TC3 Program Update
JULY 2018
Agenda

- System Updates and Enhancements
- Implementation and Research for New Technologies
- State Sharing Program
- Training Developments, Evaluations, and Survey Results
- Participation Numbers/Reporting
New AASHTO Store – Highlighting Publications and Training Together!

Featured Publications:
- AASHTO Publications Catalog, 2018 Volume 2
- AASHTO LRFD Bridge Design Specifications

Featured Training:
- Ethics Awareness for Engineers (3 PDHs)
- Inspection of Concrete Pavement Repair, Jointed and CRCP (2.5 PDHs)
- Instructor Preparation (3 PDHs)

View all new training courses

Featured Training:
- Construction
- Employee Development
- Maintenance
- Materials
- Pavement Preservation
- Traffic and Safety
- Texas DOT Courses

View all featured training courses

Subscribe Prepaid Training
Training Store/System Enhancements

Subscription Pricing Program

Launched April 2017
Subscription Pricing Program

- Subscription options allow organizations to purchase TC3 training courses at discounted prepaid rates for their employees or members. Available options include annual unlimited courses per-user and bulk-hour pricing.

- Unlimited, annual per-person price:
  - Unlimited courses for 5 users @ $600 per user = $3,000
  - Unlimited courses for 10 users @ $550 per user = $5,500
  - Unlimited courses for 20 users @ $500 per user = $10,000

- Optional bulk-hour price:
  - 50 hours @ $40 per course hour = $2,000
  - 100 hours @ $35 per course hour = $3,500
  - 200 hours @ $30 per course hour = $6,000
Professional Development Hours (PDHs)

Launched March 2017

Find Training

<table>
<thead>
<tr>
<th>PDHs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Offers PDH</td>
<td>75</td>
</tr>
<tr>
<td>Does not offer PDH</td>
<td>14</td>
</tr>
</tbody>
</table>

Category: see all

Maintenance: 89

Subcategory: Basic Construction Surveying (3 PDHs)

This training covers a review of the basics of...
## Updated Subcategory/Discipline Assignments

**Find Training**

- **PDHs**
  - Offers PDH: 15
  - Does not offer PDH: 5

- **Category**
  - Maintenance: 89

### Subcategory

- **Drainage**

### Discipline

- **Drainage Inspection**: 8
- **Drainage Intercept Systems**: 3
- **Drainage Systems**: 6
- **Environmental Protection**: 2

**Maintenance**

- There are 20 of 89 training(s) currently selected. Total 1 filter selected.
- **Drainage**

**Basic Construction Surveying (3 PDHs)**

This training serves as a review of the basics of construction surveying. The important surveying tasks involved in this work and the surveying procedures to be followed are described in this course. This training is divided into three modules: 1. Basic Surveying Concepts; 2. Measurement and...

- **Non-Member Price**: $150.00
- **Member Price**: $75.00
- **Subscription Price**: $0.00

**CDL Air Brakes (1.5 hours)**

This training has been designed for those interested in commercial driver’s license (CDL) air brake systems. This training discusses the parts of an air brake system, dual air brake systems, how to inspect your air brake system, and how to effectively use your air brake system. If you want to drive...

- **Non-Member Price**: $75.00
- **Member Price**: $38.00
- **Subscription Price**: $0.00

**CDL General Knowledge (3 hours)**

This training was designed for those interested in general commercial driver’s license (CDL) knowledge. This training...

- **Non-Member Price**: $0.00
- **Member Price**: $0.00
- **Subscription Price**: $0.00

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*Updated November 2017*
Highlight Associated Related Courses

Earthwork Series: Earth Materials as Engineering Materials (1.5 PDHs)

The Earth Materials as Engineering Materials is part of the Earthwork Series. This training is an overview of the basic properties of soils and how they relate to construction. Soil is the most naturally occurring soils found in our environment.

This course consists of five lessons:
1. Components and Types of Soil
2. Soil Description and Classification
3. Engineering Characteristics
4. Process of Material Verification
5. Preliminary Inspector Responsibility

The course discusses the Atterberg Limits, which also serves as documentation whether or not this particular course.

Training level: This training is recommended for construction, materials, and maintenance professionals.

Target audience: This training is targeted to the intermediate to advanced level professional.

Professional Development Hours: 1.5

Related Items

Earthwork Series: Site Preparation (1.5 PDHs)

Site Preparation is one of the modules included in the Earthwork Series. This module is designed to help inspectors understand the responsibilities of preparing the site for the start of the construction process. This includes clearing and grubbing, utility relocation, and inspection...

