

Developing a Framework for Defining Quality and Constructability of Transportation Projects

STUDY TIMELINE

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More information about the Agency of Transportation Research Program, including additional Fact Sheets, can be found at: <http://vtrans.vermont.gov/planning/research>

Introduction (or Problem Statement)

Changing demographics in Vermont is resulting in an aging contractor workforce and difficulties attracting new employees into the construction trades. Project plan content and the quality processes at VTrans have not changed significantly since the construction of the Interstate. And in that time, much has changed with materials, construction equipment, and technology in the transportation industry. VTrans is experiencing less competition when bidding projects with corresponding price increases that appear to outpace inflation. Currently there is no formal process to engage the contracting community to get feedback on plan content, project risk and quality. This research would develop a framework for VTrans to implement to engage the contracting community to improve partnering and for feedback to VTrans (Structures Program) to better define risk, quality, and constructability.

Project Methodology

1. Collect Data (Literature Search, Survey, Focus Groups)
2. Analyze Data: Errors & Omissions, Contract Change Orders, Claims
3. Review Current State-of-Practice
4. Perform Risk Assessment
5. Prepare Interim Report
6. Propose Engagement Framework
7. Test and Finalize Framework
8. Prepare Final Report

Conclusions/Next Steps

The project is in the early stage of data collection and analysis. We need your input, please complete our survey at <https://forms.gle/GHpgCciFvyE69eQT8> or scan here:



Impacts and Benefits

The research gained from this project will assist VTrams with improving the efficiency of staff and provide them with the tools to deliver better quality and more easily constructed projects expeditiously at lower costs and more competitive. The administration, construction and maintenance costs of projects will be reduced due to improved quality and constructability of project plans.

The potential benefits of effective communication with contractors, consultants, material suppliers, and other collaborators and partners is immense. Constituents want to be able to solve problems and advance the state of practice in a timely and predictable manner so they can get back to the core mission of running their business.

The long-term benefit is a relationship that is built on trust, where all collaborators and partners are committed to advancing the state of practice, where voices are heard, challenges are overcome, and the process is respectful, transparent, and effective. Through this framework, the Agency, contractors, suppliers, and consultants will be more efficient because they have been engaged with a development process where the outcomes and results are well defined and understood.