

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

LOGAN COUNTY

WASHINGTON TOWNSHIP

LOG-13-1.58 McCOLLY COVERED BRIDGE OVER THE GREAT MIAMI RIVER

INDEX

TITLE SHEET	1
SITE PLAN	2
GENERAL ELEVATION AND SIDING DETAILS	3
GENERAL NOTES /	4
GENERAL NOTES 2	
GENERAL NOTES 3	6
GENERAL NOTES 4 AND ESTIMATED QUANTITES	7
ABUTMENT MODIFICATION AND ABUTMENT/PIER BEARING DETAILS	
PIER DETAILS	9
FLOOR SYSTEM PLAN AND DETAILS	10
LEFT TRUSS ELEVATIONS	
RIGHT TRUSS ELEVATIONS	12
TRUSS DETAILS I	
TRUSS DETAILS 2	14
WORK AREA AGREEMENT	15

APPROVED ____ DATE _____ LOGAN COUNTY COMMISSIONER APPROVED ___ APPROVED ___ APPROVED __ APPROVED _

PROJECT DESCRIPTION

TO BE DONE BY OTHERS.

1997 SPECIFICATIONS

IMPROVEMENT.

REHABILITATION OF EXISTING McCOLLY COVERED BRIDGE. DAMAGED AND MISSING BRIDGE MEMBERS WILL BE REMOVED AND REPLACED WITH SIMILAR MEMBERS USING, AS MUCH AS POSSIBLE, AUTHENTIC CONSTRUCTION METHODS. TWO RIVER PIERS ARE ADDED, LENGTH OF PROJECT IS APPROX. 0.03 MILES. APPROACH WORK

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED

LISTED IN THE PROPOSAL SHALL GOVERN THIS

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE

HIGHWAY REMAIN CLOSED TO TRAFFIC.

MAKING OF THIS IMPROVEMENT WILL REQUIRE THAT THE

DATE _____ LOGAN COUNTY COMMISSIONER LOGAN COUNTY COMMISSIONER DATE _____ LOGAN COUNTY ENGINEER DATE _____ DISTRICT DEPUTY DIRECTOR

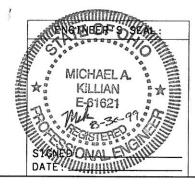
· COVERED BRIDGE GREAT MIAMI RIVER

MCCOLLY OVER THE G

15

COLUMBUS, OHIO

ENGINEERS ARCHITECTS



DESIGN STANDARD CONSTRUCTION SUPPLEMENTAL EXCEPTIONS DRAWINGS SPECIFICATIONS 815, 863, 910

APPROVED DIRECTOR, DEPARTMENT OF DATE ____ TRANSPORTATION

0

BURGESS

TWO WORKING DAYS BEFORE YOU DIG CALL 1-800-362-2764(TOLL FREE) OHIO UTILITIES PROTECTION SERVICE

UNDERGROUND UTILITIES

NON-MEMBERS MUST BE CALLED-DIRECTLY

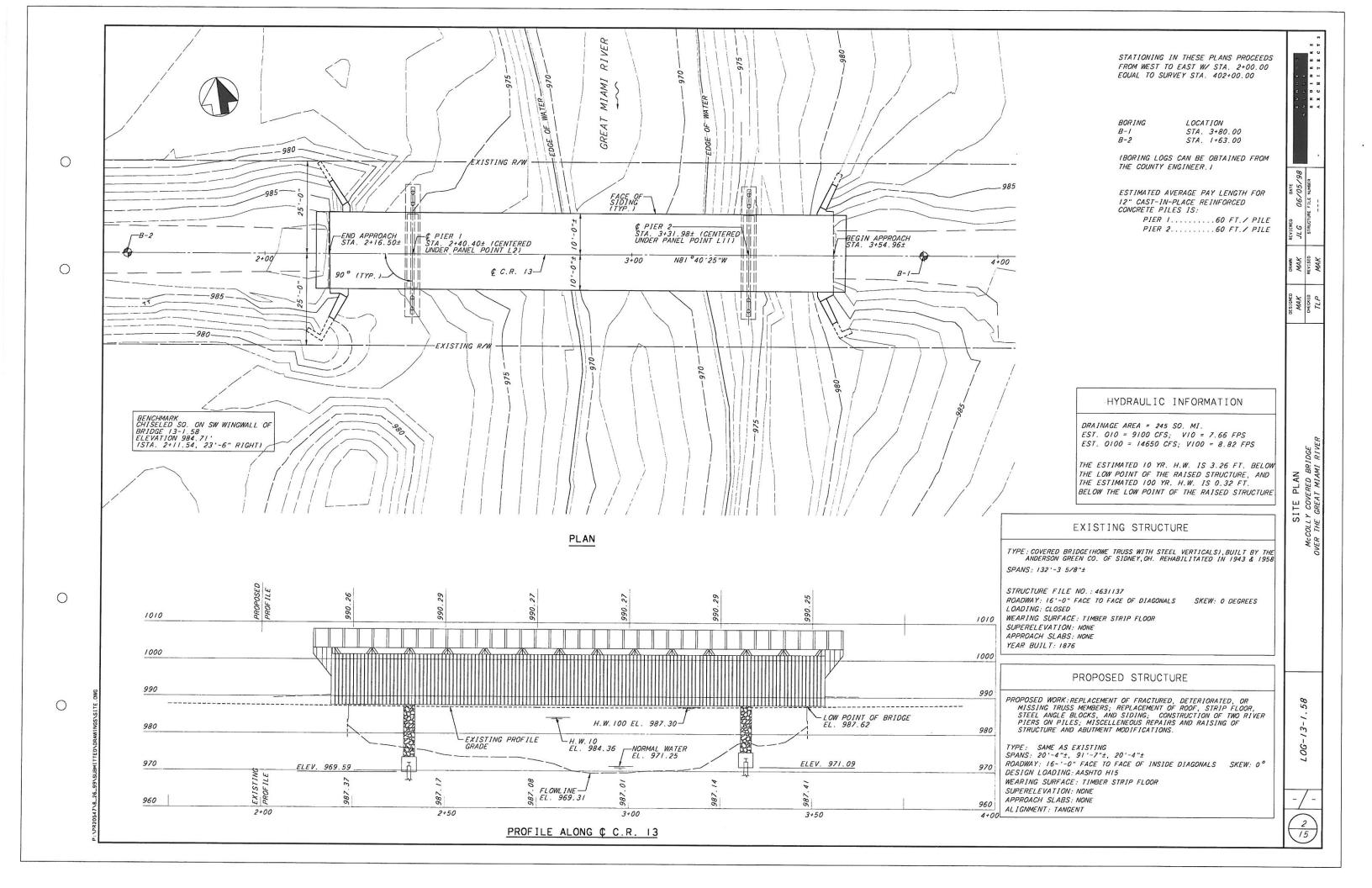
PLAN PREPARED BY:

