

NCDOT

**State Road Maintenance Unit**



# Technical Training **Course Catalog**



Traffic  
Roadside  
Road Maintenance  
Bridge Maintenance



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## Catalog Introduction and Use

The State Maintenance Operations Unit's Technical Training Course Catalog is designed to provide employees within NCDOT a resource for self-study courses, operations procedural manuals, limited safety manuals and general equipment guides.

The catalog is broken down into various sections within NCDOT, each containing a brief description of the training courses, manuals, equipment guides or procedures that are specific to that unit. NCDOT employees should follow the procedures listed in that section to order materials as needed.

## Mandatory Classes for All NCDOT Employees

Title	Target Audience	Notes
Diversity for Today's Employee	All employees	Must complete once
Equal Employment Opportunity Institute Level I	All managers & supervisors	Must complete within one year of hiring/promotion
Security Awareness	All employees	Must complete annually, offered on-line
Controlled Substance & Alcohol Policy	All managers & supervisors	Must complete once. (1)
Disciplinary Action Policy	All managers & supervisors	Must complete once. (1)
Interviewing Skills for Managers	Anyone who interviews applicants	Must complete prior to conducting interviews. (1)
Blood-borne Pathogens	All employees	Must complete once, offered on-line. (2)
Managing Your Inbox: E-mail as a Public Record	All employees with e-mail accounts	Must complete once, offered on-line
Workplace Violence Policy	All employees	Must complete once, offered at Orientation or on-line. (1) and (3)
Unlawful Workplace Harassment Policy	All employees	Must complete once, offered at Orientation or on-line. (1) and (4)
Ethics Policy	All employees	Must complete once, offered at Orientation or on-line. (1)
Merit Based Hiring	Anyone who interviews applicants	Must complete prior to conducting interviews, offered on-line. (1)
Family Medical Leave Act	All managers & supervisors	Must complete once, offered at Orientation or on-line. (1)
Results Based Performance Management	All managers & supervisors	Must complete once. (1)

**NOTES:**

(1) Mandatory refresher training may be conducted if there are significant policy changes.

(2) Completion of ADA/Blood-borne Pathogens, ADA/Blood-borne Pathogens for Managers and Supervisors or In Service –Blood-borne Pathogens satisfies this requirement.

(3) Completion of Workplace Violence or Workplace Violence Awareness satisfies this requirement.

(4) Completion of Unlawful Workplace Harassment satisfies this requirement.

## Bridge Maintenance Section

The Bridge Maintenance program falls under the Bridge Management Unit of NCDOT. Contained within this section are classroom courses, self-study courses and general skill set manuals.

To request a manual or course from this section go to page ME51N in the SAP system and request the number of manuals or courses needed by creating a Standard Requisition from Central Inventory.

## BRIDGE MAINTENANCE

### PERSONAL PROTECTIVE EQUIPMENT

**Description:** This session includes the training required by the new OSHA Standard, 1910.132(f), for each employee who must wear Personal Protective Equipment (PPE). The course addresses the necessary PPE to use and its proper wear and adjustment. Also discussed are the limitations, the proper care, maintenance, and disposal of PPE. Specific items covered include protection for eyes and face, the head, hands, feet and protection against noise. The Coastal video tape "Personal Protective Equipment-You're Covered" is shown and discussed.

**Type:** Self-study/OJT

**Target Audience:** Bridge Maintenance employees

**Length of Course:** 1 hour

**Examination:**

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

### SAFE CRANE OPERATION

**Description:** This course provides participants with the knowledge and skills needed for proper crane operation, maintenance and safety.

**Type:** Self-study/OJT

**Target Audience:** Bridge Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:** Yes

### REINFORCING STEEL

**Description:** This Procedural Training Guide will provide the trainee with information needed to provide knowledge and skills in the placing and tying of reinforcing steel. The following topics are covered: Safety, Reinforcing Steel: bar size, bar bending, bar splicing, unloading hoisting, bar tying, bar cover, bar support, temperature and shrinking, welding, epoxy, dowels, reinforcing steel drawings, review, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge  
Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

### **PILE DRIVING**

**Description:** This Procedural Training Guide will provide the trainee with information needed to provide knowledge and skills needed to handle piles, prepare pile templates, drive piles, keep pile records, determine capacity, splice piles, cutoff piles and preparing pile points. The following topics are covered: Safety, Pile setting: type of pile, handling, pile templates, pile driving, plumbing and aligning, splicing, pile capacity, pile record, pile cutoff, pile points, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge  
Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

### **DIRECTING PILE DRIVING**

**Description:** This Procedural Training Guide will provide the trainee with information needed to provide knowledge and skills needed to direct the driving of piles. The following topics are covered: Safety, purpose of foundation, determining pile length, pile driving record, determining anticipated pile penetration, pile capacity, pile cutoff, NCDOT Standard Specifications, Operator Manual, and Instructor's Guide. This guide is designed to be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge  
Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

### **PIPE INSTALLATION AND MAINTENANCE OF 54” AND LARGER**

**Description:** This Procedural Training Guide will provide the trainee with information needed to install, compute length and perform maintenance of 54” pipe or larger. The following topics are covered: Safety, pipe installation, pipe installation standards, camber calculations, pipe length calculations, pipes maintenance, and Instructor’s guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge  
Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

### **CONCRETE FORM CONSTRUCTION**

**Description:** This Procedural Training Guide will provide the trainee with information needed to provide knowledge and skills in construction of concrete word forms. The following topics are covered: Safety, site lines lay out, forms introduction, materials, footing forms, anchor bolts, double wall forms, column forms, steps, and Instructor’s guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge  
Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**



## **INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES**

**Description:** This Procedural Training Guide will provide the trainee with information needed to provide knowledge and skills in temporary erosion control devices most commonly used during construction activities and the basic procedures used during their installation. The following topics are covered: function of the device, required materials, installation, maintenance, and typical problems. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Bridge  
Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

## **EROSION CONTROL DESIGN MODULE, BRIDGE MAINTENANCE**

**Description:** This Procedural Training Guide will provide the trainee with information needed to gain knowledge and skills in department erosion control plan design and implementation concepts, characteristics, and programs. The following topics are covered: Erosion Control Responsibilities, Erosion Control Policy and Procedures, Plan Development and Design, Environmental Rules and Regulations. *This training guide can be used as a reference guide only, as a supplement to classroom instruction.* NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Bridge  
Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

## **STEEL BRIDGE DESIGN USING AASHTO LRFD BRIDGE DESIGN SPECIFICATION (2001 INTERIM)**

**Description:** The course is devoted to design of steel bridges using the AASHTO LRFD Bridge Design Specifications. It will include background of code changes, cost effective details for steel bridges, seismic design issues and short examples demonstrating the application of the LRFD code.

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**Type:**  
**Target Audience:**  
**Length of Course:** 1.5 hours  
**Examination:**  
**PDH:** None

**Provider:**  
**Prerequisites:** None  
**Cost:**  
**Certification:**

### **ABRASIVE BLASTING AND POWER TOOLS FOR COATING REMOVAL**

**Description:** The completion of this course will provide the trainee with the information and skill to operate both abrasive blasting and power tool for surface coating removal. The following topic will be covered: use of air compressor for operation of power tools, personal protective equipment associated with silica or lead, containment and clean up of debris and maintenance of equipment associated with abrasive blasting.

**Type:** Classroom training  
**Target Audience:** Bridge Maintenance employees  
**Length of Course:** 8 hours  
**Examination:** None  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **LEAD IN CONSTRUCTION WORKER REFRESHER**

**Description:** This refresher course is available for those who are subject to lead exposure in the workplace. The Coastal video "Lead: Treat It with Respect" will be shown and will include: lead and health hazards; exposure limits; personal protective equipment; housekeeping and medical surveillance. The class will conclude with a discussion period, recent lead removal results and a review of the Compliance Plan.

