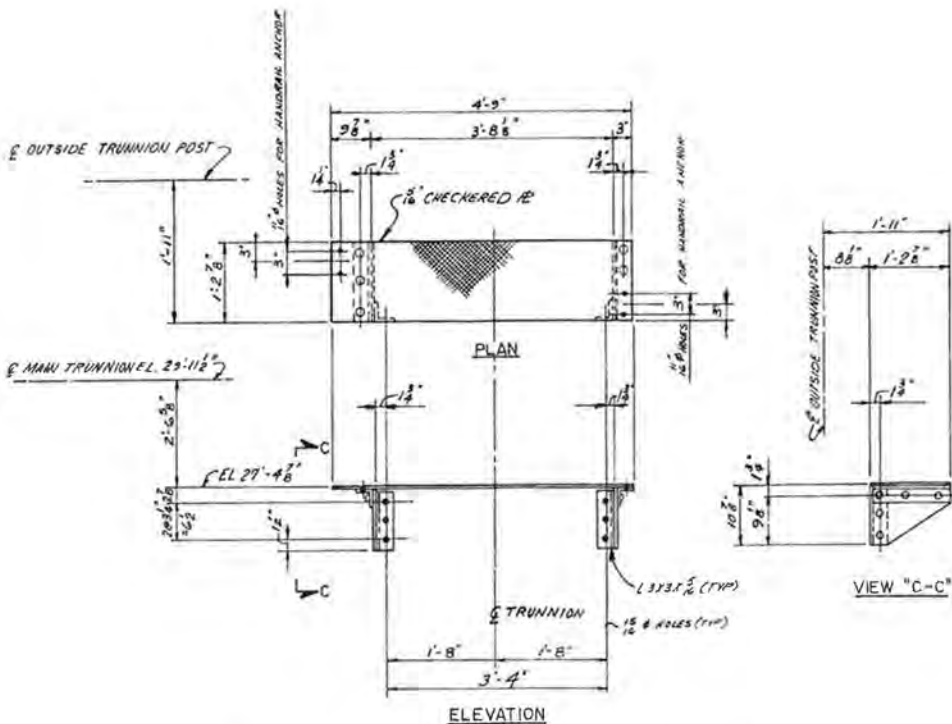


DETAIL "B" - NEW 3/4" Ø PIPE HANDRAIL FOR PLATFORM N.T.S.

MATERIALS
PIPE: SHALL BE 3/4" Ø SCHEDULE 80 CARBON STEEL HOT-DIPPED GALV.
FITTINGS: SHALL BE 150# THREADED MALLEABLE IRON,
HOT-DIPPED GALVANIZED (ASTM - A123)



NOTE:
IF EXISTING FLOOR FLANGES ARE SALVAGEABLE
THE CONTRACTOR SHALL REMOVE, SANDBLAST,
GALVANIZE AND INSTALL.



DETAIL "A" - EXISTING BEARING ACCESS PLATFORM
FOR REFERENCE ONLY N.T.S.

BILL OF MATERIAL				
MARK	NO. REQ'D.	DESCRIPTION	MATERIAL	
①	6	3/4" 150# THREADED 90° ELBOW	IRON	
②	2	3/4" 150# THREADED STR. TEE	IRON	
③	2	3/4" SCH. 80 PIPE x 4'-6" ±	A53B or EQUAL	
④	2	x 1'-9" ±		
⑤	2	x 1'-9" ±		
⑥	2	x 0'-6" ±		
⑦	2	x 1'-3" ±		
⑧	2	3/4" PIPE FLOOR FLANGE	IRON	

MISCELLANEOUS DETAILS
BRIDGE NO. 105503

KISINGER CAMPO & ASSOCIATES CORP.
CONSULTING ENGINEERS AND LAND SURVEYORS
TAMPA, FLORIDA

LAUREL STREET BRIDGE
OVER HILLSBOROUGH RIVER

DESIGNED BY C.M.
DRAWN BY C.M.
CHECKED BY WGH

DATE MARCH 14, 1986
SCALE AS NOTED
BRIDGE NO. 105503

BX-39

SHEET
S-3
OF

DATE BY REVISION Florida Registered Engineer No.



CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
PUBLIC IMPROVEMENTS

PLANS OF PROPOSED
LAUREL STREET BRIDGE
REHABILITATION
(REVISED)

(BRIDGE NO. 105503)

THIS CONTRACT PLAN SET INCLUDES:

STRUCTURAL
ELECTRICAL
MECHANICAL

INDEX OF PLANS

STRUCTURAL:

- S-1 PLAN AND ELEVATION AND INDEX OF SHEETS
- S-2 GENERAL NOTES AND SUMMARY OF ESTIMATED QUANTITIES
- S-3 REPAIR NOTES
- S-4 TOP OF DECK - SPANS 1 THRU 4
- S-5 TOP OF DECK - SPANS 6 THRU 11
- S-6 BOTTOM OF DECK - SPANS 1 THRU 4 AND 6 THRU 11
- S-7 TOP AND BOTTOM OF DECK - SPAN 5
- S-8 STEEL RAILING
- S-9 PIERS 2 THRU 11
- S-10 BASCULE PIER - PLAN
- S-11 BASCULE PIER - ELEVATIONS
- S-12 COUNTERWEIGHT ACCESS LADDERS
- S-13 MISCELLANEOUS SECTIONS AND DETAILS

ELECTRICAL:

- E-1 ELECTRICAL LEGEND AND ABBREVIATIONS
- E-2 EXISTING CONDITIONS-ELECTRICAL PLAN
- E-3 EXISTING CONDITIONS-SINGLE LINE AND DETAILS
- E-4 DEMOLITION PLAN-ELECTRICAL
- E-5 NEW WORK - ELECTRICAL
- E-6 NEW WORK - ELECTRICAL DETAILS
- E-7 NEW WORK - SINGLE LINE RISER AND DETAILS
- E-8 NEW WORK - CONTROL PANEL AND DETAILS
- E-9 NEW WORK - SCHEDULES

MECHANICAL:

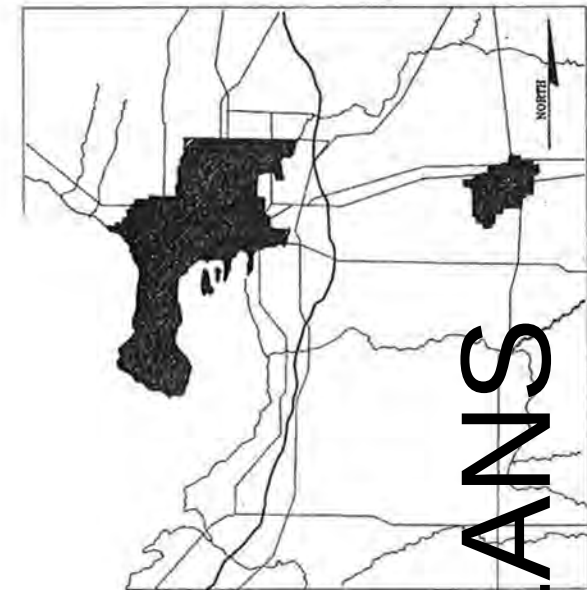
- M-1 MECHANICAL PLAN



PROJECT LOCATION



LOCATION MAP



MAYOR SANDRA FREEDMAN

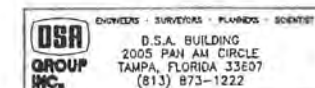
TAMPA CITY COUNCIL MEMBERS

- JOE GRECO
- RONNIE MASON
- LINDA SAUL - SENA
- RUDY FERNANDEZ
- PERRY HARVEY
- EDDIE CABALLERO
- SCOTT PAINE

ACCEPTED FOR
THE CITY OF TAMPA BY:

Jack P. Morris
JACK P. MORRIS,
Director, Dept. of Public Works

PREPARED BY:

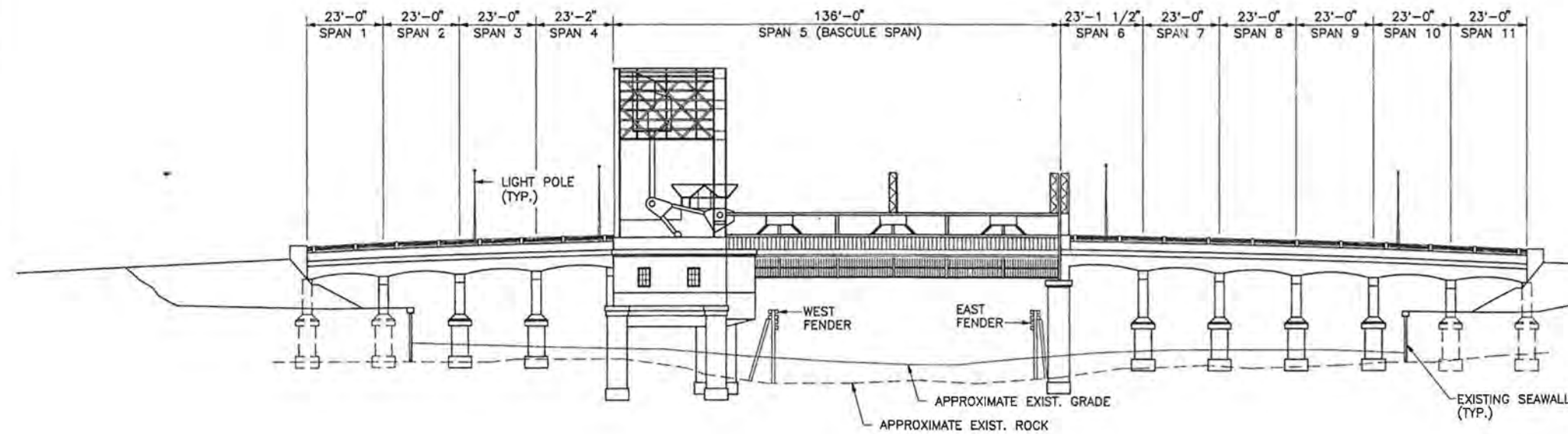
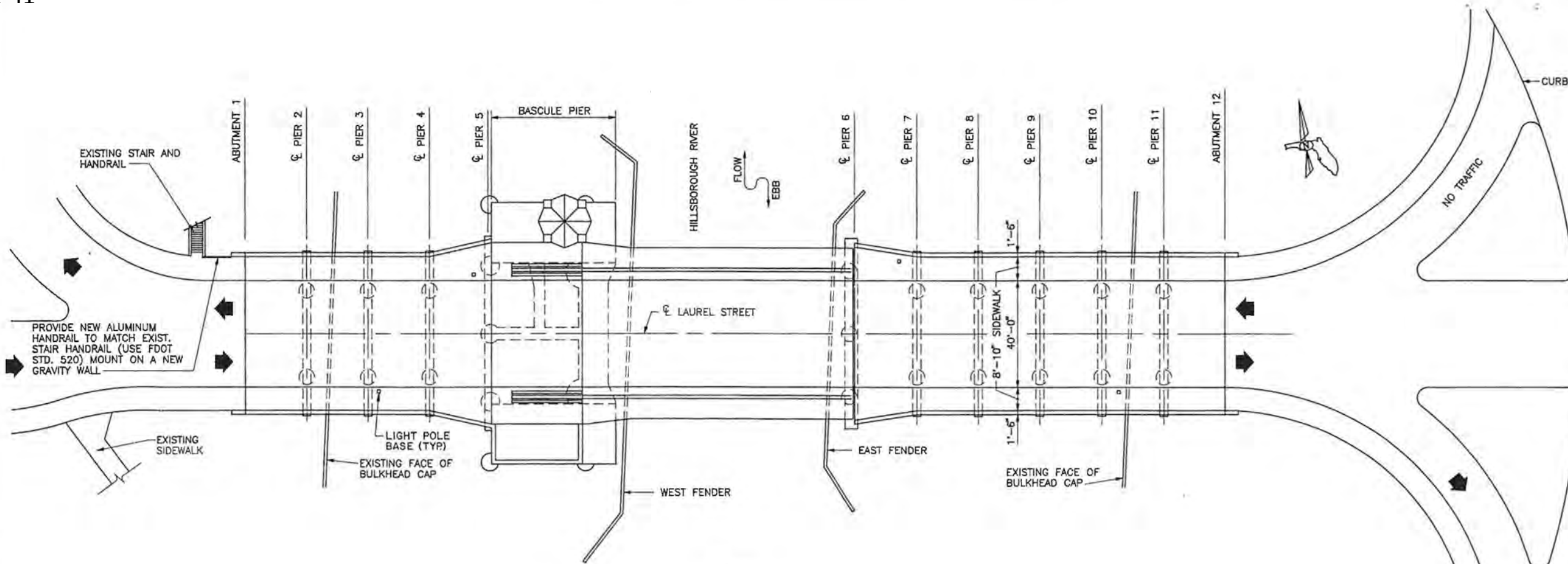


105503

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS
MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS
MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

EXISTING PLANS

EXISTING PLANS



INDEX OF SHEETS

- S-1 PLAN & ELEVATION AND INDEX OF SHEETS
- S-2 GENERAL NOTES & SUMMARY OF ESTIMATED QUANTITIES
- S-3 REPAIR NOTES
- S-4 TOP OF DECK - SPANS 1 THRU 4
- S-5 TOP OF DECK - SPANS 6 THRU 11
- S-6 BOTTOM OF DECK - SPANS 1 THRU 4 AND 6 THRU 11
- S-7 TOP AND BOTTOM OF DECK - SPAN 5
- S-8 STEEL RAILING
- S-9 PIERS 2 THRU 11
- S-10 BASCULE PIER - PLAN
- S-11 BASCULE PIER - ELEVATIONS
- S-12 COUNTERWEIGHT ACCESS LADDERS
- S-13 MISCELLANEOUS SECTIONS AND DETAILS

NO.	DATE	DESCRIPTION	BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION TAMPA, FLORIDA				
PLAN & ELEVATION AND INDEX OF SHEETS				
DSA GROUP INC. D.S.A. BUILDING 2008 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222 ENGINEERS • SURVEYORS • PLANNERS • SCIENTIST				
DESIGNED BY	KTJ	DRAWING NO.	S-1	
DRAWN BY	KTJ			
CHECKED BY	JSR			
APPROVED BY	SCB			
BY:	DSA CM. NO.			
FLA. P.E. REG. NO.	DATE	6/29/92	OF 13 SHEETS	

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS:

- 1. FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (1991).
- 2. CITY OF TAMPA TECHNICAL SPECIFICATIONS FOR THIS PROJECT.
- 3. STEEL STRUCTURES PAINTING COUNCIL.

GENERAL SCOPE OF WORK:

THE WORK TO BE PERFORMED UNDER THIS CONTRACT INCLUDES THE FOLLOWING ITEMS, AS DESCRIBED IN THE PLANS AND SPECIFICATIONS:

- 1. REPAIR ALL CRACKS (CW-3 AND ABOVE) AND ALL SPALLS IN SUBSTRUCTURE AND SUPERSTRUCTURE ELEMENTS.
- 2. CLEAN AND PAINT STRUCTURAL, MECHANICAL AND MISCELLANEOUS STEEL MEMBERS.
- 3. REPLACE DETERIORATED RIVETS AND BOLTS.
- 4. REPLACE EXISTING BUFFER CYLINDER WITH TWO NEW BUFFER CYLINDERS.
- 5. REPAIR VARIOUS MACHINERY ELEMENTS.
- 6. REMOVE AND RECONSTRUCT ELECTRICAL SYSTEM.
- 7. REPAIR OF MISCELLANEOUS ELEMENTS.

CRACK WIDTH CLASSES:

CLASS	WIDTH (INCHES)
CW-1	0 - 1/64
CW-2	1/64 - 1/32
CW-3	1/32 - 1/16
CW-4	1/16 - 1/8
CW-5	1/8 OR GREATER

SCALE DEPTH CLASSES:

CLASS	SCALE WIDTH (INCHES)
1	0 - 1/4
2	1/4 - 1/2
3	1/2 - 1
4	1 OR GREATER

SPALL DEPTH AND WIDTH CLASSES

CLASS	DEPTH (INCHES)	WIDTH (INCHES)
1	0 - 1	0 - 6
2	> 1	> 6

MAINTENANCE OF TRAFFIC:

THE CONTRACTOR SHALL SUBMIT TO THE CITY OF TAMPA TRANSPORTATION DEPARTMENT A DETAILED MAINTENANCE OF TRAFFIC PLAN & PROCEDURES AND WORK SCHEDULE. MAINTENANCE OF TRAFFIC PROCEDURES SHALL CONFORM TO THE "MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" AND TO THE FOLLOWING:

- 1. DURING PAINTING OPERATIONS, PRECAUTION MUST BE TAKEN BY THE CONTRACTOR TO INSURE NO OVERSPRAYING OF PASSING PEDESTRIANS, MOTOR VEHICLES OR WATER CRAFT. THIS MAY BE ACCOMPLISHED BY USE OF PLYWOOD OR SCREENS.
- 2. WORK SHALL BE PERFORMED DURING DAYLIGHT HOURS ONLY.
- 3. STRUCTURE SHALL BE ABLE TO BE OPENED TO MARINE TRAFFIC AT ALL TIMES (UPON REQUEST).
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER COORDINATION OF MARINE AND VEHICULAR TRAFFIC.
- 5. A CITY OF TAMPA STREET CLOSURE PERMIT WILL BE REQUIRED FOR CLOSING OF BRIDGES. THE CONTRACTOR SHALL ADHERE TO THE PERMIT REQUIREMENTS.
- 6. SHORT CLOSURES OF STRUCTURE (FOR EXAMPLE, TO TEST NEW CONTROLS) SHALL BE DONE DURING THE WEEKEND.
- 7. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SIGNS, PAVEMENT MARKINGS, BARRICADES, LIGHTS AND FLAGMAN NECESSARY TO CONTROL TRAFFIC AND TO PROVIDE FOR SAFETY OF THE PUBLIC.