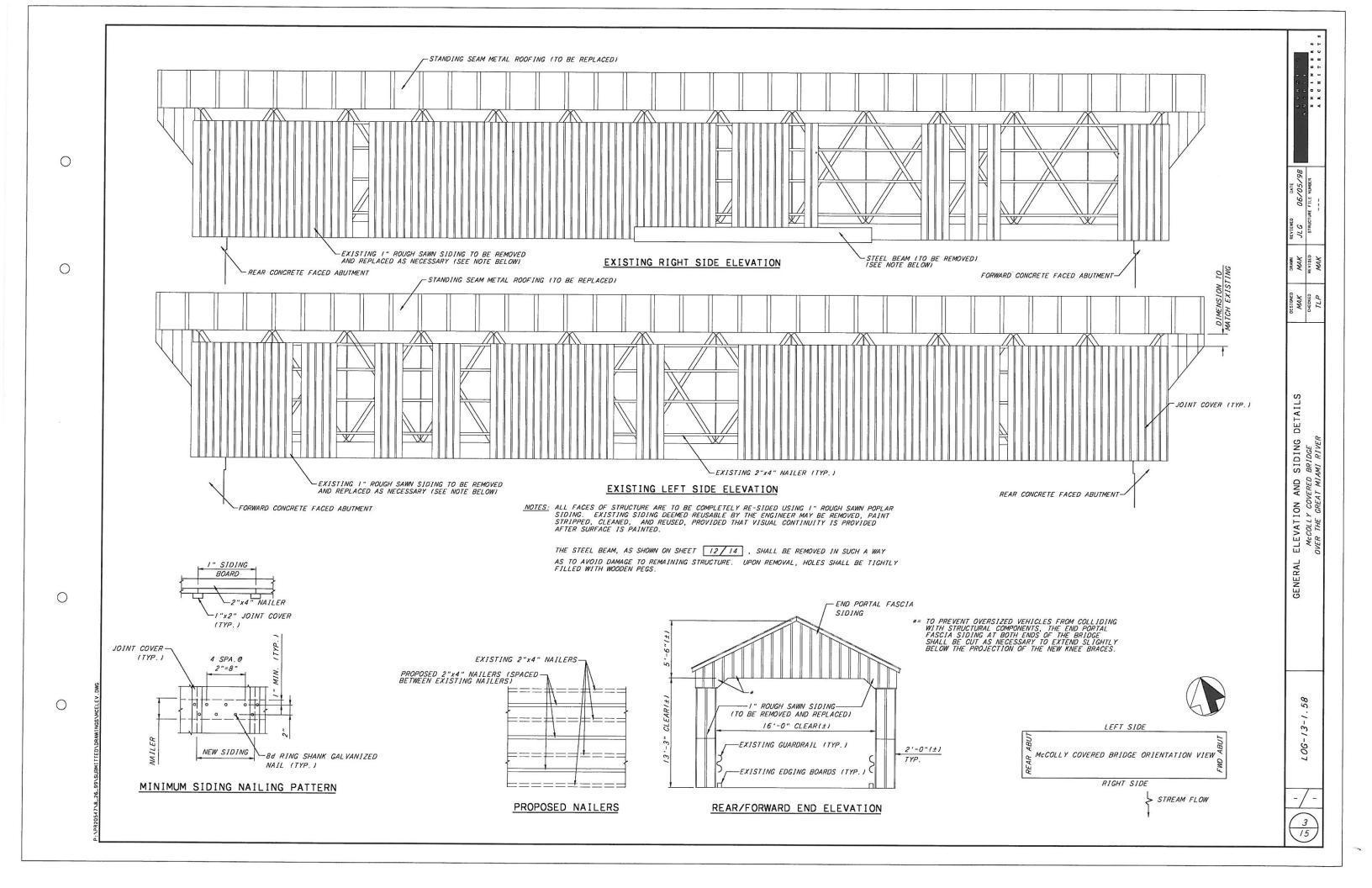
& NIPLE

0

0

0





DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 1996, INCLUDING THE 1997 INTERIM SPECIFICATIONS; THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) BRIDGE DESIGN MANUAL; AND THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, 1991 WITH 1993 SUPPLEMENT.

DESIGN DATA:

DESIGN LOADING H

RECOMMENDED POSTING: 15 TONS GROSS VEHICLE WEIGHT

BRIDGE TIMBER

0

 \bigcirc

RED PINE, SELECT STRUCTURAL OR NO. I; SOUTHERN YELLOW PINE GRADE NO. 2 OR BETTER; YELLOW POPLAR, GRADE NO. 2 OR BETTER; AND SOUTHERN YELLOW PINE, GRADE STRUCTURAL 65. ALL IN ACCORDANCE WITH THE CMS 711.26 AND/OR AS RATED BY THE NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION WITH FOUR SOUND AND SOUARE EDGES

ALLOWABLE STRESSES ARE TO BE IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WHERE MOISTURE CONTENT IS ASSUMED TO BE GREATER THAN 19 PERCENT. THESE VALUES ARE PROVIDED IN TABLE A.

STRUCTURAL STEEL ASTM A36, YIELD STRENGTH 36,000 PSI.

REINFORCING STEEL ASTM A615, A616, OR A617, GRADE 60, UNIT STRESS 24,000 PSI.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

CONCRETE

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4,000 PSI.

SUPPLEMENTAL SPECIFICATIONS

8/5 DATED 5-30-96 863 DATED 9-9-97 9/0 DATED 4-21-97

SCOPE OF WORK.

THE REHABILITATION OF THE MCCOLLY BRIDGE WILL INCLUDE: THE REPLACEMENT OF ALL FRACTURED AND DETERIORATED TIMBER TRUSS AND FLOOR SYSTEM MEMBERS, ADDING TENSION RODS TO THE END DIAGONALS AND END VERTICALS, CONSTRUCTION OF TWO RIVER PIERS, REPLACEMENT AND ADDITION OF BEARING BLOCKS AND PADS AT PIERS AND ABUTMENTS, ADDING TIMBER VERTICAL TRUSS MEMBERS OVER PIERS, REPLACEMENT OF THE METAL ROOF AND POPLAR SIDING, COATING THE INTERIOR OF THE STRUCTURE WITH FIRE RETARDANT, PAINTING THE STRUCTURE, IMPROVEMENT OF THE WATERWAY OPENING BY RAISING THE STRUCTURE AND ELEVATING THE BEARING SEATS. AND OTHER MISCELLANEOUS REPAIRS AS DESCRIBED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE PURPOSE OF THE WORK AS DETAILED IN THESE PLANS IS TO REPAIR THE STRUCTURE WHILE MAINTAINING THE HISTORICAL INTEGRITY. THE INCLUDED DETAILS SHALL BE ADHERED TO SO AS TO MAINTAIN THE HISTORIC NATURE OF THE STRUCTURE. ANY MISCELLANEOUS ADDITIONAL WORK SHALL BE CONSTRUCTED IN THE SAME MANNER AS THE EXISTING BRIDGE.

CONSTRUCTION SEQUENCE:

- 1. DRIVE PIER PILES AND CONSTRUCT PIER CAP UNDERNEATH POINTS L2 AND LII TO TOP OF FOOTING (AS PER PLAN), AND TEMPORARY SUPPORTS AS NECESSARY TO OBTAIN FINAL DEAD LOAD DEFLECTED ELEVATIONS OF LOWER CHORD AS SHOWN IN "DIAGRAM B" ON SHEET 7 OF 14.
- 2. REMOVE EXISTING SIDING AND METAL ROOFING. SALVAGE WOODEN SHINGLES BENEATH METAL ROOF.
- 3. ALIGN TRUSSES TO BE VERTICAL.
- 4. PROVIDE NECESSARY TEMPORARY RESTRAINT AND SUPPORT TO ALLOW FOR THE REMOVAL AND REPLACEMENT OF ALL DETERIORATED OR FRACTURED TIMBER AND STEEL.
- 5. INSTALL TIMBER VERTICALS, LATERAL BRACES, AND KNEE BRACES AT LOCATIONS L2-U2 AND LII-UII AS SHOWN IN THE PLANS.
- 6. RESTORE ORIGINAL CONFIGURATION OF MEMBER LO-UO AND FIRST PANEL OF LEFT TRUSS.
- 7. REMOVE AND REPLACE ALL DETERIORATED OR FRACTURED TIMBER TRUSS MEMBERS, AND REPLACE ALL STEEL ANGLE BLOCKS.

- 8. REMOVE ALL EXISTING TIMBER FLOOR STRIPS, WHILE AVOIDING DAMAGE TO REMAINING FLOOR SYSTEM.
- 9. PROVIDE STEEL TENSION RODS IN BOTH THE LEFT AND RIGHT TRUSSES ALONG THE FOLLOWING MEMBERS:
 LO-UO, LO-UI, L13-U12, AND L13-U13 AS SHOWN IN THE PLANS.
- 10. EVENLY JACK THE STRUCTURE UPWARD FROM THE TEMPORARY SUPPORTS AND PERMANENT PIER CAP EDGES AS WELL AS THE ABUTMENT LOCATIONS TO ALLOW PLACEMENT OF PIER WALLS AND ABUTMENT CAPS.
- 11. CAST PIER WALLS TO ELEVATIONS AS CALLED OUT IN THE PLANS.
- 12. REMOVE EXISTING ABUTMENT BEARINGS, NON-DESTRUCTIVELY CLEAN BOTH THE FORWARD AND REAR ABUTMENT BEARING SURFACES, SET REINFORCEMENT, AND CAST NEW CONCRETE ABUTMENT CAPS.
- 13. INSTALL 1/8 INCH PREFORMED BEARING PADS AND REPLACE STEEL BEARINGS AS SHOWN IN THE PLANS.
- 14. REALIGN ALL DIAGONAL MEMBERS AND INSTALL DIAGONAL WEDGE BLOCKS AS SHOWN IN THE PLANS.
- 15. RETIGHTEN ALL VERTICAL TENSION ROD BOLTS.
- 16. REMOVE TEMPORARY SUPPORTS AND CENTER LOWER CHORDS ONTO NEW REARINGS
- 17. THREAD END PANEL TENSION CONNECTIONS INTO MECHANICAL CONNECTORS AT BEARING LEVEL.
- 18. NON-DESTRUCTIVELY CLEAN THE STEEL FLOOR SYSTEM AND TRUSS MEMBERS.
- 19. PAINT THE EXISTING FLOOR SYSTEM STEEL, "DECK SECURING" S-CLIPS, STEEL BEARINGS, STEEL RODS AND STEEL ANGLE BLOCKS.
- 20. PAINT ALL TIMBER MEMBERS.
- 21. INSTALL NEW SIDING, METAL ROOF, TIMBER STRIP FLOOR, AND "DECK-SECURING" S-CLIPS AND APPLY FIRE RETARDANT.
- 22. REPAIR DAMAGED GUARDRAIL AND EDGING BOARDS.