**Type:** Classroom training  
**Target Audience:** Bridge Maintenance employees  
**Length of Course:** 1 hour  
**Examination:** None  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Required annually

### **CRANE CERTIFICATION AND RECERTIFICATION**

**Description:** Satisfactory completion of this course will result in the certification or rectification of the operator. The course material covers operator familiarity with the safe operating procedures. In addition, it teaches the operator how to read load charts.

**Type:** Classroom training  
**Target Audience:** Bridge Maintenance employees  
**Length of Course:** 24 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

### **STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (SECTIONS 420 AND 1000)**

**Description:** This Procedure Training Guide will provide the trainee with information provided in Section 420 and 1000 of Standard Specifications for Roads and Structures. The following topics will be covered: Concrete Structures, Portland Cement Concrete Production and Delivery, and the Instructor's guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

### **BASIC CARPENTER WORK**

**Description:** This Procedural Training Guide will provide the trainee with information needed to maintain and operate carpenter tools. The following topics will be covered: Safety, Chisel, Hand Saw Ladder, Level, Nail Hammer, Drill, Circular Saw, Reciprocating Saw, Pry Bar, Rule, Screwdriver, Sledge Hammer, Squares, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Bridge Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Bridge Maintenance  
**Prerequisites:** None  
**Cost:** None  
**Certification:**

## **ADVANCED CARPENTER WORK**

**Description:** This Procedural Training Manual will provide the trainee with information needed to perform advanced carpenter work. The following topics will be covered: Safety, Lumber, Fasteners, Plan Reading for Beginners, Bridge Plan Reading, Box Culverts Plan Reading for Beginners, and Instructor's Guide. This manual can be used as a self-study manual. There should be an OJT instructor assigned who has experience in the Advanced Carpenter Field. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Bridge  
Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

## **CONCRETE PLACEMENT**

**Description:** This Procedural Training Guide will provide the trainee with information needed to perform Concrete Placement. The following topics will be covered: Safety, Site Preparation, Transporting, Consolidating, Finished Concrete Surface, Curing, Form Removal, and Formed Face Finish. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Bridge  
Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

## **CONCRETE CONCEPTS**

**Description:** This Procedure Training Guide will provide the trainee with information needed to become proficient in the use of Concrete. The following topics will be covered: Safety, Concrete Properties, Concrete Placement, Items that Affect Concrete, Concrete Testing, and Concrete Defects. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may

have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Provider:** Bridge Maintenance

**Target Audience:** Bridge  
Maintenance employees

**Prerequisites:** None

**Cost:** None

**Length of Course:** At own pace

**Certification:**

**Examination:** Yes

**PDH:** None

### **TORCH CUTTING**

**Description:** This Procedural Training Guide will provide the trainee with information needed to perform Torch Cutting. The following topics will be covered: Safety, Component Parts, Hazards, Cylinders, Hoses, Protective Wears, Operations, and Hazard Operations. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Provider:** Bridge Maintenance

**Target Audience:** Bridge  
Maintenance employees

**Prerequisites:** None

**Cost:** None

**Length of Course:** At own pace

**Certification:**

**Examination:** Yes

**PDH:** None

### **ABRASIVE BLASTING**

**Description:** This Procedural Training Manual will provide the trainee with information needed to perform Abrasive Blasting. The following topics will be covered: Safety, Hazards, Blasting Equipment, Abrasives, Operation and Backup Operator. This manual can be used for self-study. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Provider:** Bridge Maintenance

**Target Audience:** Bridge  
Maintenance employees

**Prerequisites:** None

**Cost:** None

**Length of Course:** At own pace

**Certification:**

**Examination:** Yes

**PDH:** None

## **DRILLING AND CUT METAL**

**Description:** This Equipment Training Guide will provide the trainee with information needed to become proficient in the use of tools used to drill and cut structural steel to close tolerance. The following topics will be covered: Safety, Electromagnetic Drill Press, Portable Band Saw, Reamer, Auger Grinder, and Fitting Structural Steel. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Bridge  
Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Bridge Maintenance

**Prerequisites:** None

**Cost:** None

**Certification:**

## Equipment Section

The State Maintenance Operations Training Section of NCDOT maintains a department specific set of equipment operator's manuals. Contained within this section are classroom courses, self-study courses and general skill set manuals.

To request a manual or course from this section go to page ME51N in the SAP system and request the number of manuals or courses needed by creating a Standard Requisition from Central Inventory.

## EQUIPMENT SECTION

### AIR COMPRESSOR

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Air Compressor. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self- study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### AUGER AND POST DRIVER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Auger. The following topics will be covered: Safety, Pre-start, Pre-operations, Shut-down, Equipment Maintenance, Equipment Operations, Equipment Transport, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### COMPACTOR: SKID, JAY, BACKFILL

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Skid, Jay, and Backfill Compactors. The following topics will be covered: Terms and Definitions,



Safety, Equipment Maintenance, Equipment Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### DUMP TRUCK

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Dump Truck. The following topics will be covered: Terms and Definitions, Safety, Equipment Controls and Instruments, Equipment Maintenance, Equipment Operations, Equipment Transport and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### MOWER ATTACHMENTS

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Sickle Bar, Rotary, Flail, Mott, Batwing, A-Boom and Boom-Axe Mowers. The following topics will be covered: Safety, Mowing Operations, Typical Mowing Patterns, Equipment Maintenance, Equipment Operations and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **SHEEP FOOT ROLLER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care, and safety concerns for the Sheep Foot Roller. The following topics will be covered: Safety, Equipment Maintenance, Equipment Maintenance Operations and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **TRACTOR ATTACHMENTS**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Fumigation Rig, Rotovator, Sod Seeder, Disk, Cultivator, Chisel Plow and Fertilizer Spreader. The following topics will be covered: Safety, Equipment Maintenance Operations, Equipment Operations and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **TRACTOR SWEEPER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Tractor Sweeper. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **WHEEL TRACTOR**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Wheel Tractor. The following topics will be covered: Safety, Terms and Definitions, Equipment Controls and Instruments, Equipment Maintenance, Equipment Operations, Equipment Transport and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **FRONT END LOADER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Front End Loader. The following topics will be covered: Safety, Equipment Maintenance, Operations and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees

may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **FORCE FEED LOADER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Force Feed Loader. The following topics will be covered: Safety, Terms and Definitions, Equipment Controls and Instruments, Equipment Maintenance, Equipment Operations, Equipment Transport and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **CRAWLER TRACTOR**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Crawler Tractor. The following topics will be covered: Safety, Equipment Maintenance, Terms and Definitions, and Operations. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT DISTRIBUTOR (PULL-TYPE)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns of the Pull-Type Asphalt Distributor. The following topics will be covered: Safety, Preventive Maintenance Checks, Equipment Controls and Instruments, Basic Operations, and Transporting. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **CONVENTIONAL PESTICIDE APPLICATORS**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, safety and maintenance of Conventional Pesticide Applicators. The following topics will be covered: Safety, Terms and Definitions, Equipment Maintenance, Equipment Operations, Mixing and Loading, and Calibration. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## HYDROSEEDER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care, and safety concerns for the Hydro-seeder. The following topics will be covered: Safety, Instruments, Controls and Components, Preventive Maintenance, Operations, Trouble Shooting, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## MULCH BLOWER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, safety, and maintenance of the Mulch Blower. The following topics will be covered: Safety, Equipment Instruments, and Equipment Maintenance Operations, Equipment operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## COMPUTER-CONTROLLED PESTICIDE APPLICATOR

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for Computer-Controlled Pesticide Applicators. The following topics will be covered: Terms and