RECOMMENDED DETOUR ROUTE INFORMATION IS AVAILABLE THROUGH THE CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING, TELEPHONE (813) 223-8333.

UTILITIES:

THERE IS A SUBMARINE CABLE ACROSS THE CHANNEL. THE CONTRACTOR SHALL BE CAUTIOUS WITH UTILITIES WHEN WORKING IN THIS AREA.

NAVIGABLE WATERWAY:

ANY CONSTRUCTION METHOD THAT DECREASES HORIZONTAL OR VERTICAL CLEARANCE WITHIN A NAVIGABLE WATERWAY MUST BE APPROVED BY THE U.S. COAST GUARD OFFICE IN MIAMI. NO SUCH CONSTRUCTION ACTIVITIES MAY COMMENCE UNTIL SUCH APPROVAL IS RECEIVED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THIS APPROVAL.

OSHA:

ALL REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION FOR HIGHWAY CONSTRUCTION PROJECTS SHALL BE COMPLIED WITH IN THIS CONTRACT.

ACCESS:

THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO ALL WORK AREAS FOR INSPECTION PERSONNEL AS APPROVED BY THE ENGINEER.

AASHTO:

ALL BUFFER CYLINDERS AND ACCESSORY WORK SHALL COMPLY WITH THE AMERICAN ASSOCIATION OF STANDARD HIGHWAY AND TRAFFIC OPERATION (AASHTO) REQUIREMENTS.

EXISTING CONDITIONS:

- 1. THE LOCATION AND EXTENT OF DEFICIENCIES SHOWN IN THESE PLANS ARE BASED ON A FIELD SURVEY. AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL PERFORM ADDITIONAL WORK AS REQUIRED DUE TO ACTUAL EXISTING CONDITIONS. PAYMENT FOR THIS WORK WILL BE MADE AT THE UNIT PRICES BID FOR THE INDIVIDUAL PAY ITEMS. SEE BID ITEM NOTES.
- 2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO STARTING THE WORK.
- 3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID OPENING. CONTACT O.N. STOKES, JR. AT (813)-223-8988.

TURBIDITY BARRIERS:

FLOATING TURBIDITY BARRIERS (APPROXIMATELY 1,800 L.F.) SHALL BE USED DURING PERFORMANCE OF WORK THAT MAY AFFECT WATER QUALITY. FOR TURBIDITY BARRIER DETAILS, SEE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 103. PAYMENT SHALL BE MADE UNDER THE CONTRACT BID ITEM NO. 104-11, FLOATING TURBIDITY BARRIER.

BID ITEM NOTES:

- 1. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR BID ITEMS CONTAINED IN THIS CONTRACT.
- 2. THE METHOD OF PAYMENT FOR REPAIR WORK SUCH AS CRACKS AND SPALLING SHALL BE MADE BASED ON THE ACTUAL LENGTH OR QUANTITY REQUIRED FOR THE REPAIR AS FIELD MEASURED AND APPROVED BY THE ENGINEER. PAYMENT SHALL BE UNDER THE UNIT PRICES FOR THE TYPE OF WORK REQUIRED.
- 3. THE PAINTING OF THE NEW STRUCTURAL STEEL (APPROXIMATELY 2.0 TONS), INSTALLATION OF THE RUBBER BUMPER (APPROXIMATELY 120 L.F.) AND CLEANING AND PAINTING EXISTING STEEL WITH REFLECTIVE YELLOW PAINT (APPROXIMATELY 120 L.F.) SHALL BE INCIDENTAL TO BID ITEM NO. 460-2-1, STRUCTURAL STEEL (CARBON).
- 4. THE COST OF PERFORMING THE FOLLOWING WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 750-71, ELECTRICAL WORK:
 - A. REMOVAL OF THE EXISTING ELECTRICAL SYSTEM.
 - B. INSTALLATION AND TESTING OF THE NEW ELECTRICAL SYSTEM AS DESCRIBED IN THE PLANS AND SPECIFICATIONS, INCLUDING WIRING, PANELS, JUNCTION BOXES, SWITCHES, LIGHTING, OPERATOR'S CONTROL DESK, AND EMERGENCY GENERATOR.
 - C. REFURBISHING OR REPLACING THE EXISTING ELECTRICAL MOTORS, GATE OPERATORS AND BRAKES.
 - D. ALL H.V.A.C. WORK INCLUDING ROOF AND AIR HANDLING UNIT.
- 5. THE WEIGHT OF NEW REPLACEMENT MATERIAL FOR THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR ITEM NO. 460-2-1, STRUCTURAL STEEL (CARBON) AND WILL BE PAID AT THE UNIT PRICE BID FOR THIS ITEM:
 - A. STEEL RAILING
 - B. BOLTS AND NUTS
 - C. REINFORCEMENT OF STEEL MEMBERS
 - D. MISCELLANEOUS STRUCTURAL STEEL
- 6. CLASS 3, 4 AND 5 CRACKS SHALL BE REPAIRED USING THE METHODS SPECIFIED FOR REPAIR. CLASS 1 AND CLASS 2 CRACKS HAVE NOT BEEN INCLUDED FOR REPAIR IN THE TABLES OF DEFICIENCIES OR THE SUMMARY OF ESTIMATED QUANTITIES.
- 7. THE COST OF REPAIRING MACHINERY DEFICIENCIES AND REACTIVATING THE MANUAL CONTROLS AND THE COST OF THE PORTABLE MANUAL DRIVE UNIT AS DESCRIBED ON SHEET E-9 SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 8460-3-803, MACHINERY AND CASTINGS (ADJUSTMENTS AND REPAIRS) (MOVABLE BRIDGE).
- 8. PAYMENT FOR ALL THE WORK AND MATERIALS NECESSARY FOR THE APPLICATION OF THE UNDERWATER COMPOUND (APPROXIMATELY 3.0 S.F.) SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 8401-70-1, RESTORE SPALLED AREAS.

OTHER NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR UTILITIES COORDINATION ON THIS PROJECT.
- 2. ALL CONTRACTOR SITE VISITS TO EXAMINE EXISTING CONDITIONS PRIOR TO BID SHALL BE COORDINATED WITH O.N. STOKES JR. AT TEL. NO. (813) 223-8988.
- 3. ALL WORK INVOLVING SANDING/REMOVAL OF LEAD BASED PAINT AND DISPOSAL OF ELEMENTS COATED WITH LEAD BASED PAINT SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS.
- 4. CARE SHALL BE TAKEN SO THAT NO SOLVENTS, CLEANERS, PAINTS OR ANY OTHER SUCH MATERIALS ARE ALLOWED TO ENTER INTO THE WATERS OF THE COUNTY. STATE WATER QUALITY CONTROL STANDARDS ARE TO BE MAINTAINED AT ALL TIMES.
- 5. NOISE SHALL BE LIMITED DURING CONSTRUCTION IN ACCORDANCE WITH CHAPTER 1-10, EPC NOISE RULE.
- 6. ANY CONCRETE CONSTRUCTION MATERIALS RESULTING FROM DEMOLITION SHALL NOT BE DEPOSITED IN HILLSBOROUGH BAY WITHOUT UNDERGOING THE PROPER PERMITTING PROCEDURES.

SUMMARY OF ESTIMATED QUANTITIES

ITEM NUMBER	ITEM	UNIT	QUANTITY
101-1	MOBILIZATION	L.S.	1
102-1	MAINTENANCE OF TRAFFIC	L.S.	1
104-11	FLOATING TURBIDITY BARRIER	L.F.	1800
460-2-1	STRUCTURAL STEEL (CARBON)	TONS	2.0
750-71	ELECTRICAL WORK	L.S.	1
751-1	ASBESTOS ABATEMENT	L.S.	1
8350-78	HOT APPLIED SEALANT	L.F.	660
8400-134	EPOXY MATERIAL	GA.	83
8400-135	INJECT AND SEAL CRACKS (EPOXY)	L.F.	1850
8401-70-1	RESTORE SPALLED AREAS (POLYMER MODIFIED MORTAR)	C.F.	100
8460-3-803	MACHINERY AND CASTINGS (ADJUSTMENTS AND REPAIRS)	L.S.	1
8500-70	ALUMINUM BRIDGE HANDRAIL	L.F.	10
SP-1.71	PROJECT VIDEO TAPING	L.S.	1

9/2/92		ADDED, DELETED OR REVISED ITEM		TC
NO.	DATE	DESCRIPTION		BY
LAUREL STREET BRIDGE REHABILITATION				
TAMPA, FLORIDA				
GENERAL NOTES AND SUMMARY OF ESTIMATED QUANTITIES				
DSA GROUP INC.		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
ENGINEER		SURVEYOR		
PLANNER		SCIENTIST		
DESIGNED BY	LTD	DRAWING NO.		
DRAWN BY	AEV	S-2		
CHECKED BY	JSR			
APPROVED BY	SCB			
BY:	DSA CM. NO.	1000 F-3		
FLA. P.E. REG. NO.	DATE	6/29/92 OF 13 SHEETS		

EPOXY INJECTION

PRESSURE INJECTION SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, APPLIANCES, TRANSPORTATION, LABOR AND SUPERVISION REQUIRED FOR THE FINISHING AND PLACING OF A SUITABLE EPOXY (CONCRESE 1380, AS MANUFACTURED BY MASTER BUILDERS, INC. OR APPROVED EQUAL) TO SEAL THE CRACKS. CONFORM TO ALL THE MANUFACTURER'S SPECIFICATIONS.

THE EPOXY INJECTION EQUIPMENT SHALL BE A POSITIVE DISPLACEMENT PUMP SYSTEM. THE SYSTEM SHALL HAVE A SUITABLE MIXING CHAMBER WHERE THE EPOXY COMPONENTS ARE ACCURATELY METERED AND THOROUGHLY MIXED IMMEDIATELY PRIOR TO INJECTION. A CLEAR, LEGIBLE, AND ACCURATE PRESSURE GAUGE SHALL BE LOCATED IN THE SUPPLY LINE ADJACENT TO THE MIXING CHAMBER.

THE EQUIPMENT SHALL ALSO BE CAPABLE OF PROVIDING A CONTINUOUS AND UNINTERRUPTED PRESSURE HEAD TO CONTINUALLY FORCE THE INJECTION EPOXY INTO THE CRACKS. EPOXY FLOW SHALL BE CAPABLE OF BEING FULLY OPERATED BY CONTROLS AT THE MIXING CHAMBER.

ALL WORKING PERSONNEL SHALL BE FAMILIAR WITH THE EQUIPMENT, MATERIALS, PROCEDURES TO BE USED DURING THE OPERATION AND HAVE SATISFACTORILY COMPLETED A PROGRAM OF INSTRUCTION IN THE METHODS OF RESTORING CONCRETE STRUCTURES UTILIZING THE EPOXY INJECTION PROCESS. THE EPOXY MATERIAL SHALL BE APPLIED BY A CONTRACTOR APPROVED BY THE EPOXY MANUFACTURER. EXTRA (BACKUP) EQUIPMENT TO ASSURE THE CONTINUOUS INJECTION OF EPOXY, IN THE EVENT OF PRIMARY EQUIPMENT FAILURE, SHALL BE REQUIRED.

ALL MATERIALS AND EQUIPMENT, INCLUDING BACKUP EQUIPMENT, SHALL BE AT THE WORK SITE BEFORE INJECTION IS BEGUN. ALL EQUIPMENT SHALL BE IN PROPER CALIBRATION AND IN GOOD WORKING ORDER. PRESSURE POT SYSTEMS AND HAND HELD CAULKING GUNS, OR GREASE GUNS SHALL NOT BE ALLOWED.

ONLY CONTRACTORS PRE-QUALIFIED BY THE MANUFACTURER SHALL BE PERMITTED TO MAKE THE CORRECT REPAIRS.

THE FOLLOWING STEPS SHALL BE FOLLOWED:

A. PREPARATION

- 1. SURFACES ADJACENT TO CRACKS OR OTHER AREAS OF APPLICATION SHALL BE CLEANED OF DIRT, DUST, GREASE, OIL, EFFLORESCENCE OR OTHER FOREIGN MATTER DETRIMENTAL TO BOND OF EPOXY INJECTION SURFACE SEAL.
- 2. ENTRY PORTS SHALL BE PROVIDED ALONG THE CRACK AT INTERVALS OF NOT LESS THAN THE THICKNESS OF THE CONCRETE AT THAT LOCATION.
- 3. SURFACE SEAL MATERIAL SHALL BE APPLIED TO THE FACE OF THE CRACK BETWEEN THE ENTRY PORTS. FOR THROUGH CRACKS, SURFACE SEAL SHALL BE APPLIED TO BOTH FACES.
- 4. ENOUGH TIME FOR THE SURFACE SEAL MATERIAL TO GAIN ADEQUATE STRENGTH SHALL PASS BEFORE PROCEEDING WITH THE INJECTION.

B. EPOXY INJECTION

- 1. INJECTION OF EPOXY ADHESIVE SHALL BEGIN AT LOWEST ENTRY PORT AND CONTINUE UNTIL THERE IS AN APPEARANCE OF EPOXY ADHESIVE AT THE NEXT PORT ADJACENT TO THE ENTRY PORT BEING PUMPED.
- 2. WHEN EPOXY ADHESIVE TRAVEL IS INDICATED BY APPEARANCE AT THE NEXT ADJACENT PORT, INJECTION SHALL BE DISCONTINUED ON THE ENTRY PORT BEING PUMPED, AND EPOXY INJECTION SHALL BE TRANSFERRED TO NEXT ADJACENT PORT WHERE EPOXY ADHESIVE HAS APPEARED.
- 3. EPOXY ADHESIVE INJECTION SHALL BE PERFORMED CONTINUOUSLY UNTIL CRACKS ARE COMPLETELY FILLED.
- 4. IF PORT TO PORT TRAVEL OF EPOXY ADHESIVE IS NOT INDICATED, THE WORK SHALL BE IMMEDIATELY STOPPED AND THE ENGINEER NOTIFIED.

C. FINISHING

- 1. WHEN CRACKS ARE COMPLETELY FILLED, EPOXY ADHESIVE SHALL BE CURED FOR SUFFICIENT TIME TO ALLOW REMOVAL OF SURFACE SEAL WITHOUT ANY DRAINING OR RUN BACK OF EPOXY MATERIAL FROM THE CRACKS.
- 2. SURFACE SEAL MATERIAL AND INJECTION ADHESIVE RUNS OR SPILLS SHALL BE REMOVED FROM CONCRETE SURFACES.
- 3. THE FACE OF THE CRACK SHALL BE FINISHED FLUSH WITH THE ADJACENT CONCRETE SHOWING NO INDENTATIONS OR PROTRUSIONS CAUSED BY THE PLACEMENT OF ENTRY PORTS.
- 4. AFTER THE WORK HAS BEEN ACCEPTED BY THE ENGINEER, CORED HOLES SHALL BE REPAIRED USING A TWO COMPONENT BONDING AGENT. THE BONDING AGENT SHALL BE APPLIED TO THE SURFACES OF CORED HOLE FOLLOWED BY APPLICATION OF GROUT MIX PLACED BY HAND TROWEL, THOROUGHLY RODDED AND TAMPED IN PLACE, AND FINISHED TO MATCH COLOR, FINISH AND TEXTURE OF EXISTING CONCRETE TO THE SATISFACTION OF THE ENGINEER. MATERIAL AND PROCEDURE FOR FILLING TESTING CORE HOLES SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER BEFORE PROCEEDING WITH THIS WORK.

RUBBER BUMPER

A 3/4" THICK FLEXIBLE ELASTOMERIC ARMAFLEX AS MANUFACTURED BY ARMSTRONG, RUBATEX OR APPROVED EQUAL TO ACT AS A GUARD (OR BUMPER) AROUND CORNERS AND EDGES EXTENDING 5" MINIMUM BEYOND CORNER (IN ALL DIRECTIONS) OR EDGE (IN BOTH DIRECTIONS). APPLY WITH ARMSTRONG 520 ADHESIVE OR RECOMMENDED MANUFACTURER ADHESIVE.

