

A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: August 19, 2014
Date of Addendum: August 5, 2014

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
004	35-C035-085	RECONSTRUCTION – BRIDGE DECK REPLACEMENT	FRANKLIN	STP-E-C035(85)--8V-35	19AUG004.A01

Please REPLACE plan sheets C.01 & V.03 with the attached plan sheets:

1. Sheet C.01, item 0020 ESTIMATE REFERENCE INFORMATION changed gradation from 21 to gradation 22 which allows fines
2. Sheet V.03, added note that Railing Section should be 54" tall. Removed requests for design calculations and requesting shop drawings and calculations from Wheeler Lumber be provided by the contractor. Also removed the LRFD reference and added that the bridge sub and super structures have been analyzed for the design loadings of H10 and 85 psf LL.

100-1C

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM CODE	ITEM	QUANTITIES	
			UNIT	Total
0010	2115-0100000	Modified Subbase	C.Y.	1445.2
0020	2312-8260250	Granular Surfacing on Road, Crushed Stone	Ton	1293.7
0030	2524-9275100	Wood Posts for Type A or B Signs, 4 in. x 4 in.	S.F.	302.00
0040	2524-9325001	Type A Signs, Sheet Aluminum	S.F.	99.00
0050	2528-8445110	Traffic Control	S.F.	1,000
0060	2529-8445113	Flagger	Ec.	4,000
0070	2533-4980005	Mobilization	L.S.	1,000
0080	2599-9999009	Railroad Retrofit, Timber Recreation, Timber Deck Panel System	L.F.	285,000

100-4A

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
0010	2115-0100000	MODIFIED SUBBASE Material meeting Gradation 14, Iowa Department of Transportation Standard Specifications See Typical section 7402 and 7403 sheet B.01 for details.
0020	2312-8260250	GRANULAR SURFACING ON ROAD, CRUSHED STONE Shell meet IDOT Gradation 22, 1 inch depth. See Typical 7403 sheet B.01.
0030	2524-9275100	WOOD POSTS FOR TYPE A or B SIGNS, 4 in. x 4 in.
0040	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM Refer to sheet C.05 for station location and sign type. Refer to sheet N.01 for signs types, placement and location detail
0050	2528-8445110	TRAFFIC CONTROL See Sheet C.02 for Plan and requirements
0080	2599-9999009	RAILROAD RETROFIT TIMBER RECREATIONAL TIMBER DECK PANEL SYSTEM See Sheet V.01, V.02 and V.03 for Plan and requirements. This item will be measured in Lh. Ft. of bridge panels placed. Basis of payment will be per plan for retrofit bridge panels.

RAILROAD RETROFIT TIMBER DECK PANEL SYSTEM

GENERAL

SCOPE

- A. The Contractor shall be responsible for furnishing and installing Wheeler Lumber or Bloomington, MN Railroad Retrofit Timber Deck Panel Railroad Retrofit Timber Deck Panel System to be installed on existing bridge superstructure.
- B. The Contractor is not responsible for the condition or capacity of the existing structure and is not required to perform any inspection or analysis of its remaining components. Substructure and Superstructure was analyzed for live loads and deck system shown in Design section. Contractor shall be responsible for removal of existing railroad ties and hardware and disposal or storage according to plan sheets.
- C. Payment for Railroad Retrofit Timber Deck Panel System shall be compensation in full for all costs of providing Wheeler's design and plans, supply, fabricating, and installation for Transverse Timber Deck Panel System. Price also includes removal and disposal of existing railroad ties above the superstructure.

UNIT PRICES

- A. Iowa DOT Standard Specification Shall Apply.
- B. AASHTO Design Specifications for Highway Bridges – current edition and Interims

REFERENCES

- A. Iowa DOT Standard Specification Shall Apply.
- B. AASHTO Design Specifications for Highway Bridges – current edition and Interims

DESIGN

RAILROAD RETROFIT DECK PANEL SYSTEM

- A. Transverse deck panels shall be dowel-laminated. Deck shall be comprised of multiple panels. Ship-lapped joint connections between adjacent panels must be provided. Glue-laminated panels will not be allowed.
- B. Design shall be in accordance with AASHTO Bridge Design specification, all current Interims and the following criteria:
 - 1. Bridge dimensions:
 - a. All dimensions of existing structure relative to deck system shall be field verified by the Contractor prior to final design.
 - 2. All dead loads, applied dead loads, live loads, and wind loads as specified in the AASHTO specification.
 - 3. Live loads:
 - a. Design load shall be 20,000 pound vehicle (H10) and/or live load of 85 psf applied to entire deck surface whichever is more restrictive. Include additional dead load of 2 ½ inches of HMA. Substructure has been analyzed for loading.
 - 4. Deflection requirements according to AASHTO
 - 5. Individual panel dimensions shall be determined by manufacturer.
 - 6. Panel thickness, species and grade of timber shall be determined by manufacturer.
 - 7. Design and supply of materials for proper transverse deck panel connection to existing bridge superstructure shall be the responsibility of the manufacturer.

TIMBER RAILING

- A. Timber rail system shall be included as part of Transverse Timber Deck Panel System.

- B. Connection of rail components must be to the transverse deck panels only. No connection of rail components to existing super- or substructure will be permitted.
- C. Timber rail height shall be 54" from top of deck to top of rail.

MATERIALS

STRUCTURAL TIMBER

- A. This section shall include only such lumber and timber, as is part of the completed work. It shall not include falsework, forms, bracing, sheathing or other lumber and timber used for erection purposes.
- B. Glue laminated timber shall be manufactured using wet use adhesives. Knotholes and holes from causes other than knots shall be measured and limited as provided for knots. All visible pieces of lumber and timber having knots that are unsightly in appearance shall be rejected. Cluster knots and knots in groups are not permitted.
- C. Only pieces consisting of sound wood free from any form of decay shall be accepted. No piece of exceptionally lightweight shall be accepted.

PRESERVATIVE TREATMENT

- A. This section covers the wood preservatives and the preservative treatment of lumber and timber conforming to the Specifications as referenced or otherwise specified in the plans or special provisions. Temporary bracing shall not require preservative treatment.
- B. Lumber and timber shall be pressure treated with Copper Naphthenate.

SUBMITTALS

PLANS AND CALCULATIONS

- A. Shop Drawings and calculations of the railroad retrofit timber deck panel system shall be supplied from Wheeler Lumber, sealed by a professional engineer licensed in the State of Iowa and experienced in timber bridge design. Calculations shall verify species, size and grade of materials to be used in the manufacture of transverse dowel-laminated deck panels

QUALITY ASSURANCE

MANUFACTURE

- A. All material shall be well manufactured. All lumber and timber shall be straight, well sawed, sawed squared at ends and have opposite surfaces parallel unless otherwise required by the plans and specifications.
- B. Deck panels shall be assembled with 3/8" diameter ring shank dowels. All dowels are to be simultaneously driven with equal force using a mechanical press the full length of the deck, ensuring all heads are flush with the surface of the timber plank. Multiple impact tools are not to be used to set dowels because of potential for wood fiber rupture.
- C. Deck panels to be delivered to jobsite after being fully assembled at fabrication plant.
- D. All plank for deck panels shall be precision end trimmed to length with ½" underlength and no overlength tolerance permitted.

WORKMANSHIP

- A. Workmanship shall be first class throughout. Nails and spikes shall be driven with sufficient force to set the heads flush with the surface of the wood, thus ensuring the surface shall be free from deep or frequent hammer marks.
- B. Proper pre-drilling of holes for screws, nails, spikes, lags or bolts where necessary to avoid splitting of timber will be required.