

PROPOSED WORK

1. RETROFIT FATIGUE-PRONE DETAILS
2. TREAT DECK WITH HMW RESIN
3. PLUG SCUPPERS AT PIERS, EXTEND REMAINING SCUPPERS
4. SEAL CONCRETE SURFACES
5. PAINT STRUCTURAL STEEL
6. REPAIR OR MODIFY GUARDRAIL TERMINAL ASSEMBLIES

LIMITATIONS OF OPERATIONS

1. THE BRIDGE DECK TREATMENT WITH HMW RESIN SHALL NOT BE PERFORMED WITHIN THE TIME PERIOD BEGINNING NOVEMBER 1ST AND ENDING MARCH 31ST.
2. NO CONCRETE PATCHING, CONCRETE SEALING, OR PAINTING OF STRUCTURAL STEEL SHALL BE PERFORMED DURING THE PERIOD BEGINNING NOVEMBER 1ST AND ENDING MARCH 31 ST.

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, 105.02 AND 513.02.

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 EXISTING STRUCTURES ARE AVAILABLE FOR EXAMINATION AT THE OHIO DEPARTMENT OF TRANSPORTATION; DISTRICT 12 OFFICE; 10100 BROADWAY AVENUE; GARFIELD HEIGHTS, OHIO.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

RIGHT-OF-WAY

ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY.

UTILITIES

THE CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO SECTION 105.06 OF THE CMS.

PENCIL SANDBLASTING

THE PENCIL SANDBLASTING REFERRED TO BY THE VARIOUS REPAIR ITEMS IN THESE PLANS SHALL CONFORM TO THE FOLLOWING:

THE DESIGNATED NON-DESTRUCTIVE TESTING (NDT) AREAS SHALL BE CLEANED OF ALL PAINT, RUST, AND FOREIGN MATERIALS BY ABRASIVE BLASTING TO A SURFACE QUALITY EQUAL TO PREPARATION GRADE SA 2 1/2. SINCE THE INTENT OF THE PENCIL SANDBLASTING IS TO ENHANCE THE VISUAL AND NDT CRACK DETECTION TECHNIQUES PERFORMED UPON THE STRUCTURAL STEEL, A GENTLE SANDBLAST SHALL BE USED SUCH THAT THE SURFACE IS NOT PEENED OR OTHERWISE COLD WORKED. THE SANDBLASTING SHALL BE PERFORMED USING A MAXIMUM COMPRESSED AIR PRESSURE OF 100 PSI, A HOSE NOZZLE DIAMETER OF 1/16 INCH AND A GRADE OF SANDBLASTING SAND AS FINE AS POSSIBLE. SANDBLASTERS USED FOR SURFACE PREPARATION FOR STRUCTURAL STEEL COATING CANNOT BE USED FOR PENCIL SANDBLASTING.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER PRIOR TO THE START OF THE RETROFIT WORK THAT HE CAN SATISFACTORILY PERFORM PENCIL SANDBLASTING ACCORDING TO THESE SPECIFICATIONS. COST OF PENCIL SANDBLASTING HAS BEEN INCLUDED FOR PAYMENT WITH THE RETROFIT ITEMS.

NON-DESTRUCTIVE TESTING

CONTRACTOR'S PERSONNEL PERFORMING NON-DESTRUCTIVE TESTING SHALL BE QUALIFIED AS PER 513.21 OF THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

ITEM SPECIAL - PENCIL SANDBLASTING, GRINDING AND NDT

THIS WORK SHALL CONSIST OF THE FOLLOWING SEQUENCE OF OPERATIONS PERFORMED AT A SUSPECTED CRACK LOCATION AS DIRECTED BY THE ENGINEER:

1. CLEAN THE SUSPECTED CRACK AREA BY PENCIL SANBLASTING THE PAINT AND/OR RUST FROM THE SURFACE OF THE PLATES AND ADJACENT WELDS (APPROXIMATELY A 12-INCH BY 12-INCH AREA).
2. THE ENGINEER, ACCOMPANIED BY THE CONTRACTOR, SHALL CAREFULLY VISUALLY INSPECT THE CLEANED AREA. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE INVESTIGATION FOR CRACK PRESENCE. ALL GRINDING MUST BE DONE CAUTIOUSLY ESPECIALLY IN TENSION ZONES.
3. THE CONTRACTOR SHALL NON-DESTRUCTIVELY TEST (NDT) THE AREA USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRANT SO THAT THE ENGINEER MAY FURTHER INSPECT FOR CRACKS.
4. ALL CRACKS AND/OR CRACK TIPS THAT ARE ACCESSIBLE SHALL BE REMOVED ACCORDING TO, AND PAID FOR UNDER, ITEM SPECIAL - DRILLING STRUCTURAL STEEL, AND ANY CRACKS INACCESSIBLE TO DRILLING SHALL BE REMOVED BY CAREFUL GRINDING OR BY CAREFULLY ENLARGING THE DRILLED HOLES BY GRINDING.
5. PERFORM THE STEP 1 THROUGH STEP 4 OPERATIONS ON THE OTHER SIDE OF THIS LOCATION. NO LOCATION SHALL BE LEFT INCOMPLETELY RETROFITTED OVERNIGHT.