SUPERVISOR OUALIFICATIONS:

THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A PERSON OR PERSONS
THOROUGHLY KNOWLEDGEABLE IN TIMBER FRAME CONSTRUCTION OF HISTORIC
STRUCTURES. THIS SHALL INCLUDE TIMBER SELECTION, FABRICATION, AND
INSTALLATION. THIS PERSON SHALL BE KNOWN AS THE TIMBER FRAMER.

THE TIMBER FRAMER SHALL BE IN CHARGE OF AND BE RESPONSIBLE FOR ALL REPAIRS TO THE TRUSSES AND TRUSS BRACING (TIMBER FRAMING WORK). THE TIMBER FRAMER SHALL BE PRESENT AT THE JOB SITE AT ALL TIMES DURING THE PERFORMANCE OF THIS TIMBER FRAMING WORK. THE TIMBER FRAMER NEED NOT BE PRESENT DURING OTHER ACTIVITIES.

THE TIMBER FRAMER SHALL HAVE A MINIMUM OF FIVE YEARS' EXPERIENCE IN TIMBER FRAME CONSTRUCTION OF HISTORIC STRUCTURES.

THE ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S TIMBER FRAMER WITHIN 10 CALENDAR DAYS FOLLOWING THE SUBMISSION OF THE REPORT OF NAMES AND VERIFIABLE RESUME INFORMATION. WORK ON THE BRIDGE STRUCTURE SHALL NOT COMMENCE UNTIL THE CONTRACTOR RECEIVES WRITTEN APPROVAL OF ITS TIMBER FRAMER FROM THE ENGINEER. IN THE EVENT THE CONTRACTOR ELECTS TO SUBSTITUTE AN ALTERNATE, VERIFIABLE RESUME INFORMATION SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THAT INDIVIDUAL'S PERFORMANCE OF TIMBER FRAMING RELATED WORK. THE ENGINEER WILL APPROVE OR REJECT THE CONTRACTOR'S PROPOSED SUBSTITUTE WITHIN 10 CALENDAR DAYS. FAILURE TO UTILIZE THE TIMBER FRAMER WHOSE EXPERIENCE RESUMES WERE SUBMITTED AND APPROVED MAY BE CAUSE FOR SUSPENSION OF THAT PORTION OF THE WORK. DELAYS CAUSED BY THE CONTRACTOR'S FAILURE TO MEET THIS REQUIREMENT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY AND SHALL NOT BE CAUSE FOR EXTENSION OF TIME.

EXISTING STRUCTURE VERIFICATION:

THE ORIGINAL DESIGN PLANS ARE NOT AVAILABLE FOR THIS STRUCTURE. DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD OBSERVATIONS AND MEASUREMENTS.

CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES WHICH HAVE BEEN VERIFIED BY

THE CONTRACTOR IN THE FIELD. THE TIMBER SECTIONS SHALL NOT BE ORDERED UNTIL THE ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ANY ADDITIONAL COST RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS IS THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT OVER THE UNIT PRICE BID WILL BE AWARDED.

ALL DIMENSIONS SHOWN ARE HORIZONTAL EXCEPT AS NOTED

REPLACEMENT MEMBER DIMENSIONS:

PRIOR TO THE MANUFACTURING OF EACH REPLACEMENT MEMBER, THE CONTRACTOR SHALL MEASURE THE EXISTING STRUCTURE TO DETERMINE THE REQUIRED DIMENSIONS FOR THE REPLACEMENT MEMBER. THE DIMENSIONS OF THE REPLACEMENT MEMBERS SHALL BE RECORDED ON THE PLANS AND SUBMITTED TO THE ENGINEER.

REPLACEMENT MEMBERS SHALL BE SIZED AND MANUFACTURED TO ACCOUNT FOR SHRINKAGE.

WORK LIMITS.

ALL OF THE ANTICIPATED WORK FALLS WITHIN THE EXISTING RIGHT OF WAY. ANY ADDITIONAL WORK AREA (INCLUDING ACCESS FOR PILE DRIVING) AND REOUIRED PERMITS, ETC, NEEDED BY THE CONTRACTOR TO PERFORM THE WORK AS DESCRIBED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ITEM 201 - CLEARING AND GRUBBING:

MINIMAL CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE AREA DESIGNATED ON THE PLANS AND ONLY TO THE EXTENT NECESSARY FOR MOVEMENT OF EQUIPMENT TO PIER LOCATIONS. ALL TREES SHALL BE MARKED AND APPROVED BY THE LOGAN COUNTY ENGINEER BEFORE REMOVAL. ALL TREES DESIGNATED FOR REMOVAL MUST BE REMOVED BETWEEN SEPTEMBER 15TH. AND APRIL 15TH.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

PORTIONS OF STRUCTURE REMOVED SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND ARE NOT SEPARATELY LISTED FOR PAYMENT.

ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION, AND EXISTING MATERIALS BEING REUSED IN THE NEW CONSTRUCTION.

EXISTING TIMBER MEMBERS SHALL BE CAREFULLY MARKED, CATALOGED, REMOVED, DISASSEMBLED, AND PROTECTED UNTIL DESIGNATED BY THE ENGINEER FOR REUSE, DISPOSAL, OR SALVAGE. MEMBERS DESIGNATED FOR SALVAGE SHALL BE TRANSPORTED TO THE COUNTY'S WORK GARAGE LOCATED ON COUNTY ROAD 13.

REMOVAL OF MEMBERS SHALL BE LIMITED TO NON-DESTRUCTIVE METHODS

AS EACH MEMBER IS REMOVED, IT SHALL BE IDENTIFIED BY NON-DESTRUCTIVE MEANS. THE METHOD OF IDENTIFICATION SHALL BE APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL AVOID DAMAGING THE REMAINING STRUCTURE DURING THE REMOVAL OPERATION. DAMAGE BY THE CONTRACTOR'S PERSONNEL OR OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT NO EXPENSE TO THE OWNER.

PAYMENT WILL BE MADE AT LUMP SUM PRICE BID FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 507 - 12" CAST-IN-PLACE REINFORCED CONCRETE PILES:

STEEL PILE CASINGS: ASTM A36 - UNIT STRESS 20,000 PSI; AS PER CMS 507.06.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE): THE ULTIMATE BEARING VALUE IS 82 TONS PER PILE FOR THE PIER PILES. THE PIER PILES INCLUDE AN ADDITIONAL 18 TONS PER PILE OF ULTIMATE BEARING VALUE DUE TO THE POSSIBILITY OF LOSING FUNCTIONAL RESISTANCE DUE TO SCOUR.

ITEM 511 CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN:

THIS ITEM CONSISTS OF ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY FOR THE PLACEMENT OF ALL PIER CONCRETE LOCATED ABOVE THE TOP OF THE 4'-0" THICK PILE CAP. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO THE NECESSARY CONCRETE, REINFORCING STEEL, CONCRETE COLORING AND FORM LINERS.

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4,000 PSI.

