



Transportation Curriculum Coordination Council (TCCC)

Addressing Challenges in
Construction and Maintenance
Workforce and Quality

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Construction Engineer



What is the TCCC?

- The TCCC is a Federal/State/Industry partnership that supports the training of the highway construction and maintenance personnel.
- The goals of the TCCC are to:
 - Develop and maintain a national curriculum for various transportation disciplines
 - Identify training and certification requirements
 - Coordinate/facilitate training efforts



TCCC Mission

- Coordinate training and certification efforts
- Establish a national core curriculum
- Develop training materials
- Support agency training efforts



TCCC Current Activities

- Training Core Curriculum
- Web-based training development
- Other training course development
- National Transportation Training Resources (NTTR) database



TCCC Core Curriculum

DISCIPLINES	COMPETENCIES BY SKILL LEVELS			
	Level I	Level II	Level III	Level IV
Surface Preparation	Assists in performing surface inspections	Inspects surface for proper preparation in accordance with contract documents	Recommends acceptance or corrective action based on inspection results	Determines contract decisions related to surface preparation acceptance and payment
			Documents and follows up on corrective actions	Recommends disciplinary action when corrective measures are not taken in a reasonable time frame
Concrete Delivery	Assists in inspections of delivery vehicles to make sure they are in good working condition	Inspects trucks to assure that all gauges, meters, etc. are in working order	Recommends acceptance or corrective action based on inspection results	Determines contract decisions related to concrete delivery acceptance and payment
		Checks for worn parts that could affect mix quality	Documents and follows up on corrective actions	Recommends disciplinary action when corrective measures are not taken in a reasonable time frame
		Collects load tickets		
		Verifies correct mix was shipped		



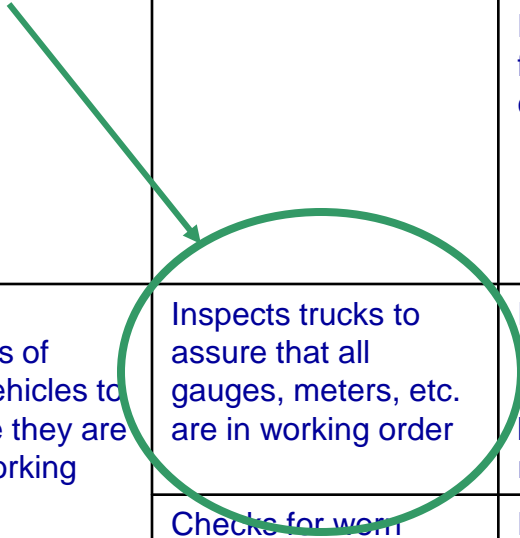
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Increasing skill level



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Competencies by skill level





TCCC/ NHI Web-based Training

- Helps address training needs when funding is scarce.
- Conversion of existing presentation, training materials, or technical materials.
- Rapid process – usually within 2-3 months
- Available at no cost to participants
- Over 34000 participants 2008-present
- For complete listing and to register, visit the training catalog at:
www.nhi.fhwa.dot.gov
- Or on the [TCCC Web-based Course List](#)



FY2009 TCCC Web-based Training

Course Number	Training Name	Instructional Hours
FHWA-NHI-131121	Construction of PCC Pavements	10
FHWA-NHI-131122	Portland Cement Concrete Paving Inspection	5
FHWA-NHI-131126	Concrete Pavement Preservation	11
FHWA-NHI-131127	Concrete Series (IMCP Manual)	12
FHWA-NHI-134081	Plan Reading	4
FHWA-NHI-134084*	Fundamentals of Materials Used for Concrete Pavements	2
FHWA-NHI-134085*	Incompatibility in Concrete Pavement Systems	1
FHWA-NHI-134087*	Mix Design Principles	1
FHWA-NHI-134095*	Early Age Cracking	1
FHWA-NHI-134096*	Basics of Cement Hydration	1
FHWA-NHI-134097*	Fresh Properties	1
FHWA-NHI-134098*	Construction of Concrete Pavements	1
FHWA-NHI-134100*	QCQA for Concrete Pavements	1
FHWA-NHI-134101*	Design of Pavement	1
FHWA-NHI-134102*	Troubleshooting for Concrete Pavements	1
Total		53