POLYMER MODIFIED MORTAR

SPALL WITHOUT EXPOSED REINFORCING STEEL: REPAIRING SPALLED CONCRETE SHALL INCLUDE ALL WORK REQUIRED TO REPAIR DETERIORATED CONCRETE SURFACES WHERE INDICATED OR AS DIRECTED BY THE ENGINEER, AND CONFORM TO MANUFACTURER'S SPECIFICATIONS. THIS WORK CONSISTS OF THE REMOVAL AND DISPOSAL OF LOOSE AND DISINTEGRATED CONCRETE, SAW-CUTTING, THE PREPARATION OF THE SURFACE, THE APPLICATION OF AN EPOXY BONDING COMPOUND AND PLACING OF POLYMER MODIFIED MORTAR. THE FOLLOWING STEPS SHALL BE USED:

- A. REMOVE UNSOUND CONCRETE FROM SPALLED AREA. POWER CHIPPING TOOLS MAY BE USED BUT NOT TO EXCEED 30 POUNDS.
- B. CLEAN CONCRETE SURFACES OF ALL LOOSE CONCRETE, DUST, AND ANY OTHER FOREIGN MATERIAL. BE SURE REPAIR AREA IS NOT LESS THAN 1/2 IN. IN DEPTH. PREPARE AREA TO OBTAIN AN AGGREGATE FRACTURED SURFACE WITH A MINIMUM SURFACE PROFILE OF $\pm 1/16$ IN.
- C. USE A POLYMER MODIFIED MORTAR (MASTERPATCH 230 VP AS MANUFACTURED BY MASTER BUILDERS, INC. OR APPROVED EQUAL) WHILE STILL TACKY. THE MATERIAL SHALL COMPLETELY FILL THE AREA. THOROUGHLY COMPACT THE COMPOUND ELIMINATING ALL AIR POCKETS. ALLOW THE MATERIAL TO STIFFEN ENOUGH BETWEEN LIFTS TO SUPPORT ITS OWN WEIGHT.
- D. AFTER THE NEW CONCRETE IS IN PLACE, THE SURFACE SHALL BE FINISHED TO MATCH THE ADJACENT EXISTING AREAS.

SPALL WITH EXPOSED REINFORCING STEEL: REPAIRING SPALLED CONCRETE SHALL INCLUDE ALL WORK REQUIRED TO REPAIR DETERIORATED CONCRETE SURFACES WHERE INDICATED OR AS DIRECTED BY THE ENGINEER AND CONFORM TO MANUFACTURER'S SPECIFICATIONS.

THIS WORK CONSISTS OF THE REMOVAL AND DISPOSAL OF ALL LOOSE AND DISINTEGRATED CONCRETE, SAW-CUTTING, THE PREPARATION OF THE SURFACE, CLEANING OR REPLACEMENT OF EXISTING REINFORCEMENT STEEL, FIELD EPOXY COATING EXPOSED EXISTING REINFORCEMENT, AND PLACING OF POLYMER MODIFIED MORTAR.

- A. REMOVE UNSOUND CONCRETE FROM SPALLED AREA. PNEUMATIC TOOLS SHALL NOT BE PLACED IN DIRECT CONTACT WITH THE REINFORCING STEEL. EXTREME CARE SHALL BE TAKEN AS NOT TO DAMAGE THE STEEL OR ITS BOND IN THE SURROUNDING SOUND CONCRETE.
- B. REINFORCEMENT STEEL OR OTHER EMBEDDED ITEMS DAMAGED DURING CONCRETE REMOVAL SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE, AS DIRECTED BY THE ENGINEER. THE REMOVAL SHALL CONTINUE UNTIL AT LEAST 3/4 OF THE BAR'S CIRCUMFERENCE IS EXPOSED. IF UNSOUND CONCRETE IS ENCOUNTERED AT OR BELOW THE MID-DEPTH OF REINFORCEMENT BARS, REMOVAL SHALL EXTEND TO AT LEAST 3/4 INCHES BEYOND BARS.
- C. CLEAN CONCRETE SURFACE AND EXPOSED REINFORCING STEEL OF ALL LOOSE CONCRETE, DUST AND ANY FOREIGN MATERIAL. RUST SCALE SHALL BE REMOVED BY HYDRO-BLASTING AND THEN EPOXY COAT THE AREAS WHERE RUST SCALES WERE FOUND.
- D. THE REMAINING STEPS ARE SIMILAR TO THOSE USED FOR REPAIRING SPALLS WITHOUT EXPOSED REINFORCING STEEL. THE MATERIAL USED TO REPAIR CONCRETE SPALLS SHALL BE A POLYMER MODIFIED MORTAR (MASTERPATCH 230 VP AS MANUFACTURED BY MASTER BUILDERS, INC. OR APPROVED EQUAL).

WHEN REMOVING SPALLS AND UNSOUND CONCRETE, EDGES SHALL REMAIN VERTICAL (HORIZONTAL) WITH A MINIMUM DEPTH (WIDTH) OF 1/4" SUCH THAT THE NEW CEMENT IS NOT FEATHERED TO MATCH THE EXISTING CONCRETE SURFACE.

UNDERWATER COMPOUND

THIS WORK CONSISTS OF REMOVAL AND DISPOSAL OF LOOSE AND DISINTEGRATED CONCRETE, SURFACE PREPARATION AND APPLICATION OF A HEAVY BODY MASTIC (HYDROCOTE 1063 SZ AS MANUFACTURED BY MASTER BUILDERS, INC. OR APPROVED EQUAL) AT THE APPROXIMATE LOCATIONS SPECIFIED, AND CONFORM TO MANUFACTURER'S SPECIFICATIONS. PAYMENT FOR ALL WORK INCLUDED FOR THIS REPAIR SHALL BE INCLUDED IN ITEM NO. 8401-70-1, RESTORE SPALLED AREAS.

THE FOLLOWING STEPS SHALL BE USED:

- A. REMOVE UNSOUND CONCRETE FROM SPALLED AREA. CLEAN CONCRETE SURFACES OF ALL LOOSE CONCRETE, DUST, MARINE GROWTH, AND ANY OTHER FOREIGN MATERIAL DETRIMENTAL TO BOND OF UNDERWATER MASTIC BY SANDBLASTING, WATERBLASTING AND CHIPPING.
- B. APPLY A THICK BASE OF THE MIXED MATERIAL TO THE SUBSTRATE STARTING 1 FOOT ABOVE THE MAXIMUM HIGH TIDE LEVEL AND SMEAR UNIFORMLY OVER THE AREA TO BE COATED WITH GLOVED HANDS GRADUALLY WORKING DOWNWARDS INTO THE WATER. A FILM THICKNESS OF 1/8" TO 1/4" SHOULD BE USED AND THE EDGES FEATHERED. HOLD THE PASTE IN CONTACT WITH THE WET SURFACE FOR ABOUT 10 - 15 SECONDS TO OBTAIN OPTIMUM ADHESION.

NOTE:

ALL REPAIRS SHALL FOLLOW A THOROUGH CLEANING AND PREPARATION PROCESS TO BE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

△CLEAN AND REPAINT STRUCTURAL STEEL

THE PARAGRAPH DESIGNATIONS (a), (b), (c) AND (d) OF ARTICLE 560-13 OF THE FDOT STANDARD SPECIFICATIONS ARE DELETED AND PAINTING REQUIREMENTS FOR THE BRIDGE STRUCTURE ARE:

- A. POLLUTION CONTROL. DURING SURFACE CLEANING OPERATIONS ANY GENERATED DEBRIS SHALL BE CONFINED TO THE IMMEDIATE AREA OF THE BRIDGE STRUCTURE. DURING PAINTING OPERATIONS TARPULINS SHALL BE ERECTED IN ORDER TO PREVENT ANY WET PAINT FROM DAMAGING PROPERTY OR FALLING INTO WATERWAY.
- B. CLEAN SURFACES SHALL THEN BE PAINTED (BRUSH OR SPRAY) WITH TWO (2) COATS (5.0 TO 9.0 DRY MILS PER COAT) OF ALUMINUM EPOXY PRIMER.
- C. SURFACES NOT PRIMED ON THE SAME DAY THE CLEANING IS ACCOMPLISHED SHALL BE CLEANED AGAIN PER THE SPECIFICATION REQUIREMENTS PRIOR TO PAINTING.
- D. THE FIRST PRIMER COAT SHALL "CURE" A MINIMUM OF 48 HOURS PRIOR TO APPLYING THE SECONO COAT. THE SECOND PRIMER COAT SHOULD BE APPLIED IN A TIME PERIOD RANGING FROM 2 TO 10 DAYS FROM THE TIME THE FIRST COAT IS APPLIED.
- E. THE CLEANED, SOUND SURFACES SHALL BE PAINTED (BRUSH, ROLLER OR SPRAY) WITH ONE FINISHED COAT (1.5 MILS MINIMUM) OF FDOT STANDARD SPECIFICATIONS CODE B-A (SECTION 971-7) ALUMINUM FINISH PAINT.
- F. NO PAINT SHALL BE APPLIED (TO ANY SURFACE) UNLESS THE SURFACE TO BE PAINTED IS A MINIMUM OF 5° F ABOVE THE DEW POINT. NO PAINT SHALL BE APPLIED WHEN THE AMBIENT AIR TEMPERATURE IS LESS THAN 50° F OR MORE THAN 95° F.
- G. APPROVED PRIMER COATINGS SHALL BE MAGNA-MASTIC 7900 AS MANUFACTURED BY PORTER COATINGS CO. OR APPROVED EQUAL.
- H. THE COLOR PIGMENT USED IN FINISHED COAT DESCRIBED IN FDOT STANDARD SPECIFICATIONS CODE B-A (SECTION 971-7) SHALL BE DETERMINED BY THE ENGINEER.

HOT APPLIED SEALANT

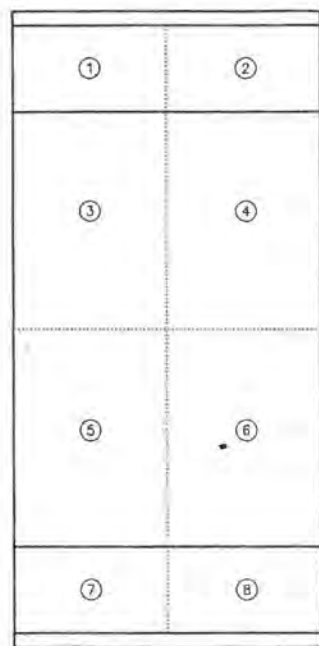
THIS WORK CONSISTS OF SEALING RANDOM CRACKS IN THE ASPHALTIC CONCRETE PAVEMENT USING HOT APPLIED, SINGLE COMPONENT SEALING COMPOUND (HI-SPEC POLYMERIC JOINT SEALING COMPOUND AS MANUFACTURED BY W.R. MEADOWS, INC., OR APPROVED EQUAL) CONFORM TO MANUFACTURER'S RECOMMENDATIONS.

- A. ALL CRACKS SHALL BE CLEANED OF DIRT, DUST, GREASE, OIL OR OTHER FOREIGN MATERIAL DETRIMENTAL TO BOND OF HOT APPLIED SEALANT.
- B. FILL ALL CRACKS TO FULL DEPTH MAKING SURE THAT THE MATERIAL WILL NOT SQUELGE.
- C. USING A SEALING SHOE, FORM A 1" TO 2" WIDE WIPE ZONE ON EACH SIDE OF THE CRACK.

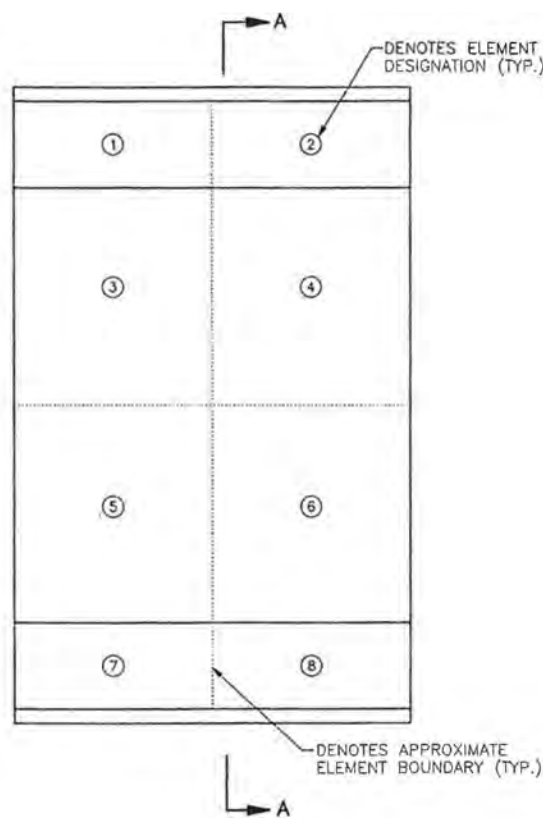
9/2/92		ADDED, DELETED OR REVISED ITEM		TC	
NO.	DATE	DESCRIPTION		BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION					
TAMPA, FLORIDA					
REPAIR NOTES					
		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222			
ENGINEERS - SURVEYORS - PLANNERS - SCIENTIST					
DESIGNED BY		LTD		DRAWING NO.	
DRAWN BY		AEV		S-3	
CHECKED BY		JSR			
APPROVED BY		SCR			
DSA CM. NO.		DATE		6/29/92	
FLA. P.E. REG. NO.				OF 13 SHEETS	

EXISTING PLANS

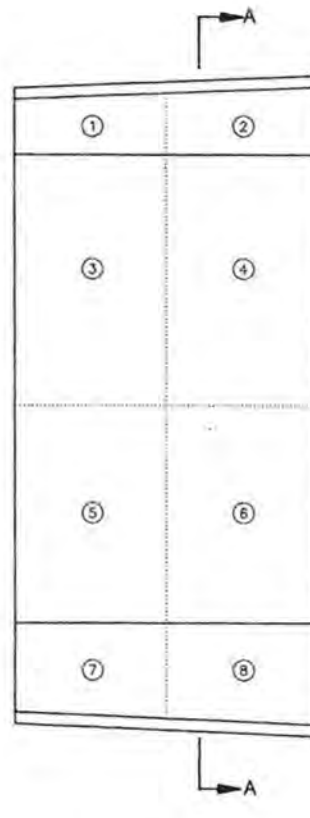
EXISTING PLANS



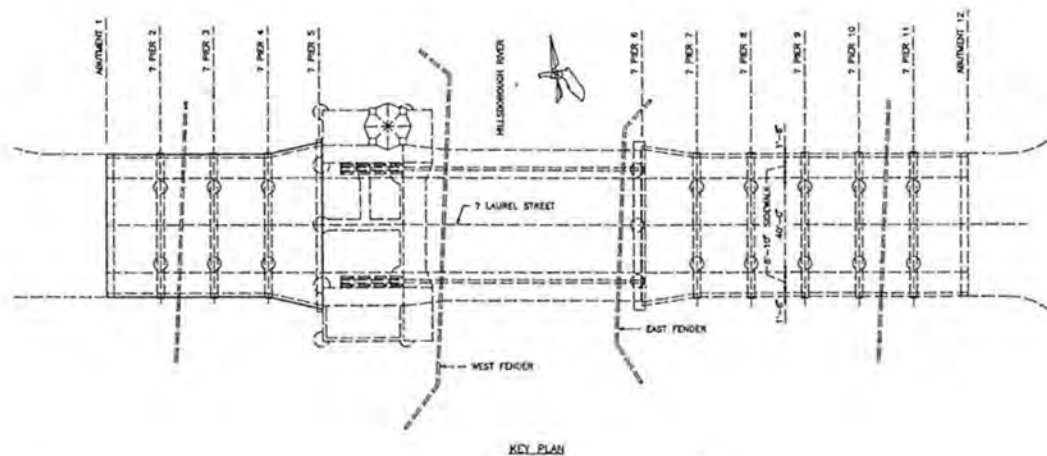
PLAN - APPROACH SLAB 1
(WITH ELEMENT LOCATIONS INDICATED)



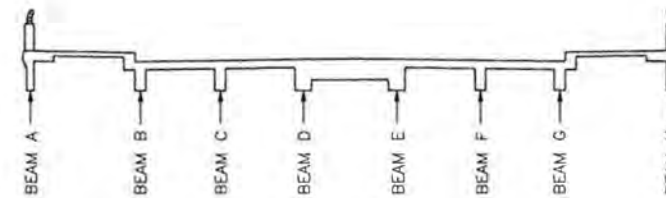
PLAN - TOP OF DECK SPANS 1 THRU 3
(WITH ELEMENT LOCATIONS INDICATED)



PLAN - TOP OF DECK SPAN 4
(WITH ELEMENT LOCATIONS INDICATED)



