

Puerto Rico Pavement Management System

Client
Puerto Rico Highway and Transportation Authority

Start Date
January, 2015

Deighton Contact
Rob Piane
President
rob.piane@deighton.com
905.665.6605

Client Reference
Alexandra Velazquez Delgado
Pavement Management Engineer
avelazquez@dtop.gov.pr
787-798-3940

Project Type
Pavement Management

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The Puerto Rico Transportation and Highway Authority “PRHTA” is tasked with the management of almost 10 000 directional kilometers of highway pavement.

To meet the requirements of the MAP 21 Act and improve its management practices and methods, PRHTA needed to acquire and implement a state-of-the-art commercial off the shelf (COTS) Pavement Management System Software (PMSS). To meet the PRHTA objectives of this project the system implemented would:

- Have an open architecture and be customizable to meet the current and future asset management needs of the PRHTA
- Store, retrieve and process user-defined pavement condition and inventory data
- Analyze current pavement condition and predict future performance
- Develop multi-year, optimized, recommended work plans for maintenance and rehabilitation
- Store and analyze other PRHTA assets for future integrated asset management

Project tasks performed by Deighton included:

- Project Management Work Plan and subsidiary plans
- Requirements Validation/Gap and fit analysis
- Design of Infrastructure and Application Architecture
- Solution Configuration and Testing
- Implementation Planning and Support
- Data Conversion/Data migration /Interface Development
- User Acceptance Test
- Training
- Go-live approach: Implementation Planning and Support

This project implementation highlighted Deighton’s abilities to perform activities to increase an agency’s ability to predict future asset condition and needs of their pavement network.

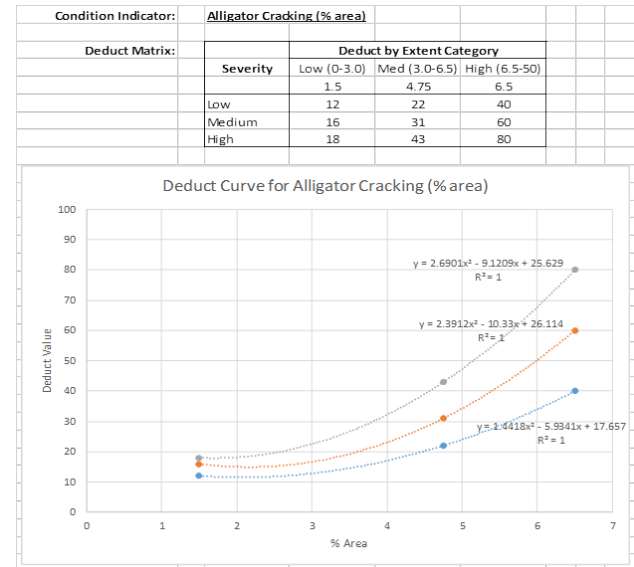


Figure 1: Deducts for various combinations of severity and extent are used to convert the pavement condition data into an index value, where greater the severity and extent, the greater the deduct value. The deduct values to be applied for each type of distress were developed using both previous experience of Deighton and knowledge by PRHTA of local performance characteristics.

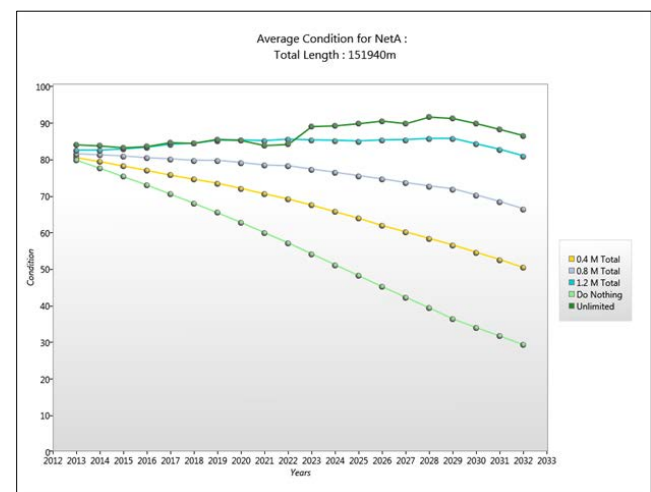


Figure 2: dTIMS has built-in reports and charts available for presenting PRHTA analysis results. The Average Condition Chart shows how the average network condition changes over time for each budget scenario.