FY2010 TCCC Trainings

Course Number	Course Title	Instructional Hours
FHWA-NHI-131126A	Preventive Maintenance and Pavement Preservation Concepts	1
FHWA-NHI-131126B	Concrete Pavement Evaluation	2
FHWA-NHI-131126C	Slab Stabilization and Slab Jacking	1
FHWA-NHI-131126D	Partial-Depth Repairs	1
FHWA-NHI-131126E	Full-Depth Repairs	2
FHWA-NHI-131126F	Retrofitted Edge Drains	1
FHWA-NHI-131126G	Load Transfer Restoration	1
FHWA-NHI-131126H	Diamond Grinding and Grooving	1
FHWA-NHI-131126I	Joint Resealing and Crack Sealing	1
FHWA-NHI-131126J	Strategy Selection	1
FHWA-NHI-131128	Testing Self Consolidating Concrete	1
FHWA-NHI-131129	HMA Paving Inspection	4.5
FHWA-NHI-131130	Advanced Self Consolidating Concrete	1.5
FHWA-NHI-134074	Bolted Connections	2
FHWA-NHI-134106	Basic Construction Surveying	3
FHWA-NHI-134107	Recognizing Roadside Weeds	1



FY2010 TCCC Trainings (cont)

Course Number	Course Title	Instructional Hours
FHWA-NHI-134108	Plan Reading Series (Updated)	6
FHWA-NHI-134108A	Plan Reading: Highway Plan Reading Basics	1
FHWA-NHI-134108B	Plan Reading: Grading Plans	1
FHWA-NHI-134108C	Plan Reading: Traffic Control Plans	1
FHWA-NHI-134108D	Plan Reading: Erosion and Sediment Control Plans	1
FHWA-NHI-134108E	Plan Reading: Right-Of-Way Plans	1
FHWA-NHI-134108F	Plan Reading: County Plans	1
FHWA-NHI-134108G	Plan Reading: Bridge Plans	1
FHWA-NHI-134108H	Plan Readings: Culvert Plans	1
FHWA-NHI-381001	Safety Orientation	2
FHWA-NHI-381002	Safe Use of Hand and Power Operated Tools	1
FHWA-NHI-381003	Safe Use of Basic Carpentry Tools	3
FHWA-NHI-381004	CDL General Knowledge	3
FHWA-NHI-381005	CDL Air Brakes	1.5
FHWA-NHI-381006	CDL Pre-Trip Inspection	2
FHWA-NHI-380098	Maintenance of Traffic for Technicians	5
FHWA-NHI-380099	Maintenance of Traffic for Supervisors	5
Total		61.5



FY2011 Completed

Course Number	Course Title	Instructional Hours
131131	Superpave Mix Design Process and Analysis	2
133118	Flagger Training	1
134105	Pipe Installation, Inspection, and Quality	7
134109	Maintenance Leadership Academy Web-based lessons	11
380108	Maintenance of Drainage Features for Safety	1
Total		22



FY2011 In Production

Course Number	Course Title	Instructional Hours Estimates	Status
131132	TCCC Chip Seal Best Practices	4	Narration
131133	TCCC Roller Compacted Concrete Pavements	5	In progress
131134	TCCC Superpave for Construction	2	Narration
131135	TCCC Aggregate Sampling	1	Testing
131136	TCCC Materials Testing: Reducing Aggregate Samples	1	Testing
134110	TCCC Change Orders, Claims, and Dispute Resolutions	1	Testing
134111	TCCC Bridge Construction Inspection: Inspectors Safety	1	In progress
132088	TCCC Rock Stabilization for Inspectors	2	In progress
132089	Engineering with Earth Materials (Earthworks)	2	In progress
132091	Grades and Grading (Earthworks)	1	In progress
132090	Site Preparation	1	In progress
381007	TCCC PPE and High Visibility Garments	1	Narration
Total		22	



Web-based Training In Progress

- FHWA-NHI-134072 Pipe Inspection
- FHWA-NHI-381103 Basic Carpentry Tools
- FHWA-NHI-381006 CDL Pre-Trip Inspection
- FHWA-NHI-380107 Flagger Training
- FHWA-NHI-380108 Maintenance of Drainage Features for Safety