KEY PLAN



SECTION A-A

TABLE OF DEFICIENCIES					
SPAN	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
APP. 1	3	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT
APP. 1	4	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT
APP. 1	5	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT
APP. 1	6	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT
APP. 1	6	SPALL	TOP OF DECK	0.1 S.F.	HOT APPLIED SEALANT
APP. 1	4	SPALL	TOP OF DECK	0.1 S.F.	HOT APPLIED SEALANT
APP. 1	3	SPALL	TOP OF DECK	0.1 S.F.	HOT APPLIED SEALANT
1	1	CW-5	SIDEWALK	0.7 L.F.	EPOXY INJECTION
1	1	CW-3	SIDEWALK	8.0 L.F.	EPOXY INJECTION
1	1	CW-4	SIDEWALK	8.0 L.F.	EPOXY INJECTION
1	2	CW-3	SIDEWALK	18.0 L.F.	EPOXY INJECTION
1	3	CW-5	TOP OF DECK	9.0 L.F.	EPOXY INJECTION
1	4	CW-5	TOP OF DECK	12.5 L.F.	EPOXY INJECTION
1	5	CW-3	DECK JOINT	1.0 L.F.	EPOXY INJECTION
1	5	CW-4	TOP OF DECK	9.0 L.F.	EPOXY INJECTION
1	6	CW-5	TOP OF DECK	3.5 L.F.	EPOXY INJECTION
1	7	SPALL	EDGE OF SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
2	1	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
2	2	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
2	2	CW-3	SIDEWALK	3.0 L.F.	EPOXY INJECTION
2	3	CW-3	DECK JOINT	1.0 L.F.	HOT APPLIED SEALANT
2	3	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
2	5	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
2	6	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
2	7	SPALL	EDGE OF SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
2	8	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
3	1	SPALL	SIDEWALK	0.2 S.F.	POLYMER MODIFIED MORTAR
3	1	CW-3	SIDEWALK	2.0 L.F.	EPOXY INJECTION
3	1	CW-4	SIDEWALK	2.0 L.F.	EPOXY INJECTION
3	4	CW-3	DECK JOINT	1.0 L.F.	HOT APPLIED SEALANT
3	4	CW-4	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
3	4	CW-5	TOP OF DECK	3.0 L.F.	HOT APPLIED SEALANT
3	5	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
3	6	CW-5	TOP OF DECK	12.0 L.F.	HOT APPLIED SEALANT
3	7	CW-3	SIDEWALK	1.5 L.F.	EPOXY INJECTION
3	8	SPALL	SIDEWALK	0.2 S.F.	POLYMER MODIFIED MORTAR
3	8	CW-3	SIDEWALK	1.5 L.F.	EPOXY INJECTION
4	1	CW-3	SIDEWALK	18.0 L.F.	EPOXY INJECTION
4	2	SPALL	SIDEWALK	25.0 S.F.	POLYMER MODIFIED MORTAR
4	2	CW-3	SIDEWALK	25.0 L.F.	EPOXY INJECTION
4	3	CW-4	TOP OF DECK	19.5 L.F.	HOT APPLIED SEALANT
4	4	CW-4	TOP OF DECK	26.5 L.F.	HOT APPLIED SEALANT
4	5	CW-5	TOP OF DECK	18.0 L.F.	HOT APPLIED SEALANT
4	6	CW-5	TOP OF DECK	28.0 L.F.	HOT APPLIED SEALANT
4	7	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
4	7	CW-3	SIDEWALK	12.5 L.F.	EPOXY INJECTION
4	8	CW-3	SIDEWALK	12.5 L.F.	EPOXY INJECTION
4	8	SPALL	SIDEWALK	0.3 S.F.	POLYMER MODIFIED MORTAR
4	8	HOLE IN DECK	SIDEWALK	14 5/8 SQ. IN.	FABRICATE & INSTALL COVER
4	8	SPALL	SIDEWALK	9.0 S.F.	POLYMER MODIFIED MORTAR

NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR AND REPAIR NOTES, SEE SHEET S-3.

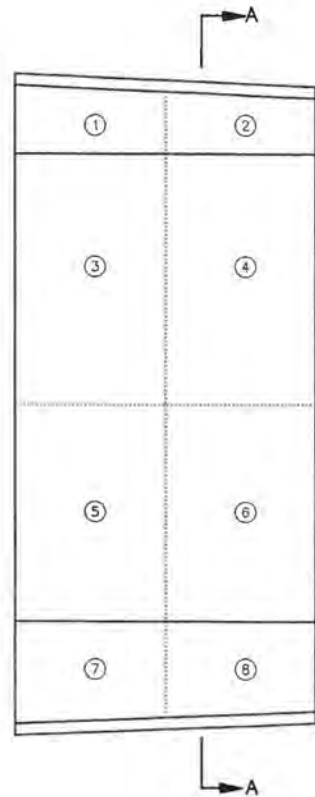
9/2/92		ADDED, DELETED OR REVISED ITEM		TC
NO.	DATE	DESCRIPTION		BY
LAUREL STREET BRIDGE REHABILITATION				
TAMPA, FLORIDA				
TOP OF DECK - SPANS 1 THRU 4				
DSA GROUP INC.		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
ENGINEERS - SURVEYORS - PLANNERS - SCIENTIST				
DESIGNED BY	KTL	DRAWING NO.		
DRAWN BY	KTL			
CHECKED BY	JSR			
APPROVED BY				
BY:	DSA CH. NO.	97005-73		
FLA. P.E. REG. NO.	DATE	6/29/92 OF 13 SHEETS		

TABLE OF DEFICIENCIES

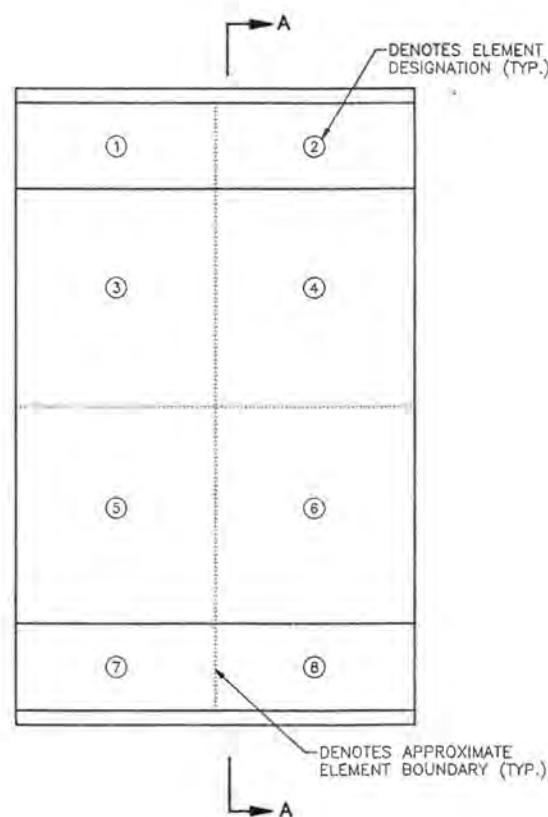
SPAN	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
6	1	CW-3	SIDEWALK	3.0 L.F.	EPOXY INJECTION
6	2	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
6	2	CW-3	SIDEWALK	8.5 L.F.	EPOXY INJECTION
6	2	SPALL	SIDEWALK	10.0 S.F.	POLYMER MODIFIED MORTAR
6	3	CW-5	TOP OF DECK	13.5 L.F.	HOT APPLIED SEALANT
6	4	CW-4	TOP OF DECK	3.0 L.F.	HOT APPLIED SEALANT
6	4	CW-5	TOP OF DECK	10.5 L.F.	HOT APPLIED SEALANT
6	5	CW-4	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
6	5	CW-5	TOP OF DECK	10.5 L.F.	HOT APPLIED SEALANT
6	6	CW-4	TOP OF DECK	3.0 L.F.	HOT APPLIED SEALANT
6	6	CW-5	TOP OF DECK	10.5 L.F.	HOT APPLIED SEALANT
6	7	CW-3	SIDEWALK	6.0 L.F.	EPOXY INJECTION
6	7	SPALL	SIDEWALK	9.0 S.F.	POLYMER MODIFIED MORTAR
6	8	CW-3	SIDEWALK	2.0 L.F.	EPOXY INJECTION
6	8	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
7	3	CW-4	TOP OF DECK	14.5 L.F.	HOT APPLIED SEALANT
7	4	CW-4	TOP OF DECK	13.5 L.F.	HOT APPLIED SEALANT
7	5	CW-4	TOP OF DECK	15.0 L.F.	HOT APPLIED SEALANT
7	5	CW-5	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
7	6	CW-5	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
7	6	CW-4	TOP OF DECK	15.0 L.F.	HOT APPLIED SEALANT
7	7	CW-3	SIDEWALK	2.0 L.F.	EPOXY INJECTION
8	1	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
8	2	SPALL	SIDEWALK	3.0 S.F.	POLYMER MODIFIED MORTAR
8	3	CW-5	TOP OF DECK	17.5 L.F.	HOT APPLIED SEALANT
8	4	CW-5	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
8	5	CW-5	TOP OF DECK	17.5 L.F.	HOT APPLIED SEALANT
8	6	CW-5	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
8	7	SPALL	EDGE OF SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
8	8	SPALL	EDGE OF SIDEWALK	0.2 S.F.	POLYMER MODIFIED MORTAR
8	8	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
8	8	CW-3	SIDEWALK	3.5 L.F.	EPOXY INJECTION
8	8	SPALL	SIDEWALK	2.0 S.F.	POLYMER MODIFIED MORTAR
9	1	CW-3	SIDEWALK	10.0 L.F.	EPOXY INJECTION
9	2	CW-3	SIDEWALK	11.0 L.F.	EPOXY INJECTION
9	3	CW-3	TOP OF DECK	13.0 L.F.	HOT APPLIED SEALANT
9	4	CW-3	TOP OF DECK	11.0 L.F.	HOT APPLIED SEALANT
9	5	CW-4	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
9	6	CW-4	TOP OF DECK	8.0 L.F.	HOT APPLIED SEALANT
9	7	SPALL	SIDEWALK	1.0 S.F.	POLYMER MODIFIED MORTAR
10	1	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
10	3	CW-4	TOP OF DECK	4.0 L.F.	HOT APPLIED SEALANT
10	4	CW-4	TOP OF DECK	8.0 L.F.	HOT APPLIED SEALANT
10	5	CW-5	TOP OF DECK	18.0 L.F.	HOT APPLIED SEALANT
10	6	CW-3	DECK JOINT	1.0 L.F.	HOT APPLIED SEALANT
10	6	CW-5	TOP OF DECK	18.0 L.F.	HOT APPLIED SEALANT
10	7	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
10	8	SPALL	SIDEWALK	0.2 S.F.	POLYMER MODIFIED MORTAR
11	1	SPALL	SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
11	2	SPALL	SIDEWALK	4.0 S.F.	POLYMER MODIFIED MORTAR
11	2	CW-4	SIDEWALK	2.0 L.F.	EPOXY INJECTION
11	3	CW-4	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
11	4	CW-4	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
11	5	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
11	6	CW-5	TOP OF DECK	9.0 L.F.	HOT APPLIED SEALANT
11	8	CW-5	SIDEWALK	2.0 L.F.	EPOXY INJECTION
11	8	SPALL	SIDEWALK	1.0 S.F.	POLYMER MODIFIED MORTAR
APP. 2	1	CW-5	SIDEWALK	6.0 L.F.	EPOXY INJECTION
APP. 2	1	REPLACEMENT	SIDEWALK	4' x 2' x 1'	CONCRETE *
APP. 2	4	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT
APP. 2	5	CW-4	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
APP. 2	6	CW-4	TOP OF DECK	11.5 L.F.	HOT APPLIED SEALANT
APP. 2	6	CW-5	TOP OF DECK	10.0 L.F.	HOT APPLIED SEALANT

* REMOVE CRACKED APPROACH CONCRETE SLAB IN THE NORTH-EAST VICINITY OF WING WALL, USING POWER CHIPPING TOOLS. ALL EXISTING REINFORCING STEEL SHALL BE PROTECTED DURING THIS OPERATION. PNEUMATIC TOOLS SHALL NOT BE PLACED IN DIRECT CONTACT WITH THE REINFORCING STEEL. ANY DAMAGED REINFORCEMENT STEEL DURING CONCRETE REMOVAL SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE, AS DIRECTED BY THE ENGINEER. ALL EXISTING REINFORCEMENT STEEL SHALL BE SAND BLASTED TO ELIMINATE ANY RUSTED MATERIAL. AFTER REMOVAL OF DAMAGED CONCRETE, FORM AND THEN POUR PORTLAND CEMENT CONCRETE TO INITIAL DIMENSIONS. ALL WORK AND MATERIALS NECESSARY FOR THIS REPAIR SHALL BE INCIDENTAL TO ITEM NO. 8401-70-1, POLYMER MODIFIED MORTAR.

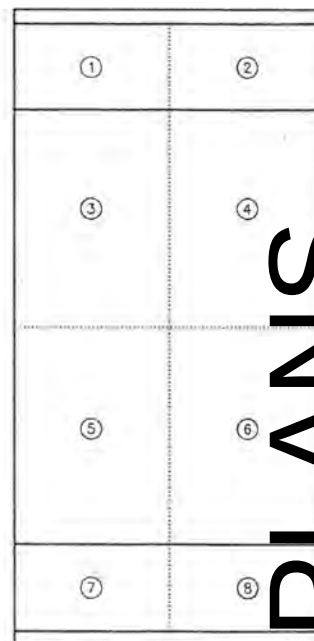
NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR AND REPAIR NOTES, SEE SHEET S-3.



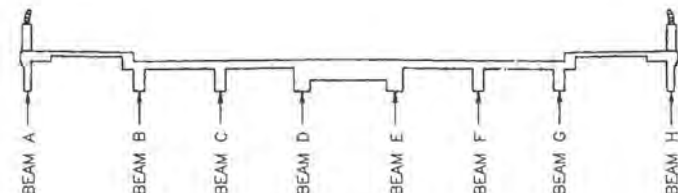
PLAN - TOP OF DECK SPAN 6
(WITH ELEMENT LOCATIONS INDICATED)



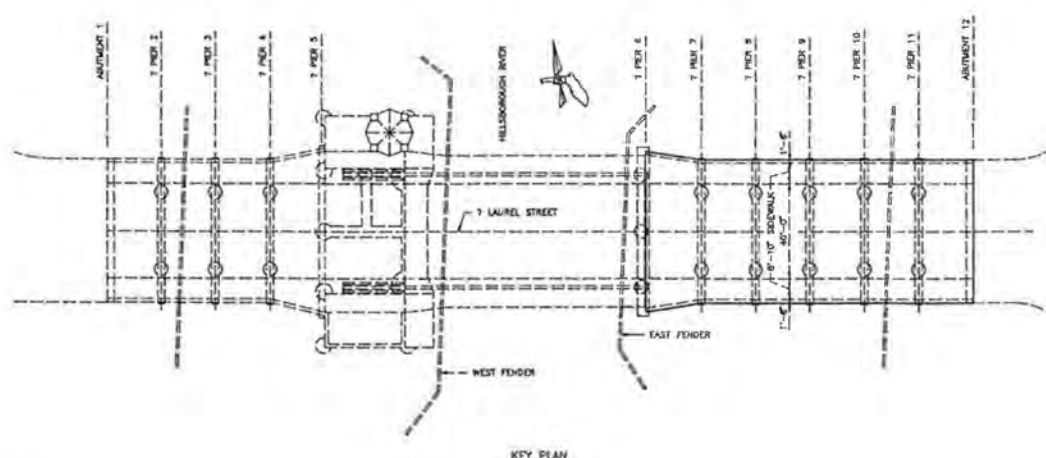
PLAN - TOP OF DECK SPANS 7 THRU 11
(WITH ELEMENT LOCATIONS INDICATED)



PLAN - APPROACH SLAB 2
(WITH ELEMENT LOCATIONS INDICATED)



