Transportation Curriculum Coordination Council (TCCC)

Addressing Challenges in Construction and Maintenance Workforce and Quality
Topics of Discussion

- What is the TCCC
- Workforce development challenges
- Accomplishments
- Current activities underway
- Future Opportunities
What is the TCCC?

- The TCCC is a Federal/State/Industry partnership that supports the training of the highway construction 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
Why Do We Need the Transportation Curriculum Coordination Council?
US Birth Rates

- Baby Boomers
- Generation X
- Generation Next

- RETIRING
- HIRING

AVERAGE
• A 2005 report showed that there are about 950,000 vacant positions in the construction skilled trades area and it is estimated that this could rise to one million within a couple of years.

• A career in the construction industry was rated 498th out of 500 by high school students and their parents.
What the TCCC has accomplished...
TCCC Current Activities

- National training data base
- Training development
- E-Learning
• National Partners/contributors:
  – TCCC, NTTD, LTAP
  – AASHTO, TRB, ITE

• Locating existing training from a wide variety of disciplines within construction and maintenance

• Assist in gap analysis for new course development
Training Products Database

• 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
• FHWA-NHI-131117
  – Basic Materials for Highway and Structure Construction and Maintenance
• FHWA-NHI-131122
  – Portland Cement Concrete Paving Inspection
• FHWA-NHI-134069
  – Ethics Awareness for the Transportation Industry
• FHWA-NHI-134071
  – Basic Construction and Maintenance Documentation - Improving the Daily Diary
• FHWA-NHI-134072
  – Math Module
• FHWA-NHI-134075*
  – Hardened Concrete Properties – Durability
• FHWA-NHI-134078
  – GPS Technology
• FHWA-NHI-134081
  – Plan Reading
• FHWA-NHI-134084*
  – Fundamentals of Materials Used for Concrete Pavements
Completed Web Based Training

- FHWA-NHI-134085*
  - Incompatibility in Concrete Pavement Systems
- FHWA-NHI-134087*
  - Mix Design Principles
- FHWA-NHI-134095*
  - Early Age Cracking
- FHWA-NHI-134096*
  - Basics of Cement Hydration
- FHWA-NHI-134097*
  - Fresh Properties
- FHWA-NHI-134098*
  - Construction of Concrete Pavements
- FHWA-NHI-134100*
  - QCQA for Concrete Pavements
- FHWA-NHI-134101*
  - Design of Pavement
- FHWA-NHI-134102*
  - Troubleshooting for Concrete Pavements
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## NHI Website Training Numbers – Participants by Fiscal Year

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NHI Website Training Numbers – Participants by State
NHI Website Training Numbers – Participants by Industry Type

- Academia: 1%
- International: 1%
- Local Government: 11%
- MPO's: 0%
- Federal Gov't: 7%
- Other: 3%
- Private: 12%
- Reg. Planning Auth.: 0%
- State Government: 65%
• States we share our TCCC trainings with
  – Iowa
  – Texas
  – Maryland
  – Minnesota
  – Alabama
  – North Dakota
  – South Carolina

• Use with Intranets and LMSs

• Some States make TCCC training required
  – Math Module for Supervisors – Minnesota (357)
  – Ethics Awareness Statewide – Alabama (3,428)
**Total Participants Training Numbers**

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*Participant totals only include Iowa, Texas, Minnesota, and Alabama at this time*
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What Are People Saying

- FHWA-NHI-134085 Presented some methods I was not familiar with that will be helpful in the future.
- FHWA-NHI-134081 For me it was a satisfactory program because it reinforced some of the things I already [knew] and got exposure in other areas I have not had prior experience.
- FHWA-NHI-134078 I am in construction inspection, though I have been on projects with paper plans and electronic data, I have not been on a project where GPS was directly employed in field construction. This course was a good exposure for me.
- FHWA-NHI-134075 It refreshes some concepts I have not used in a while and provided an understanding of new ones. The course was definitely relevant to some aspects of construction inspection.
What Are People Saying

- FHWA-NHI-134087 The course provided an updated knowledge in the subject area presented.

- FHWA-NHI-134095 Course presented a clear understanding early age cracking in concrete.

- FHWA-NHI-134069 I liked the online method. It suited my work schedule. Course was good for all areas of DOT but especially for Materials and Quality Assurance personnel.

- FHWA-NHI-134071 I think this is as great opportunity for all of us! And it's great to be able to have this material to learn or refresh at a push of a button!
TCCC Marketing Efforts

• Website Marketing
  – New courses area
  – WBT training area
  – About NHI > NHI in the News

• NHI 2009 Catalog
  – Full page descriptions for each training
  – Icons for highlighting WBT and New trainings
  – Full page table of all TCCC trainings
  – NHI Real Solutions insert article

• NHI 2009 Real Solutions Standalone
TCCC Marketing Efforts

- **New Course Launch**
  - NHI Blueline with marketing messages about other TCCC trainings
  - Email blast with cross marketing of TCCC trainings

- **Thank You Emails**
  - Continue to send to new participants
  - Quarterly basis

- **TCCC Articles**
  - NHI Newsletter
  - Public Roads-Training Update
  - Focus
  - FHWA News
What TCCC is doing now...
• FHWA-NHI-131121
  – Construction of PCC Pavements
• FHWA-NHI-131126
  – Concrete Pavement Preservation
• FHWA-NHI-131127
  – Concrete Series (IMCP Manual)
• FHWA-NHI-134074
  – Bolted Connections
• FHWA-NHI-380098
  – Maintenance of Traffic for Technicians
• FHWA-NHI-380099
  – Maintenance of Traffic for Supervisors
• FHWA-NHI-131128
  – Self Consolidating Concrete
• FHWA-NHI-134105
  – Surveying
• FHWA-NHI-134106
  – Pipe Inspection
• FHWA-NHI-380101
  – Safety Orientation
Training Development On Deck

- Geotechnical (August)
- Flagger Training (August)
- Earthwork (September)
- Transportation Project Management (September)
- Clear Road Series (TBD)
- Maintenance Safety (TBD)
- MEPDG (TBD)
Future Opportunities
Marketing Efforts

• NHI Website Single Login Feature
• NHI “Blue Line” sheets
• Executive Summary
• “On the Go” training
An Executive Summary is a five minute overview of the training (NOT a training course)

Consolidate the principal points of a training course and provide an overview

Preview to an audience who may or may not have time to attend a training session

Audience should understand the main points and the evidence for those points without having ever seen the course

http://fhwa.na3.acrobat.com/n131122es/
“On the Go” Training

- MP4 Players
- Increased mobility and accessibility
  - Reach a larger audience
  - Provide on-demand training as the participants requires
- Multiple formats
  - Desktop
  - Laptop
  - Portable (phone devices) - Twitter?
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 more information, visit:

www.nhi.fhwa.dot/tccc

Or contact:

Christopher Newman
FHWA Office of Asset Management
202.366.2023

christopher.newman@dot.gov
Thank you Jim Sorenson
Thank You

Questions?