Definitions, Safety, Equipment Controls, and Instruments, Equipment Maintenance and Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SIDE DELIVERY SPREADER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, safety and maintenance of the Side-Delivery Spreader. The following topics will be covered: Safety, Equipment Components, Equipment Maintenance Operations, Equipment Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SOD SEEDER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, safety and maintenance of the Sod Seeder. The following topics will be covered: Safety, Equipment Components, Equipment Maintenance Operations, Equipment Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **PNEUMATIC TIRE ROLLER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Pneumatic Tire Roller. The following topics will be covered: Safety, Instruments, Controls and Components, Operations and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **CHAIN SAW**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Chain Saw. The following topics will be covered: Safety, Terms and Definitions, and Operations. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None



## MOTOR GRADER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Motor Grader. The following topics will be covered: Safety, Terms and Definitions, Operations, and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## BRUSH CHIPPER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Brush Chipper. The following topics will be covered: Safety, Instruments and Controls, Maintenance Operations, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## PULVERIZER MIXER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Pulverizer Mixer. The following topics will be covered: Safety, Equipment Operations, and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide

answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **CHIP SPREADER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Chip Spreader. The following topics will be covered: Safety, Controls and Parts, Operations, and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **STEEL WHEEL ROLLER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Steel Wheel Roller. The following topics will be covered: Safety, Instruments, Controls and Components, Operations, and Transportation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **BACKHOE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Backhoe. The following topics will be covered: Safety, Controls and Instruments, Pre-start, Pre-operations, Shutdown, Operations, Transport, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **SCRAPER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Scraper. The following topics will be covered: Safety, Instruments and Controls, Pre-start, Pre-operations, Shutdown, Operations, Transport, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **TRAILER (TOW TYPE)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Trailer (Tow Type). The following topics will be covered: Safety, Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **CURBING MACHINE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Curbing Machine. The following topics will be covered: Safety, Parts and Controls, Pre-operation, Pre-start, and Shutdown, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **MOTORGRADER SLOPE BLADE ATTACHMENT**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Motor-grader Slope Blade Attachment. The following topics will be covered: Safety, Parts, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment,

and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **CUTOFF SAW**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Cutoff Saw. The following topics will be covered: Safety, Parts and Controls, Preventive Maintenance, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **TRACTOR TRAILER (LOW BOY)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Tractor Trailer (Low Boy). The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT TANKER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Asphalt Tanker. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **LUBE TRUCK**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Lube Truck. The following topics will be covered: Safety, Instruments and Controls, Pre-start, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## TRUCK EXCAVATOR

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Truck Excavator. The following topics will be covered: Safety, Instruments and Controls, Pre-start, Pre-operation, Shutdown, Operations, Equipment Tie-down, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## RUBBER TIRE EXCAVATOR

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Rubber Tire Excavator. The following topics will be covered: Safety, Instruments and Controls, Pre-start, Pre-operation, Shutdown, Operations, Equipment Tie-down, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## HAND POWER AUGER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Hand Power Auger. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have.

NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **ASPHALT PATCHER - TRUCK MOUNTED**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Asphalt Patcher (Truck Mounted). The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **CRACK SEALING MACHINE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Crack Sealing Machine. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.



**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **PAINT LINE REMOVING MACHINE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Paint Line Removing Machine. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **BASIC TWO-WAY RADIO COMMUNICATION**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Basic Two-way Radio Communication. The following topics will be covered: Safety, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **PORTABLE CHANGEABLE MESSAGE SIGN (CMS) DEPLOYMENT AND ACTIVATION**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for Portable Changeable Message Sign Deployment and Activation. The following topics will be covered: Safety, Maintenance, Operations, and Instructor's guide. This guide can be used as a self-study guide. There should be OJT an instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **PRELINE PAINT MACHINE**

**Description:** This Equipment Training Guide provides information on the operation, maintenance and safety concerns for the Pre-line Paint Machine. The following topics will be covered: Safety, Maintenance, Operation, and Instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **THERMOPLASTIC MACHINE AND KETTLE**

**Description:** This Equipment Training Guide provides information on the operations, maintenance and safety concerns for the Thermoplastic Machine and Kettle. The following topics will be covered: Safety, Parts (Thermoplastic Machine), Preventive Maintenance (Thermoplastic Machine), Equipment Operations (Thermoplastic Machine), Towing, Parts (Kettle), Pre-start (Kettle), Shutdown (Kettle), Operation (Kettle), and Instructor's Guide. This guide can be used as a self-study guide. There

should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SIGN TRUCK WITH ATTACHMENTS**

**Description:** This Equipment Training Guide provides information on the operation, maintenance and safety concerns for the Sign Truck and Attachments. The following topics will be covered: Safety, Parts, Preventive Maintenance, Operations–Sign Truck, Operations–Attachments, and Instructor’s guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **TRUCK WITH AERIAL DEVICE**

**Description:** This Equipment Training Guide provides information on the operation, maintenance and safety concerns for the Truck with Aerial Device. This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PAINT TRUCK**

**Description:** This Equipment Guide provides information on the operation; maintenance and safety concerns for the Paint Truck including the edge-line and centerline paint guns. The following topics will be covered: it will help the Traffic Services Transportation Worker master the skills in operating the three primary functions of the Paint Truck plus develop skills in maintenance of the equipment. This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PRINCIPLES OF PROGRAMMING CHANGEABLE MESSAGE SIGNS**

**Description:** This Equipment Training Guide will provide the programming and safety concerns for the utilities of the trailer-mounted CMS. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **INCIDENT MANAGEMENT ASSISTANCE PATROL (IMAP) TRUCK**

**Description:** This Equipment Training Guide provides information on the operation, maintenance, safety concerns and preventive maintenance for the IMAP Truck. This guide can be used as a self-study guide for the Transportation Worker in the Incident Management Unit. It will help the trainee master the skills in operating the IMAP Truck. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **WIDENING MACHINE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, maintenance and safety concerns for the Widening Machine. The following topics will be covered: Safety, Pre-start, Pre-operation, Shutdown, Operations, and Transporting. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **DITCHING MACHINE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Ditching Machine. The following topics will be covered: Safety, Parts, Pre-start, Pre-operation, Shutdown, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **ASPHALT KETTLE**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Asphalt Kettle. The following topics will be covered: Safety, Parts, Pre-start, Pre-operation, Shutdown, Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **ASPHALT DISTRIBUTOR TRUCK MOUNTED (THERMOLAY)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Asphalt Distributor Truck Mounted (Thermolay). This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT PATCHING MACHINE (AMZ)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Asphalt Patching Machine (AMZ). This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **MOTOR GRADER MOWER**

**Description:** This Equipment training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for the Motor Grader Mower. This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PAVER (SELF-PROPELLED)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Self-propelled Paver. The following topics are covered: Safety, Paver Parts, Pre-start, Pre-operation, Shutdown, Operations, Transport, and Instructor's Guide. This guide is can be used as a self-study guide. There should be an OJT instructor should be assigned who has experience with this equipment and who can provide answers to questions by the trainee. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SNOW BLOWER**

**Description:** This Equipment training guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Snow Blower. The following topics will be covered: Safety, Parts, Equipment Operations, and Instructor's Guide. This guide is can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SPECIALIZED MOWERS**

**Description:** This Equipment Training guide will provide an overview of safe operation of Specialized Mowers used by NCDOT. The following topics will be covered: safety, dressing for the job, mowing operations and mower precautions. This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to



questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT MAINTAINER (LEE BOY)**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Asphalt Maintainer (Lee Boy). The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PIPE CLEANER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Pipe Cleaner. The following topics are covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **SKID STEER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Skid Steer. The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **VIBRATOR ROLLER**

**Description:** This equipment-training guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Vibrator Roller. The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ROLL BACK CARRIER**

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Roll Back Carrier. The following topics will be covered: Equipment Safety, Preventive Maintenance, Checks, Basic Operations, and Equipment Transporting. The trainee should be aware that each county may not have the same make truck. It will be up to the trainee to learn to use the equipment training guide, the operator's manual, and any other training guides that may be available in order to become familiar with the truck before beginning on-the-job training. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **COMPUTER CONTROLLED PESTICIDE APPLICATOR <300 GALLONS**