Non-Member Price: $75.00
Member Price: $38.00
Subscription Price: $0.00

Earthwork Series: Grades and Grading (3 PDHs)

Grades and Grading is the third part of the five-part Earthwork Series. It is designed to prepare technical frontline workers for what they can expect to see during actual project inspection. Topics covered include an overview of the plans that pertain to earthwork and earthwork quantities, grade...

Non-Member Price: $150.00
Member Price: $75.00
Subscription Price: $0.00

Earthwork Series: Excavation (3 PDHs)

Excavation is the fourth part of the five-part Earthwork Series. Excavations of soil and rock are an integral part of highway construction due to the associated costs, safety issues, and time required. This module focuses on the excavation process, including...
Job Aids and Checklists

100 Job Aids and Checklists Available Now!
Implementing New Technologies

- **Micro Learnings** – Microlearning is a way of instruction and delivering content to learners in small, very specific bursts.

- **Mobile Trainings** – Mobile learning is any education or training delivered though a mobile device, either smartphone or tablet.

- **Virtual World/Environment on Laptops** – Virtual worlds, which are different from virtual reality, are computer-based simulated environments that allow for many persons to interact simultaneously in an environment.
Researching New Technologies

- Virtual Reality on Tablets/Smartphone – Virtual reality (VR) is a computer-simulated, realistic, and immersive simulated reality using a three-dimensional, 360° environment created using interactive software and hardware.

- Augmented Reality on Tablets/Smartphones – Augmented reality (AR) is a term that refers to technology that superimposes computer-generated content over live images viewed through cameras.

- Gamification – Gamification is the craft of deriving all the “fun” and addicting elements found in games, and applying them to real-world or productive activities.
Our contributing states have increased along with the states using our trainings on their own statewide LMSs.
Contributing States

43 States currently contributing and 27 sharing courses on State LMS
Training Developments Status

- **Strategic Course Selection Process**
  - Fill Matrices Training Gaps
  - Expediting Highly Requested/Top Priority Courses

- **Courses Approved for Development**
  - 60 Courses
  - 94 Instructional Hours

- **Courses Completed to Date**
  - 29 New Courses
  - 40.5 Instructional Hours

- **75 Job Aids and Checklists are LIVE on LMS**

- **New Priority List Coming Soon**
Maintenance Matrix

- Maintenance Asset Management
- Roadway and Shoulders
- Drainage
- Winter Operations
- Roadside Maintenance
- Bridge and Culvert Maintenance
- Fleet Management
- Work Zone Traffic Control

- Traffic Services
- Incident Management
- Emergency Management
- Environmental
- Leadership
- Supervision
- New Hire
- Contracted Work
## Maintenance Matrix, example Roadway and Shoulders

<table>
<thead>
<tr>
<th>DISCIPLINES</th>
<th>Level I - TM I</th>
<th>Level II - TM II</th>
<th>Level III - TM III</th>
<th>Level IV - LTC Ops</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shaping</strong></td>
<td>Uses hand tools and performs manual labor as required</td>
<td>Performs roadway and shoulder shaping and cutting procedures</td>
<td>Supervises roadway and shoulder shaping and cutting procedures</td>
<td>Ability to develop and administer a shoulder and ditching program to accomplish the desired level of service</td>
</tr>
<tr>
<td><strong>Stabilization</strong></td>
<td>Uses hand tools and performs manual labor as required</td>
<td>Describes restabilization procedures, related materials and application techniques</td>
<td>Implements restabilization procedures and application techniques</td>
<td></td>
</tr>
<tr>
<td><strong>Distress Analysis</strong></td>
<td>Identifies surface distresses and basic repair methods</td>
<td>Identifies surface distress remedies and repairs</td>
<td>Analyzes surface distresses and related remedies and repair</td>
<td>Implement procedures for identification and analysis of surface distresses and related remedies and repair</td>
</tr>
<tr>
<td><strong>Patching</strong></td>
<td>Performs manual patching procedures using related materials</td>
<td>Monitors manual patching procedures</td>
<td>Implements manual and mechanized patching procedures</td>
<td>Establishes manual and mechanized patching procedures and candidate selection guidelines</td>
</tr>
<tr>
<td><strong>Crack Sealing</strong></td>
<td>Describes crack sealing procedures using related materials and equipment</td>
<td>Monitors crack sealing procedures using related materials and equipment</td>
<td>Implements crack sealing procedures</td>
<td>Establishes crack sealing procedures and candidate selection guidelines</td>
</tr>
<tr>
<td></td>
<td>Describes safe material handling procedures</td>
<td>Applies candidate selection guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seals cracks in pavement using hand tools and performs manual labor as required. Trains in the use of various related equipment</td>
<td>Demonstrates safe material handling procedures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New Courses – Environmental Courses

