ESTIMATED QUANTITIES

BRIDGE LAK-20-2976

ITEM	TOTAL	UNIT	DESCRIPTION
			ROADWAY
202	432	SQ. YDS	WEARING COURSE REMOVED
202	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED
202	74	LIN. FT.	GUARDRAIL REMOVED FOR RE-USE OR STORAGE
202	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE B, REMOVED
606	4	EACH	BRIDGE TERMINAL ASSEMBLY STD., TYPE B, MODIFIED AS PER PLAN
606	74	LIN. FT.	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN
			PAVEMENT
404	34	CU. YDS.	ASPHALT CONCRETE, AC-20
407	50	GAL.	TACK COAT
622	400	LIN. FT.	TEMPORARY CONCRETE BARRIER
SPECIAL	245	SQ. YDS.	PAVEMENT PLANING BITUMINOUS, WITHOUT HEAT
			MAINTENANCE OF TRAFFIC
614	0.769	MILES	TEMPORARY EDGE LINES, CLASS I (TAPE)
614	44	LIN. FT.	TEMPORARY STOP LINES, CLASS I (TAPE)
614	4	EACH	TEMPORARY LANE ARROWS, CLASS I (TAPE)
614	0.898	MILES	TEMPORARY LANE LINES, CLASS II
614	0.449	MILES	TEMPORARY CENTER LINES, CLASS II
SPECIAL	116	EACH	PRISMATIC RETRO-REFLECTOR REPLACED
			STRUCTURES
503	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING
503	LUMP	LUMP	UNCLASSIFIED EXCAVATION
509	3399	POUND	REINFORCING STEEL
509	200	POUND	REINFORCING STEEL, AS PER PLAN
509	279	POUND	DOWEL BAR SUBSTITUTION
510	172	EACH	DOWEL HOLES, AS PER PLAN
511	28	CU. YDS.	CLASS S CONCRETE, AS PER PLAN
512	301	SQ. YDS.	TYPE D WATERPROOFING
516	187	SQ. FT.	1/2" PREFORMED EXPANSION JOINT FILLER
517	49	LIN. FT.	RAILING (DEEP BEAM RAIL WITH TUBULAR BACKUP AND 1' - 6 1/2" STEEL
			POSTS AND BOLTS), AS PER PLAN
517	49	LIN. FT.	RAILING (DEEP BEAM RAIL WITH TUBULAR BACKUP AND 1' - 9" STEEL POSTS
			AND BOLTS), AS PER PLAN
518	27	CU. YDS.	POROUS BACKFILL
605	20	LIN. FT.	AGGREGATE DRAINS
609	16	LIN. FT.	CURB, TYPE 6, AS PER PLAN
SPECIAL	89	LIN. FT.	PRESSURE RELIEF JOINTS, STANDARD TYPE C
SPECIAL	12	LIN. FT.	○ 6" x 3" IMPREGNATED FOAM JOINT SEAL
SPECIAL	181	LIN. FT.	○ 2" x 2" IMPREGNATED FOAM JOINT SEAL
SPECIAL	60	SQ. FT.	STEEL DRIP STRIP
SPECIAL	300	SQ. FT.	PATCHING CONCRETE STRUCTURE WITH SUPERIOR BONDING MATERIALS
SPECIAL ✳	2325	SQ. FT.	SEALING OF CONCRETE SURFACES (EPOXY)
SPECIAL	LUMP	LUMP	CHANNEL CLEANOUT
SPECIAL ✳	231	SQ. YDS.	SUPER PLASTICIZED DENSE CONCRETE OVERLAY (3 3/4" THICK)
SPECIAL ✳	7	CU. YDS.	SUPER PLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS)
SPECIAL ✳	3	CU. YDS.	FULL DEPTH REPAIR
			GENERAL
614	LUMP	LUMP	MAINTAINING TRAFFIC
619	LUMP	LUMP	FIELD OFFICE
623	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES
624	LUMP	LUMP	MOBILIZATION

✳ SEE PROPOSAL NOTE

PROPOSED WORK

1. REPLACE BACKWALLS AND PORTIONS OF APPROACH SLABS WITH INTEGRAL ABUTMENTS.
2. REPAIR THE DECK, WATERPROOF AND OVERLAY WITH ASPHALT.
3. PATCH DETERIORATED CONCRETE SURFACES WITH SUPERIOR BONDING MATERIALS.
4. EPOXY SEAL ALL CONCRETE SURFACES EXPOSED TO DE-ICING CHEMICALS.
5. REPLACE BRIDGE RAIL.
6. CLEANOUT STREAM CHANNEL.
7. INSTALL PRESSURE RELIEF JOINTS.