CONCRETE COLORING - COLORING SHALL BE BOMANITE DESIGN, INC (6001 PINECONE DR., MENTOR, OHIO 44060-1866, (216)831-8115) OR APPROVED EOUAL. COLOR OF THE STAIN SHALL BE DETERMINED BY THE COUNTY ENGINEER. A TEST SAMPLE SHALL BE STAINED PRIOR TO CONSTRUCTION TO OBTAIN ENGINEER'S APPROVAL OF COLOR. APPLICATION SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS.



NOTES ERED BRI

GENERAL CCOLLY COVI P THE GREA PAYMENT WILL BE MADE AT THE CONTRACT BID PRICE FOR CUBIC YARDS OF CONCRETE FOR ITEM 511 - CLASS C CONCRETE PIER ABOVE FOOTING, AS PER PLAN.

ITEM - 511 CLASS C CONCRETE, FOOTING, AS PER PLAN:

THIS ITEM CONSISTS OF ALL LABOR, EOUIPMENT, AND MATERIAL NECESSARY FOR THE PLACEMENT OF ALL PIER CONCRETE LOCATED BELOW THE TOP OF THE 4'-O" PILE CAP. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO THE NECESSARY CONCRETE, STEEL PILE CAPPER BEAM, AND REINFORCING STEEL. NO COLORING SHALL BE ADDED TO THE CONCRETE USED IN THIS ITEM.

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4,000 PSI.

PAYMENT WILL BE MADE AT THE CONTRACT BID PRICE FOR CUBIC YARDS OF CONCRETE FOR ITEM 511 - CLASS C CONCRETE FOOTING, AS PER PLAN.

ITEM 511 - CLASS C CONCRETE, ABUTMENT, AS PER PLAN:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIAL NECESSARY FOR THE CONSTRUCTION OF THE FORWARD AND REAR ABUTMENT CAPS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE NECESSARY CONCRETE, REINFORCING STEEL, DRILLED AND GROUTED HOLES, AND ANCHOR ROOS AND COUPLINGS AS SHOWN ON SHEEL 14 OF 14. NO COLORING SHALL BE ADDED TO THE CONCRETE FOR USE IN ABUTMENT CAPS

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4,000 PSI.

THE DRILLED AND GROUTED HOLES SHALL BE IN ACCORDANCE WITH CMS 510.

PAYMENT WILL BE MADE AT THE CONTRACT BID PRICE FOR CUBIC YARD OF CONCRETE FOR ITEM 511 CLASS C CONCRETE, ABUTMENT, AS PER PLAN.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

JACKING AND TEMPORARY SUPPORT OF THE EXISTING STRUCTURE IS NEEDED IN ORDER TO RAISE THE STRUCTURE, ELIMINATE SAG, ALIGN TRUSSES TO BE VERTICAL, REPLACE TRUSS MEMBERS AND BEARINGS, CONSTRUCT PIERS AND ABUTMENT MODIFICATIONS, AND INSTALL ELASTOMERIC PADS ON THE ABUTMENTS OR PIERS.

THIS ITEM WILL CONSIST OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIALS NECESSARY TO ALIGN THE TRUSS PLANES TO BE VERTICAL, RAISE THE STRUCTURE, TEMPORARILY SUPPORT THE STRUCTURE DURING THE REPAIR OPERATION, AND TO LOWER THE STRUCTURE AFTER THE REPAIRS HAVE BEEN MADE.

PRIOR TO PERFORMING ANY WORK ON THE BRIDGE, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER A WORK PLAN INCLUDING SEQUENCE OF OPERATIONS AND DETAILS OF TEMPORARY SUPPORTS. TEMPORARY SUPPORT DETAILS SHALL INCLUDE CONSTRUCTION DRAWINGS AND TRUSS MEMBER STRESS CALCULATIONS DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF OHIO. APPROVAL OF THIS WORK PLAN FROM THE ENGINEER SHALL BE OBTAINED PRIOR TO PROCEEDING WITH THE WORK.

PAYMENT WILL BE MADE AT LUMP SUM PRICE BID FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 521 - BRIDGE TIMBER, MISC .: POPLAR SIDING:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO INSTALL THE SIDING ON BOTH SIDES AND BOTH ENDS OF THE BRIDGE AS REQUIRED, TO INSTALL ADDITIONAL NAILING BOARDS, AND TO CUT PORTIONS OF THE EXISTING STEEL FLANGE TO CLEAR THE SIDING.

ALL SIDING SHALL BE REPLACED WITH I" THICK BY 13'-0" LONG PLANKS AND I"
THICK BY 2" WIDE JOINT COVERS, BOTH OF ROUGH CUT POPLAR. EXISTING SIDING
DEEMED REUSABLE BY THE ENGINEER MAY BE NON-DESTRUCTIVELY CLEANED AND
REUSED. THE WIDTHS OF PLANKS USED FOR THE SIDING SHALL VARY APPROXIMATELY
THE SAME AS EXISTING. LEFT AND RIGHT FASCIA SIDING SHALL BE ATTACHED TO
THE FOUR EXISTING NAILING BOARDS, AS WELL AS THE THREE NEW NAILING BOARDS
USING 8d RING SHANK GALVANIZED NAILS, AND USING A MINIMUM ATTACHMENT PATTERN
AS SHOWN IN THE PLANS.

NAILING BOARDS: NAILING BOARDS ARE THE HORIZONTAL STRINGERS FASTENED TO THE OUTSIDE OF THE VERTICAL TRUSS MEMBERS. THEY PROVIDE A MEANS OF FASTENING TIMBER SIDING TO THE STRUCTURE. THE EXISTING BOARDS THAT ARE DETERIORATED SHALL BE REPLACED WITH NAILING BOARDS OF SIMILAR SIZE AT THE SAME LOCATION. THREE ADDITIONAL NAILING BOARD ROWS, OF SIMILAR SIZE AS THE EXISTING FOUR ROWS OF BOARDS, SHALL BE ATTACHED TO THE STRUCTURE. THEY SHALL BE CENTERED BETWEEN THE EXISTING ROWS, AND ATTACHED IN A SIMILAR FASHION AS THE EXISTING NAILERS USING 8d RING SHANK GALVANIZED NAILS.

THE MATERIAL TO BE USED FOR THIS ITEM SHALL BE ROUGH SAWN YELLOW POPLAR HAVING FOUR SOUND AND SOUARE EDGES, AND A GRADE OF NO. 2 OR BETTER. BARK SHALL BE LIMITED TO 3/4" IN WIDTH AND 6"-8" IN LENGTH.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SOUARE FOOT OF SIDING FOR ITEM 521 - BRIDGE TIMBER, MISC.: POPLAR SIDING.

ITEM 521 - BRIDGE TIMBER, MISC .: VERTICALS, KNEE BRACES, & WEDGE BLOCKS:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIALS NECESSARY TO INSTALL THE INDIVIDUAL MEMBERS DESCRIBED BELOW.

VERTICALS AT PIERS: THERE ARE FOUR LOCATIONS WHERE TWO VERTICAL MEMBERS STRADDLE THE UPPER STEEL ANGLE BLOCK. THESE MEMBERS ARE LOCATED AT THE FOLLOWING LOCATIONS:

LEFT SIDE - L2-U2 AND LII-UII RIGHT SIDE - L2-U2 AND LII-UII

KNEE BRACES: THIS CONSISTS OF A TRANSVERSE MEMBER CONNECTING THE UPPER CHORDS AND A DIAGONAL MEMBER CONNECTING THIS TRANSVERSE MEMBER TO THE VERTICAL. THERE ARE 4 KNEE BRACES TO BE INSTALLED AT THE FOLLOWING OCCUPANT OF THE PROCESS OF THE PROCESS

LEFT SIDE - U2 AND UII RIGHT SIDE - U2 AND UII

WEDGE BLOCKS: THESE BLOCKS ARE TO BE INSTALLED AT THE INTERSECTION OF EACH DIAGONAL (EXCLUDING THE END PANELS). IN THE EVENT THAT A DIAGONAL EXPERIENCES TENSION, THESE BLOCKS PREVENT THE DIAGONALS FROM ROTATING OFF OF THE ANGLE BLOCKS.

THE MATERIAL USED FOR THE ABOVE ITEMS SHALL BE ROUGH SAWN RED PINE, SELECT STRUCTURAL GRADE, OR SOUTHERN YELLOW PINE NO. 2 (OR BETTER).

PAYMENT WILL BE MADE AT LUMP SUM PRICE BID FOR ITEM 521 - BRIDGE TIMBER, MISC.