- Launched
  - Field Environmental Emergency Compliance – 1 PDH
  - Clean Water Act Compliance During Construction – 1.5 PDHs
  - Hazardous Materials Management Series (9 courses) – 10.5 PDHs
  - Indirect and Cumulative Impact – 2 PDHs
  - National Environmental Policy ACT (NEPA) Overview Series (6 courses) – 4.5 PDHs
  - Revegetation During Construction – 1.5 PDHs
  - Environmental Predecessor Training Series (4 courses) – 3.5 PDHs
  - Environment Triggers Training Series (8 courses) – 5 PDHs
New Courses – Priority List

- Launched
  - Warm Mix Asphalt (Add-on to HMA Paving Inspection) – 2 PDHs
  - Inspection of Concrete Pavement Repair, Jointed and CRCP – 3 PDHs
  - Intelligent Compaction – 3 PDHs
  - Corrosion of Structures – 2 PDHs
  - Micropile – 3.5 PDHs
  - Inspector Orientation – 1.5 PDHs
  - Benchmarking/Best Practices for State Equipment Fleet Management – 3 PDHs
  - Instructor Preparation – 3 PDHs
  - Ethics for Engineers – working with New Mexico – 3 PDHs
  - Pavement Markings – 3.5 PDHs
  - Quality System – 2.5 PDHs
New Courses – Priority List

- In Production
  - Compaction Technician – 1.5 PDHs
  - Shop Drawings – 2.5 PDHs
  - Bridge Maintenance and Preservation – 5 PDHs
  - Winter Maintenance Series
  - Pipe Series that covers design, production/QA, installation/inspection, and maintenance for concrete, plastic and metal pipes
  - Role-Based Math Basics
    - Construction Inspectors – 1.5 PDHs
    - Maintenance Technicians – 1.5 PDHs
    - Materials Technicians – 3 PDHs
  - T166 Bulk Specific gravity (fairly short and easy test) – 2 PDHs
  - T30 Sieve and Wash – 2 PDHs
## Evaluation Results

### Training Evaluations (Scale 1 to 5)

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course was a satisfactory learning experience</td>
<td>4.21</td>
<td>6,724</td>
</tr>
<tr>
<td>Course content was relevant to my job</td>
<td>4.19</td>
<td>6,783</td>
</tr>
<tr>
<td>Course was easy to use</td>
<td>4.30</td>
<td>6,601</td>
</tr>
<tr>
<td>The course subject matter was well-organized</td>
<td>4.29</td>
<td>6,838</td>
</tr>
<tr>
<td>This course will help improve my job performance</td>
<td>4.07</td>
<td>6,890</td>
</tr>
<tr>
<td>Content was consistent with the course description and course objectives provided</td>
<td>4.34</td>
<td>6,802</td>
</tr>
<tr>
<td>Course was easy to access</td>
<td>4.18</td>
<td>6,604</td>
</tr>
<tr>
<td>Course kept my interest</td>
<td>4.08</td>
<td>6,234</td>
</tr>
</tbody>
</table>
Registration Numbers

Total Participant Numbers – 2008 to 2017

Successfully converted our customer base!

Blue – NHI
Orange – Training Store
Yellow – State Sharing

- 2008: 1009
- 2009: 4193
- 2010: 5833
- 2011: 10682
- 2012: 8854
- 2013: 14076
- 2014: 15291
- 2015: 14000
- 2016: 12857
- 2017: 17907


5000 5000 15000 20000


0 5000 10000 15000 20000 25000
## Registration Numbers

**Total Participants – 2008 thru 2017**

<table>
<thead>
<tr>
<th>Source (2008 thru 2017)</th>
<th>Registrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NHI Web site</td>
<td>90,227</td>
</tr>
<tr>
<td>2. State Training Sharing Program</td>
<td>70,741</td>
</tr>
<tr>
<td>3. TC3/AASHTO Training Store</td>
<td>31,254</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>192,222</strong></td>
</tr>
</tbody>
</table>
Questions