

JOINT TRANSPORTATION RESEARCH PROGRAM

Principal Investigator: Bob McCullouch, Purdue University, bgm@purdue.edu, 765.494.0643

Program Office: jtrp@purdue.edu, 765.494.6508, www.purdue.edu/jtrp

Sponsor: Indiana Department of Transportation, 765.463.1521

SPR-3421

2011

Design Mentoring Tool

Introduction

In 2004 a design engineer on-line mentoring tool was developed and implemented. The purpose of the tool was to assist senior engineers mentoring new engineers to the INDOT design process and improve their technical competency. This approach saves senior engineers time while developing a consistent mentoring approach and standardizing technical knowledge in road and bridge design.

It is a self-guided tool that utilizes multi-media and web-based technologies, trains engineers in the design process and provides resources to use

When this tool was developed the Design Manual was under development. Therefore, the tool could not link to the Design Manual but to excerpted sections extracted from the Manual. Now active linking to this Manual is possible. Additionally other resources used in the design process: design standards, design memos, design procedures and checklists should be accessible in the various topics. These current resources have also influenced the technical content for the current 12 topics. An upgrade was performed to deal with these needs and to make the tool a living one, that is where future revisions in resources can be incorporated without a major overhaul to the application. For developing plans and specifications. Available resources include INDOT design practices, design standards, design memos, specification and construction standards, procedures, and check lists.

Findings

This project upgraded the tool and its content. It eliminated some of the functions that were not used (e.g.backpack) and reevaluated the other functions. The site appearance was updated as well. A new resource was the addition of model bridge and road plans. These two plan sets

show the drawing types and their content. This will help guide engineers as they develop a project's drawings. This upgrade provides new engineers an on-line training source that provides consistency and uniformity in technical competency while improving the productivity for these engineers and their mentors.

Implementation Recommendations

Since the project developed the on-line site it serves as the completed body of work and the final report. The address is http://rebar.ecn.purdue.edu/indot_mentoring/

References

McCullouch, B. *Design Mentoring Tool*. Publication FHWA/IN/JTRP-2011/02. Joint Transportation Research Program, Indiana Department of Transportation and Purdue University, West Lafayette, Indiana, 2011. doi: 10.5703/1288284314243

