

ADDENDUM NO. 1

ISSUED BY: Howe Company LLC  
804 E. Patton Street  
Macon, MO 63552

*Adam [Signature]*  
2-21-2024

DATE: FEBRUARY 21, 2024

FOR: SHELBY COUNTY BRIDGE 11200041  
BRO-R102(24)

The attached revisions hereby supersede any and all data with which they may conflict as indicated on the Drawings, Specifications and related documents issued in the original set. Each trade is responsible for changes in its work caused by changes in the work of other trades. This addendum is a part of and shall be attached to the original set of plans and specifications for the work.

THIS ADDENDUM SHALL BECOME A PART OF THE SPECIFICATIONS NOTED ABOVE. RECEIPT OF THIS ADDENDUM SHOULD BE ACKNOWLEDGED ON THE BID FORM.

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The piling shall be HP12x53, galvanized full length.

**New Sheet 2.** An updated sheet 2 (revised 2-21-2024) is issued with this addendum to replace the existing sheet 2 and provide consistency throughout the plans.

There is no change in bid opening date or time.

**FOUNDATION DATA TABLE**

BENT NO.		1	2	3	4
NUMBER OF PILING	EACH	4	6	6	4
APPROXIMATE LENGTH	FT.	39	39	39	39
DESIGN BEARING	TONS	47	64	64	47
MINIMUM TIP ELEVATION	FT.	602.71	677.00	677.00	602.71
ESTIMATED TIP ELEVATION	FT.	575.21	575.21	575.21	575.21
CUT OFF ELEVATION	FT.	614.21	614.21	614.21	614.21
MINIMUM HAMMER ENERGY	FT. LBS.	8,000	14,000	14,000	8,000

**UTILITY CONTACT INFORMATION:**

THERE ARE NO KNOWN UTILITIES WITHIN THE PROJECT LIMITS

**MATERIAL NOTES**

BRIDGE SUBSTRUCTURE CONCRETE: MODOT CLASS B-1  
 f<sub>c</sub>= 4000 PSI MINIMUM  
 MAX. SLUMP= 4" (6" WITH WATER REDUCER)  
 AIR CONTENT= 5% MINIMUM  
 BRIDGE SUPERSTRUCTURE CONCRETE: MODOT CLASS B-2 or MODOT CLASS MB-2  
 f<sub>c</sub>= 4000 PSI MINIMUM  
 MAX. SLUMP= 3" CLASS B-2, 6" CLASS B-2 (WITH WATER REDUCER), 6" CLASS MB-2  
 AIR CONTENT= 5% MINIMUM

**HYDROLOGIC DATA**

EXISTING BRIDGE DECK ELEV.	FT.	614.84
DRAINAGE AREA	SQ. MI.	332
DESIGN FREQUENCY	YEARS	100
DESIGN DISCHARGE	CFS.	22,700
DESIGN HIGH WATER AT THE STRUCTURE	FT.	613.67
LOW ELEVATION OF SUPERSTRUCTURE	FT.	615
100 YEAR DISCHARGE	CFS.	22,700
100 YEAR HIGH WATER ELEVATION AT THE STRUCTURE	FT.	613.67

**GENERAL NOTES**

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 2" UNLESS SHOWN OTHERWISE.  
 USE WRITTEN DIMENSIONS WHEN PRESENT. IF NO DIMENSIONS ARE GIVEN CONSULT WITH ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH WORK. DO NOT USE SCALED DIMENSIONS UNLESS A SCALE IS PROVIDED.  
 DIGITAL CAD FILES WILL NOT BE PROVIDED TO THE CONTRACTOR FOR SURVEYING AND STAKING.

**PROJECT NOTES**

THIS PROJECT HAS BEEN GRANTED VARIOUS ENVIRONMENTAL PERMITS AND CLEARANCES. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL PERMIT CONDITIONS.  
 THE CONTRACTOR SHALL REMOVE THE EXISTING WOODEN BRIDGE DECK WITH CARE AND LOAD THE SALVAGED WOODEN DECKING ONTO A COUNTY FURNISHED TRAILER. THE REMAINDER OF THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.  
 THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE PIERS UNTIL THE BRIDGE DECK IS IN PLACE.

**PROJECT SPECIFICATIONS**

MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - 2023  
 SUPPLEMENTAL SPECIFICATIONS SHALL PREVAIL OVER STANDARD SPECIFICATIONS WHEN IN CONFLICT. SUPPLEMENTAL SPECIFICATIONS CAN BE FOUND IN THE PROJECT MANUAL.  
 JOB SPECIAL PROVISIONS (JSP) SHALL PREVAIL OVER STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS WHEN IN CONFLICT. JSP'S CAN BE FOUND IN THE PROJECT MANUAL.

