

NCHRP 20-68A

“US Domestic Scan Program”

Domestic Scan 15-01

Developing And Maintaining

Construction Inspection Competence

Findings, Conclusions and Recommendations

Domestic Scan 15-01

“Developing And Maintaining Construction Inspection Competence”

- This scan is being conducted as a part of NCHRP Project 20-68A, the U.S. Domestic Scan program
- The program was requested by the American Association of State Highway and Transportation Officials (AASHTO) Subcommittee on Construction (SOC), with funding provided through the National Cooperative Highway Research Program (NCHRP)

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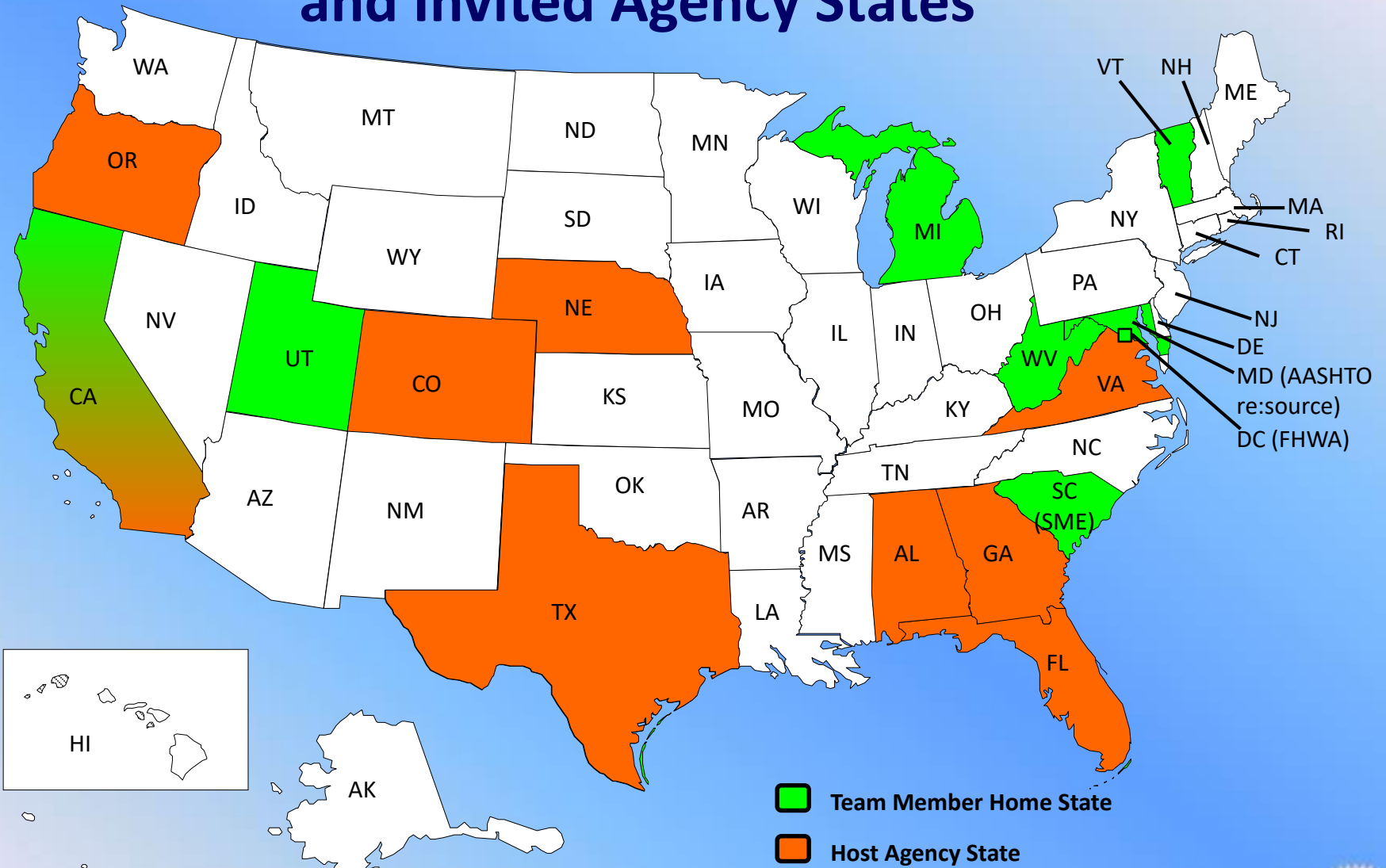
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Scan 15-01 Team Members Home State and Invited Agency States



NCHRP Panel's General Guidance to the Scan Team

“This scan will investigate such programs, focusing particularly on leading states, counties, metropolitan areas, municipalities and other transportation agencies adoption of teaching and learning methods such as the following examples:

- Mentoring programs
- Hands on training
- Online training
- Just-in-time training
- Video training
- Public private training partnerships
- Innovative hiring practices
- Certification testing
- Pay for qualifications”

Developing And Maintaining Construction Inspection Competence



Consultants

The number of consultant inspectors used by agencies varies widely.

Content Development/ID

Presenting states developing and converting content for online delivery.

Delivery Modalities

Presenting states use a broad mix of delivery methods.

Existing Certification Programs

Programs vary by structure, content and internal versus external.

Overview

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Instructors

Creation of an instructor certification program for SMEs is critical for competency development.

Manuals/ Publications

Manuals and guidance publications are shared electronically and in print.

Mentoring

Incorporate mentor programs into performance management /employee development program/cycles.

Partnerships

Industry groups and vendors are a good source for training. For example, Roadtec partners with ALDOT to train on milling, sweeping, tack, good paving practices.