ITEM 521 - BRIDGE TIMBER, MISC.: TRUSSES:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIALS NECESSARY TO REPLACE FRACTURED OR DETERIORATED TRUSS MEMBERS INCLUDING LOWER AND UPPER CHORD MEMBERS, END POST VERTICALS, DIAGONALS, SPLICE BLOCKS, SPACER BLOCKS, AND WOODEN PEGS NECESSARY TO FILL HOLES FROM REMOVED STEEL BEAM. THE MEMBERS TO BE REPLACED ARE THOSE IDENTIFIED WITHIN THESE PLANS. EACH MEMBER TO BE REPLACED SHALL BE THOROUGHLY MEASURED AND ALL DIMENSIONS REPRODUCED IN THE NEW MEMBER.

STRUCTURAL TIMBER TO BE USED FOR REPAIR OF THE TRUSSES SHALL BE IN ACCORDANCE WITH ODOT CMS 711.26 EXCEPT THAT THE TIMBER IS NOT REQUIRED TO BE AIR ORIED OR KILN DRIED. THE TIMBER MAY ALSO BE GRADED UNDER THE RULES OF THE NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION.

FOLLOWING ROUGH SAWING AND BEFORE INSTALLATION OF THE MEMBERS INTO THE BRIDGE, THE TIMBERS SHALL BE STORED IN BOTH THE LUMBERYARD AND AT THE PROJECT SITE, SO THAT DRYING OF THE MEMBERS WILL BE MAXIMIZED. THIS WILL INCLUDE STACKING THE TIMBER TO MAXIMIZE THE FLOW OF AIR, AND PROVIDING WATERPROOF COVER.

WHERE PRACTICABLE, EXISTING BOLTS SHALL BE REUSED. ANY NEW BOLTS SHALL BE SIZED TO MATCH EXISTING.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER THOUSAND BOARD FOOT OF TIMBER FOR ITEM 521 - BRIDGE TIMBER, MISC.: TRUSSES.

ITEM 521 - 6" STRIP FLOOR:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIALS
NECESSARY TO INSTALL NEW STRIP FLOORING. ALL STRIPS SHALL BE REPLACED WITH
NOMINAL 3X6 DENSE STRUCTURAL 65 SOUTHERN YELLOW PINE (Fb=1600psi, Ft=1050psi,
Fv=110psi, Fc(perpendicular)=440psi, Fc=1000psi, E=1600ksi) OR LUMBER WITH HIGHER
DESIGN VALUES IN ALL CATEORIES.

STRIPS SHALL BE FREE OF ANY CHECKS, SPLITS, OR SHAKES. THE STRIPS ARE TO BE PAINTED PRIOR TO PLACEMENT AND SECURED TO THE STRINGERS USING NEW "DECK-SECURING" S-CLIPS. EACH STRIP SHALL BE NAILED TO THE ADJACENT STRIP WITH 60d GALVANIZED SPIKES AT 12" CENTERS. PRIOR TO INSTALLING SPIKES, EACH STRIP SHALL BE FIRMLY SEATED ON TOP OF THE STRINGERS.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SOUARE FOOT OF STRIP FLOOR FOR ITEM 521 - 6" STRIP FLOOR.

ITEM 521 - BRIDGE TIMBER, MISC. : ADDITIONAL :

THIS PROJECT INVOLVES THE REHABILITATION OF THE HISTORIC MCCOLLY TIMBER COVERED TRUSS BRIDGE THROUGH THE REPAIR OR REPLACEMENT OF DAMAGED, DETERIORATED, OR OTHERWISE UNSUITABLE MEMBERS.

EFFORTS WILL BE MADE TO REUSE ORIGINAL BRIDGE MEMBERS, BUT THOSE THAT ARE FOUND TO BE UNSUITABLE WILL BE REPLACED WITH NEW MEMBERS, IN ORDER TO PRODUCE A SOUND AND RELIABLE REHABILITATED BRIDGE.

A PRELIMINARY ASSESSMENT OF THE FITNESS OF MEMBERS FOR THEIR REUSE IN THE REHABILITATED BRIDGE HAS BEEN MADE OF THE EXISTING BRIDGE, AS IT STANDS. A COMPLETE AND ACCURATE TABULATION IS NOT POSSIBLE BECAUSE SOME MEMBERS ARE UNACCESSIBLE OR HIDDEN.

THE ENGINEER SHALL EXAMINE ALL OF THE ORIGINAL MEMBERS AS SOON AS POSSIBLE AFTER THEY HAVE BEEN TAKEN APART IN ORDER TO DETERMINE THE FITNESS OF EACH MEMBER, AND BEGIN FABRICATING THE NEEDED REPLACEMENT MEMBERS.

A OUANTITY OF 1.00 THOUSAND BOARD FEET OF ROUGH CUT, SELECT STRUCTURAL GRADE RED PINE OR SOUTHERN YELLOW PINE NO. 2 (OR BETTER) SHALL BE PROVIDED. THIS TIMBER SHALL BE USED AT THE DIRECTION OF THE ENGINEER FOR THE REPAIR OF ADDITIONAL TRUSS MEMBERS.

THIS OUANTITY SHALL ALSO INCLUDE (AS INCIDENTAL) THE LABOR AND MATERIALS NECESSARY FOR THE REPLACEMENT OF DETERIORATED BOLTS OR OTHER CONNECTIONS NOT ALREADY IDENTIFIED IN THESE PLANS. THESE BOLTS SHALL BE IDENTIFIED BY THE CONTRACTOR OR ENGINEER DURING THE DISASSEMBLY OF THE EXISTING BRIDGE.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER THOUSAND BOARD FOOT OF TIMBER FOR ITEM 521 - BRIDGE TIMBER, MISC.: ADDITIONAL.

ITEM 606 - GUARDRAIL REBUILT, AS PER PLAN:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIAL NECESSARY FOR THE REPAIR OF ALL DAMAGED PORTIONS OF STEEL GUARDRAIL AND TIMBER EDGING BOARDS ATTACHED TO THE BRIDGE. DAMAGED PORTIONS OF GUARDRAIL SHALL BE REMOVED FROM THE BRIDGE WITHOUT DAMAGING ANY PARTS OF THE BRIDGE THAT ARE NOT CALLED OUT TO BE REPLACED. IN THE EVENT THAT MEMBERS OF THE BRIDGE ARE DAMAGED, THEY SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO THE OWNER.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF GUARDRAIL FOR ITEM 606 - GUARDRAIL REBUILT, AS PER PLAN.

TIMBER MATERIAL SPECIFICATIONS:

ALL TIMBER MATERIALS USED TO REPAIR THE UPPER AND LOWER CHORDS, VERTICAL AND DIAGONAL MEMBERS OF THE TRUSS, SHALL BE ROUGH CUT, SELECT STRUCTURAL RED PINE OR SOUTHERN YELLOW PINE NO. 2 (OR BETTER), WITH FOUR SOUND AND SOURRE EDGES.

TIMBER USED TO REPLACE THE SIDING AND NAILERS SHALL BE NO.2 OR BETTER YELLOW POPLAR.

TIMBER USED TO REPLACE THE STRIP FLOOR SHALL BE DENSE STRUCTURAL 65 SOUTHERN YELLOW PINE.

ALL OTHER TIMBER USED FOR REPAIRS ON THIS BRIDGE SHALL BE ROUGH SAWN RED PINE (GRADE OF NO. 1 OR BETTER) OR SOUTHERN YELLOW PINE NO. 2 (OR BETTER) HAVING FOUR SOUND AND SOUARE EDGES.

ALL TIMBER AND LUMBER USED ON THIS PROJECT SHALL BE GRADED IN ACCORDANCE WITH ODOT CMS 711.26. THE TIMBER MAY ALSO BE GRADED UNDER THE RULES OF THE NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION.

ITEM 514 - FIELD PAINTING, MISC.: WOOD STAIN:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EOUIPMENT, AND MATERIALS NECESSARY TO APPLY A WOOD STAIN TO ALL EXPOSED WOOD SURFACES OF THE BRIDGE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE SIDING, THE TRUSS MEMBERS, THE STRIP FLOOR, AND THE WOODEN SHINGLES. WOOD STAIN SHALL BE WOODSCAPES 100 PERCENT ACTIVIC SOLID COLOR STAIN BY SHERWIN-WILLIAMS COMPANY OR AN APPROVED EQUAL. THE COLOR SHALL MATCH THE ORIGINAL COLOR OF THE EXISTING EXTERIOR COMPONENTS BEING PAINTED AS CLOSE AS POSSIBLE AND TO THE SATISFACTION OF THE ENGINEER. THINNING IS NOT PERMITTED.

