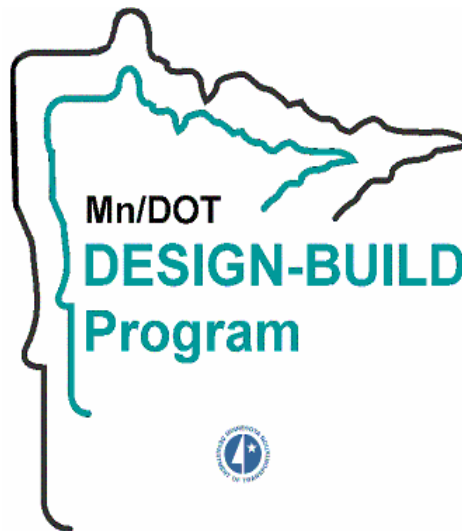


MINNESOTA DEPARTMENT OF TRANSPORTATION  
Metro Division

ST. ANTHONY FALLS (35W) BRIDGE DESIGN-BUILD PROJECT  
S.P. 2783-120  
E.R. MN 07(300)



Technical Review Committee  
Summary of Findings

**Flatiron – Manson**

*Disclaimer: The strengths and weaknesses provided on the following pages represent observations from the Technical Review Committee members based upon the contents of the Flatiron-Manson Technical Proposal. There is no relative weight factor for each comment and more comments do not necessarily reflect a proposal that is stronger or weaker. It was up to each Technical Review Committee scoring member to determine the significance of each strength and/or weakness.*

## **QUALITY**

### **Strengths**

- The proposed Project Management Team was very strong.
- The Project Manager (PM), Quality Manager (QM), Construction Manager (CM), Visual Quality Manager (VQM), and Public Information Coordinator (PIC) are all very experienced with relevant project experience and past working relationships.
- The past experience and working relationship was very evident during the oral interview.
- This team portrayed a strong likelihood of success on this project.
- The strong involvement of Design during the Construction phase was noteworthy.
- Figg will provide a Design Coordinator and two staff members during the Construction phase.
- The Bridge Geometry Quality Control was noted.
- Flatiron started a corporate quality effort in 1993 and they have a corporate Quality Management Plan with identified hold-points.
- During the oral interview, quality was discussed in all aspects of their work, including significant design QC/QA processes during the development of their design work for their Technical Proposal.
- The Safety Manager has experience with this type of work.
- Four additional safety staff will be onsite.
- Safety awards go to the workers.
- Team members have won significant safety awards as depicted in the proposal.
- The Quality Bonus program was noted.
- The Construction Quality program for the casting yard as discussed at the oral interview was a strength.
- The Quality Manager has the authority to Stop Work and has done so in the past.

### **Weaknesses**

- The weekly toolbox safety meetings should be more frequent.
- The past use of safety incentive programs was not evident.

## **AESTHETICS**

## **Strengths**

- Excellent relevant project references were provided.
- The background and experience of the Visual Quality Manger was very noteworthy.
- The arches, water, reflection theme was well thought-out and appropriate for this project.
- The Figg Design Charette process appears to be an extremely strong method to involve a targeted group of stakeholders into the bridge design process and gives them a sense of ownership of the bridge.
- The high point of the bridge was moved to the middle of the river bridge, providing aesthetic advantages.
- High level of commitments towards landscaping.
- The Technical Subcommittee highly recommended this team and their Visual Quality approach. There is a high likelihood of success for this project.

## **Weaknesses**

- None were identified by the Technical Subcommittee.

## **ENHANCEMENTS**

### **Strengths**

- Standard shoulder provided along southbound just south of University Avenue.
- Both the interim and ultimate profiles under University Ave. and 4<sup>th</sup> Street meet 55 mph sag criteria.
- High point of the profile was moved to the middle of the bridge providing drainage advantages.
- The Washington Avenue ramps meet the headlight sag criterion.
- The University Avenue ramps meet the headlight sag criterion.
- The Alternate Technical Concept for a 2% uniform cross slope improves the drivability of the auxiliary lanes.
- The grit chamber on the south end of the project shows a comprehensive review of drainage issues was undertaken.
- No pier placed within the 80-foot portal on the north end of the project.
- Compatible and convertible ultimate profile at the north end that meets the 3-foot lowering goal.

- Profile increases the interim clearance under University Avenue to 16'-4".
- The independent vertical profiles for Northbound and Southbound was viewed favorably.
- This bridge may have the lowest life-cycle costs to maintain the bridge.
- This bridge has the ability to increase the load carrying capacity by 10% in the future.
- This bridge has the ability to replace the post-tensioning strands.
- This bridge will have a remote monitoring system – “Smart Bridge.”
- Deck drains only provided at Pier #2.
- An Owner’s manual will be provided for inspection and maintenance.
- The Technical Subcommittee highly recommended this team and their approach to Geometric and Structural enhancements. There is a high likelihood of success for this project.

### **Weaknesses**

- The Southbound University Avenue ramp lacks a standard left bridge shoulder.
- Bridge rails between the Southbound mainline and the Southbound University Avenue ramp may hinder sight lines for merging.
- The grades at 2<sup>nd</sup> Street SE may exceed 5% as part of the lowering.
- Piers 2 and 3 are not inline and this could increase scour potential.

### **PUBLIC RELATIONS**

#### **Strengths**

- Todd Rapp is an experienced Public Information Coordinator (PIC) and has a strong public relations, transportation, and local background.
- The resources of Himlie-Horner are brought to the project.
- A seminar on Public Relations and Media Communications will be conducted with project team members, including Mn/DOT.
- A full-time Public Relations staff member at the project office that is employed by Flatiron.
- The Design Charette process with public involvement is very noteworthy.
- Sidewalk Superintendent talks.
- Bridge kiosks.
- Webcams.

- Educational outreach efforts for Minnesota schools and students.
- Smart Bridge technology.
- The targeted audience is defined very broadly and they appear to have a well thought-out public relations program.
- Figg staff has Dale Carnegie training.
- This team has won Public Relations awards as depicted in their proposal.
- Drilled shafts at 2<sup>nd</sup> Street SE are a benefit.
- The Visual Quality Manager is involved in the Public Relations effort.
- The Technical Subcommittee highly recommended this team for their approach to Public Relations. There is a high likelihood of success for this project.

### **Weaknesses**

- The nighttime noise impacts need further discussion.