SECTION A-A

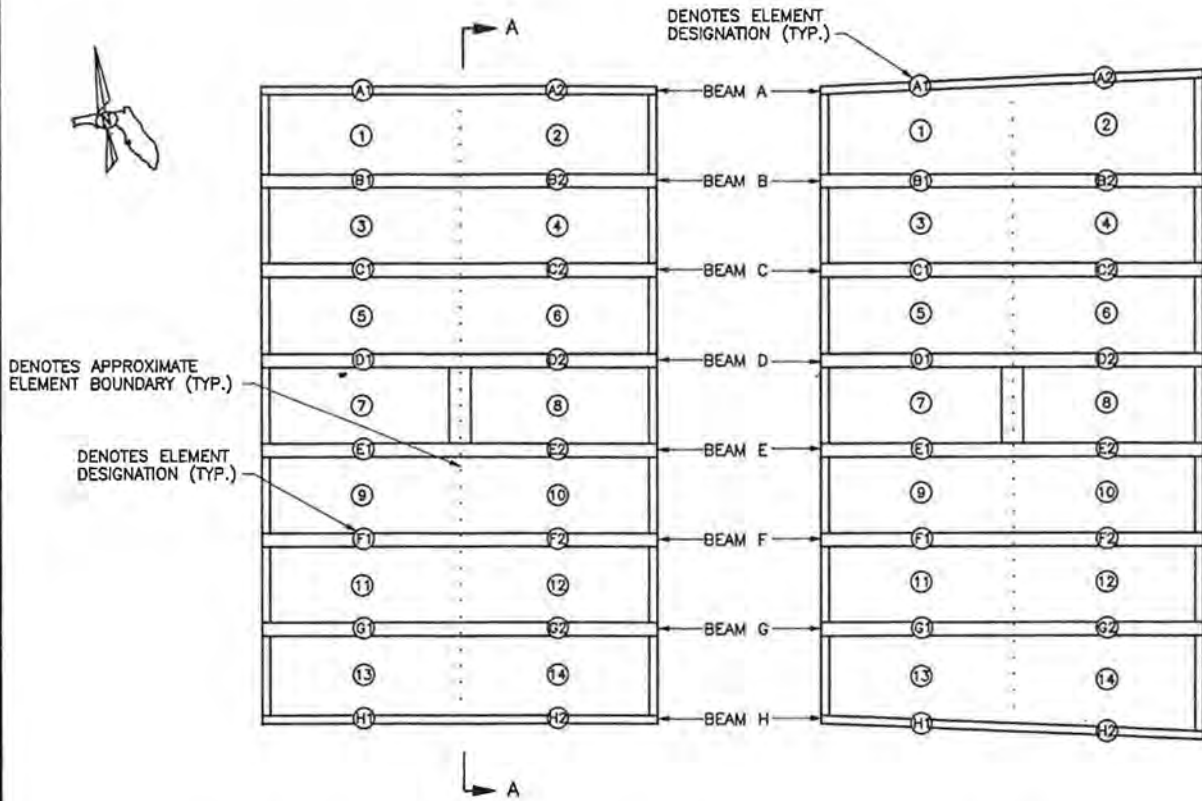


KEY PLAN

9/2/92		ADDED, DELETED OR REVISED ITEM	TC
NO.	DATE	DESCRIPTION	BY
LAUREL STREET BRIDGE REHABILITATION			
TAMPA, FLORIDA			
TOP OF DECK - SPANS 6 THRU 11			
		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222	
ENGINEERS • SURVEYORS		PLANNERS • SCIENTIST	
DESIGNED BY	KTL	DRAWING NO.	
DRAWN BY	KTL		
CHECKED BY	JSR		
APPROVED BY	SCR		
BY:	DSA CM. NO. 910		
FLA. P.E. REG. NO.	DATE	6/29/92	OF 13 SHEETS

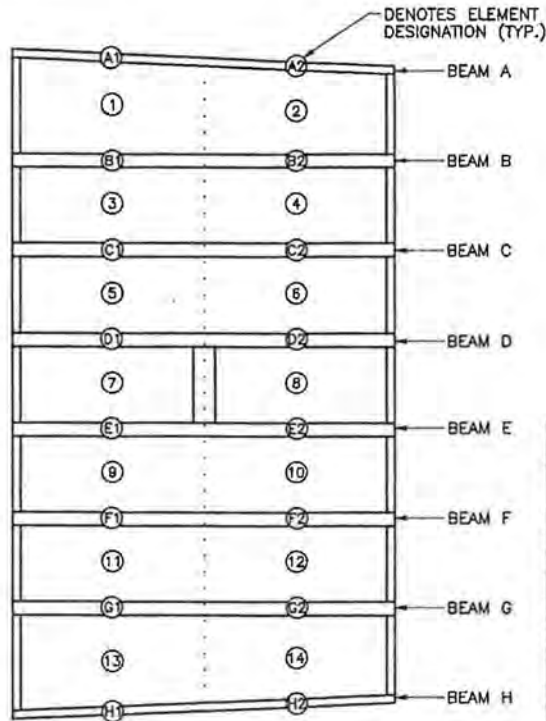
EXISTING PLANS

EXISTING PLANS

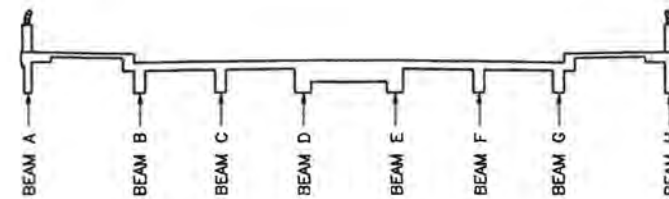


BOTTOM OF DECK - SPANS 1 THRU 3 AND 7 THRU 11
(WITH ELEMENT LOCATIONS INDICATED)

BOTTOM OF DECK - SPAN 4
(WITH ELEMENT LOCATIONS INDICATED)



BOTTOM OF DECK - SPAN 6
(WITH ELEMENT LOCATIONS INDICATED)

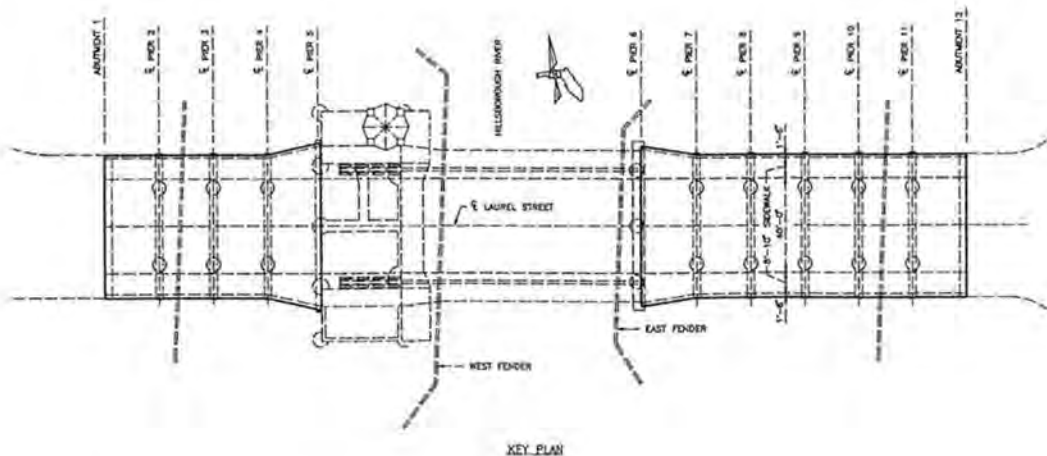


SECTION A-A
(FACING EAST)

TABLE OF DEFICIENCIES					
SPAN	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
1	G1	SPALL	SOUTHEAST CORNER	1.0 S.F.	POLYMER MODIFIED MORTAR
1	1	CW3	NORTHWEST CORNER	12.0 L.F.	EPOXY EJECTION
1	2	SPALL	NORTHEAST CORNER	2.0 S.F.	POLYMER MODIFIED MORTAR
1	14	CW3	WEST SIDE	6.0 L.F.	EPOXY EJECTION
2	7	SPALL *	RANDOM	3.0 S.F.	POLYMER MODIFIED MORTAR
4	13	SPALL *	SOUTHWEST CORNER	0.1 S.F.	POLYMER MODIFIED MORTAR
4	14	SPALL *	SOUTHEAST CORNER	1.2 S.F.	POLYMER MODIFIED MORTAR
6	2	SPALL *	AROUND UTILITIES	2.0 S.F.	POLYMER MODIFIED MORTAR
6	3	SPALL *	AROUND UTILITIES	4.0 S.F.	POLYMER MODIFIED MORTAR
6	4	SPALL *	AROUND UTILITIES	4.0 S.F.	POLYMER MODIFIED MORTAR
6	9	SPALL	OVER PIER 6	1.0 S.F.	POLYMER MODIFIED MORTAR
6	11	SPALL *	AROUND UTILITIES	1.0 S.F.	POLYMER MODIFIED MORTAR
6	13	SPALL	SOUTHWEST CORNER	0.9 S.F.	POLYMER MODIFIED MORTAR
6	14	SPALL *	AROUND UTILITIES	1.0 S.F.	POLYMER MODIFIED MORTAR
8	14	SPALL *	SOUTHEAST CORNER	0.6 S.F.	POLYMER MODIFIED MORTAR
9	1	SPALL	NORTHWEST CORNER	1.0 S.F.	POLYMER MODIFIED MORTAR
9	13	SPALL	SOUTHWEST CORNER	1.2 S.F.	POLYMER MODIFIED MORTAR
10	9	LARGE HOLE *	SOUTHWEST CORNER	4.0 S.F.	POLYMER MODIFIED MORTAR
11	F1	SPALL	SOUTHWEST CORNER	2.0 L.F.	POLYMER MODIFIED MORTAR
11	F2	SPALL	SOUTHEAST CORNER	2.0 L.F.	POLYMER MODIFIED MORTAR
11	2	CW3	NORTHEAST CORNER	2.0 L.F.	EPOXY EJECTION
11	13	CW3	SOUTHWEST CORNER	12.0 L.F.	EPOXY EJECTION
11	14	CW3	SOUTHEAST CORNER	4.0 L.F.	EPOXY EJECTION
11	14	CW4	SOUTHEAST CORNER	8.0 L.F.	EPOXY EJECTION

* WITH EXPOSED REBAR

NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR
AND REPAIR NOTES, SEE SHEET S-3.

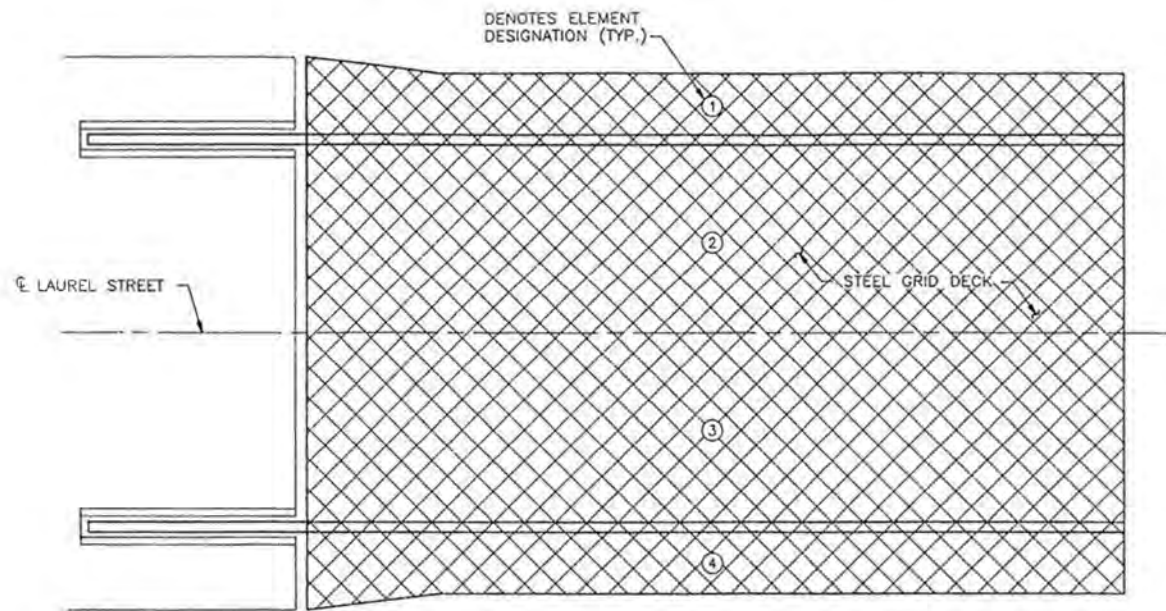


KEY PLAN

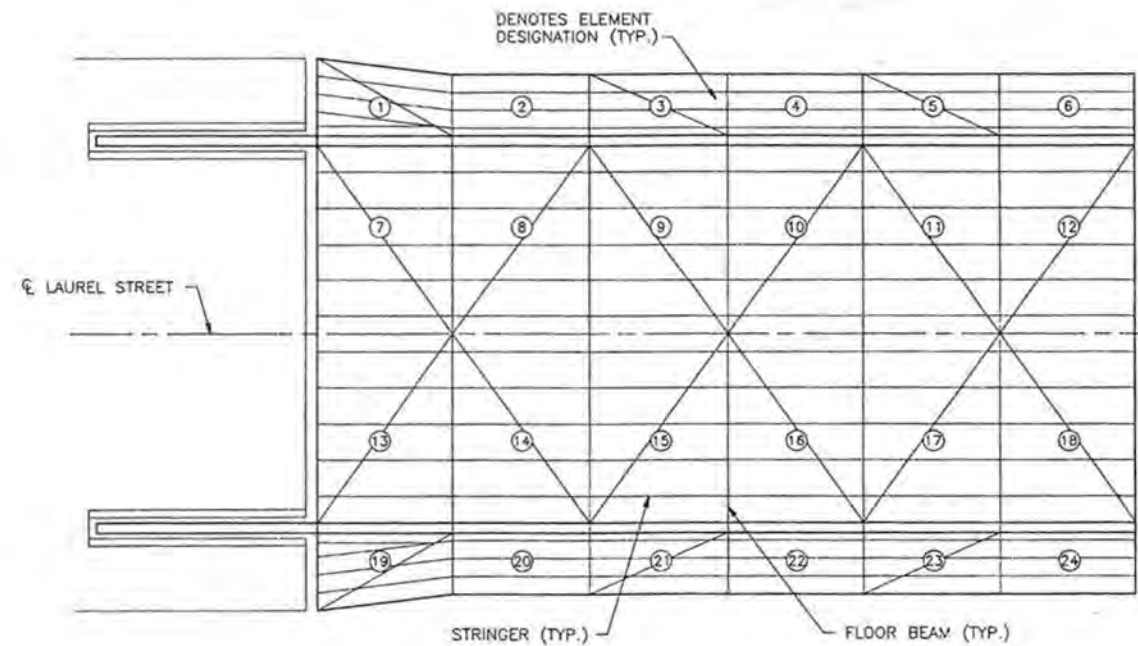
LAUREL STREET BRIDGE REHABILITATION TAMPA, FLORIDA			
BOTTOM OF DECK - SPANS 1 THRU 4 AND 6 THRU 11			
DSA GROUP INC. D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222 ENGINEERS - SURVEYORS - PLANNERS - SCIENTIST			
DESIGNED BY KTL	DRAWN BY KTL	CHECKED BY JSR	APPROVED BY BSR
BY:	DATE 6/29/92	DRAWING NO. S-6	FLA. P.E. REG. NO.

EXISTING PLANS

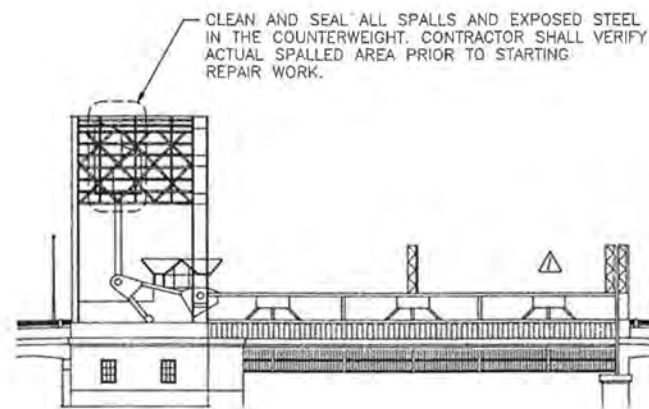
EXISTING PLANS



PLAN - TOP OF DECK BASCULE SPAN
(WITH ELEMENT LOCATIONS INDICATED)

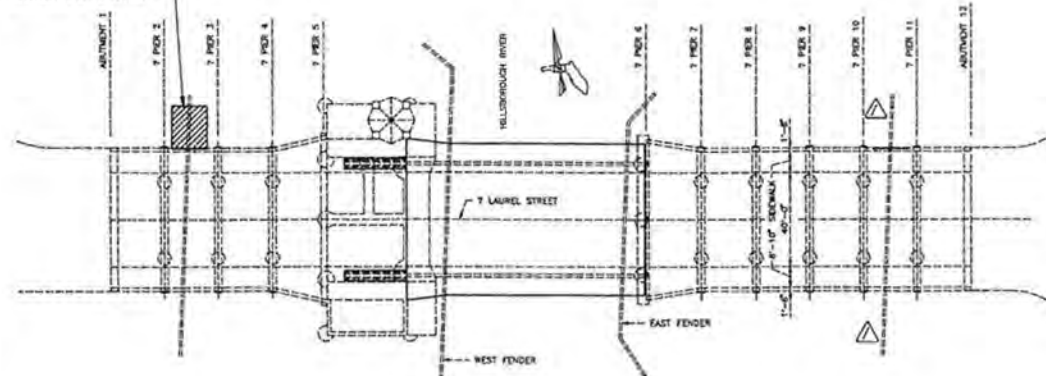


BOTTOM OF DECK BASCULE SPAN
(WITH ELEMENT LOCATIONS INDICATED)



BRIDGE STRUCTURE ELEVATION

BACKFILL ALL ERODED AREAS
WITHIN INDICATED LIMITS



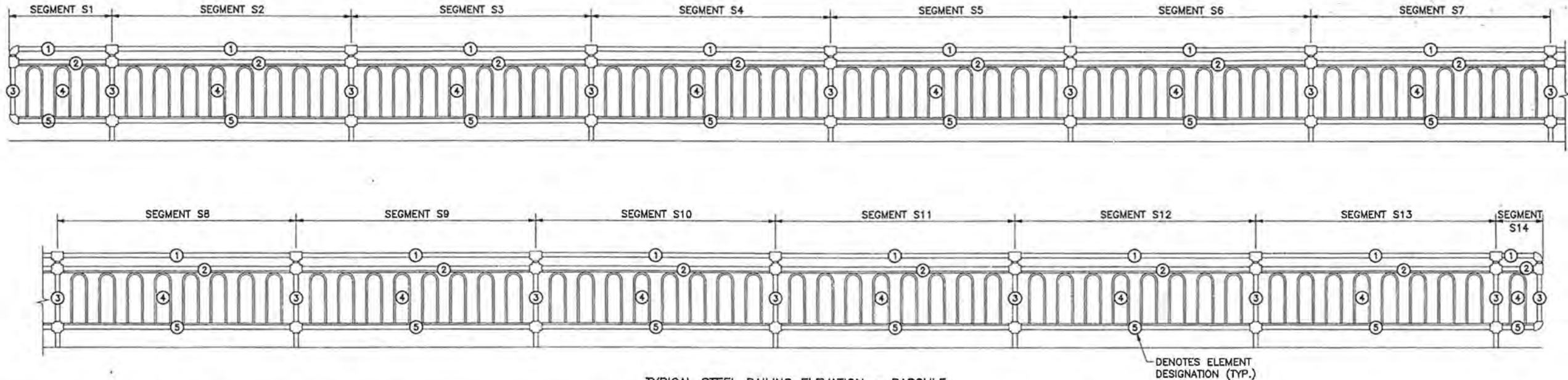
KEY PLAN

NOTE: THE BACKFILL WORK AREA ON THE WEST SIDE OF THE
BRIDGE SHALL BE 15 FEET WIDE BY 35 FEET LONG
2 FEET DEEP.