TWO SEPARATE COATS SHALL BE APPLIED BY BRUSH IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

THE BRIDGE SHALL BE CLEANED OF DUST AND DEBRIS PRIOR TO APPLICATION OF THE WOOD STAIN TO ENSURE ADHERENCE TO THE WOOD. THE CLEANING SHALL BE TO THE SATISFACTION OF THE ENGINEER.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SOUARE FOOT FOR ITEM 514 - FIELD PAINTING, MISC.: WOOD STAIN.

P:\PR20547\8_26_99\SUBMITTED\DRAWINGS\MCNOTE

0

0

0

 $\frac{5}{15}$

96,

7LP 7LP WISED

NOTES ERED BRI T MIAMI

GENERAL CCOLLY COV THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO REPLACE THE EXISTING METAL ROOF WITHOUT DAMAGING THE ORIGINAL EXISTING SHINGLES. THE METAL ROOFING SHALL BE BAKED ENAMEL, DOUBLE LOCK STANDING SEAM METAL ROOFING, ALUMINUM OR GALVANIZED STEEL, 24 GAUGE MINIMUM THICKNESS.

UPON RECEIVING THE NOTICE TO PROCEED, THE CONTRACTOR SHALL PROVIDE MANUFACTURER'S COLOR SAMPLES TO THE ENGINEER FOR APPROVAL. THE ENGINEER. IN CONSULTATION WITH THE LOGAN COUNTY ENGINEER, WILL DETERMINE WHICH, IF ANY, OF THE SAMPLES ARE ACCEPTABLE

THE RIDGE CAP SHALL BE THE SAME MATERIAL, GAUGE, AND COLOR AS THE ROOFING.

THE METAL ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE PROCEDURES AND FASTENERS RECOMMENDED BY THE ROOFING MANUFACTURER(S).

THE CONTRACTOR SHALL AVOID FURTHER DAMAGING THE UNDERLYING ROOF BOARDING DURING THE REMOVAL OF THE EXISTING ROOFING; IF DAMAGED BY THE CONTRACTOR'S PERSONNEL OR OPERATIONS, THE DAMAGES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SOUARE FOOT OF ROOFING FOR ITEM SPECIAL - STRUCTURE MISC.: METAL ROOFING.

ITEM SPECIAL - STRUCTURE MISC .: FIRE RETARDANT :

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO APPLY CLEAR FIRE RETARDANT VARNISH TO ALL EXPOSED WOODEN SURFACES INSIDE AND ON THE UNDERSIDE OF THE STRUCTURE. VARNISH SHALL BE FLAME CONTROL NO. 129 (INITIAL COAT) AND FLAME CONTROL NO. 130 (FINAL COAT) AS PROVIDED BY FLAME CONTROL COATINGS AT 4120 HYDE PARK BLVD, NIAGARA FALLS, NEW YORK, 14302, (716) 282-1399, OR APPROVED EQUAL. THE LOCAL CONTACT IS:

> SHERWIN-WILLIAMS COMPANY SHAWN PENDERGAST 316 S. MAIN STREET BELLEFONTAINE, OHIO 43311-1720 TELEPHONE NO. (937) 592-0806

SPECIFIC INSTRUCTIONS FOR APPLICATION PROVIDED BY THE SUPPLIER SHALL BE FOLLOWED TO ASSURE MAXIMUM PROTECTION.

CLEAR FIRE RETARDANT VARNISH SHALL BE APPLIED IMMEDIATELY AFTER STAIN HAS DRIED, TO ENSURE A CLEAN SURFACE. IF THE SURFACE OF APPLICATION IS NOT DEEMED CLEAN BY THE ENGINEER, IT SHALL BE RECLEANED OF DUST AND DEBRIS AT NO ADDITIONAL COST TO THE OWNER.

PAYMENT WILL BE MADE AT LUMP SUM PRICE BID FOR ITEM SPECIAL -STRUCTURE MISC.: FIRE RETARDANT

FASTENERS:

NAILS:

0

 \bigcirc

NAILS SHALL BE USED TO FASTEN STRUCTURAL TIMBER TOGETHER. NAILS SHALL EXTEND AT LEAST 1-1/2" INTO THE FASTENED STRUCTURAL MEMBER. CARE SHALL BE TAKEN SO AS TO AVOID SPLITTING THE LUMBER; SOME DRILLING MAY BE REQUIRED. NAILS SHALL BE GALVANIZED IN ACCORDANCE WITH ODOT CMS 711.02. THE BID PRICE FOR FASTENERS SHALL BE INCLUDED IN THE BID PRICE OF THE ITEM FOR WHICH THE FASTENER IS USED.

BOLTS AND THREADED RODS:

BOLTS AND RODS SHALL CONFORM TO ASTM A307 AND ANSI BIB. 2. I AND SHALL BE GALVANIZED IN ACCORDANCE WITH ODOT CMS 711.02. ALL NUTS AT WOOD INTERFACES SHALL BE FURNISHED WITH MALLEABLE IRON WASHERS.

EXISTING BOLTS SHALL BE REUSED WHERE PRACTICABLE. WHERE DESIGNATED BY THE ENGINEER, THE CONTRACTOR SHALL REPLACE THE EXISTING BOLT WITH A NEW BOLT OF EQUAL OR GREATER DIAMETER

VERTICAL TENSION ROD BOLTS SHALL BE TIGHTENED TO A SNUG FIT CONDITION AND ADDITIONALLY AS REQUIRED TO CLOSE THE GAPS BETWEEN DIAGONALS AND STEEL ANGLE BLOCKS. SNUG TIGHT SHALL BE DEFINED AS THE TIGHTNESS ATTAINED WHEN AN IMPACT WRENCH BEGINS TO IMPACT OR WHEN THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH IS APPLIED. IN THE EVENT THAT A BOLT/ROD IS STRIPPED OR DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPLACE, IN KIND, ALL DAMAGED PARTS FREE OF CHARGE TO THE OWNER.

SPLIT RING CONNECTORS:

ALL SPLIT RING CONNECTORS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, 1991 WITH 1993 SUPPLEMENT, SECTION 10.1.2 AND 10.1.3.

ALL EXISTING FLOOR SYSTEM STRUCTURAL STEEL THAT IS TO REMAIN IN PLACE SHALL BE CLEANED AND FIELD PAINTED. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL FLOOR BEAMS, STRINGERS, CROSSFRAMES, TENSIONS RODS, AND CONNECTIONS. NEW STEEL SHALL BE PROVIDED BARE FOR PREPARATION AND PAINTING IN THE FIELD. FOR PURPOSES OF FIELD PAINTING, NEWLY ERECTED STEEL SHALL BE CONSIDERED EXISTING STEEL AND, LIKE THE EXISTING STEEL, SHALL BE PREPARED AND PAINTED WITH A PRIME, INTERMEDIATE, AND FINISH COAT OF PAINT IN CONFORMANCE WITH SUPPLEMENTAL SPECIFICATIONS 815 IFIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU) AND 910 (OZEU STRUCTURAL STEEL PAINT). NEW STEEL SURFACES SHALL NOT BE ABRASIVELY CLEANED. INSTEAD THEY SHALL BE SOLVENT CLEANED, PRIMED AND FINISHED PAINTED AS SPECIFIED IN THE SUPPLEMENTAL SPECIFICATION FOR "FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU". COST OF CLEANING AND PAINTING OF NEW AND EXISTING STEEL WITH THE OZEU PAINT SYSTEM SHALL BE INCLUDED IN THE SEVERAL OZEU ITEMS. THE SURFACE AREA PAY QUANTITIES ARE BASED ON THE SURFACE AREA OF MAIN MEMBERS (FLOOR BEAMS AND STRINGERS) INCREASED BY 15 PERCENT TO ACCOUNT FOR THE AREA OF CROSSFRAMES, BEARINGS, STEEL ANGLE BLOCKS, "DECK-SECURING" S-CLIPS, AND OTHER STEEL INCIDENTALS BEING CLEANED AND PAINTED.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SOUARE FOOT OF PAINTED SURFACE FOR ITEMS 815 (SURFACE PREPARATION AND FIELD PAINTING OF EXISTING STEEL).