**Description:** This Equipment Training Guide will provide the trainee with information needed to operate the Comp. Controlled Pesticide Applicator <300 Gallons. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## TRACK LOADER

**Description:** This equipment-training guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Track Loader. The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## STREET SWEEPER

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Street Sweeper. The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. There should be an OJT Instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## TRUCK MOUNTED CRANE

**Description:** This Equipment Training Guide will provide the trainee with information needed to understand the operations, care and safety concerns for operating the Truck Mounted Crane. The following topics will be covered: Safety, Parts, Equipment Maintenance, Equipment Operations, and Instructor's Guide. This guide

can be used as a self-study guide. An OJT instructor should be assigned who has experience and who can provide answers to questions raised by the trainee; NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **SPECIALIZED VACUMMS**

**Description:** This Equipment Training Guide will provide the trainee with information needed to operate Specialized Vacuums. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide answers to questions that the trainee may have. NCDOT employees may obtain revised copies of this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## Maintenance Section

The State Maintenance Operations Training Section of NCDOT maintains the technical maintenance procedural manuals and courses. Contained within this section are classroom courses, self-study courses and general skill set manuals.

To request a manual from this section go to page ME51N in the SAP system and request the number of manuals needed by creating a Standard Requisition from Central Inventory.

To request a course listed in this section see your Supervisor or Division Training Coordinator to be enrolled

## MAINTENANCE SECTION

### Maintenance Management System (MMS) Training - Clerks

**Description:** This course is designed to assist maintenance clerks in the use of MMS. The major topics that will be covered include:

- Overview of System Functionality
- SAP / MMS connections
- Finding and Correcting Errors in SAP
- Creating Tasks and Service Requests
- Basic Reporting

**Type:** Computer/Classroom Trng.

**Target Audience:** Office

Assts./Clerks

**Length of Course:** 6 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance

Operations

**Prerequisites:** Basic Computer Skills

**Cost:** None

**Certification:** None

### Maintenance Management System (MMS) Training - Supervisors

**Description:** This course is designed to assist maintenance supervisors in the use of MMS. The major topics that will be covered include:

- Overview of System Functionality
- Creating Tasks and Service Requests
- Capturing and using Road History
- Mileposts and Milepost maps
- Reporting and Mapping

**Type:** Computer/Classroom Trng.

**Target Audience:** Maint. Supervisors

**Length of Course:** 8 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** Basic Computer and Spreadsheet Skills

**Cost:** None

**Certification:** None

### Maintenance Management System (MMS) Training - Engineers

**Description:** This course is designed to assist maintenance engineers in the use of MMS. The major topics that will be covered include:

- Overview of System Functionality
- In depth Report Creation
- Map creation
- Budget Planning and Analysis
- Division Work Plan

**Type:** Computer/Classroom Trng.  
**Target Audience:** Maint. Engineers  
**Length of Course:** 8 hours  
**Examination:** None  
**PDH:** None

**Provider:** State Maintenance  
Operations  
**Prerequisites:** Advanced Computer and  
Spreadsheet Skills  
**Cost:** None  
**Certification:** None

### **THE TW'S TRANSITION TO LEADERSHIP**

**Description:** The transition from employee to lead worker can be difficult. One day you receive instructions, the next day you give instructions. This course looks at the characteristics of good leadership. It moves into the different styles of leadership. Communications skills are essentials. The class identifies ways to overcome communications barriers typically encountered at a job site. Problem solving and decision making are discussed through the use of a group activity.

**Type:** Classroom training  
**Target Audience:** Transportation  
Workers  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance  
Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT EMULSION - STORAGE AND HANDLING**

**Description:** This classroom presentation and/or self-study course is designed for field maintenance personnel to demonstrate the proper methods of use and handling of emulsified asphalt. The following topics will be covered in this course: basics of asphalt emulsion, storage requirements of asphalt emulsion, review of different types of storage tanks, how to load, unload, and maintain storage tanks, daily storage tank inspection, sampling procedures, and safe heating of asphalt emulsion. A written test is included in the course study as well as field OJT given by the supervisor. **On-the-Job Training** would be necessary for the employee to become qualified. Upon completing the qualification steps it should be recorded in the employee's file. This presentation can be obtained from the Central Equipment and Inventory Control Computerized Request Program accessible through SAP.



**Type:** Classroom or Self-study/OJT  
**Target Audience:** Employees who manage, maintain, or inspect the yards bulk storage facility as well as any employee who loads or unloads at this facility.  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **WINTER WEATHER OPERATIONS**

**Description:** This course discusses standard methods for controlling snow and ice events explore new techniques available to Road Maintenance Managers. Time is spent determining equipment and materials needs for jurisdictional area, and developing a plan for using these resources efficiently. Some of the physical and chemical science aspects of the melting process are also discussed along with review of recommended methods and material application rates for different types of winter event. This course is recommended for Journey and Advanced Level Transportation Supervisors and all Maintenance Engineers every three years.

**Type:** Classroom training  
**Target Audience:** Maintenance Managers  
**Length of Course:** 8 hours  
**Examination:** Yes  
**PDH:** 5 hours

**Provider:** State Maintenance Operations  
**Prerequisites:** Snow and Ice Control for Operators  
**Cost:** None  
**Certification:** None

### **SNOW & ICE CONTROL FOR OPERATORS**

**Description:** This course is designed for operators and their immediate supervisors. Plowing and material application techniques are discussed and time is spent explaining new techniques available for controlling snow and ice. The melting process and discussion of the amount of materials needed to effectively maintain this process is also included. This course is recommended for Transportation Workers and Contributing Level Transportation Supervisors every two years.

**Type:** Classroom training  
**Target Audience:** Equipment operators & their supervisors  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **SNOW & ICE CONTROL REFRESHER FOR OPERATORS**

**Description:** This course is designed for operators and their immediate supervisors who have taken the Initial Operator's class and passed the examination within the last two years. An overview of plowing and material application techniques are discussed and time is spent explaining any new techniques established for controlling snow and ice. The melting process and discussion of the amount of materials needed to effectively maintain this process is also included. This course is recommended for Transportation Workers and Transportation Supervisors Level I every two years.

**Type:** Classroom training  
**Target Audience:** Equipment operators & their supervisors  
**Length of Course:** 2 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **GUARDRAIL DESIGN, INSTALLATION AND MAINTENANCE**

**Description:** This course covers the maintenance of guardrail features, components of guardrail and cable guiderail systems, as well as decision-making criteria for designers and the various types of guardrail hardware and end treatments.

**Type:** Classroom training  
**Target Audience:** Maintenance & Construction Engineers  
**Length of Course:** 7 hours  
**Examination:** None  
**PDH:** 7 hours

**Provider:** ITRE  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **BRICK AND BLOCK WALL CONSTRUCTION**

**Description:** This self- study course will provide information needed to construct brick and block walls. The following topics will be covered: Safety, How to Build Brick Walls, How to Build Block Walls, and How to Mix Mortar. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** None  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **DRAINAGE EXCERPTS & PIPE INSTALLATION**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the drainage regulations that are important to field employees and methods of pipe installation. The following topics will be covered: drainage laws and policies and pipe installation. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** None  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **FIELD MAINTENANCE MANUAL**

**Description:** This Procedure Training Guide will provide the trainee with a collection of policies, regulations and laws that influence the field personnel. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has knowledge of policies, regulations and laws that influence field personnel. Once the field maintenance manual test has been completed and passed, the trainee will be eligible for qualification. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **INCIDENTAL CONCRETE CONSTRUCTION**

**Description:** This Procedure Training Manual will provide the trainee with information needed to understand the basic procedures in concrete construction. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **ROADWAY DRAINAGE MAINTENANCE**

**Description:** This course covers drainage principles, installation and maintenance, inspections, policies and procedures.

