Industry Capacity and Cost Escalation Study

Impact of the Senate Bill 1 funding on future Caltrans construction projects cost.

WHAT IS THE NEED?

California Department of Transportation (Caltrans) delivers a large construction program on annually. With passage of Senate Bill 1 (SB-1) in 2017, the Caltrans program is expected to increase significantly with a similar increase in the program by local agencies.

With the increased funding comes increased oversight and accountability. Caltrans needs to better understand the impact of additional work on future construction costs to provide better cost estimates on projects.

WHAT ARE WE DOING?

The scope below is intended to assist Caltrans to understand SB-1’s impacts on contractor competition, materials availability, cost escalation, and workforce.

Contractor Competition:
1. Does the contracting industry in California have the capacity to bid and bond the volume of work anticipated over the next 10 years?
2. How can Caltrans best bundle (e.g., size) its project to maximize the number of bidders on its projects? That is, maximize use of all sizes of contractors and subcontractors (small, medium, and large contractors).
3. How can Caltrans meter its advertising to maximize the number of bidders on its projects?
4. Are there sufficient number of Disadvantaged Business Enterprises, Small Businesses, and Disabled Veteran Business Enterprises to meet the state and federal goals?
Materials Availability:
1. Is there sufficient aggregate availability for asphalt concrete, portland cement concrete, aggregate base and aggregate subbase for Caltrans projects?
2. How will aggregate availability affect the pricing of asphalt concrete, portland cement concrete, aggregate base and aggregate subbase on Caltrans projects?
3. How will steel demand affect the price of steel on Caltrans projects?
4. Is there sufficient capacity at asphalt plants to meet the demand of Caltrans projects for asphalt concrete?
5. For each of the previous items, are there geographic disparities in availability that could affect pricing on a geographic basis?

Cost Escalation:
1. Are there any existing indices (e.g. Engineering News-Record highway construction cost index) which can predict with some accuracy escalation on Caltrans construction costs?
2. Is there an existing data set which can act as a leading indicator for highway construction cost (e.g. housing starts)?
3. Can the existing California Highway Construction Cost Index (CHCCI) be used to develop a methodology for predicting future construction costs?
4. Can the existing CHCCI be modified to develop a methodology for predicting future construction cost?
5. Can Caltrans historical bid data be used to predict future construction costs for various bid items?

Workforce:
1. Are there sufficient skilled workers available for the construction industry in California?
2. How will a shortage of skilled workers affect Caltrans Projects?
3. How will trucking availability affect materials delivery and Caltrans projects cost?
4. How will Caltrans’ changing workforce (retirement and new hires) affect Caltrans’ capacity to deliver project as needed?

WHAT IS OUR GOAL?
The objective of this project is to assess the impact of SB-1 on competition, materials, and associated costs on Caltrans projects.

WHAT IS THE BENEFIT?
This study provides more accurate cost estimates for future construction projects, since it helps Caltrans to better understand the impact of additional work resulted from SB-1 additional funding.

WHAT IS THE PROGRESS TO DATE?
The research team is collecting data from the industry, material suppliers and trucking companies.