CHAMP CLARK BRIDGE
STEM & COMMUNITY OUTREACH SUCCESS
Project Location

• One of 16 vehicular bridges over the Mississippi River between Missouri and Illinois
• One of four vehicular bridges connecting Missouri and Illinois north of the St. Louis metropolitan area (Hannibal & Quincy)
• One way detour of 77 miles via Hannibal and 183 miles via Alton
Project Needs
Other Project Needs
Choosing Design-Build

- TIGER Grant award had to be obligated by September 2017
- Guaranteed Budget
- Opportunity for Innovation
- Opportunity for faster construction schedule
- Provided IDOT an opportunity to participate in a Design-Build Project
- MoDOT’s 12th Design-Build Project (first in the NE District)
Project Goals

• Meet or beat the project open to traffic date of November 1, 2019.
• Deliver a project on budget that supports everyday commuters and freight.
• Construct a safe, reliable, low maintenance Mississippi River Bridge that will provide at least a century of service.
• Minimize and mitigate construction impacts and maximize work zone safety to customers and workers.
• Deliver the project using a diverse workforce by use of innovative techniques.
• Demonstrate a commitment to quality.
RFP Requirements

• Contractor must participate in the Design Challenge for local high schools.
• Construct the winning design including a ribbon cutting ceremony.
• Develop bridge design or construction curriculum and meet with participating schools once a quarter.
• Facilitate, plan and schedule a STEM Summer Camp.
• Participate in two job fairs.
Massman Proposal Commitments

• Host three Job Fairs and/or networking events in the Louisiana area
• Host a monthly project update for the community
• Construct an overlook in Riverside Park
• Present three aesthetic retaining wall treatments and three color options for the community to vote on
• Use local businesses for office set up, janitorial service, catering and lumber
Massman Proposal

Commitments

Commitment to Community and Diversity

Massman is committed to:
✓ Community involvement
✓ Workforce diversity
✓ Use of local businesses
✓ Monthly job presentations and tours
✓ Project Facebook page
✓ Local/regional workforce

For the Champ Clark Bridge project, Massman participated in MoDOT’s November 2016 Champ Clark Career Fair (pictured below), along with DBE mixers and other outreach methods.
Massman Commitments Delivered

New overlook
Nearly 600 people weighed in on our public survey to select the texture and color for the new retaining wall.

It will be built near the bluff on the south side of the new bridge will be rosemary-colored and ledgestone patterned. An example of what the selected options will look like is below. Construction on the wall is expected to begin this spring.
Massman Commitments Delivered
Massman Commitments Delivered

The focus this month is to set deck panels on the new bridge, but because of the winter weather, it has been challenging,” said Missouri Department of Transportation Project Director, Keith Killen, PE.

The next update is scheduled for Saturday, February 23rd at 10 am at Riverview Park, weather permitting.
Massman Commitments Delivered
Summer Camps

The Champ Clark Bridge project team is facilitating a summer STEM Camp on July 10, 2018, for local students interested in engineering and potential careers in the construction industry.

The project team will give a presentation on the design and construction progress and lead students on a tour of the site.

Massman Construction Co. will provide personal protective equipment and safe access to observation areas where students can view construction progress and have questions answered by team members.

Students will also engage in hands-on engineering activities related to the construction of the new bridge and learn more about the construction industry and the different elements of a major river crossing.
Summer Camp
Job Site Tour for Students
Job Site Tour for Students
School Visits
Construction Career Day
Construction Career Day
Design Challenge – Why?

Environmental Assessment Commitment:

• If a viable reuse plan is presented for the bridge. FHWA, MoDOT, IDOT, and the SHPO will evaluate the plan to determine whether the Champ Clark Bridge can be preserved. If the bridge cannot be preserved, MoDOT will:

• Remove name plates and donate them to the City of Louisiana
• Take archival photographs and prepare a history of the bridge
• Prepare an interpretive panel on the history and engineering of the Champ Clark Bridge for installation in Riverside Park in Louisiana
• Prepare a short documentary video of the Champ Clark Bridge
Design Challenge – How?

• Invited area schools to participate – from both States
• Structured the Challenges to Match Design-Build Format
• Developed a simple Request for Proposals
• Provided Constructability & Maintainability Guidelines
• Provided a realistic budget – Why?
  – Because we are going to build the winning design!
  – To provide the students with real world challenges.
Design Challenge

The Missouri Department of Transportation is seeking teams of students from local high schools to design an interpretive panel depicting the history of the Champ Clark Bridge.