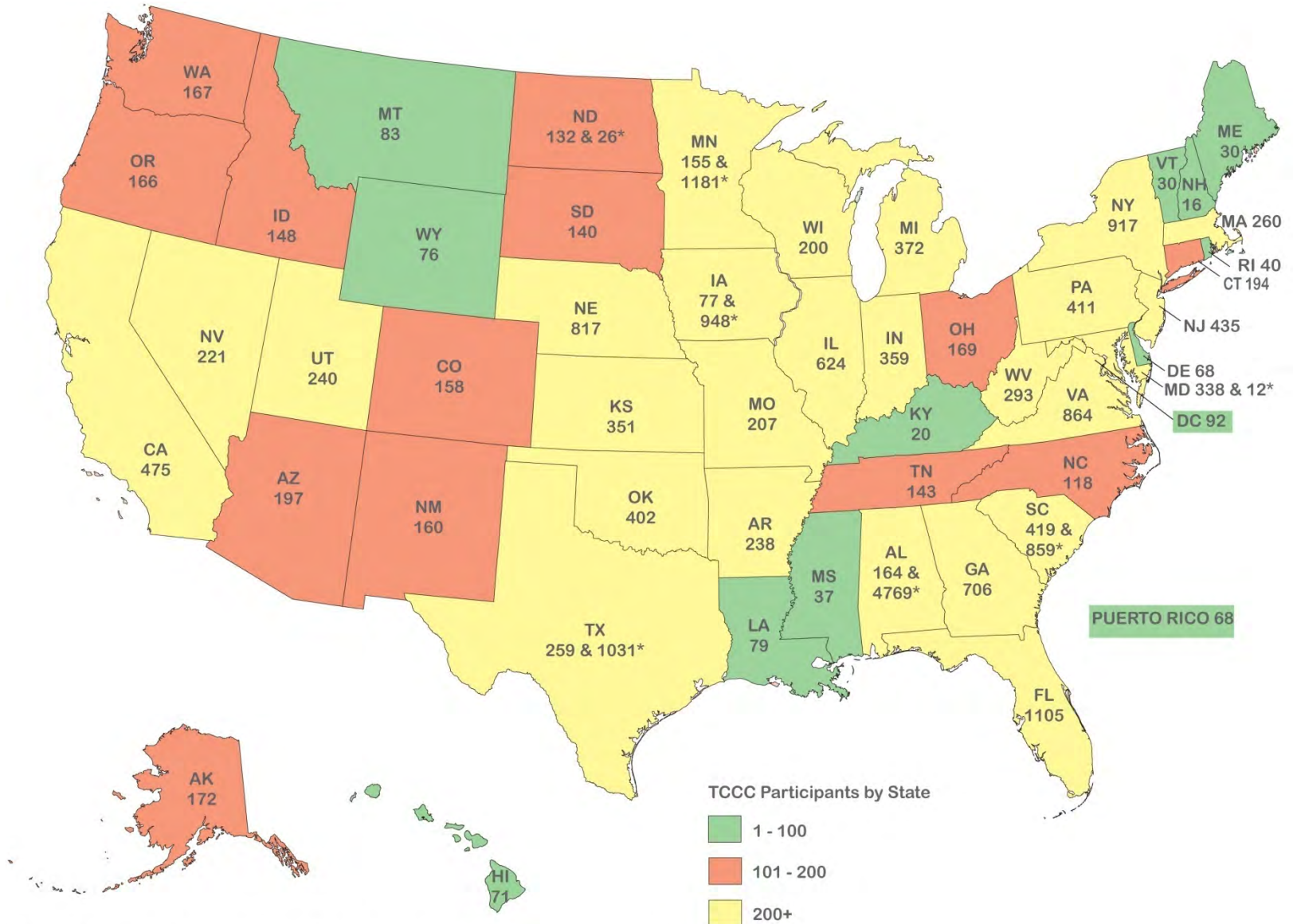


Training Development On Deck

- SuperPave
- PCC Roller Compaction (National PCC Center)
- Bridge Inspection Series
- NHI 134080 – Environmental Factors in Construction and Maintenance
 - Instructor-led/ independent study
 - Educating crews in environmental commitments
 - Constructability and maintainability of commitments
 - Pilot Aug 2011 in Atlanta, GA



