

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

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| AS-1-81 | DATED | 11/27/81 |
| EXJ-3-82 | DATED | 8/1/84 |
| EXJ-4-87 | DATED | 1/5/89 |
| PCB-91 | DATED | 4/24/92 |
| DBR-2-73 | DATED | 4/10/73 |
| AND TO SUPPLEMENTAL SPECIFICATIONS | | |
| 820 | DATED | 3/18/92 |
| 849 | DATED | 12/24/85 |
| 944 | DATED | 3/18/92 |
| 949 | DATED | 9/26/86 |

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN DATA

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

HIGH PERFORMANCE CONCRETE SUBSTRUCTURE - UNIT STRESS 1,333 PSI SUBSTRUCTURE.

HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE - UNIT STRESS 1,500 PSI SUPERSTRUCTURE. (SUPERSTRUCTURE DESIGN BASED ON UNIT STRESS OF 1333 PSI)

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

SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

DECK PROTECTION METHOD - EPOXY COATED REINFORCING STEEL, TOP AND BOTTOM MAT. SEALING OF CONCRETE SURFACES.

REMOVAL OF EXISTING STRUCTURES

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED. SUITABLE WASTE MASONRY MAY BE PLACED AS BANK PROTECTION AS DIRECTED BY THE ENGINEER.

ITEM 202 - PORTIONS OF STRUCTURES REMOVED

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING STONE ABUTMENT AS LOCATED ON THE SITE PLAN, SHEET [1/17].

EMBANKMENT CONSTRUCTION

THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE LEVEL OF SUBGRADE. EXCAVATION MAY THEN BE MADE FOR ABUTMENT AND SHAFTS DRILLED.

MONOLITHIC WEARING SURFACE

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

UTILITY LINES

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

COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN:

TEMPORARY SHORING SHALL BE USED TO ACCOMPLISH THE PROPOSED CONSTRUCTION IN STAGES. THE DESIGN OF THE TEMPORARY SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, AND CONFORM WITH 501.05. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR AND CONCURRENTLY, ONE COPY TO THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN. CONSTRUCTION OF THE SHORING SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. PORTIONS OF THE TEMPORARY SHORING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. PORTIONS COMPOSED OF OTHER MATERIALS SHALL BE REMOVED PRIOR TO COMPLETION OF THE WORK.

MECHANICAL CONNECTORS

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS IS FURNISHED, THE MINIMUM DOWEL BAR LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE AS GIVEN BY THE DIMENSION "L" SHOWN ON PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS.

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509 AND BE INCLUDED IN THE BID PRICE PER POUND FOR ITEM 509.

SPIRAL REINFORCING BARS

THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE LENGTH OF THE SPIRAL ALONG THE AXIS OF THE SPIRAL. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 POUNDS PER LINEAR FOOT OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COILS. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 3.20 PER LINEAR FOOT WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITIES OF SPIRAL BARS.

STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS

DECK JOINT MATERIALS: STEEL FOR DECK JOINTS THAT IS TO BE FULLY ENCASED IN CONCRETE MAY BE UNPAINTED ASTM A36 OR A588. ALL OTHER STEEL PORTIONS OF THE JOINTS SHALL BE ASTM A588. STEEL SHALL BE ABRASIVELY CLEANED IN THE SHOP PRIOR TO FINAL ASSEMBLY. SHOP PAINTING IS NOT REQUIRED.

DECK JOINT PAINTING: AFTER CLEANING IN THE FIELD AS DIRECTED, AND PREFERABLY AFTER INSTALLATION OF JOINT SEALS, ALL UPPER EXPOSED STEEL SURFACES EXCLUDING ROADWAY SURFACES IN TRAVELED LANES SHALL BE PAINTED WITH A SYSTEM OZEU PRIME, INTERMEDIATE, AND FINISH COAT OF THE PAINT AS DESCRIBED IN THE PROPOSAL. COST FOR FIELD CLEANING AND PAINTING SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT FOR THE DECK EXPANSION JOINTS.

ITEM 508 - FALSEWORK: CONTRACTOR IS CAUTIONED THAT THE PROJECT SITE HAS A HISTORY OF TRAPPING RIVER DEBRIS AT THE BRIDGE DURING HIGH WATER FLOWS. THE CONTRACTOR MUST ACCOUNT FOR THIS DEBRIS LOAD IN HIS FALSEWORK DESIGN. THE FALSEWORK MUST BE PLACED SUCH THAT IT DOES NOT CAUSE THE ENTIRE WATERWAY TO BE PLUGGED.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES

SPECIFIED CONCRETE SURFACES SHALL BE SEALED USING A CONCRETE SEALER. SEE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES. THE LIQUID SEALANT SHALL BE APPLIED TO THE DECK EDGES FOR THE FULL LENGTH OF THE SURFACES SHOWN ON SHEET [15/17], TO THE ABUTMENTS AS SHOWN ON SHEET [11/17] AND TO PIERS AS SHOWN ON SHEETS [12/17] AND [13/17].

ELASTOMERIC BEARINGS

ELASTOMERIC BEARINGS SHALL COMPLY WITH 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 OF SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, OF THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES". BEARINGS SHALL BE GRADE 3, 50-DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE PRICE BID FOR THE BEARINGS.

ITEM 614 - MAINTAINING TRAFFIC


SEE SHEET [5/17] FOR DETAILS. SEE ROADWAY QUANTITIES FOR PAYMENT.

ITEM 518 - 6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE 6 INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE SP.

ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE 6 INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE S. THIS ITEM SHALL INCLUDE ALL ELBOWS, TEES AND CAPS REQUIRED TO COMPLETE THE ABUTMENT DRAINAGE SYSTEM.

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|  CT Consultants, Inc. Engineers • Architects • Planners <small>Willoughby • Mentor • Columbus • North Canton • Canton</small> | | | | | | 3/17 |
| GENERAL NOTES BRIDGE NO. LAK-608-0075 OVER BIG CREEK LAKE COUNTY | | | | | | |
| DESIGNED | DRAWN | TRACED | CHECKED | REVIEWED DATE | REVISED | |
| R.L.B. | R.I.P. | R.I.P. | J.P.R. | J.E.A. 5-29-93 | | |