STANDARD DRAWINGS

BP-11 DATED 1-30-84
GR-1 DATED 2-5-82
GR-3 DATED 2-5-82

SUPPLEMENTAL SPECIFICATIONS

803 DATED 5-27-83

853 DATED 6-26-78
861 DATED 9-9-83
956 DATED 6-26-78
961 DATED 9-9-83

DESIGN SPECIFICATIONS

THE REPAIR OF THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF HIGHWAY OFFICIALS, 1977, INCLUDING THE 1978, 1979, 1980, 1981, 1982 AND 1983 INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN DATA

EXISTING STRUCTURE DESIGN LOADING OF H-15-33 IS UNCHANGED.
REINFORCING STEEL - ASTM A615, A616, A617; GRADE 40 - UNIT STRESS 20,000 PSI.
CLASS S CONCRETE - UNIT STRESS 1500 PSI (SUPERSTRUCTURE).
DECK PROTECTION METHOD - MEMBRANE WATERPROOFING AND ASPHALT CONCRETE OVERLAY.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE 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 A 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 AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD. PLANS OF THE EXISTING STRUCTURE INCLUDING STANDARD DRAWINGS AS-35, B-45-35, BD-35 and BSK-35 ARE AVAILABLE FOR EXAMINATION AT THE ODOT DISTRICT 12 OFFICE IN GARFIELD HEIGHTS, OHIO.

○ *Will-Seal may require different foam seal sizes to facilitate installation, Consult with manufacturer for proper seal sizes to produce a water tight joint.*

SEQUENCE OF OPERATIONS

I. IMPLEMENT PHASE I MAINTENANCE OF TRAFFIC INCLUDING THE INSTALLATION OF THE TEMPORARY CONCRETE BARRIER.

II. PERFORM CONSTRUCTION PHASE I WORK ON THE NORTH SIDE IN THE FOLLOWING ORDER:
   A. REMOVE THE ASPHALT WEARING COURSE FROM THE DECK, AND APPROACH SLABS.
   B. REMOVE THE BRIDGE RAIL, BRIDGE TERMINAL ASSEMBLIES, GUARDRAIL, BACKWALLS, SCUPPERS AND SEPARATE CONCRETE WEARING COURSE.
   C. BUILD BACKWALLS, PORTIONS OF APPROACH SLABS, AND PATCH THE DECK.
   D. PREPARE THE DECK AND PLACE THE SUPERPLASTICIZED DENSE CONCRETE OVERLAY.
   E. INSTALL ALL JOINT SEALS.
   F. PATCH CONCRETE SURFACES WITH SUPERIOR BONDING MATERIALS.
   G. EPOXY SEAL CONCRETE SURFACES.
   H. INSTALL BRIDGE RAIL, BRIDGE TERMINAL ASSEMBLIES, AND GUARDRAIL.
   I. PLACE WATERPROOFING.
   J. PLACE 404 ASPHALT CONCRETE ON THE BRIDGE AND APPROACH SLABS.

III. REMOVE THE PHASE I MAINTENANCE OF TRAFFIC SYSTEM AND IMPLEMENT PHASE II INCLUDING RELOCATING THE TEMPORARY CONCRETE BARRIER.

IV. PERFORM CONSTRUCTION PHASE II WORK ON THE SOUTH SIDE IN THE SAME ORDER AS CONSTRUCTION PHASE I.

V. PERFORM ITEMS OF WORK NOT SPECIFICALLY ORDERED AS APPROPRIATE THROUGHOUT THE CONSTRUCTION OPERATIONS.

VI. PLACE PAVEMENT MARKINGS AND OPEN THE HIGHWAY TO TRAFFIC.

ITEM 202 - PORTIONS OF STRUCTURES REMOVED

WORK TO BE PAID FOR UNDER THIS ITEM SHALL INCLUDE THE REMOVAL OF STRUCTURAL COMPONENTS AS DETAILED IN THE PLANS. THESE REMOVALS ARE INCLUDED IN BUT NOT NECESSARILY LIMITED TO THE FOLLOWING LIST:

1. PORTIONS OF APPROACH SLAB INCLUDING CURBS (34 S.Y.).
2. BACKWALLS (15 C.Y.).
3. 3" DEEP SAW CUT IN APPROACH SLABS (90 L.F.).
4. UNSOUND DIAPHRAGM CONCRETE.
5. 3-1/2" SEPARATE CONCRETE WEARING SURFACE INCLUDING CURBS (241 S.Y.).
6. SCUPPERS (4 EA.).
7. CONCRETE BRIDGE RAILING (97 L.F.).

REMOVAL OF THE CONCRETE DIAPHRAGMS SHALL INCLUDE ALL LOOSE, SOFT, HONEY-COMBED AND DISINTEGRATED CONCRETE PLUS ONE-FOURTH INCH DEPTH OF SOUND CONCRETE. ALL WORK SHALL BE DONE IN SUCH A MANNER AS TO NOT DAMAGE OR SHATTER THE CONCRETE THAT IS TO REMAIN AND TO PREVENT THE REINFORCING STEEL THAT IS TO REMAIN FROM BEING CUT, ELONGATED, OR DAMAGED IN ANY WAY. ONLY PNEUMATIC OR HAND TOOLS THAT WILL GIVE RESULTS SATISFACTORY TO THE ENGINEER SHALL BE USED IN THE REMOVAL OF THE DISINTEGRATED CONCRETE AND IN PREPARING AND SHAPING THE AREA TO BE REPAIRED. EXTREME CARE SHOULD BE TAKEN WHEN REMOVING UNSOUND CONCRETE SO AS TO NOT DAMAGE THE T-BEAM. ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 12 BRIDGE DEPARTMENT

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STRUCTURE NOTES AND ESTIMATED QUANTITIES

BRIDGE LAK-20-2976
OVER ARCOLA CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EJA	PJM	PJM	DWL	GWM	7-2-84	

Rev. 9-13-84 RLE