* WITH EXPOSED STEEL

TABLE OF DEFICIENCIES					
SPAN	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
5	6	UNALIGNED	DECK RESTING POSITION	15.0 L.F.	ADJUST TO ELIMINATE 1/4" DIFFERENCE IN ELEVATION
5	9	BENT	VERTICAL MEMBER-NORTH SIDE	6.0 L.F.	STRAIGHTEN OR REPLACE
5	10	BENT	VERTICAL MEMBER-NORTH SIDE	6.0 L.F.	STRAIGHTEN OR REPLACE
5	11	BENT	VERTICAL MEMBER-NORTH SIDE	6.0 L.F.	STRAIGHTEN OR REPLACE
5	12	UNALIGNED	DECK RESTING POSITION	15.0 L.F.	ADJUST TO ELIMINATE 1/4" DIFFERENCE IN ELEVATION
5	13	SPALL	SW CORNER-BEHIND RACK	1.0 S.F.	POLYMER MODIFIED MORTAR
5	16	BENT	VERTICAL MEMBER-SOUTH SIDE	6.0 L.F.	STRAIGHTEN OR REPLACE
5	16	UNALIGNED	DECK RESTING POSITION	15.0 L.F.	ADJUST TO ELIMINATE 1/4" DIFFERENCE IN ELEVATION
5	24	UNALIGNED	DECK RESTING POSITION	15.0 L.F.	ADJUST TO ELIMINATE 1/4" DIFFERENCE IN ELEVATION
5	ALL FACES	SPALL	COUNTERWEIGHT	80.0 S.F.	POLYMER MODIFIED MORTAR
5	ALL FACES	SPALL *	COUNTERWEIGHT	20.0 S.F.	POLYMER MODIFIED MORTAR

9/2/92		ADDED, DELETED OR REVISED ITEM		TC
NO.	DATE	DESCRIPTION		BY
LAUREL STREET BRIDGE REHABILITATION				
TAMPA, FLORIDA				
TOP AND BOTTOM OF DECK - SPAN 5				
DSA GROUP INC.		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
ENGINEERS • SURVEYORS • PLANNERS • SCIENTIST				
DESIGNED BY	KTL	DRAWING NO.		
DRAWN BY	KTL	S-7		
CHECKED BY	JSR	BX-47		
APPROVED BY	SSR	91000-43		
BY:	DSA CM. NO.	91000-43		
FLA. P.E. REG. NO.	DATE	6/29/92 OF 13 SHEETS		

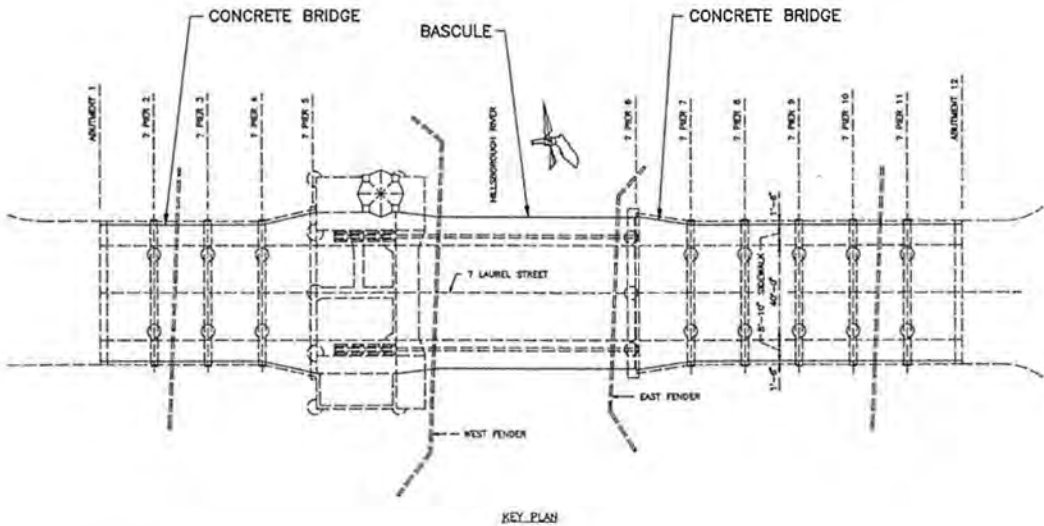


TYPICAL STEEL RAILING ELEVATION - BASCULE

△TABLE OF DEFICIENCIES - BASCULE					
SEGMENT	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
S4	5	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S8	2	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S8	5	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S9	2	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S9	5	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S12	2	CORROSION	NORTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT

△TABLE OF DEFICIENCIES - BASCULE					
SEGMENT	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
S1	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S1	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S2	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S2	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S4	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S4	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S5	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S5	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S7	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S10	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S10	4	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S10	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S11	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S11	4	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S11	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S12	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S12	4	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S12	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S13	2	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S13	4	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S13	5	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT
S14	4	CORROSION	SOUTH SIDE	8.0 L.F.	REPLACE, CLEAN AND PAINT

NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR AND REPAIR NOTES, SEE SHEET S-3.



9/2/92		ADDED, DELETED OR REVISED ITEM		TC
NO.	DATE	DESCRIPTION		BY
LAUREL STREET BRIDGE REHABILITATION				
TAMPA, FLORIDA				
STEEL RAILING				
DSA GROUP INC.		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
ENGINEERS SURVEYORS PLANNERS SCIENTIST				
DESIGNED BY		KTL	DRAWING NO.	
DRAWN BY		KTL	S-8	
CHECKED BY		JSR		
APPROVED BY		SSD		
BY:		DSA CM. NO.	6/29/92	
FLA. P.E. REG. NO.		DATE	6/29/92 OF 13 SHEETS	

EXISTING PLANS

EXISTING PLANS

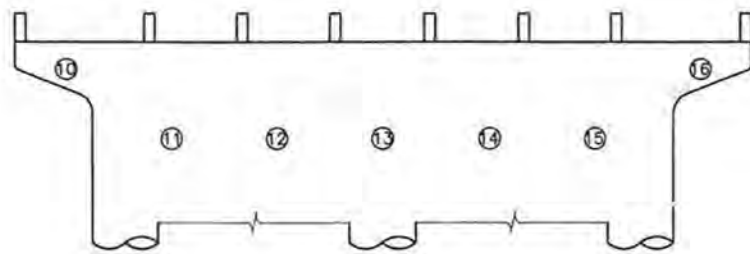
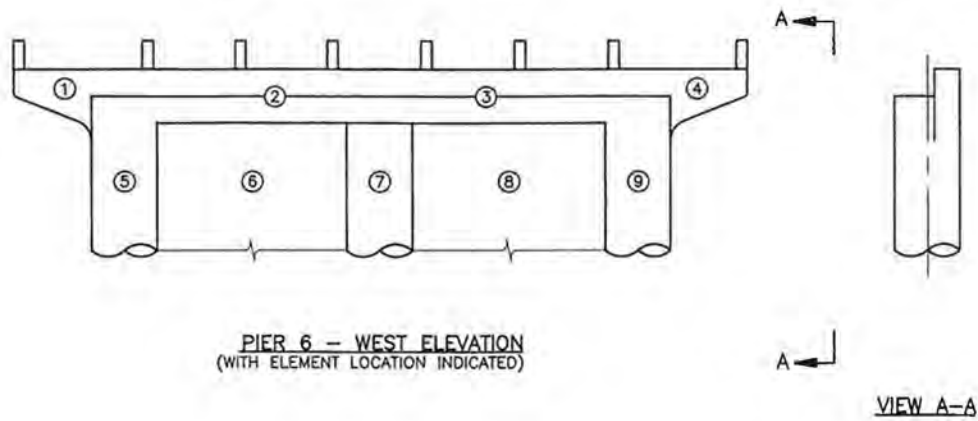
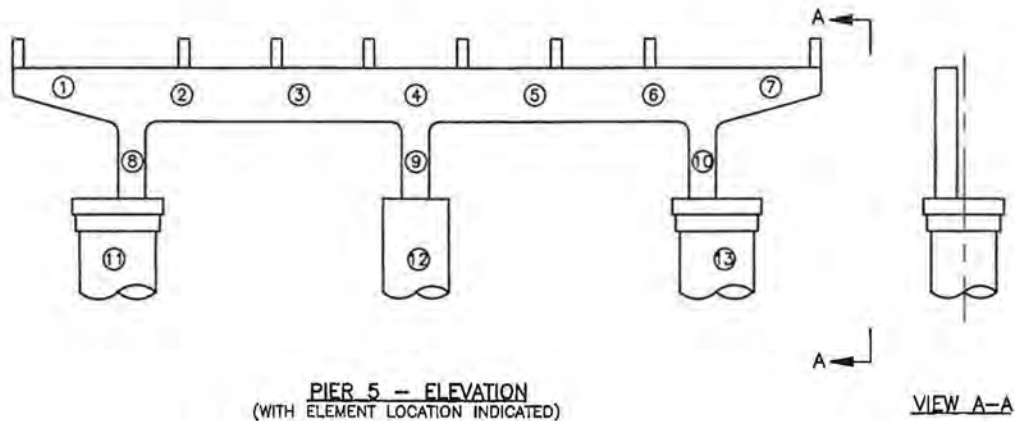
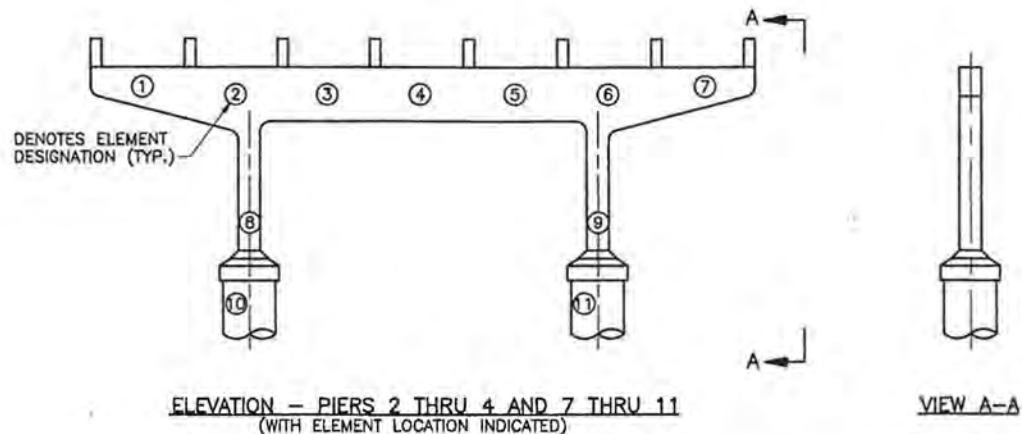
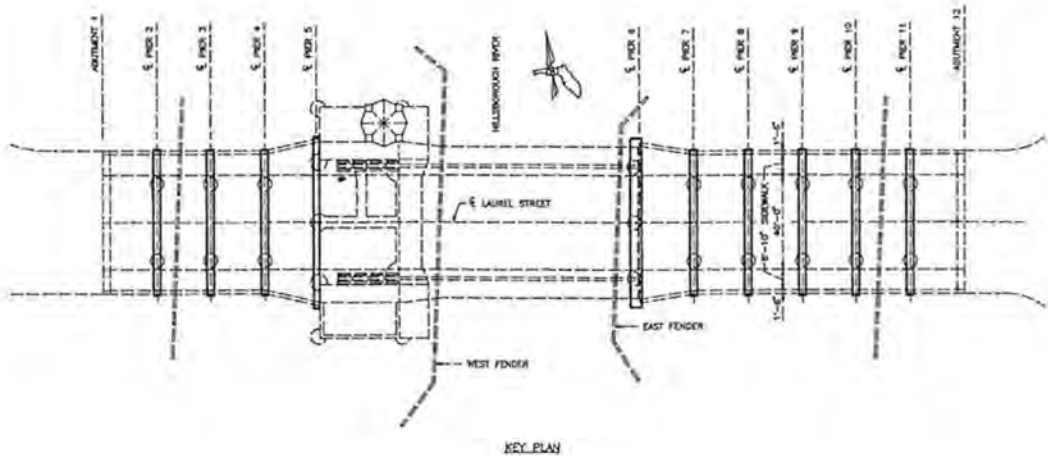


TABLE OF DEFICIENCIES					
PIER	ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
2	1	SPALL *	NORTHWEST FACE	0.5 S.F.	POLYMER MODIFIED MORTAR
2	5	SPALL	WEST FACE	0.5 S.F.	POLYMER MODIFIED MORTAR
3	11	CW-3	NORTHWEST FACE	1.5 L.F.	EPOXY INJECTION
3	11	CW-3	SOUTHWEST FACE	1.5 L.F.	EPOXY INJECTION
4	10	CW-3	NORTHWEST FACE	1.5 L.F.	EPOXY INJECTION
4	10	CW-3	SOUTHWEST FACE	1.5 L.F.	EPOXY INJECTION
4	10	CW-3	NORTHEAST FACE	1.5 L.F.	EPOXY INJECTION
4	11	CW-3	NORTHWEST FACE	1.5 L.F.	EPOXY INJECTION
4	11	CW-3	SOUTHWEST FACE	1.5 L.F.	EPOXY INJECTION
4	11	CW-3	NORTHEAST FACE	1.5 L.F.	EPOXY INJECTION
5	1	SPALL	NORTH FACE	0.5 S.F.	POLYMER MODIFIED MORTAR
5	2	CW-4	WEST FACE	5.0 L.F.	EPOXY INJECTION
5	6	CW-3	WEST FACE	4.0 L.F.	EPOXY INJECTION
6	1	SPALL	WEST FACE	4.0 S.F.	POLYMER MODIFIED MORTAR
6	2	SPALL	WEST FACE	6.0 S.F.	POLYMER MODIFIED MORTAR
6	3	SPALL	WEST FACE	4.0 S.F.	POLYMER MODIFIED MORTAR
6	3	CW-3	WEST FACE	5.0 L.F.	EPOXY INJECTION
6	7	CW-3	WEST FACE	6.0 S.F.	EPOXY INJECTION
6	11	SPALL	EAST FACE	3.0 S.F.	POLYMER MODIFIED MORTAR
10	6	DELAMINATION	WEST FACE	2.0 S.F.	POLYMER MODIFIED MORTAR
10	6	CW-3	WEST FACE	5.0 L.F.	EPOXY INJECTION
10	11	SPALL	EAST FACE	3.0 S.F.	UNDERWATER COMPOUND
11	6	CW-3	EAST FACE	4.0 L.F.	EPOXY INJECTION