**Type:** Classroom training

**Target Audience:** Maintenance Managers & Supervisors

**Length of Course:** 6 hours

**Examination:** None

**PDH:** Yes

**Provider:** ITRE

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **FUNCTION CODE TRAINING WORKSHOP (Ask Lonnie)**

**Description:** This course is designed to aid Transportation Supervisors and County Maintenance Engineers in daily work order cost accounting. Transportation Supervisor III and County Maintenance Engineers will also discuss methods of work planning and resource leveling.

**Type:** Classroom

**Target Audience:** Maintenance managers and supervisors

**Length of Course:** 4 Hours

**Examination:** None

**PDH:**

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **ELEVATION & GRADE INSTRUMENTS AND USE**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the instruments and methods needed to check elevations and set grades. The following topics will be covered: stick rule, fabric type, level rod, hand level, tripod, and level. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with the use of level instruments and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance

Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **RENTAL EQUIPMENT SUPERVISION**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the procedures for supervising rental equipment. The following topics will be covered: safety, administering the rental equipment, fully operated rental equipment, DOT operated rental equipment, and instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with the supervising of Rental Equipment. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance

Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **FORCE ACCOUNT CONSTRUCTION**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the procedure for building a road or road segments by Force Account Construction. The following topics will be covered: safety, construction outline, clearing and grubbing, outlet ditching, rough grading, fine grading, base material, compaction, miscellaneous functions, and instructors guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with road construction. NCDOT employees may obtain this guide from

the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **FENCE INSTALLATION**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the procedure for constructing 6 types of fences. The types of fences are: woven wire fence with wood post, woven wire fence with metal post, livestock woven wire metal post, livestock barbed wire fence, chain link fence, and high tensile fence. The following topics will be covered: safety, hardware, recommended tools, layout, digging post holes, setting post, bracing, fence erection, erecting gates, ditch crossing and sharp grade breaks, review, and instructor's guide. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with fence construction. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **CONCRETE PAVEMENT PROGRAM**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the procedure for patching concrete pavement. The following topics are covered: safety, temporary patching, patching of non-reinforced concrete pavement, patching of reinforced concrete pavement, maintenance of joints and/or cracks, instructor's guide and certification test. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ASPHALT PAVEMENT PATCHING**

**Description:** The classroom presentation and/or self-study will provide the employee with information needed to understand the procedure for patching asphalt pavements. The following topics are covered: manual patching, mechanical patching, AST patching, full depth patching using asphalt plant mix and AST), and crack pouring. A written test is included in the course study as well as field OJT given by the supervisor. **On-the-Job Training** would be necessary for the employee to become qualified. Upon completing the qualification steps it should be recorded in the employee's file. This presentation can be obtained from the Central Equipment and Inventory Control Computerized Request Program accessible through SAP.

**Type:** Classroom or Self-study  
**Target Audience:** Maintenance employees who have minimal asphalt experience.  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **SHOULDER AND DITCH MAINTENANCE**

**Description:** This Procedure Training Guide will provide the trainee with information needed to understand the procedure of performing shoulder and ditch maintenance of paved and unpaved roads. The following topics will be covered: safety, FC 441 and 442 (maintenance of unpaved shoulders and side ditches on paved roads), FC 464 (maintenance of upward side ditches on unpaved roads). This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide the necessary test for certification. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **GUARDRAIL INSTALLATION AND REPAIR**

**Description:** This Procedure Training Guide will provide the trainee with information needed to install and repair guardrail. The following topics will be covered: safety, type guardrail and end treatment, design elements, and structural characteristics, repair of guardrail and maintenance of guardrail. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment and can provide the necessary test for certification. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

### **ASPHALT PAVEMENT PRESERVATION**

**Description:** This training will describe Preservation practices, techniques, and philosophy. Target audiences for this training are managers and those individuals that are choosing pavement preservation applications for specific roadway sections. Additionally individuals charged with the developing and letting pavement preservation activities to contract could also benefit. This includes **Transportation Supervisor III, County Maintenance Engineers, Bituminous Supervisors, District Engineers, Project Managers, and Division Maintenance Engineers.**

**Type:** Classroom  
**Target Audience:** Shown above  
**Length of Course:** 4 hours  
**Examination:** None  
**PDH:** 3 Hours

**Provider:** State Maintenance Operations Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None



## **TECHNICAL ON THE JOB TRAINING QUALIFICATION**

**Description:** This course is designed for OJT instructors. It is intended for all employees that have been identified as mentors, OJT instructors, or OJT trainers. The objectives of this course are:

1. To understand how on-the-job training is designed.
2. To understand the importance of matching the training to the training objectives.
3. To understand OJT learning guidelines.

This course is limited to a maximum of eight participants per session.

**Type:** Classroom training

**Target Audience:** Employees that have OJT instructor/trainer duties

**Length of Course:** 4 hours

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **CONTRACT MANUAL**

**Description:** This course introduces middle and upper management to the Contract Manual. Participants are provided with information on both Division and Purchase Order Contracts that are informally bid by field units for small projects and service contracts. The guide discusses preparing and administering both types of contracts as well as issues relating to contracts for Federal Aid and Small Business projects. Time is also spent discussing how to use bonds in these contracts. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have.

**Type:** Self-study/OJT

**Target Audience:** Maintenance employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **INTRODUCTION TO SUPERVISION/ADVANCED LEADERSHIP TECHNIQUES**

**Description:** This course is designed to provide the transportation worker additional skills at leading work crews. It can help prepare the TW to become a Transportation Supervisor.

**Type:** Classroom training  
**Target Audience:** Operators of Category D equipment  
**Length of Course:** 6 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** SBP300  
**Cost:** None  
**Certification:** None

## **INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES**

**Description:** This Self-study/OJT course will familiarize the trainee with those temporary erosion control devices most commonly used during construction activities and the basic procedures used during their installation. The following topics are covered: function of the device, required materials, installation, maintenance, and typical problems. This guide can be used as a self-study guide. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

## **SECURING AND HAULING CARGO**

**Description:** This Procedural Training Manual will provide the trainee with information needed to tie down and haul cargo including equipment. The following topics will be covered: safety, securing cargo, hauling cargo, instructor's guide, and certification test. This manual can be used for self-study. There should be an OJT instructor assigned who has experience with this equipment, and can provide answers to questions that the trainee may have. NCDOT employees may obtain this guide from the Central Equipment and Inventory Control Computerized Requisition Program accessible through SAP.

**Type:** Self-study/OJT  
**Target Audience:** Maintenance employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

**MAINTENANCE CONDITION ASSESSMENT - NEW**

**Description:** This course was designed to train new assessment teams on how to evaluate the condition of multitude roadway features during the annual Maintenance Condition Assessment that is used to report the condition of the highway system to the Legislature.

**Type:** Classroom training  
**Target Audience:** New assessment teams  
**Length of Course:** 12 hours  
**Examination:** None  
**PDH:** 9 hours

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

**CONTRACT INSPECTIONS FOR TWs/TSIs**

**Description:** This course is designed to train TWs and TSIs on the following aspects of the contract inspection process:

1. Why these Inspections are necessary
2. Become familiar with the tasks of the Inspector
3. Understand the contract and inspection process
4. Problem solving and decision making skills
5. Inter-personal relationship skills
6. Pit falls for Inspectors (What to avoid!)

**Type:** Classroom training  
**Target Audience:** Employees that inspect NCDOT contracts  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## Roadside Environmental Section

The Roadside Environmental Unit of NCDOT maintains the REU procedural manuals and courses. Contained within this section are classroom courses, self-study courses and general skill set manuals.

To request a manual or course from this section go to page ME51N in the SAP system and request the number of manuals or courses needed by creating a Standard Requisition from Central Inventory.

