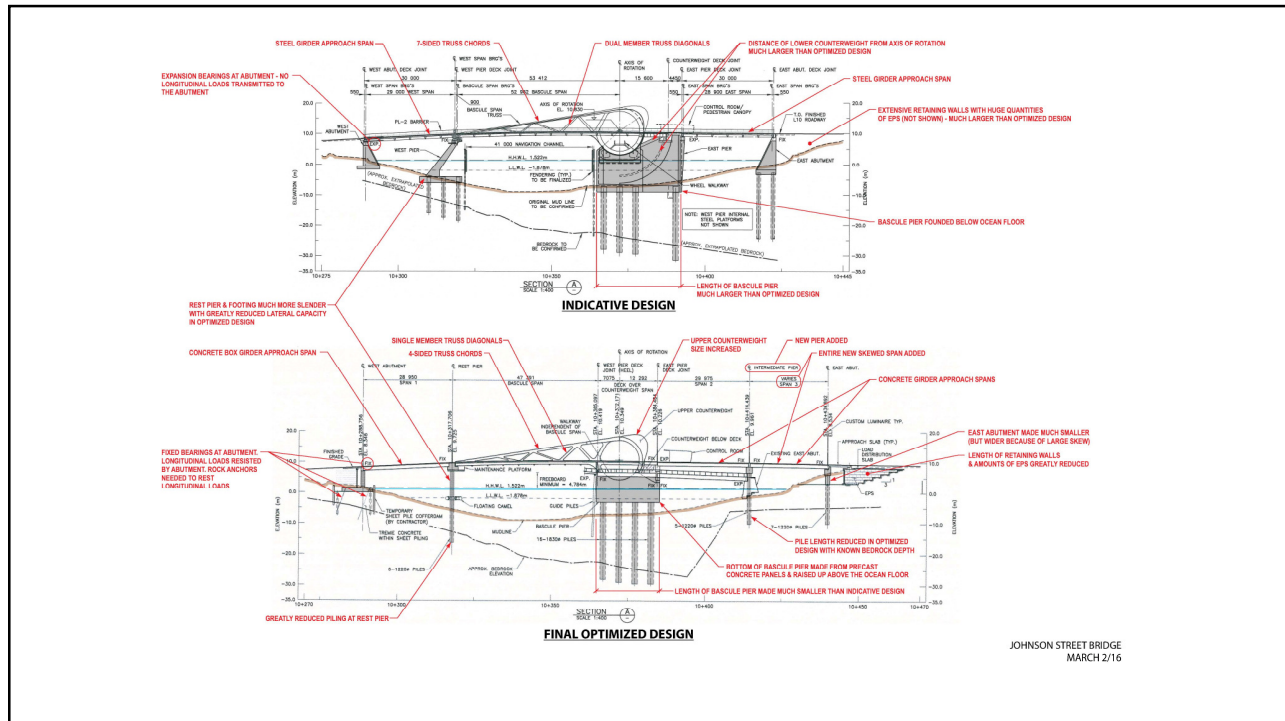


Johnson Street Bridge

Lessons Learned

Issues for Discussion

- Complexity
- Financial
- Relationships
- Expertise
- Assessment of Risk
- Procurement Process
- Contracts
- Unrealistic expectations
- Summary of lessons learned



Financial

- JSB Project Contingency was 4% for a one off complex signature bridge at a 10% design.
- True contingency should have been a minimum of 20% and likely higher at time of award
- Cash allowances were poorly defined and as a result grossly underestimated:
 - Landscaping
- While fendering was undefined, PCL had allocated a budget for fendering that proved to be totally inadequate

Relationships

- Successful projects are all about relationships
- Changed over the last 30 years from confrontation to cooperation
- At the outset JSB was confrontational
- Contract required cooperative working, but there was little or no cooperation

Expertise

- For JSB a “dream team” was selected:
 - PCL is Canada’s largest contractor by far
 - MMM have designed most of the major transportation projects in Canada
 - H&H are a world authority on bascule bridges
- JSB project problems are not because of lack of expertise

Assessment of Risk

- A risk matrix had been developed for JSB yet the real risks to the project were not identified:
 - A 10% design
 - Manufacture of steel in China
 - City was retaining the design risk
 - Key design details had not been adequately defined
- Discussions with other agencies indicate they too are finding their risk assessments are not identifying the real risks

Contracting

- For JSB the Proposal was from PCL with design by H&H. PCL was responsible for design and construction
- H&H was moved from PCL to City making the City responsible for a design they had never adequately reviewed
- PCL then passed most design risk to the City and MMM
- Design was mostly 10% when contract was signed – too many unknowns
- Council does not seem to have been made aware of the risks that were in the contract – hence the statement “we have a fixed price contract”

Unrealistic Expectations

- The difference between the PCL bid and the next proposal was over \$20 million. The reasons for the difference were never fully explored
- If something is “too good to be true” it probably is – buyer beware
- Few if any of the challenges were resolved at the time of contract
- The Project estimate was over \$90 million and there was no basis for the apparent cost savings

Summary

- An issue assessment should be prepared
- Council must be given a very clear explanation of the major risks they could incur
- An adequate contingency must be provided based on the final risk profile
- A cooperative and transparent working relationship with the other parties must be fostered
- Projects should be fully scoped