* WITH EXPOSED REBAR



NO.	DATE	DESCRIPTION	BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION TAMPA, FLORIDA PIERS 2 THRU 11				
DSA GROUP INC. ENGINEERS • SURVEYORS • PLANNERS • SCIENTIST		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
DESIGNED BY	KTL	DRAWING NO.	S-9	
DRAWN BY	KTL	BX-49		
CHECKED BY	JSR			
APPROVED BY	BSM			
BY:	DSA CM. NO.	91008-F3		
FLA. P.E. REG. NO.	DATE	6/29/92	OF 13 SHEETS	

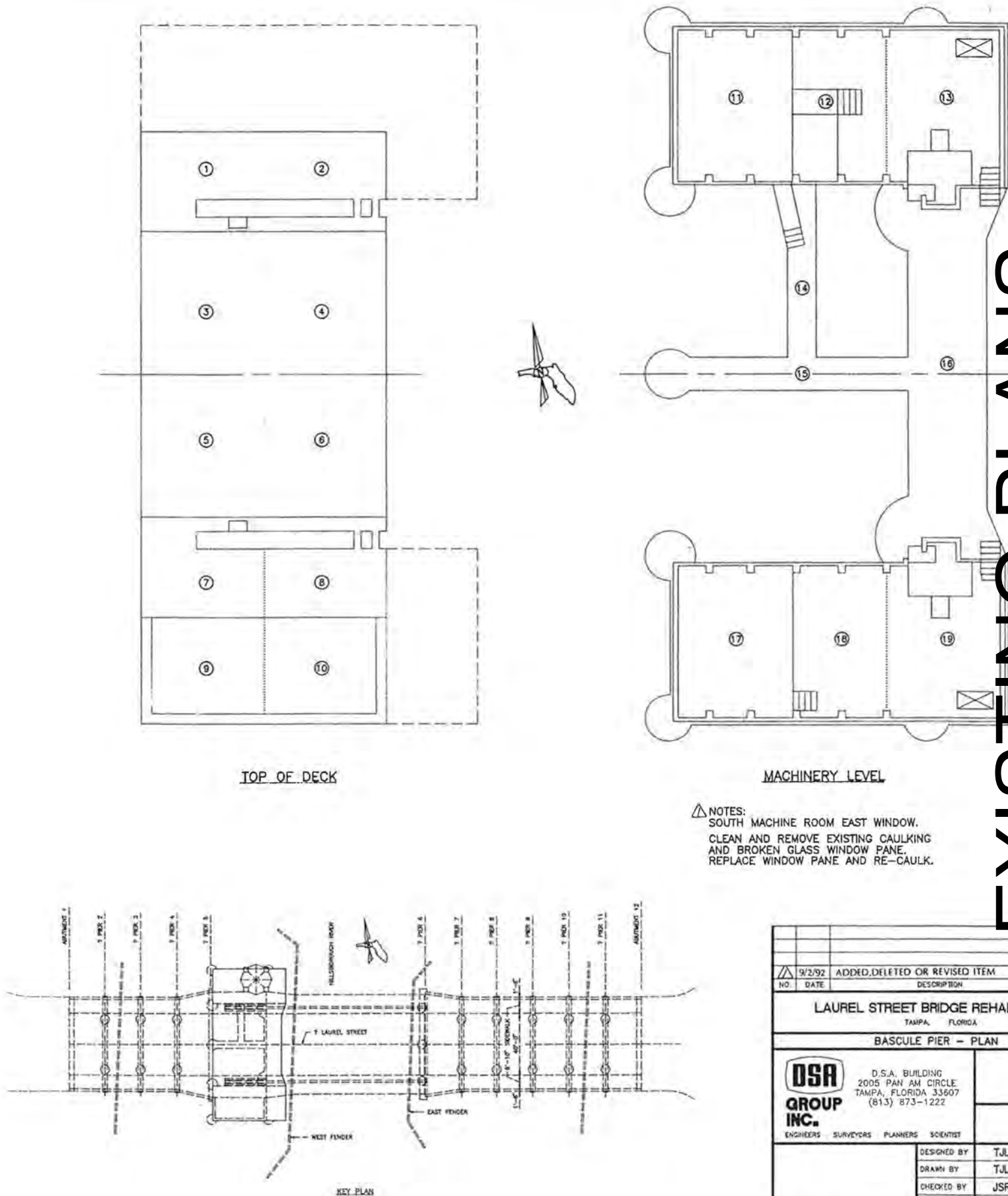
EXISTING PLANS

EXISTING PLANS

TABLE OF DEFICIENCIES				
ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
1	SPALL	SIDEWALK	34.0 S.F.	POLYMER MODIFIED MORTAR
1	CW-3	SIDEWALK	3.0 L.F.	EPOXY INJECTION
1	CW-5	SIDEWALK	9.0 L.F.	EPOXY INJECTION
1	MISC. CRACKING	SIDEWALK	34.0 L.F.	EPOXY INJECTION
1	SPALL	UNDERDECK	4.0 S.F.	POLYMER MODIFIED MORTAR
2	CW-4	SIDEWALK	2.0 L.F.	EPOXY INJECTION
2	CW-5	SIDEWALK	5.0 L.F.	EPOXY INJECTION
2	MISC. CRACKING	SIDEWALK	34.0 L.F.	EPOXY INJECTION
2	SPALL	EDGE OF SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
2	SPALL	SIDEWALK	34.0 S.F.	POLYMER MODIFIED MORTAR
3	CW-4	TOP OF DECK	10.0 L.F.	EPOXY INJECTION
3	CW-5	TOP OF DECK	46.0 L.F.	EPOXY INJECTION
3	SPALL *	W. FACE OF COUNTERWEIGHT	1.0 S.F.	POLYMER MODIFIED MORTAR
3	SPALL *	W. FACE OF COUNTERWEIGHT	2.0 S.F.	POLYMER MODIFIED MORTAR
4	CW-4	TOP OF DECK	3.0 L.F.	EPOXY INJECTION
4	CW-5	TOP OF DECK	45.0 L.F.	EPOXY INJECTION
5	CW-5	TOP OF DECK	49.0 L.F.	EPOXY INJECTION
5	SPALL *	W. FACE OF COUNTERWEIGHT	6.0 S.F.	POLYMER MODIFIED MORTAR
5	SPALL *	W. FACE OF COUNTERWEIGHT	2.0 S.F.	POLYMER MODIFIED MORTAR
6	CW-4	TOP OF DECK	3.0 L.F.	EPOXY INJECTION
6	CW-5	TOP OF DECK	30.0 L.F.	EPOXY INJECTION
7	CW-3	SIDEWALK	11.0 L.F.	EPOXY INJECTION
7	CW-4	SIDEWALK	8.0 L.F.	EPOXY INJECTION
7	CW-5	SIDEWALK	2.0 L.F.	EPOXY INJECTION
7	SPALL *	UNDERDECK	1.0 S.F.	POLYMER MODIFIED MORTAR
7	SPALL	SIDEWALK	20.0 S.F.	POLYMER MODIFIED MORTAR
7	SPALL	UNDERDECK	2.0 S.F.	POLYMER MODIFIED MORTAR
8	CW-3	SIDEWALK	14.0 L.F.	EPOXY INJECTION
8	CW-5	SIDEWALK	8.0 L.F.	EPOXY INJECTION
8	SPALL	SIDEWALK	0.3 S.F.	POLYMER MODIFIED MORTAR
8	SPALL	EDGE OF SIDEWALK	0.1 S.F.	POLYMER MODIFIED MORTAR
8	HOLE	UNDERDECK	3.0 S.F.	INSTALL METAL PLATE
9	CW-3	TOP OF DECK	25.0 L.F.	EPOXY INJECTION
10	CW-3	TOP OF DECK	25.0 L.F.	EPOXY INJECTION
11	UNPROTECTED	UNDER STAIRS	20.0 L.F.	PAINT AND PROTECT **
11	SPALL	CEILING ABOVE STAIRS	1.0 S.F.	POLYMER MODIFIED MORTAR
11	SPALL	CEILING-RANDOM	4.0 S.F.	POLYMER MODIFIED MORTAR
11	SPALL	BASE OF DOORWAY	0.5 S.F.	POLYMER MODIFIED MORTAR
11	SPALL *	COLUMN-S.E.	2.0 S.F.	POLYMER MODIFIED MORTAR
12	SPALL	CEILING UNDER SIDEWALK	10.0 S.F.	POLYMER MODIFIED MORTAR
12	SPALL	CEILING-RANDOM	1.0 S.F.	POLYMER MODIFIED MORTAR
12	SEAL LOSS	HATCH FRAME	30.0 L.F.	HOT SEALANT
12	CW-5	CEILING	20.0 L.F.	EPOXY INJECTION
13	UNPROTECTED	UNDER GEAR GUARD	20.0 L.F.	PAINT AND PROTECT **
13	18"x34" HOLE	FLOOR	4.3 S.F.	INSTALL METAL PLATE
13	SPALL	CEILING	6.0 S.F.	POLYMER MODIFIED MORTAR
13	CW-5	CEILING	30.0 L.F.	EPOXY INJECTION
13	CORROSION	SHEET METAL WALL	16.0 S.F.	REPLACE, CLEAN AND PAINT
13	CORROSION	SHEET METAL GEAR COVER	16.0 S.F.	ADD AND PAINT
14	RUST	STAIRS-WALKWAY	2'-6" x 3'-4"	REPLACE METAL PLATE
14	SPALL	CEILING	5.0 S.F.	POLYMER MODIFIED MORTAR
14	SPALL	SHAFT CONCRETE MOUNTS	10.0 S.F.	POLYMER MODIFIED MORTAR
14	UNPROTECTED	UNDER GEAR GUARD	20.0 L.F.	PAINT AND PROTECT **
16	UNPROTECTED	UNDER GEAR GUARD	40.0 L.F.	PAINT AND PROTECT **
16	SPALL	CEILING-N.W.	2.0 S.F.	POLYMER MODIFIED MORTAR
16	CRACKED GUSSET	TRUNNION TOWER	18"x13"x3/8" STEEL PLATE	WELD PLATE TO GUSSET
17	CW-5	CEILING	33.0 L.F.	EPOXY INJECTION
17	30"x45" HOLE	CEILING	9.5 S.F.	INSTALL METAL PLATE
18	CW-5	CEILING	27.0 L.F.	EPOXY INJECTION
18	SPALL	COLUMN NW - BOTTOM	2.0 S.F.	POLYMER MODIFIED MORTAR
18	SPALL	COLUMN SW - BOTTOM	2.0 S.F.	POLYMER MODIFIED MORTAR
18	SPALL	CEILING UNDER SIDEWALK	10.0 S.F.	POLYMER MODIFIED MORTAR
19	18"x34" HOLE	FLOOR	4.3 S.F.	INSTALL METAL PLATE
19	CORROSION	SHEET METAL WALL	64.0 S.F.	REPLACE, CLEAN AND PAINT
19	CORROSION	SHEET METAL GEAR COVER	16.0 S.F.	REPLACE, CLEAN AND PAINT
19	HOLE	CEILING	0.2 S.F.	INSTALL METAL PLATE
19	UNPROTECTED	UNDER GEAR GUARD	20.0 L.F.	PAINT AND PROTECT **
19	CW-5	CEILING	2.0 L.F.	EPOXY INJECTION

- * EXPOSED REBAR
- ** PROVIDE RUBBER BUMPER FROM FLOOR TO 7'-6" AND PAINT W/REFLECTIVE YELLOW COLOR.

NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR AND REPAIR NOTES, SEE SHEET S-3.

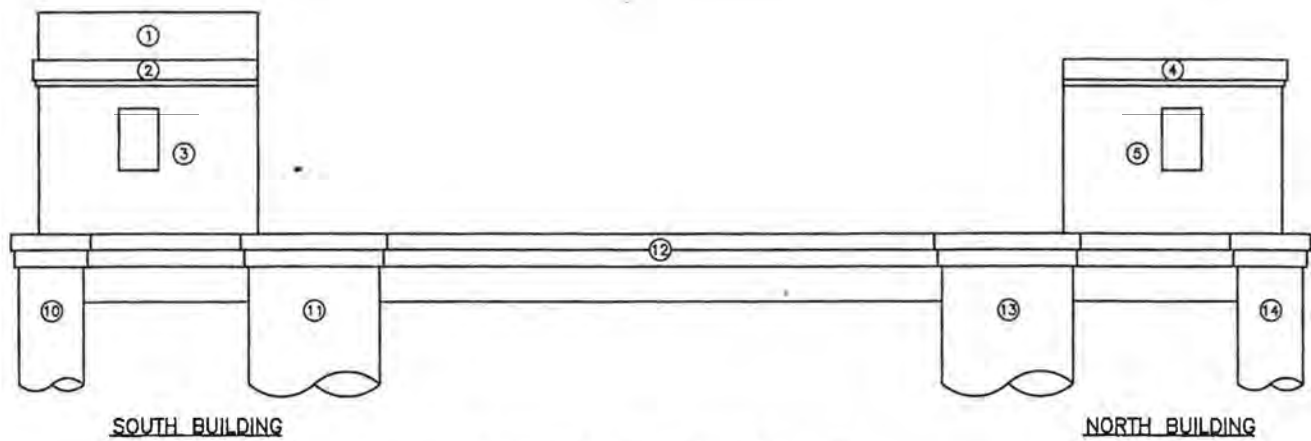


NOTES:
SOUTH MACHINE ROOM EAST WINDOW.
CLEAN AND REMOVE EXISTING CAULKING AND BROKEN GLASS WINDOW PANE.
REPLACE WINDOW PANE AND RE-CAULK.

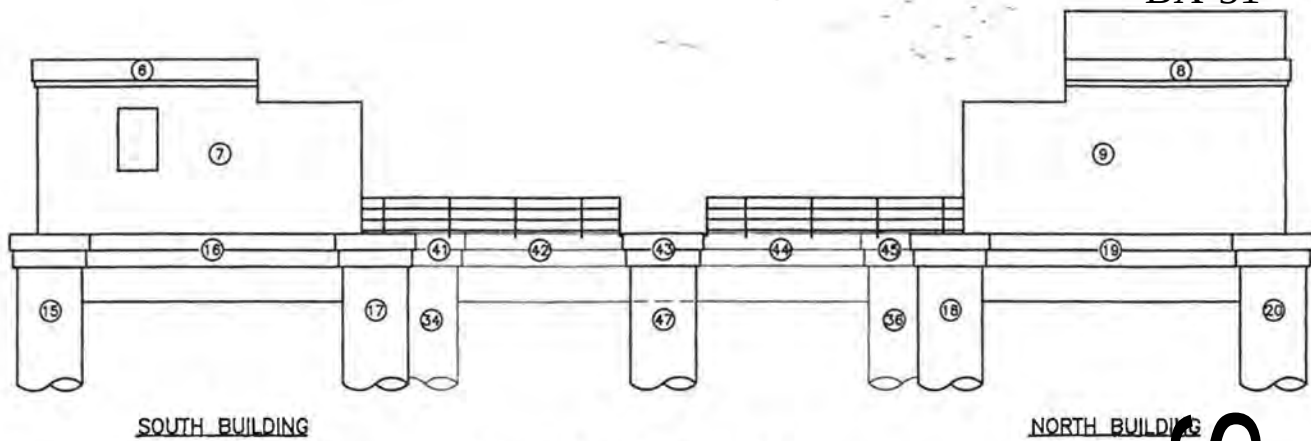
9/2/92		ADDED, DELETED OR REVISED ITEM		IC
NO.	DATE	DESCRIPTION	BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION TAMPA, FLORIDA				
BAScule PIER - PLAN				
DSA GROUP INC.		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222		
ENGINEERS	SURVEYORS	PLANNERS	SCIENTIST	
DESIGNED BY	TJL	DRAWING NO.		
DRAWN BY	TJL			
CHECKED BY	JSR			
APPROVED BY	SSD			
BY:	DSA CM. NO.	STUDY NO.		
FLA. P.E. REG. NO.	DATE	6/29/92	OF 13 SHEETS	