ITEM 863 - STRUCTURAL SIEEL MEMBERS, LEVEL ONE!!! FABRICATION, AS PER PLAN:

THIS ITEM CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO INSTALL REPLACEMENT STEEL ANGLE BLOCKS; REPLACEMENT AND NEW STEEL BEARING PADS; "DECK-SECURING" S-CLIPS; SHEAR STUDS; STEEL PILE CAPPER BEAMS; MISCELLANEOUS NUTS, BOLTS, WASHERS AND SPLIT RING CONNECTORS; AND VERTICAL AND DIAGONAL STEEL TENSION RODS AND PLATES AT THE LOCATIONS DESIGNATED IN THE PLANS

STRUCTURAL STEEL TO BE USED FOR THIS ITEM SHALL CONFORM TO ASTM A36, AND SHALL BE GALVANIZED IN ACCORDANCE WITH ODOT CMS 711 02

TENSION RODS SHALL BE 1-1/4" DIAMETER GRISO THREADBAR MANUFACTURED BY DYWIDAG SYSTEMS, WILLIAMS FORM ENGINEERING CORP., OR EQUAL. TENSION RODS SHALL HAVE A GUARANTEED ULTIMATE STRENGTH (GUTS) OF 187.5 KIPS AND A GUARANTEED YIELD STRENGTH OF 150 KIPS.

NEW STEEL SHALL BE CLEANED AND IT SHALL BE PRIME PAINTED IN THE FIELD. AT THE CONTRACTOR'S OPTION, NEW STEEL MAY BE GIVEN A PRELIMINARY CLEANING IN THE SHOP. THE COST OF CLEANING AND PRIME PAINTING SHALL BE INCLUDED IN THE SEVERAL OZEU ITEMS

PAYMENT WILL BE MADE AT LUMP SUM PRICE BID FOR ITEM 863 - STRUCTURAL STEEL MEMBERS, LEVEL ONE (I) FABRICATION, AS PER PLAN.

MATERIAL AND LABOR.

ALL MATERIAL AND LABOR FOR THE ABOVE ITEMS SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED

NON-DESTRUCTIVE CLEANING AND REMOVAL:

THE TERM NON-DESTRUCTIVE AS USED THROUGHOUT THESE PLANS IN THE CONTEXT OF CLEANING AND REMOVAL SHALL BE DEFINED AS FOLLOWS:

CLEANING SHALL BE DONE IN SUCH A MANNER THAT SECTION AREA OF THE MEMBER BEING CLEANED IS NOT LOST. AIR CLEANING SHALL BE THE PREFERRABLE METHOD OVER SAND AND WATER BLASTING. THE LATTER METHODS SHALL ONLY BE USED AFTER RECEIVING APPROVAL FROM OF THE ENGINEER.

REMOVAL SHALL BE DONE IN SUCH A MANNER THAT SECTION AREA OF THE MEMBER BEING REMOVED IS NOT LOST. CARE SHALL BE TAKEN TO PROTECT PORTIONS OF THE STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS, CHIPPING HAMMERS, AND OR HOE/RAMS WILL NOT BE PERMITTED.

PAINTING OF STRUCTURAL STEEL.

3

NOTES ERED BRI T MIAMI RED GENERAL N CCOLLY COVE

ALLOWABLE M	BLE A: IEMBER STRESSES LOAD ONLY)
MEMBER	ALLOWABLE STRESS (PSI)
LOWER CHORD	TENSION = 563
UPPER CHORD	COMPRESSION = 594
STEEL VERTICALS	TENSION = 20,000
TIMBER VERTICALS	TENSION = 608
DIAGONALS	COMPRESSION = 635

0

0

0

0

REPLACEMENT TRUSS MEMBERS (SEE GENERAL NOTE REGARDING REPLACEMENT MEMBER DIMENSIONS)

TRUSS	MEMBER		WIDTH (INCHES)	HEIGHT (INCHES)	APPROX. LENGTH (INCHES)	TOTAL (C.I.)	MFB
LEFT		32					
	L0-L1	(INNER)	5.0	12.0	108.0	6,480.0	0.05
	L3.5-L7.5	(INNER)	5.0	12.0	489.0	29,340.0	0.20
	L11.5-L13	(INNER)	5.0	12.0	206.0	12,360.0	0.09
	L0-U1	(INNER)	7.0	8.8	200.0	12,250.0	0.09
	U12-L13	(INNER)	7.0	8.8	210.0	12,862.5	0.09
	U13-L13	(INNER)	4.0	8.0	170.0	5,440.0	0.04
	L6.5-L10.5	(DUTER-MIDDLE)	5.0	12.0	489.0	29,340.0	0.20
	L11.75-L13	(OUTER-MIDDLE)	5.0	12.0	179.0	10,740.0	0.07
	L0-U1	(DUTER)	7.0	8.5	200.0	11,900.0	0.08
RIGHT						-	
	L0-L1	(INNER)	5.0	12.0	126.0	7,560.0	0.05
	L5.5-L9.5	(INNER-MIDDLE)	5.0	12.0	488.5	29,310.0	0.21
	L11.5-L13	(INNER)	5.0	12.0	205.0	12,300.0	0.09
	L0-U1	(INNER)	7.0	9.5	210.0	13,965.0	0.10
						TOTAL	1.35

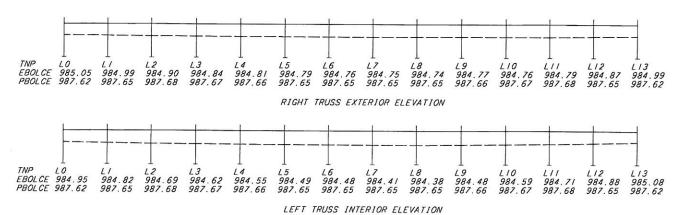


DIAGRAM B

TINP=TRUSS NODE POINT EBOLCE= EXISTING BOTTOM OF LOWER CHORD ELEVATION (DASHED LINE) PBOLCE= PROPOSED BOTTOM OF LOWER CHORD ELEVATION (SOLID LINE)

	McCOLLY	COVERE	D BRI	DGE CALC. BY: MAK DATE: 05-05-98
	ESTIMAT	ED QUAN	TITIE	CHKD. BY: TLP DATE: 06-05-98
ITEM	ITEM EXT.	QUANTITY	UNIT	DESCRIPTION
201	11000	LUMP	SUM	CLEARING AND GRUBBING
202	11201	LUMP	SUM	PORTIONS OF STRUCTURE REMOVED *
503	11100	LUMP	SUM	COFFERDAMS, CRIBS, AND SHEETING
503	21300	LUMP	SUM	UNCLASSIFIED EXCAVATION
505	11100	LUMP	SUM	PILE DRIVING EQUIPMENT MOBILIZATION
507	00500	480	LF	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN
507	00550	480	LF	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED
507	50500	8	EACH	STEEL PILE SPLICES
511	40501	82	CY	CLASS C CONCRETE. PIER ABOVE FOOTING *
511	45701	28	CY	CLASS C CONCRETE, PIER ABOVE FOOTING * CLASS C CONCRETE, ABUTMENT *
511	46501	43	CY	CLASS C CONCRETE, ABOTMENT * CLASS C CONCRETE, FOOTING *
JII	40301	43	C1	CLASS C CONCRETE, FOOTING *
514	27700	34050	SF	FIELD PAINTING, MISC.: WOOD STAIN
516	41200	27	SF	1/8" PREFORMED BEARING PAD, 711.21
516	47001	LUMP	SUM	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
521	13300	2350	SF	6" STRIP FLOOR
521	15600	3850	SF	BRIDGE TIMBER, MISC.: POPLAR SIDING
521	15620	LUMP	SUM	BRIDGE TIMBER, MISC.: VERTICALS, KNEE BRACES & WEDGE BLOCKS
521	15630	1.35	MEB	BRIDGE TIMBER, MISC.: TRUSSES
521	15630	1.00	MFB	BRIDGE TIMBER, MISC.: ADDITIONAL
SPECIAL	53000200	LUMP	SUM	STRUCTURE, MISC.: FIRE RETARDANT
SPECIAL			SF	STRUCTURE, MISC.: METAL ROOFING
606	16001	26	LF	GUARDRAIL REBUILT *
624	10000	LUMP	SUM	MOBILIZATION
024	10000	LOM	3011	MOBILIZATION
815	00050	4500	SF	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	4500	SF	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	4500	SF	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	4500	SF	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
863	10021	LUMP	SUM	STRUCTURAL STEEL MEMBERS, LEVEL ONE (1) FABRICATION *