## ROADSIDE ENVIRONMENTAL

### DICKEY-JOHN EQUIPMENT TRAINING

**Description:** This course provides Roadside Environmental Unit personnel with the necessary training to operate the Dickey-John automated sprayer control systems installed on roadside spray equipment. The following topics will be covered: the input of system operation data, calibration of equipment, and system trouble shooting. Upon completion of this course the equipment operators should have received the technical training to correctly use the system.

**Type:** Classroom

**Target Audience:**

**Length of Course:** 3 hours

**Examination:**

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:** None

**Cost:**

**Certification:**

### Level I: Erosion & Sediment Control/Stormwater Certification

**Description:** This course is designed for those who install erosion and sediment control on construction sites. The course emphasizes the function and proper installation of best management practices used by NCDOT to minimize or control erosion and sedimentation. Also covered are the basics of soil erosion, vegetation establishment, and stream restoration. Additional subjects will include implementation of erosion/sediment control plans, requirements of various regulatory agencies, and consequences of permit violations.

**Type:** Classroom/Online

**Target Audience:** Operations

**Length of Course:** One Day

**Examination:** Yes

**PDH:** 4 Hours

**Provider:** NC State University

**Prerequisites:** None

**Cost:** \$125.00

**Certification:** Yes

**Web Address:** <http://www.cvent.com/events/level-i-and-ii-erosion-sediment-control-stormwater-certification-for-ncdot-projects/custom-18-2a3ac3872e974d739c05122a282673ef.aspx>

### VEGETATION MANAGEMENT I

**Description:** This self-study course will introduce the trainee to NCDOT's Roadside Environmental Unit, Division Roadside Environmental Department, and to some basic vegetation management procedures. The following topics will be covered: Roadside Environmental organizational structure and program descriptions; basic seeding operations; backpack sprayer utilization; and ornamental and tree seedling installation. There should be an OJT instructor assigned who has experience with

the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside  
Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **VEGETATION MANAGEMENT/PEST MANAGEMENT II**

**Description:** This self-study course will increase the trainee's familiarity with the NCDOT Pest Management programs. The following topics will be covered: backpack calibration; introduction to pesticide handling and safety; equipment types for pest management; herbicide terminology; basic mathematics and conversion factors. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside  
Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **VEGETATION MANAGEMENT/PEST MANAGEMENT III**

**Description:** This self-study course will familiarize the trainee with NCDOT's turf-grass and vegetation management concepts, characteristics, and control programs. The following topics will be covered: Integrated Roadside Vegetation Management (IRVM); herbicides as a component of IRVM; factors which influence herbicidal activity; DOT Roadside Programs for the control of various vegetation types; turf-grass adaptability zones in North Carolina. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside  
Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:**

**Cost:** None

**Certification:** None

## **INTEGRATED PLANT MANAGEMENT**

**Description:** This self-study course will familiarize the trainee with NCDOT's Integrated Plant Management program. The following topics will be covered: Integrated Pest Management (IPM) and Integrated Roadside Vegetation Management (IRVM); the "zone concept" of roadside vegetation management; concepts of plant and pest monitoring, pest biology and ecology, and threshold levels; reasons for an Integrated Roadside Vegetation Management Program; and policies and regulations related to managing vegetation on NC right-of-ways. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside  
Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:**

**Cost:** None

**Certification:** None

## **SOIL STABILIZATION II**

**Description:** This self-study course will expose the trainee to two parts of the seeding operation including mulching and the installation establishment of a soil stabilizing turf. The following topics will be covered: Purpose, Material Types, Equipment, and Application Techniques. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside  
Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:**

**Cost:** None

**Certification:** None

## **SOIL STABILIZATION III**

**Description:** This classroom course will provide an overall view of soil amendments and vegetation currently utilized by the Department. The following topics will be covered: Soil fertility, Vegetation types, Turf-grass establishment, and Turf-grass maintenance. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Roadside  
Environmental employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:**  
**Cost:** None  
**Certification:** None

### **PESTICIDE HANDLING AND DISPOSAL REGULATIONS**

**Description:** This self-study course will familiarize the trainee with DOT, NCDA, and CS regulations and procedures for pesticide handling, storage, and disposal. The following topics will be covered: Hazards and Toxicity of Pesticides, Disposal of Pesticides and Pesticide Containers, NC Pesticide Storage Regulations, Spill Prevention and Clean-up, Container Management, Personal Protective Equipment, and NCDOT Pesticide Related Forms. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answers to questions the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Roadside  
Environmental employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:**  
**Cost:** None  
**Certification:** None

### **VEGETATION MANAGEMENT MODULE III**

**Description:** This course will provide the trainee with information needed to increase their understanding of NCDOT's horticultural applications as a part of the overall Vegetation Management Program. The following topics will be covered: Soil types, Soil fertility and fertilization, and Ornamental Planting. This is a combination classroom and self-study course. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Roadside  
Environmental employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:**  
**Cost:** None  
**Certification:** None



## **Level II: Erosion & Sediment Control/Stormwater Certification**

**Description:** This one day course is designed for those who supervise, run or direct grading work, culvert replacement work, and bridge construction work over rivers and streams. This course will cover permit requirements, roles and responsibilities, applicable specifications, and interpretation and best management practices to minimize or control erosion and sedimentation. Other topics include soil erodibility, turf establishment techniques, grading techniques to minimize erosion, timing of installations, and proper installation of best management practices. Also covered will be implementation of the erosion/sediment control plan, requirements of various regulatory agencies, and consequences of permit violations.

**Type:** Classroom/Online

**Target Audience:** Operations

**Length of Course:** One Day

**Examination:** Yes

**PDH:** 4 Hours

**Provider:** NC State University

**Prerequisites:** None

**Cost:** \$125.00

**Certification:** Yes

**Web Address:** <http://www.cvent.com/events/level-i-and-ii-erosion-sediment-control-stormwater-certification-for-ncdot-projects/custom-18-2a3ac3872e974d739c05122a282673ef.aspx>

## **HORTICULTURAL APPLICATION - LEVEL 2**

**Description:** This course will increase the trainee's familiarity with NCDOT's Horticultural Applications as a part of the Vegetation Management Program. The following topics will be covered: Maintenance of ornamentals, Pruning principles, and Basic mathematics. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Roadside

Environmental employees

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Roadside Environmental

**Prerequisites:**

**Cost:** None

**Certification:** None

## **ROADSIDE VEGETATION MANAGEMENT CONFERENCE**

**Description:** This annual conference provides Roadside Environmental Unit personnel with training on a variety of topics pertaining to vegetation management. Although topics vary each year, typical presentations provide technical training relating to roadside vegetation control, new equipment and product up-dates, safety, erosion control, plants and wildflowers, rest area maintenance and contract administration, and new legislation and regulations which affect the department's

activities.

**Type:**  
**Target Audience:**  
**Length of Course:** 12 hours  
**Examination:**  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:**  
**Cost:**  
**Certification:**

### **NURSERY STOCK SPECIFICATIONS AND NCDOT PLANTING GUIDELINES**

**Description:** The purpose of this study course is to familiarize trainees with the concepts of inspecting nursery stock and understanding NCDOT planting guidelines. These two topics are covered separately in this manual. This Skill Block has no prerequisites. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have. The following must be satisfactorily completed within this course: Review of written material in this manual: Certification exam.

**Type:** Self-study/OJT  
**Target Audience:** Roadside  
Environmental employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

### **PEST MANAGEMENT**

**Description:** This course is designed to provide the trainee with an advanced understanding of pest management issues. The trainee will become familiar with Select-A-Spray, nutating head technology, slow moving caravan operations for pesticide applications, public perception and risk perception. The trainee must perform the duties in a roadside crew for 6 months to the supervisor's satisfaction. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have. The following must be complete within this course:

- Review of written material in this manual.
- Certification Examination.

