Integrating Resiliency at CDOT
Project Prioritization Fact Sheet

The Concept and Value

In order to develop a method for integrating Risk & Resiliency into daily business practices—particularly project selection—subject matter experts from CDOT, FHWA and DRCOG were assembled to determine how to integrate the “4Rs” (see link in Additional Resources) into project selection processes (local, regional and federal). The group thought it best to tightly link the resiliency approach with existing project selection methods, and to make adoption of the resiliency mindset a significant differentiator for projects that might otherwise not get funded. Key points of a successful scoring tool include:

- Resiliency would provide a 10% contribution of points
- These resiliency points would stay within existing scoring scales
- Majority of these points are contingent on a positive BC

The goal of this Case Study was to develop a scoring tool for incorporating resiliency into a project’s overall score and rating that provides additional justification for funding a project with added resiliency measures.

How To

The scoring tool that was developed to incorporate resiliency will need to be completed by Project Managers in order to assess resiliency considerations during project selection. An “Instruction” tab is provided in this tool/spreadsheet which outlines the steps and logic in this process. The scoring tool addresses the following factors of

- Criticality
- Screening level risk assessment (high, medium, low)
- Whether using current standards incorporates resiliency
- Asset vulnerability
- Risk mitigation per threat
- Projects with multiple assets/risks
- Additional points earned based on positive BCA*
Case Study Results

This Case study progressed smoothly due to the brainstorming and collaboration with the SME’s and their helpful feedback and insight. The case study team is confident that this practice of completing the scoring tool and, when practical, conducting the BCA to include the results in the spreadsheet can become part of CDOT’s project selection “fabric.” Further, the available points outlined in the tool can be refined over time to focus more on the impact of resilient solutions than the behavior.

The following are the main insights discovered throughout this Case Study:

- Those who oversee the projects must make sure that what is completed and filled out in the scoring spreadsheet is followed through; incentivizing the consideration of resiliency in an effective way will ensure the mitigation efforts listed in the spreadsheet are not dropped of the project later on if costs become too high.
- Success and effectiveness of this tool will depend on the type of project and the types of funds allocated.
- The scoring spreadsheet is initially recommended for the following programs:
  - Asset Management
  - Bridge
  - Surface Treatment
  - Regional Priority Program (RPP)
  - National Freight Highway Program
  - Bridge Enterprise—this will require approval from the Bridge Enterprise Board (a.k.a. the Transportation Commission)

Key Takeaways

- *This scoring process will only be used when Program funds are suitable for resilience.*
  - The resiliency factor should be weighted at no more than 10%.
  - Success and effectiveness of this tool will depend on the type of project and the types of funds allocated for the project.
  - Once this method of thinking (incorporating resiliency) has become part of the project selection fabric, we can fine-tune the process to focus more on the positive impact of resilient solutions rather than the behavior.
  - *The work and time required by the PM’s to complete the BCA portion of this tool is minimal (<2 hrs. estimated), and may result in a higher overall score and funding for the project.*

Contacts and Resources

For questions, please contact:

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Additional resources include:

- [Resiliency website](#)
- [Scoring Spreadsheet](#)
- [4R’s Matrix](#)