**DESIGN CODE**

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH ED. - 2002

**DESIGN LOADING**

H20, 3S2, HS20-44  
 SEISMIC PERFORMANCE CATEGORY A. SEISMIC ACCELERATION COEFFICIENT 0.075  
 EARTH 120 PCF, EQUIVALENT FLUID PRESSURE 30 PCF  
 25 PSF FUTURE WEARING SURFACE  
 SUPERSTRUCTURE - SIMPLY SUPPORTED, NON-COMPOSITE FOR DEAD LOAD. CONTINUOUS, COMPOSITE FOR LIVE LOAD AND SUPERIMPOSED DEAD LOADS.

**REINFORCING STEEL:**

f<sub>y</sub>=60,000 PSI (GRADE 60)

**STEEL PILING:**

H-PILING, ASTM A709 (GRADE 50) F<sub>y</sub>=50,000 PSI (GALVANIZED) PER AASHTO M111/ASTM A123

**BOLTS (NON-ANCHOR):**

ASTM A325. BOLTS, NUTS, AND WASHERS SHALL BE HOT DIP GALVANIZED ACCORDING TO AASHTO M232/ASTM A153 OR MECHANICALLY GALVANIZED PER ASTM B695, CLASS 55.

**ANCHOR BOLTS (CAST-IN-PLACE):**

ASTM A307. ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE HOT DIP GALVANIZED ACCORDING TO AASHTO M232/ASTM A153 OR MECHANICALLY GALVANIZED PER ASTM B695, CLASS 55.

**BEARING PADS:**

BEARINGS SHALL BE PLAIN, 60 DUROMETER, NEOPRENE.

**PILING NOTES:**

MINIMUM ENERGY REQUIREMENT OF HAMMER IS BASED ON PLAN LENGTH AND DESIGN BEARING VALUES OF THE PILING.  
 H-PILING SHALL CONSIST OF HP12X53 ROLLED STEEL SECTIONS

THE CONTRACTOR SHALL INSTALL CAST STEEL DRIVING POINTS ON ALL PILES. THE CAST STEEL POINTS SHALL BE ASTM A27 65-35 OR BETTER. COSTS OF PROVIDING AND INSTALLING PILE TIP REINFORCEMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM, "PILE POINTS." PILE POINTS NEED NOT BE GALVANIZED.  
 NO PAYMENT WILL BE MADE FOR SPLICES WITHIN THE PLANNED LENGTH OF THE PILING. NO PAYMENT WILL BE MADE FOR PILING DAMAGED DUE TO DRIVING OPERATIONS.

SPLICE LOCATIONS, IF NECESSARY, SHALL BE DETERMINED BY THE CONTRACTOR. SPLICES WITHIN THE GALVANIZED PORTION SHALL BE FIELD GALVANIZED. THE FINAL INSTALLED QUANTITY OF PILING WILL BE MEASURED FROM TIP TO CUTOFF.

**LEAD PAINT:**

PAINT ON THE EXISTING STRUCTURE TO BE REMOVED BY THE CONTRACTOR HAS TESTED POSITIVE FOR LEAD CONCENTRATIONS HIGH ENOUGH TO BE CONSIDERED HAZARDOUS.