THE ACCEPTED NUMBER OF RETROFITS AS DESCRIBED IN THIS NOTE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LOCATION, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR AND EQUIPMENT TO CLEAN, GRIND AND PERFORM NDT ON BOTH SIDES OF THE SUSPECTED CRACK LOCATION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID UNDER:

ITEM	UNIT	DESCRIPTION
SPECIAL	EACH	PENCIL SANDBLASTING, GRINDING AND NDT

DRILLING STRUCTURAL STEEL

THIS WORK SHALL CONSIST OF DRILLING CRACKS AND ENDS OF CRACKS, GRINDING AND NON-DESTRUCTIVE TESTING USING BOTH DYE PENETRANT AND MAGNETIC PARTICLE EXAMINATION AS DIRECTED BY THE ENGINEER.

CONTRACTOR'S PERSONNEL PERFORMING NON-DESTRUCTIVE TESTING SHALL BE QUALIFIED AS PER 513.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

HOLES SHALL BE DRILLED TO REMOVE ENTIRE CRACKS OR THE APPARENT ENDS OF THE CRACKS REVEALED BY THE NON-DESTRUCTIVE TESTING AND VISUAL INSPECTION PERFORMED UNDER RETROFIT WORK ITEMS. THE EXPOSED CIRCUMFERENCE OF EACH DRILLED HOLE SHALL BE GROUND SMOOTH AND CAREFULLY INSPECTED FOR CRACKS USING NON-DESTRUCTIVE TESTING. DRILLING, GRINDING AND TESTING SHALL CONTINUE UNTIL ALL CRACKS OR CRACK ENDS ARE REMOVED. WHEN NO CRACKS ARE DETECTED NO HOLES SHALL BE DRILLED UNDER THIS ITEM.

THE DETAILS SHOW WHERE TYPICAL CRACKS MAY BE ENCOUNTERED. SINCE ANY OF THESE CRACKS COULD PROPAGATE INTO THE TENSION FLANGE REMOVING THEIR ENDS IS IMPERATIVE. CRACKS LESS THAN 1 1/2" LONG OR CRACKED AREAS LESS THAN 1 1/2" IN DIAMETER SHALL BE REMOVED BY A SINGLE HOLE WHEN PRACTICAL. ENDS OF CRACKS LONGER THAN 1 1/2" SHALL BE DRILLED WITH 1" DIAMETER HOLES. HOLES SHALL BE CAREFULLY EXAMINED FOR WEB CRACKS IN THE PLANE OF THE WEB. THE LOCATION OF ALL HOLES SHALL BE DETERMINED BY THE ENGINEER AND DRILLED UNDER HIS DIRECTION.

ITEM	UNIT	DESCRIPTION
SPECIAL	EACH	DRILLING STRUCTURAL STEEL (1" DIAMETER HOLE)
SPECIAL	EACH	DRILLING STRUCTURAL STEEL (1 1/4" DIAMETER DIAGONAL HOLE)
SPECIAL	EACH	DRILLING STRUCTURAL STEEL (1 1/2" DIAMETER HOLE)
SPECIAL	EACH	DRILLING STRUCTURAL STEEL (2" DIAMETER HOLE)

PROTECTION OF PUBLIC

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE SCHEDULE OF CONSTRUCTION OPERATIONS ALONG WITH PLANS DETAILING AND ILLUSTRATING HIS PROPOSED METHODS FOR PREVENTING OBJECTS FROM FALLING ON THE ROADWAY BELOW. THESE PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO COMMENCING THE WORK. NO REMOVAL SHALL BE STARTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

IF THE CONTRACTOR'S PLANS FOR PREVENTING DEBRIS, MATERIALS AND EQUIPMENT FROM FALLING ON THE ROADWAY BELOW ARE DEEMED INADEQUATE BY THE ENGINEER, CLOSURES TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE REQUIRED AT NO ADDITIONAL COST TO THE STATE.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 12 BRIDGE DEPARTMENT				
GENERAL NOTES				
BRIDGE NO. LAK-528-0192 OVER THE GRAND RIVER				
LAKE COUNTY				OHIO
DESIGNED DCP DATE	TRACED DCP DATE	CHECKED DUL DATE	REVIEWED GWM DATE 3/18/87	REVISED
				SHEET 4/13