



# TCCC Basic Materials for Highway and Structure Construction and Maintenance

## *Web-based Training*

This training was developed by the Transportation Curriculum Coordination Council (TCCC) in partnership with NHI to review basic materials for highway and structure construction and maintenance. The training was prepared by State DOT personnel for State DOT personnel. It is the first training of its kind offered by NHI, and we would like to give special recognition to the TCCC for their efforts. It contains good practices from various agencies. Each State agency/company has their own specifications, which the viewer needs to review and follow. Although there are a number of materials used in the construction and maintenance process for both highways and structures, this course is focused on the three basic materials. They are Aggregate, Portland Cement Concrete (referred to as PCC), and Hot Mix Asphalt (referred to as HMA).

Module 1, Basic Aggregates, includes quarry inspection, sand operation, stockpiling, and sampling. Module 2 includes production of Portland Cement, the hydration process, as well as other cementing materials used in concrete such as water, admixtures, and aggregates. Module 3 reviews HMA, including the asphalt binder and aggregates used in the production.

NHI is hosting this and other TCCC Web-based developments to serve a critical need for training. We need your feedback to determine whether we should continue posting other WBTs like this one. Please take the time to complete the evaluation form provided at the end of the training, or e-mail [nhimarketing@dot.gov](mailto:nhimarketing@dot.gov) with your feedback.

**OUTCOMES:** Upon completion of this training, participants will be able to:

- Identify aggregate production and sampling procedures
- Recognize the ingredients of PCC and the part each plays in concrete production
- Recognize the ingredients of HMA and the part each plays in hot mix asphalt production

**TARGET AUDIENCE:** This training is designed for Level I and Level II State/local public agency personnel and their industry counterparts involved in the construction, maintenance and testing process for highways and structures. Level I or Entry refers to employees/trainees with little to no experience in the subject area and perform his/her activities under direct supervision. Level II or Intermediate refers to employees that understand and demonstrate skills in one or more areas of the entry level and perform specific tasks under general supervision.

**TRAINING LEVEL:** Beginner

**LENGTH:** 4 hours

**CEU:** 0.0 Units

**FEE:** FREE

**CLASS SIZE:** Minimum: 1

**REGISTRATION:** Register online at [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov). If you are a new NHI Web site user, complete the user profile to create a NHI User ID and password. Once you login, add the course to your shopping cart and proceed to checkout. When the checkout process is completed, you will receive an e-mail with instructions for accessing this WBT.

**NHI Training Team:** (703) 235-0534 • E-mail [nhitraining@fhwa.dot.gov](mailto:nhitraining@fhwa.dot.gov)

**Subject Matter Contact:** Chris Newman • (202) 366-2023 • E-mail [christopher.newman@dot.gov](mailto:christopher.newman@dot.gov)

**NHI Training Program Manager:** Ann Gretter • (703) 235-1260 • E-mail [ann.gretter@fhwa.dot.gov](mailto:ann.gretter@fhwa.dot.gov)

TCCC training is now available for enrollment through NHI. For questions about enrollment, help with your User ID, or if you have forgotten your password, e-mail [nhiwebmaster@dot.gov](mailto:nhiwebmaster@dot.gov).



**NATIONAL HIGHWAY INSTITUTE**