2010 NHI Website Participants by State

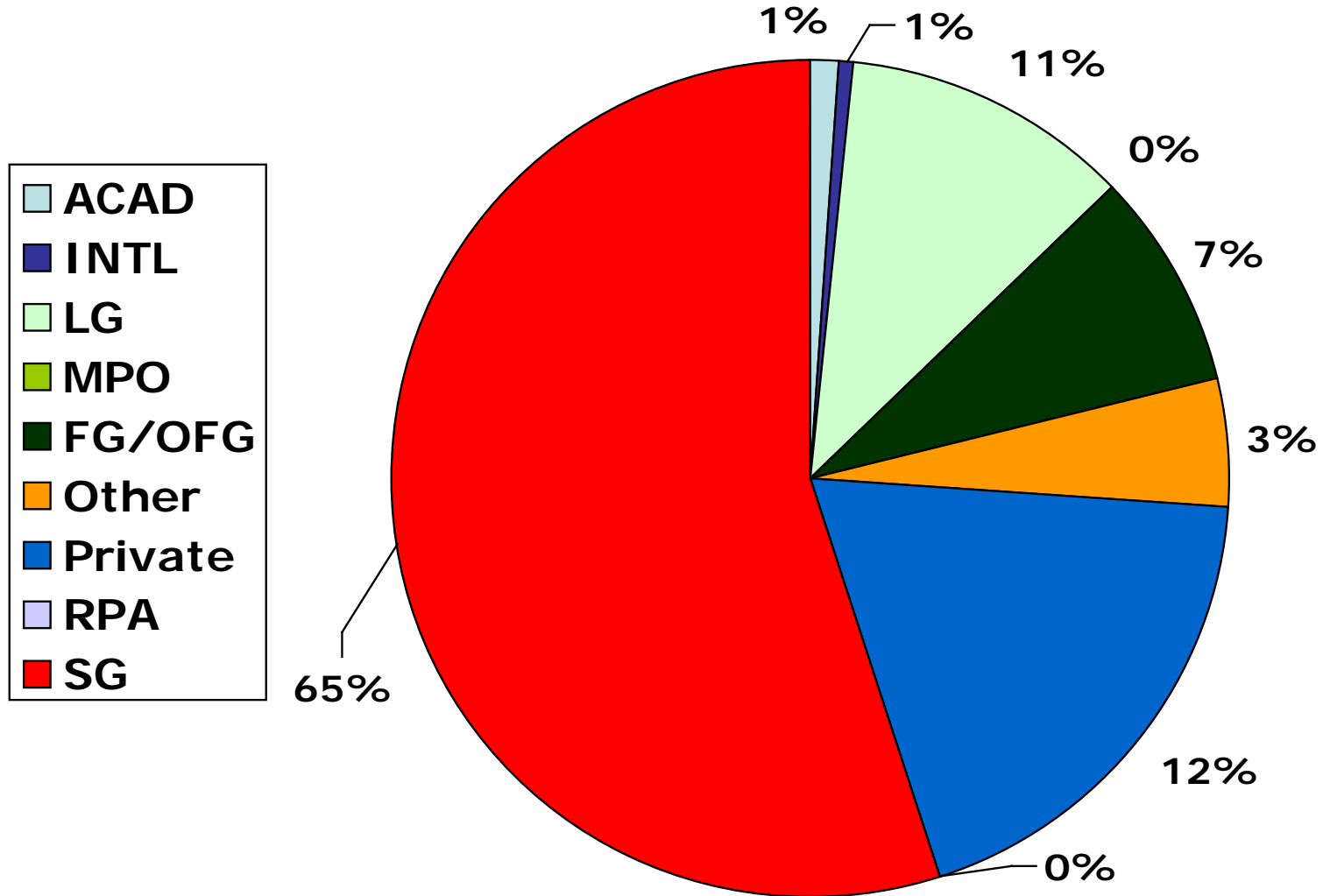


* TCCC shares trainings with these States for LMSs and Intranet training needs





2010 NHI Website Participants by Industry Type





Training Products Database

- National Transportation Training Resources
 - www.nttr.dot.gov
- Complete data on training courses
 - objectives, level, audience, tests, manuals, contacts, etc.
- Review and link to competencies by level
- Maintain online searchable training database
 - more than 50 subject areas
- Assistance needed in entering agency training information





Transportation Curriculum Coordination Council

TRAINING RESOURCE DATABASE

Home

Search

Add Event

About Us

Feedback

Welcome to the Transportation Curriculum Coordination Council (TCCC) Training Clearinghouse. The purpose of this website is to provide transportation professionals with resources needed to develop a skilled workforce and further their own professional development.

Resources available include course offerings, schedules, and contact information; web-based seminars; conferences; and other training and capacity building documentation.

Search for Resources

In the boxes below, you can select one or more terms by holding down the Control button on your keyboard. You can also select terms in one or more of the boxes. The more terms you select, the fewer resources will be returned.

Construction

Employee
Development

Maintenance

Materials

Safety &
Workzone

Subject Area:

All	▲
Contract Administration	
Quality Assurance	
Environment	
Construction Inspection	▼

Discipline:

All	▲
Right of Way (ROW) Mgt	
Contractor Payments	
Supplemental Agreements	
Force Accounts	▼

Skill Level:

All	▲
Level I	
Level II	
Level III	
Level IV	▼

Resource Type:

All	▲
Blended	
CD-ROM	
CD-ROM, Classroom Option	
Classroom Course	▼

Key Word Search

This search works in combination with whatever terms are selected above.



Supporting TCCC

How can State Partners Support TCCC:

- Provide financial support to Pooled Fund (TPF – 5(209))
- Volunteer for Technical Panels for Course Development
- Contribute a course to the NTTR that you or your state/organization has developed
- Volunteer on TCCC committees that collect, analyze and develop training resources



For Information

For more information, visit:

<https://fhwaapps.fhwa.dot.gov/tccc/>

Or contact:

**Christopher Newman
FHWA Office of Asset Management
202.366.2023**

christopher.newman@dot.gov



Thank You

Remember

Support is the key for a Training Program's success

Financial

Technical Advise

Provide Courses

Resolution support

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