The selected team's panel design will be constructed in Riverside Park overlooking the new Champ Clark Bridge.

We are looking for many types of strengths for this design challenge, including engineering capabilities, artistic creativity, historical research abilities, and mathematical skills.

The design challenge will take place over the course of the spring 2018 semester. If you are innovative, creative, and hard-working, please see your school sponsor to express your interest.
Design Challenge Goals

• Delight the community with a design that best represents the history of the Champ Clark Bridge.

• Deliver a design that can be constructed on budget.

• Design a constructible and easily maintainable interpretive panel.
Design Challenge Location & Budget

• Budget = $7,500.00
• Location - Riverview Park, Louisiana, MO
Design Challenge - Schedule

• Jan. 11, 2018 – Intro to Challenge
• Jan. 29, 2018 - Issue RFP
• 1 on 1 Meetings:
  – Week of Feb. 20th
  – Week of March 19th
• April 6, 2018 - Final Requests for Clarifications
• Week of April 9th, 2018 - Presentations made & Proposals Due
• April 18th, 2019 – Showcase & Announcement Ceremony
• Week of April 23rd, 2018 – Debrief Meetings
Design Challenge – Scoring Categories

- Design & Use of Innovation (25 points)
- Historic Representation (20 points)
- Constructability (15 points)
- Maintainability (10 points)
- Price Allocation (20 Points)
- Oral Presentation (10 Points)

- We wanted to see the students creativity
- This is the “WHY” for the challenge!
- Ensure we can build it
- Ensure the City can maintain it
- Verifying accuracy & reasonableness
- A lesson in presentations for the students
## Champ Clark Bridge Historic Bridge Preservation Design Challenge

### DB 901 - PRICE ALLOCATION FORM

**Design Team:**

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**Materials**

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(Design Team to add rows as needed)

**Subtotal of Materials:** $ -

**Labor**

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(Design Team to add rows as needed)

**Subtotal of Labor:** $ -

**TOTAL PRICE:** $ -
Design Challenge - Communication

- Each team had access to a SharePoint site
- All information, forms, and data are shared on the site
- A question and answer forum was set up
  - Members of the Champ Clark Team answered the questions
  - Questions and answers were available for everyone to see
  - Questions can lead to changes in the RFP in the form of addendums
- Addendums to the RFP
  - RFP is revised, highlighted, and all teams are notified
Design Challenge - One on One Meetings

• Two 1 on 1 meetings were set up with each team for discussion with a third and final meeting for the presentation.
• What are these meetings for?
  – To see the design progress: conceptual, preliminary, to final
  – Provide feedback and insight to the design
  – Encourage the students be creative and innovative
  – Reign teams back in when needed
• Final Meeting (Presentation)
• All questions have been asked from the teams
• Sell us your design and clarify any questions we had
• The teams were scored at this time on their oral presentation
Final Meeting (Presentation)

• All questions have been asked from the teams

• Time for the students to sell their design and clarify any questions we had

• The teams were scored at this time on their oral presentation
Design Challenge Showcase
In 1926, planning began for the Champ Clark Bridge in order to improve trade and transportation between the east and west sides of the United States. The Pennsylvania-style bridge started construction in October later that year. The design was made by HNTB, and had structures built by the Illinois Steel Company and Missouri Valley Bridge. During Mississippi River construction, one of the spans fell into the still rests at the bottom of the river. This date for the bridge, but to be continued. After bridge was opened in June of the Great Depression, the compensation; the bridge Pike County. The bridge Beauchamp “Champ” Clark 1850. Champ Clark was a member of the U.S. House of Representatives for 26 years until 1920, and was a Speaker of the House between 1911 and 1919. He ran for president in 1912, but fell short to Woodrow Wilson. He died in March 2, 1921 and is now buried in the Bowling Green City Cemetery in Bowling Green, Missouri.
Design Challenge Winning Design
Design Challenge Winning Design

Hannibal teams 3D printed model
Stay Connected

- ChampClarkBridge.com
- Champ Clark Bridge Replacement Facebook Page
- MoDOT Northeast District Facebook Page
- Ox Blue Project Camera
QUESTIONS

https://youtu.be/RHJ-eJiqKuA