* AS PER PLAN

1-81-907

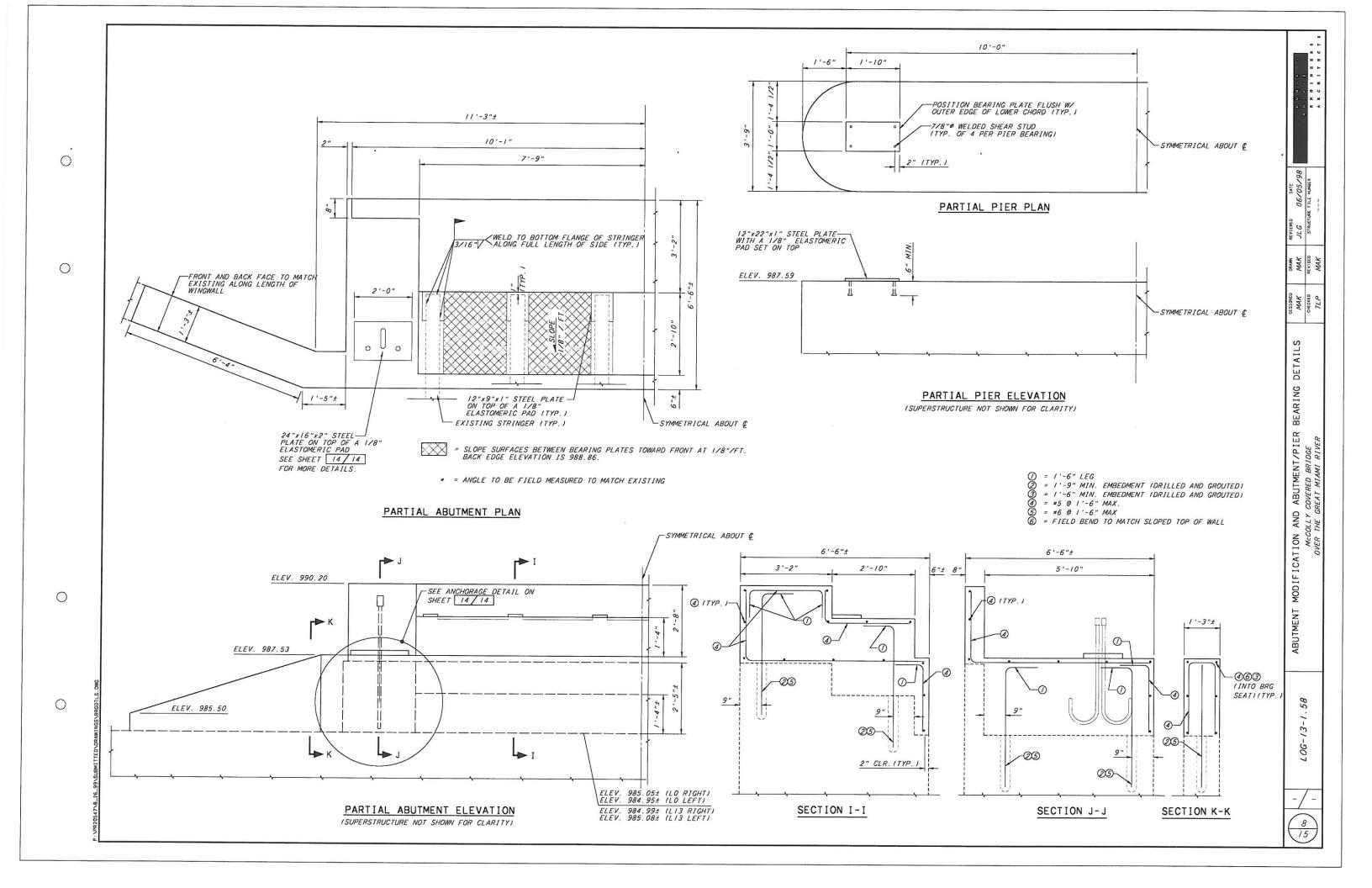
DATE O6/05/98 RE FILE NUMBER

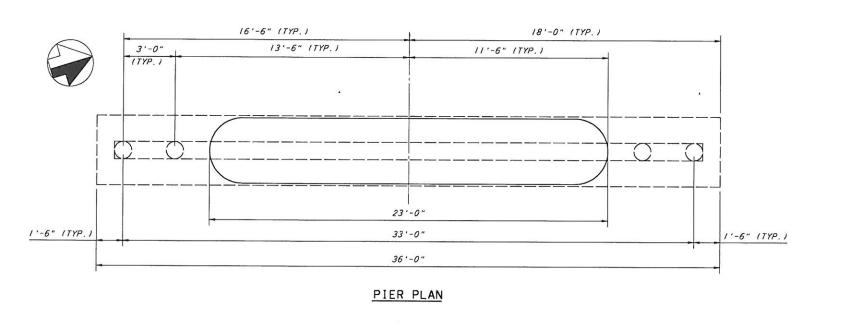
NOTES 4 AND ESTIMATED QUANTITES

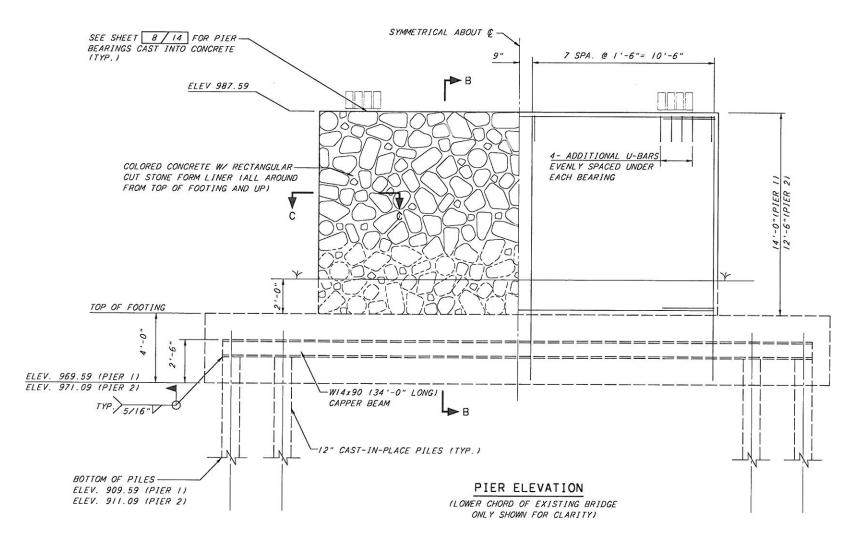
MCCOLLY COVERED BRIDGE

OVER THE GREAT MIAMI RIVER

GENERAL





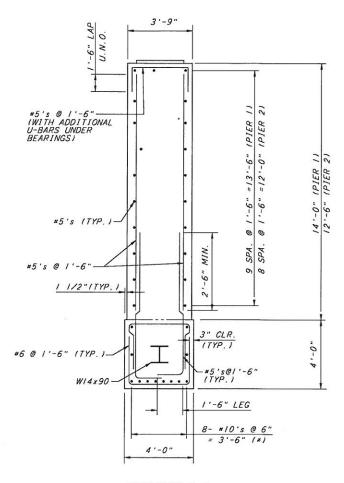


0

0

0

0



MAK MAK MAK

MAK MAK HECKED 7LP

PIER DETAILS

McCOLLY COVERED BRID

OVER THE GREAT MIAMI R

9

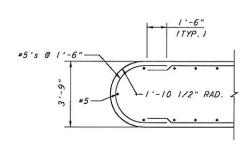
SECTION B-B

(PIER I SHOWN, PIER 2 SIMILAR)

* = BARS INTERFERING W/ VERTICAL CAST-IN-PLACE PILE SHALL BE 25'-6" LONG. OTHER BARS SHALL BE 35'-5" LONG

U.N.O. = UNLESS NOTED OTHERWISE

3/4/ 6/ory entire face of west woll 828.92 1 in pair face



SECTION C-C

(TYP. AT EACH END OF PIER)