EXISTING PLANS

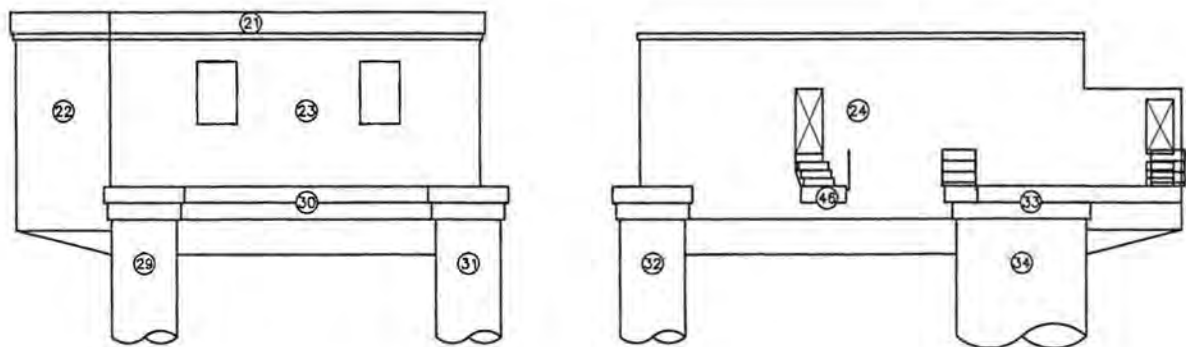
EXISTING PLANS



BASCULE PIER - EAST ELEVATION



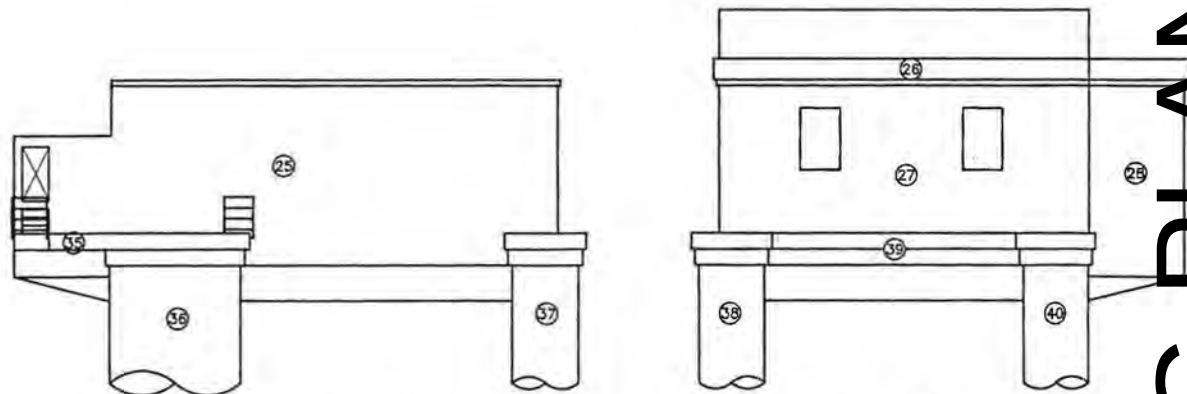
BASCULE PIER - WEST ELEVATION



NORTH ELEVATION

SOUTH ELEVATION

BASCULE PIER - NORTH BUILDING

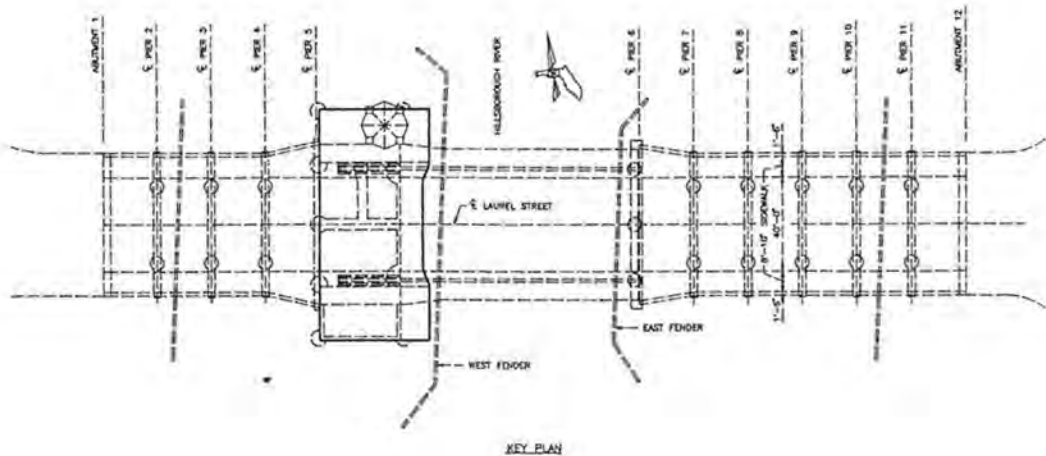


NORTH ELEVATION

SOUTH ELEVATION

BASCULE PIER - SOUTH BUILDING

NOTES:
1. FOR DESCRIPTION OF METHOD OF REPAIR AND REPAIR NOTES, SEE SHEET S-1.

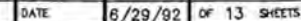


KEY PLAN

TABLE OF DEFICIENCIES				
ELEMENT	TYPE OF DEFICIENCY	LOCATION	ESTIMATED SIZE	METHOD OF REPAIR
3	SPALL	OUTSIDE	1.0 S.F.	POLYMER MODIFIED MORTAR
5	CW-3	OUTSIDE	5.0 L.F.	EPOXY INJECTION
5	SPALL	OUTSIDE	0.2 S.F.	POLYMER MODIFIED MORTAR
24	SPALL *	OUTSIDE	2.0 S.F.	POLYMER MODIFIED MORTAR
24	CW-5	OUTSIDE	16.0 L.F.	EPOXY INJECTION
25	CW-5	OUTSIDE	25.0 L.F.	EPOXY INJECTION
25	SPALL *	OUTSIDE	18.0 S.F.	POLYMER MODIFIED MORTAR
27	SPALL *	OUTSIDE	3.0 S.F.	POLYMER MODIFIED MORTAR
41	1.5" Ø HANDRAIL	OUTSIDE AND ABOVE	14.0 L.F.	ALUM. HANDRAIL ADDITION +
42	1.5" Ø HANDRAIL	OUTSIDE AND ABOVE	15.0 L.F.	ALUM. HANDRAIL ADDITION +
43	1.5" Ø HANDRAIL	NORTH FACE O & A	12.5 L.F.	ALUM. HANDRAIL ADDITION +
44	1.5" Ø HANDRAIL	OUTSIDE AND ABOVE	15.0 L.F.	ALUM. HANDRAIL ADDITION +
45	1.5" Ø HANDRAIL	OUTSIDE AND ABOVE	14.0 L.F.	ALUM. HANDRAIL ADDITION +
46	1.5" Ø HANDRAIL	EAST FACE O & A	24.0 L.F.	ALUM. HANDRAIL ADDITION +

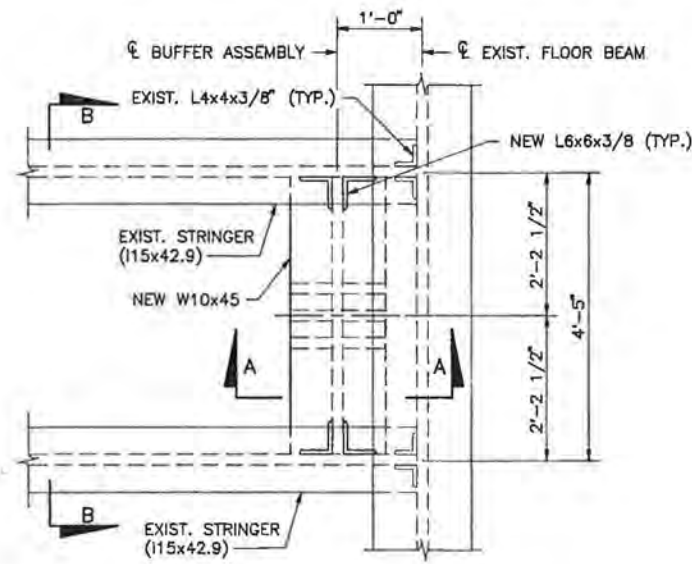
* SPALL WITH EXPOSED REBAR
+ USE FOOT DESIGN STANDARD 520. MOUNTING METHOD TO MATCH EXISTING HANDRAILS. RAIL SHALL MEET OSHA STANDARDS.

NO.		DATE	DESCRIPTION	BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION TAMPA, FLORIDA					
BASCULE PIER - ELEVATIONS					
		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222			
ENGINEERS • SURVEYORS • PLANNERS • SCIENTIST					
DESIGNED BY		TJL		DRAWING NO.	
DRAWN BY		TJL		S-11	
CHECKED BY		JSR			
APPROVED BY		PCR			
DSA CM. NO.		81008-F3			
BY:		DATE		6/29/92 OF 13 SHEETS	
FLA. P.E. REG. NO.					

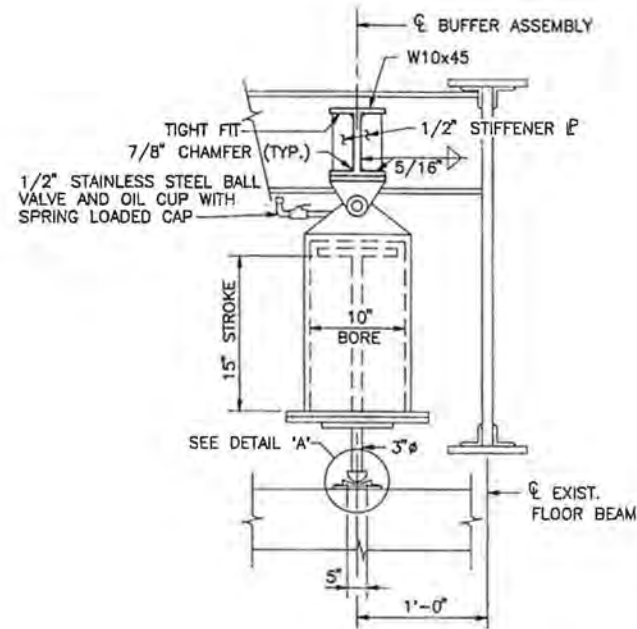


EXISTING PLANS

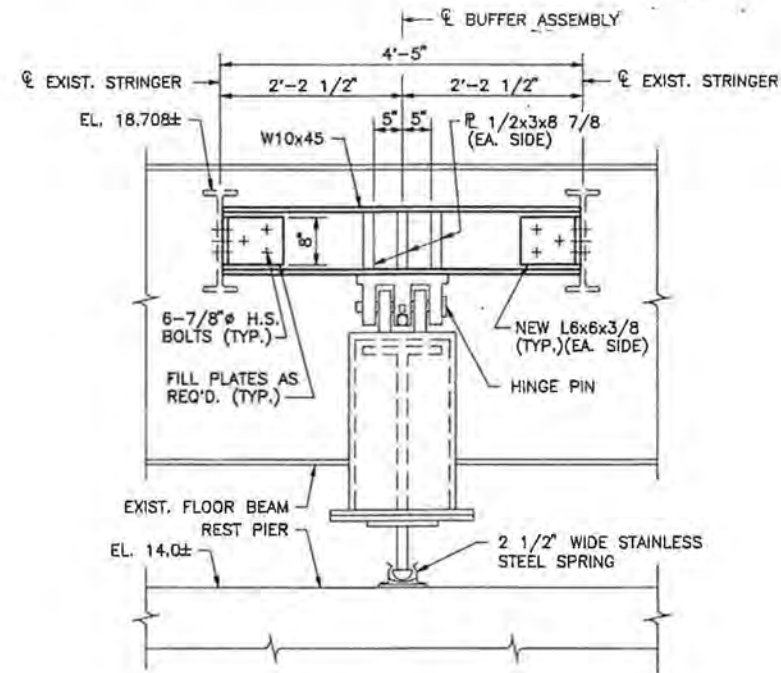
EXISTING PLANS



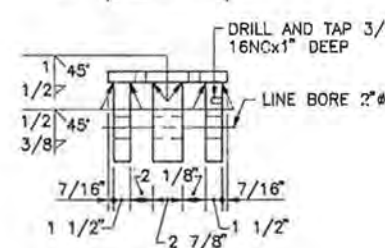
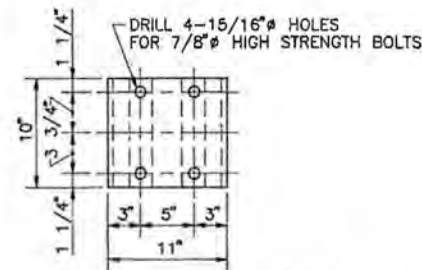
BUFFER ASSEMBLY - PLAN
(REFER TO S-7 FOR LOCATIONS)



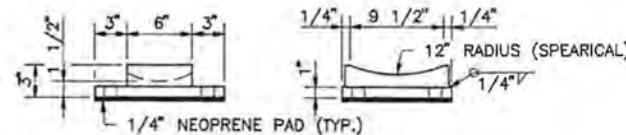
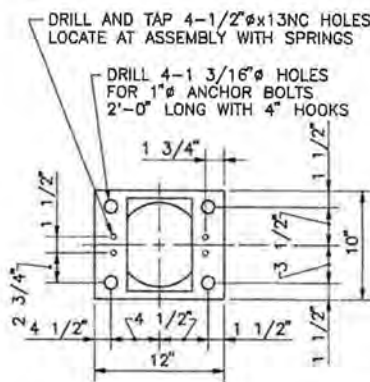
SECTION A-A



SECTION B-B

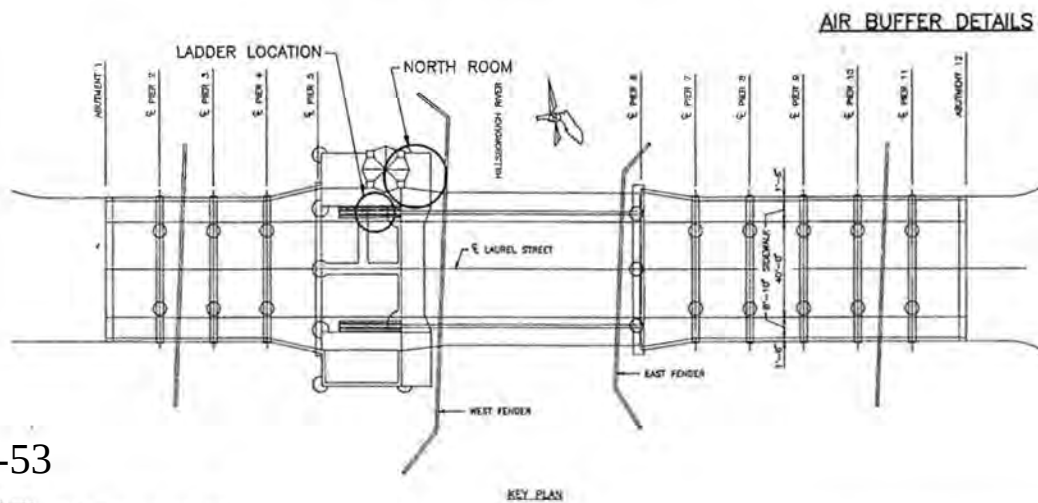


BUFFER CYLINDER HANGER

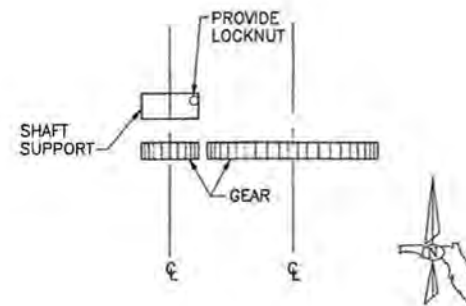


DETAIL 'A'

- NOTES:
1. BUFFER ASSEMBLY SHALL CONFORM TO THE 1991 STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES SECTIONS 1.1.14 AND 3.3.20.
 2. MATERIAL SPECIFICATIONS:
BUFFER CYLINDER HANGER - ASTM A36 STRESS RELIEVED
PISTON HEAD - ASTM A36
PISTON ROD - ASTM A108 GRADE 1045
BUFFER PLATE - ASTM A36
HINGE PIN - ASTM A306 GRADE 75
 3. PISTON RINGS SHALL BE CAST IRON OR PTFE FLUOROCARBON RESIN RINGS, FITTED TO CYLINDER WALLS SO THAT WHEN LUBRICATED WITH OIL NOT HEAVIER THAN 20W, VACUUM PRESSURE WILL HOLD THE WEIGHT OF THE PISTON FOR 6 MINUTES DURING A 15" STROKE.
 4. COST OF 2 BUFFERS INCLUDING BUFFER PLATES TO BE INCLUDED IN THE PRICE OF PAY ITEM NO 8450-3-803.
 5. REMOVE EXISTING CENTRAL BUFFER AND PROVIDE TWO NEW BUFFERS, ONE ON THE NORTH SIDE AND ONE ON THE SOUTH SIDE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION OF NEW UNITS.



KEY PLAN



MAIN DRIVE AT NORTH ROOM
N.T.S.

NO.	DATE	DESCRIPTION		BY	CHK'D
LAUREL STREET BRIDGE REHABILITATION					
TAMPA, FLORIDA					
MISCELLANEOUS SECTIONS AND DETAILS					
 DSA GROUP INC. ENGINEERS - SURVEYORS - PLANNERS - SCIENTIST		D.S.A. BUILDING 2005 PAN AM CIRCLE TAMPA, FLORIDA 33607 (813) 873-1222			
		DESIGNED BY	LDT	DRAWING NO.	
		DRAWN BY	KTL		
		CHECKED BY	LDT		
		APPROVED BY	BR	BX-53	
		DATE	8/29/92	OF 13 SHEETS	
BY:		DSA CML NO.	91008-F3		
FLA. P.E. REG. NO.					