**Type:** Self-study/OJT  
**Target Audience:** Roadside  
Environmental employees  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Roadside Environmental  
**Prerequisites:**  
**Cost:** None  
**Certification:** Yes

**CPESC REVIEW COURSE**

**Description:** Certified Professional in Erosion and Sediment Control, rules and regulations, site planning and management, predicting soil loss, runoff control.

**Type:** Classroom training

**Target Audience:** Engineers

**Length of Course:** 8 hours

**Examination:** Yes

**PDH:** 6.5 hours

**Provider:** Roadside Environmental

**Prerequisites:** None

**Cost:** Yes

**Certification:** None

## **Work-Zone Safety Classes**

Contained within this section are classroom courses developed to meet all Work-zone Safety requirements for NCDOT employees.

To request a course from this section see your Supervisor or Division Training Coordinator to be enrolled.

## WORK-ZONE SAFETY CLASSES

### FLAGGER TRAINING

**Description:** This course offers basic flagger safety procedures for work zone areas.

**Type:** Classroom outside training  
**Target Audience:** Employees who work as Flaggers  
**Length of Course:** 4 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** ITRE  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

### FLAGGER INSTRUCTOR TRAINING

**Description:** This course teaches participants how to conduct training on basic flagging operations.

**Type:** Classroom and outside training  
**Target Audience:** Employees who serve as Flagger Training Instructors  
**Length of Course:** 12 hours  
**Examination:** Yes  
**PDH:** Yes

**Provider:** ITRE  
**Prerequisites:** None  
**Cost:** None  
**Certification:** Yes

### FLAGGER INSTRUCTOR RECERTIFICATION

**Description:** This course provides four-year recertification of Flagging Instructors, teaching how to conduct training on basic flagging operations.

**Type:** Classroom and outside training  
**Target Audience:** Employees who serve as Flagger Training Instructors  
**Length of Course:** 7 hours  
**Examination:** Yes  
**PDH:** None

**Provider:** ITRE  
**Prerequisites:** Flagger Instructor Training  
**Cost:** None  
**Certification:** Yes

### BASIC WORK ZONE SAFETY

**Description:** This course covers the basics of work zone safety and traffic control

operations, focusing on short-term, daytime operations.

**Type:** Classroom training

**Target Audience:** Field Employees

**Length of Course:** 6 hours

**Examination:** None

**PDH:** Yes

**Provider:** ITRE

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **INTERMEDIATE WORK ZONE SAFETY**

**Description:** This course covers intermediate work zone safety and traffic control operations focusing on multi-lane roadways, at multi-lane intersections, using Part 6 of the MUTCD, and inspection and maintenance of traffic control devices.

**Provider:** ITRE

**Type:** Classroom training

**Target Audience:** Field Employees

**Length of Course:** 7 hours

**Examination:** None

**PDH:** Yes

**Prerequisites:** Basic Work Zone Safety

**Cost:** None

**Certification:** None

### **WORK-ZONE TRAFFIC CONTROL SUPERVISOR**

**Description:** This three-day course covers supervision of work zone safety and traffic control operations focusing on all highway systems, including two-lane roads, multi-lane roadways, and high-volume, high speed controlled access facilities. This course covers traffic control plan reading and development, positive protection, work zone capacity, night work, and inspection. Using Part 6 of the MUTCD and NCDOT Roadway Standard Drawings are also addressed.

**Type:** Classroom training

**Target Audience:** Field Supervisors

**Length of Course:** 20 hours

**Examination:** Yes

**PDH:** Yes

**Provider:** ITRE

**Prerequisites:** None

**Cost:** None

**Certification:** Yes

### **WORK-ZONE TRAFFIC CONTROL SUPERVISOR RECERTIFICATION**

**Description:** This one-day course provides four-year recertification for Work Zone Supervisors. This course covers traffic control plan reading and development, positive protection, work zone capacity, night work, and inspection. Using Part 6 of the MUTCD and NCDOT Roadway Standard Drawings are also addressed.

**Type:** Classroom training  
**Target Audience:** Field supervisors  
**Length of Course:** 6 hours  
**Examination:** Yes  
**PDH:** Yes

**Provider:** ITRE  
**Prerequisites:** Work-Zone Traffic  
Supervisor  
**Cost:** None  
**Certification:** Yes

## Maintenance Self-Study Section

The NCDOT Training & Development Section oversees the Self-Study Program. Contained within this section are Maintenance self-study courses for use by NCDOT employees.

To request Maintenance Self-Study courses, employees should make a request through the Training Coordinator for a Self-Study Course enrollment form. Fill out the form and then send it to JoAnn Shepherd, State Maintenance Operations Unit, MSC-1567.



## MAINTENANCE SELF STUDY COURSES

### BASIC MATH REVIEW

**Description:** A review of math skills that may be job-related in many instances. Acquired skills will also be useful in daily living.

**Type:** Self study

**Target Audience:** Division of Highways employees

**Length of Course:** 9 months to complete

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### ADVANCED MATH REVIEW

**Description:** A review of basic algebra, roots, and plane geometry. It is structured to prepare employees for the Construction Mathematics course.

**Type:** Self study

**Target Audience:** Division of Highways employees

**Length of Course:** 9 months to complete

**Examination:** Yes

**PDH:** None

**Provider:** State Maintenance Operations

**Prerequisites:** None

**Cost:** None

**Certification:** None

### MAINTENANCE OPERATIONS: STREET AND DRIVEWAY ACCESS

**Description:** This course is a six-week self-study course for maintenance technician trainees designed to teach them about the Street and Access Program. This course is important because the Department has a responsibility to the general public to maintain free and safe access on and off all state-maintained highways. This course teaches the participant to: 1) explain the Department's Street and Highway Access Program, 2) locate specific General Statutes, policies and specifications, 3) identify persons in charge of inspection and making modification changes, 4) fill out permits correctly, and 5) review street and highway access for proper function, drainage, and safety.

**Type:** Self study  
**Target Audience:** Maintenance technician trainees  
**Length of Course:** 6 weeks to complete  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **MAINTENANCE OPERATIONS: SUBDIVISION ROADS**

**Description:** This course is a twelve-week self-study course for maintenance technician trainees. It is designed to teach employees about NCDOH standards and requirements for subdivision roads. Upon completion of this course, the participant will: 1) understand the application process for subdivision roads to be added to the North Carolina State Highway System, 2) have a knowledge of the minimum construction standards as required by the North Carolina Division of Highways, 3) be able to review applications and plans for subdivision roads and determine if they meet NCDOH standards, and 4) be able to work with a developer/owner in the application and construction process of subdivision roads leading to the addition of those roads to the state highway system.

**Type:** Self study  
**Target Audience:** Maintenance technician trainees  
**Length of Course:** 6 weeks to complete  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **MAINTENANCE OPERATIONS: UTILITY ENCROACHMENTS**

**Description:** This course is an eighteen-week self-study course for maintenance technician trainees. It is designed to teach employees about NCDOH requirements for accommodating utilities on highway right of ways. Upon completion of this course, the participant will: 1) understand the utility encroachment application process, 2) have a knowledge of the requirements for accommodating utilities on highway right of ways as required by the North Carolina Division of Highways, and 3) be able to review applications for encroachments and determine if they meet the North Carolina Division of Highways standards.

**Type:** Self study  
**Target Audience:** Maintenance technician trainees  
**Length of Course:** 12 weeks to complete  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PURCHASE ORDER CONTRACT**

**Description:** This course is a six-week self-study course for maintenance technician trainees. It is designed to familiarize employees with the use and administration of purchase order contracts in maintenance operations. Upon completion of this course, the participant will understand the purpose of a purchase order contract and the requirements for administering such a contract.