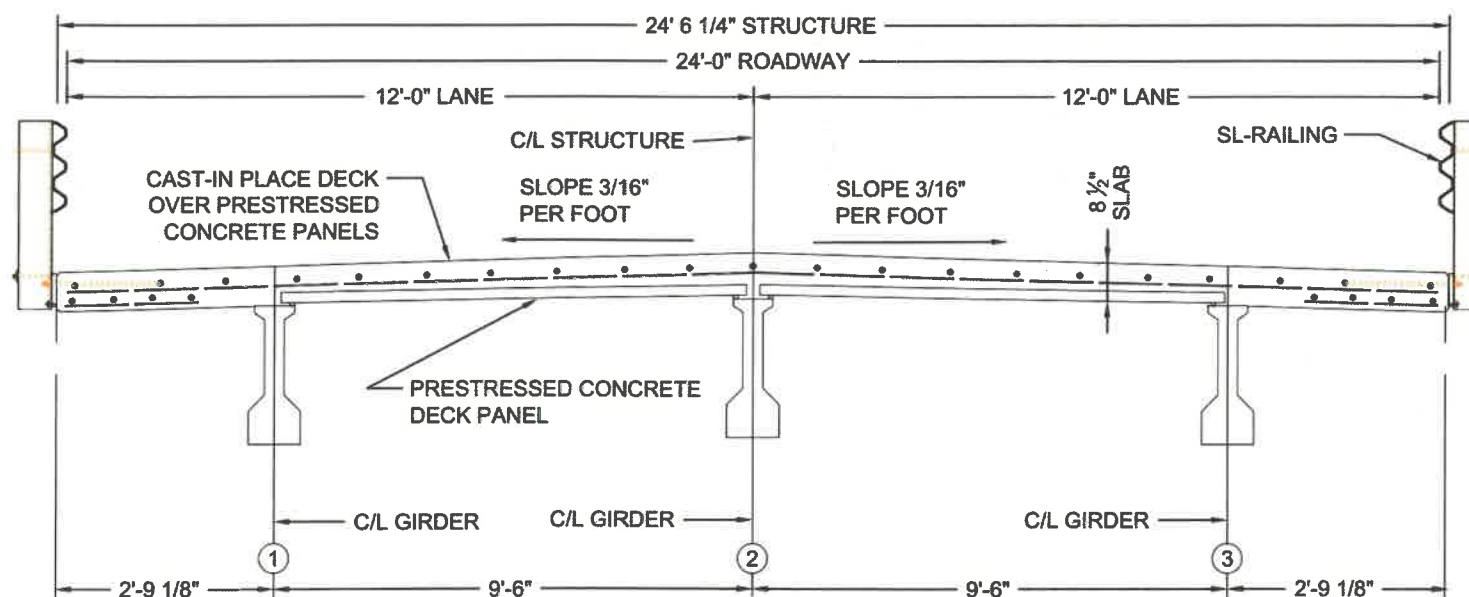
**WORK TO BE PERFORMED BY CONTRACTOR**

ITEM	DESCRIPTION - ROADWAY ITEMS	UNITS	EST. QTY.
201	CLEARING AND GRUBBING	ACRE	1.83
202	REMOVAL OF IMPROVEMENTS	L.S.	1
203	UNCLASSIFIED EXCAVATION	C.Y.	484
203	EMBANKMENT IN PLACE	C.Y.	4,376
310	4" THICK LAYER ROADWAY AGGREGATE	S.Y.	1,636
606	MGS GUARDRAIL SYSTEM (6'-3" POST SPACING)	L.F.	50
606	GUARDRAIL TRANSITION SECTION	EACH	4
606/JSP	CRASHWORTHY END TERMINAL	EACH	4
611.30	FURNISHING TYPE 2 ROCK BLANKET	C.Y.	817
611.30	PLACING TYPE 2 ROCK BLANKET	C.Y.	817
616	MOVABLE BARRICADES	EACH	4
616	CONSTRUCTION SIGNS	S.F.	45
616	SIGN POSTS	L.F.	50
618	MOBILIZATION	L.S.	1
624	MODOT PERM. EROSION CONTROL FABRIC	S.Y.	1,369
627	SEEDING	ACRE	1.10
805/JSP	CONTRACTOR SURVEYING & STAKING	L.S.	1
806	SILT FENCE	L.F.	854

**BRIDGE ITEMS**

	DESCRIPTION	UNITS	EST. QTY.
206	EXCAVATION FOR STRUCTURE	L.S.	1
216	REMOVAL OF BRIDGE	L.S.	1
501	CLASS B-1 SUBSTRUCTURE CONCRETE	C.Y.	123
501	CLASS B-2 SUPERSTRUCTURE CONCRETE	C.Y.	117
702/JSP	HP12X53 (GALVANIZED)	L.F.	780
702	PILE POINT	EACH	20
705	PRESTRESSED CONCRETE DECK PANELS	S.Y.	276
705	CONCRETE TYPE III I-GIRDERS (SPAN 1-2)	EACH	3
705	CONCRETE TYPE III I-GIRDERS (SPAN 2-3)	EACH	3
705	CONCRETE TYPE III I-GIRDERS (SPAN 3-4)	EACH	3
706	REINFORCING STEEL	LBS.	40,096
713	TYPE SL-1 RAILING	L.F.	316.66
716	PLAIN NEOPRENE BEARING PADS (1/2")	EACH	18

\* THESE ITEMS REQUIRE CERTIFICATION/SHOP DRAWINGS/SUBMITAL.



SECTION THRU STRUCTURE - MODOT TYPE III GIRDERS

NTS

REVISED 2-21-24



2-21-2024

FOUNDATION DATA	2-21-24	APL	Appr.
1			



MISSOURI STATE CERTIFICATE OF AUTHORITY  
 ENGINEERING #E-2014014693  
 SURVEYING #LS-2014015258  
 GENERAL NOTES & QUANTITIES SHEET  
 OFF SYSTEM BRIDGE REPLACEMENT  
 CART ROUTE NO. 112, COUNTY RD. 177  
 BRIDGE NO. 11200041, BRO-R102(24)  
 SHELBY COUNTY, MISSOURI  
 HOWE COMPANY, LLC  
 804 E. PATTON STREET, MACON, MO. 63552  
 OFFICE: 660-395-4693

DATE:	AUGUST 2023
DESIGNED BY:	A. LUKEFAHR
DRAWN BY:	E. RIST
REVIEWED BY:	A. LUKEFAHR
APPROVED BY:	A. LUKEFAHR
JOB NO.	22H3475
SHEET	2 OF 32