

Reducing Scope Creeps on Emergency Relief Projects in Eastern Federal Lands Highway Division during the Design Stage



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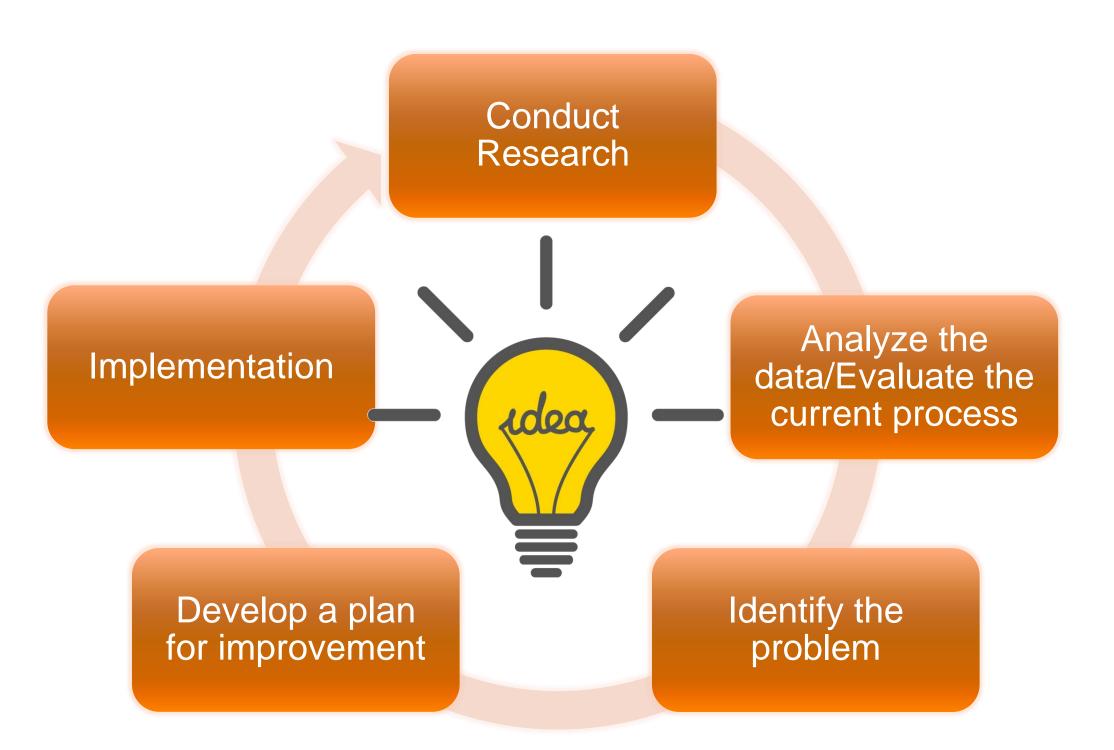
Abstract

Eastern Federal Lands Highway Division (EFLHD) has experienced significant scope creep on projects funded by the Emergency Relief for Federally Owned Roads (ERFO) Program. This project identifies the specific issues each project experienced during the design stage that could have been avoided or addressed during the initial assessment stage. To accomplish this, a meeting with the Project Managers at EFLHD associated which each project was conducted. A new assessment checklist was recommended to help remind engineers of things to consider during the pre-assessment, assessment, and post-assessment.

Problem Statement

The ERFO Program [1] allocates funds for construction and construction design, oversight; typically administered by the roadway owner or Federal Lands Highway Division Office upon request. EFLHD [2] delivers annually numerous of ERFO funded projects. The Agency's role is to deliver the design and reconstruction of the roadway facilities within two-years of the disaster. A constant issue that has been identified by the project team during the design process is that there are significant scope changes from the assessment to the final design stage, causing the final cost to be significantly higher than the estimate developed during the initial assessment.

Methodology



The initial and the final POP requests generated to obtain funds for the disasters were used to identify projects with significant cost changes. The data was evaluated for disaster damages completed during the years of 2015 thru 2017. A closed analysis of the information helped identify the specific issues faced during the different design stages that caused a change in the scope. As a result, inefficiencies during the initial assessment were identified.

Recommendations

Pre-Assessment Post-Assessment Assessment Assessment Design Checklist by Area of Expirience Research Use Growth Data: Get Rate on Unit familiarized Prices Geotechnical with the sites Hydraulic Apply a 20% Bring proper allowance on equipment quantities Bridge Understand Account for Environment the ERFO the Program unknowns Highway Design

Conclusion

After evaluating the issues faced during the design process for the projects funded through the ERFO Program it was concluded that most of the issues could during prevented have been assessment phase. An evaluation of project specific issues and the current process led to multiple recommendations to improve the process. Recommendations were divided into three sub categories: the pre-assessment, assessment and postfuture For assessment phases. considerations, it is suggested that the project cost increase gets tracked yearly to continue improving the assessments by considering new issues that may result during the upcoming years.

References

[1] Federal Highway Administration, Office of Federal Lands Highway. Emergency Relief Program. Updated 03 October 2019. Retrieved from

https://www.fhwa.dot.gov/programadmin/erelief.cfm

[2] The Federal Lands Highway Web Team. About us. Office of Federal Lands Highway. Updated 12 May 2016, Accessed on August 11, 2019. Retrieved

from https://flh.fhwa.dot.gov/about/