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Resources

Sustainable programs require stable resources.

Staffing/Hiring Practices

Internal staffing for the valleys and use of consultants to address the peaks is a proven strategy.

Technology

Learner response systems are widely accepted.

Exams/Tests

Exam questions should test for experiential knowledge not just for data recall.

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Consultants

Presenting states were divided on the topic of training consultants.

Content Development/ID

A well defined scope, audience analysis, defined learning objectives needed.

Delivery Modalities

Demonstrated success using video training through YouTube or other delivery means.

Existing Certification Programs

NETTCP is an example of a successful framework for a regional certification program.

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Instructors

Utilizing field (field experience) SMEs (in-house or within industry demonstrated to be effective and more beneficial for the student.

Manuals/ Publications

States use both electronic and hard copy versions for effective development efforts.

Mentoring

Most presenting states support mentoring as a method for inspector development.

Partnerships

Value in joint training with industry, consultants, local personnel to ensure equivalent competencies.

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Resources

Insufficient resources to meet the challenge of developing competencies of construction inspectors.

Staffing/Hiring Practices

Success in recruiting and hiring construction inspectors from colleges and universities from internship programs reported.

Technology

Funding and IT policies/security issues are two resources that limit use of state of the art technologies.

Exams/Tests

Success reported when exams measure knowledge application rather than data recall.

Overview

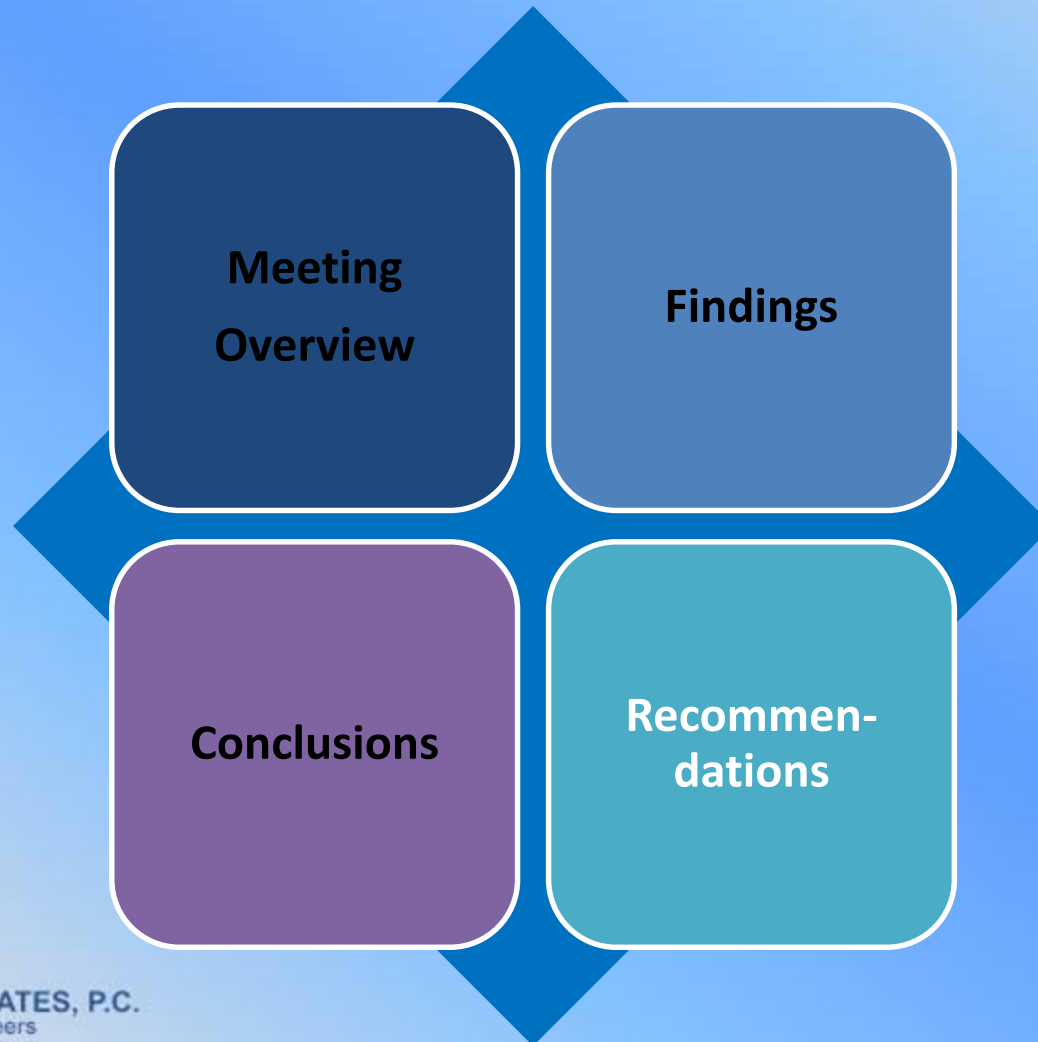
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Partnerships

- ✓ Encourage state transportation agencies to partner with industry and academia because of demonstrated successes – to leverage resources.

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Technology

- ✓ Leverage technology wherever feasible to increase the effectiveness, efficiency and quality of training.
- ✓ Leverage technology in the development and delivery of training.

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Staffing and hiring practices

- ✓ States define construction inspector qualifications and/or certifications required to perform the job.
- ✓ Establish effective training programs to develop and certify qualified construction inspectors.
- ✓ Appropriate screening and hiring practices to ensure aptitude.

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Full Report can be found at www.domesticscan.org

*Professional development leads to career opportunities and
that is how we develop tomorrows leaders.*

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