2020 TRB Annual Meeting

Overview of NCHRP Project 08-109 and Links to Geotechnical Asset Management

Bill Robert Spy Pond Partners, LLC

January 13, 2020

NCHRP 08-109 Research Objectives

Update the AASHTO Transportation
Asset Management Guide—A Focus on
Implementation to improve its
effectiveness and thereby advance the
practices of public-agency TAM

- Assess the effectiveness of the current Guide
- Improve the Guide's effectiveness and present the Guide in a form well-suited to future updating
- Make the guide as easy to use as possible with nuggets of information presented in ways that are easy to digest

NCHRP 08-109 Project Team

- Team members
 - Spy Pond Partners
 - ApTech
 - WSP
- Principal Investigators
 - Hyun-A Park, SPP
 - Katie Zimmerman, ApTech







NCHRP 08-109 Project Oversight

Panel

- Moh Lali, Alberta Ministry of Transportation (Retired)
- Tim Henkel, Minnesota DOT
- Elise Barrella, James Madison University
- Mara Campbell, CH2M
- Tamara Haas, New Mexico DOT
- Joshua Johnson, Bentley Systems
- William Johnson, Colorado DOT
- Lonnie Watkins, North Carolina DOT

Liaisons

- Nastaran Saadatmand, FHWA
- DeLania Hardy, AMPO
- Matt Hardy, AASHTO
- Tom Palmerlee, TRB
- Senior Program Officer
 - Andy Lemer, NCHRP

What We've Done

- Created both print and online versions
- Provided a broad framework applicable to many assets & transportation modes
- Incorporated navigation aides throughout the material
- Referenced federal requirements but didn't focus on them
- Added U.S.-based practice examples
- Provided supporting resources
 - Checklists
 - How-to summaries
- Designed a structure for:
 - Regular updating
 - Additional resources to be added



<u>This Photo</u> by Unknown Author is licensed under <u>CC BY-NC-ND</u>

The guide is organized around six elements of asset management shown in the framework diagram. Four core asset management processes are shown in the center, supported by the enabling factors at the left-side and rightside of the diagram.

ORGANIZATION & PEOPLE

Establishing TAM Roles, Responsibilities, and Competencies

Strengthening Coordination and Communication

Managing Change

TAM STRATEGY & PLANNING

TAM Vision, Goals and Strategy

TAM Integration

TAM Scoping and Structure

Developing a Transportation Asset Management Plan (TAMP)

Improving TAM Processes

Asset Service and Performance Levels

Life Cycle Management Approaches

ASSET PERFORMANCE

Predicting Asset Conditions and Performance

RESOURCE ALLOCATION

Allocation and Prioritization Process

Cross-Asset Resource Allocation

Financial Planning

Work Planning and Delivery

MONITORING & ADJUSTMENT

Performance Measurement and Management

Monitoring the State of the Assets

Monitoring Funding and Resource Allocation Trends

Monitoring Asset Work and Costs

Tracking and Managing Risks

Monitoring TAM Process Improvements

INFORMATION & SYSTEMS

TAM Systems

Asset Data Collection

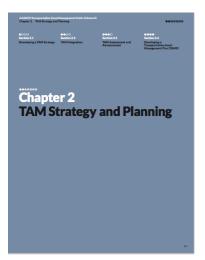
Data Sharing, Reporting and Visualization

Data Governance and Management

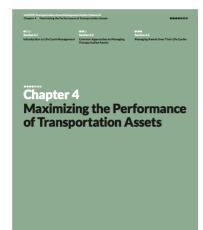
The AASHTO TAM Guide Framework

Guide Chapters



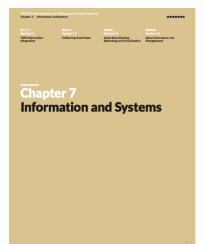












Digital Guide Architecture Vision



AASHTO Plans for Distribution

FINAL DRAFT

Pre-Production - Not for Distribution

AASHTO Transportation Asset Management Guide



Final Draft November 2019

FINAL DRAFT

Pre-Production - Not for Distribution









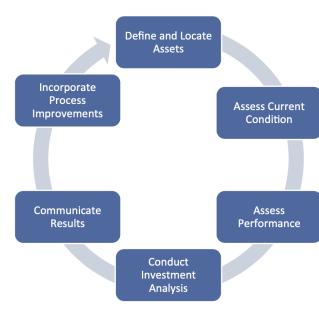




Relationship to Geotechnical Asset Management

 Close relationship between the AASHTO TAM Guide and NCHRP Report 903

- Basic components, concepts very similar
- AASHTO TAM Guide does not detail asset-specific approaches
 - Intended to be applicable across asset classes
 - Reduced emphasis on pavement and bridges
 - Depends on availability of additional resources by asset class such as Report 903



Thank You!

For more info, please contact wrobert@spypondpartners.com