**Type:** Self study  
**Target Audience:** Maintenance technician trainees  
**Length of Course:** 6 weeks to complete  
**Examination:** Yes  
**PDH:** None

**Provider:** State Maintenance Operations  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## Traffic Services Section

The State Maintenance Operations Unit of NCDOT coordinates the use of TSU procedural manuals with Traffic Services. Contained within this section are classroom courses, self-study courses and general skill set manuals for use by NCDOT employees.

## TRAFFIC SERVICES

### PRINCIPLES OF PAVEMENT MARKINGS: GENERAL PRINCIPLES

**Description:** This self-study unit provides information on the general principles for pavement markings. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to pavement markings and markers. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### PRINCIPLES OF PAVEMENT MARKINGS: APPLICATIONS OF PAVEMENT AND CURB MARKINGS

**Description:** This self-study unit provides information on the applications of pavement and curb markings. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to pavement markings and markers. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### PRINCIPLES OF PAVEMENT MARKINGS: ADVANCED PAVEMENT & CURB MARKINGS

**Description:** This self-study unit provides information on advanced applications of pavement and curb markings. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to pavement markings and

markers. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF PAVEMENT MARKINGS: PAVEMENT MARKERS**

**Description:** This self-study unit provides information on pavement markers. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to pavement markings and marker. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF PAVEMENT MARKINGS: PASSING AND NO PASSING ZONES**

**Description:** This self-study unit provides information on passing and no passing zones. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to pavement markings and markers. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: INTRODUCTION AND GENERAL STANDARDS**

**Description:** This self-study unit provides an introduction and general standards for highway signing. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: REGULATORY SIGNS**

**Description:** This self-study unit provides information on regulatory signs. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: WARNING SIGNS**

**Description:** This self-study unit provides information on warning signs. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Engineers & technicians  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PRINCIPLES OF SIGNING: GUIDE SIGNS**

**Description:** This self-study unit provides information on guide signs. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Engineers & technicians  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PRINCIPLES OF SIGNING: OBJECT MARKINGS AND DELINEATION**

**Description:** This self-study unit provides information on object markings and delineation. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Engineers & technicians  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PRINCIPLES OF SIGNING: CONSTRUCTION & MAINTENANCE OPERATIONS**

**Description:** This self-study unit provides information on construction and maintenance operations. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various



manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: SIGN STORAGE AND HANDLING**

**Description:** This self-study unit provides information on sign storage and handling. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING UNIT: SIGN FABRICATION**

**Description:** This self-study unit provides information on sign fabrication. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: SIGN DESIGN**

**Description:** This self-study unit provides information on sign design. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: TYPE A & B SIGNS**

**Description:** This self-study unit provides information on type A & B signs. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guidelines relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Engineers & technicians

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

### **PRINCIPLES OF SIGNING: SIGN CONDITION AND EVALUATION**

**Description:** This self-study unit provides information on sign condition and retro-reflectivity to highway signing. It can be used as a self-study unit for the Traffic Services Transportation Worker. It will help make the trainee familiar with the various manuals, policies and guideline relating to highway signing. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Engineers & technicians  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **PRINCIPLES OF SIGNING UNIT 12 - ADVANCED SIGN DESIGN**

**Description:** This self-study unit provides information on advance sign design involving the use of computerized hardware and software. It can be used as a self-study unit for the Traffic Services Transportation Worker. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Engineers & technicians  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **INTERMEDIATE INCIDENT RESPONDER AND ASSESSMENT COURSE**

**Description:** This self-study course will provide the IMAP responder with an intermediate level of knowledge necessary to safely respond to and assess freeway incidents so the roadway can be reopened. For use by intermediate level IMAP Responders to acquaint them with the more involved aspects of freeway incident operations.

**Type:**  
**Target Audience:**  
**Length of Course:**  
**Examination:**  
**PDH:** None

**Provider:**  
**Prerequisites:**  
**Cost:**  
**Certification:**

### **IMAP BASIC INCIDENT RESPONSE**

**Description:** This self-study course will provide the IMAP responder with a basic level of knowledge necessary to safely respond to freeway incidents. For use by entry level IMAP Responders to acquaint them with the basics of freeway incident operations. There should be an OJT instructor assigned who has experience with

the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Entry level IMAP responders  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

### **ADVANCED INCIDENT RESPONSE EVALUATION AND CLEARANCE**

**Description:** This self-study course will provide the IMAP responder with the advanced level of knowledge necessary to respond to, evaluate, and clear freeway incidents most effectively. For use by journey level IMAP Responders to acquaint them with the most complex aspects of freeway incident operations. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Journey level IMAP responders  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services  
**Prerequisites:** TSU 515T, TSU 525T  
**Cost:** None  
**Certification:** None

### **INCIDENT MANAGEMENT ASSISTANCE PATROL PROCEDURE**

**Description:** This self-study course will provide the trainee with the procedures to follow when performing routine tasks required of the IMAP Responder. For use by entry level IMAP Responders to acquaint them with the procedures they are to follow while performing the routine of their position. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT  
**Target Audience:** Entry level IMAP responders  
**Length of Course:** At own pace  
**Examination:** Yes  
**PDH:** None

**Provider:** Traffic Services Unit  
**Prerequisites:** None  
**Cost:** None  
**Certification:** None

## **EMERGENCY TRAFFIC CONTROL**

**Description:** This self-study course will provide the trainee with information needed to set-up basic emergency traffic control at various types of freeway incidents. For use by entry level IMAP Responders to acquaint them with the basic of work zone traffic control and the procedures they are to follow when establishing emergency traffic control at freeway incidents. There should be an OJT instructor assigned who has experience with the subject matter included in the course, and who can provide answer to question the trainee might have.

**Type:** Self-study/OJT

**Target Audience:** Entry level IMAP responders

**Length of Course:** At own pace

**Examination:** Yes

**PDH:** None

**Provider:** Traffic Services Unit

**Prerequisites:** None

**Cost:** None

**Certification:** None

## **Transportation Engineers Academy**

The State Maintenance Operations Unit of NCDOT oversees the Transportation Engineers Academy. Contained within this section are the classroom courses for use by NCDOT Transportation Engineers.

To request a training slot for this Academy, make the request through your immediate supervisor.

## TRANSPORTATION ENGINEERS ACADEMY

### FUNDAMENTALS OF SUPERVISION

**Description:** The goal of this program is to have participants establish a personal foundation for continued growth based on the knowledge and skills needed by a successful NCDOT Transportation Engineer. The Transportation Engineers Academy is a formal training program available exclusively to Transportation engineers. The program draws upon supervisory experience that will allow the participants to share ideas and techniques they use in various types of situations. The attendees will also be challenged to develop new and innovative ways of confronting different issues. The training is designed to be highly interactive and hands-on. The Fundamentals of Supervision is the first level of training for the Transportation Engineers Academy. The most fundamental competency that is required of any engineer is the ability to communicate and work with people. The emphasis of training in this level addresses these issues.

**Type:** Classroom Training

**Target Audience:** Engineers

**Length of Course:** 32 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance  
Operations

**Prerequisites:** Must be a  
Transportation Engineer

**Cost:** None

**Certification:** None

### ADVANCED SUPERVISORY TECHNIQUES

**Description:** As an engineer advances in level, roles and responsibilities change. The AST presents the participants with challenges to help them develop techniques for handling their changing roles and responsibilities. In addition, technical modules are introduced to include contract administration, planned maintenance, emergency response, and OJT administration. The Advanced Supervisory Techniques is the second level of training for the Transportation Engineers Academy. This level of training concentrates on developing competencies in personnel skills and technical matters including contract administration, planned maintenance, and emergency management.

**Type:** Classroom Training

**Target Audience:** Engineers

**Length of Course:** 32 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance  
Operations

**Prerequisites:** TEA Fundamentals of  
Supervision

**Cost:** None

**Certification:** None

## **Transportation Supervisors Academy**

The State Maintenance Operations Unit of NCDOT oversees the Transportation Supervisors Academy. Contained within this section are the classroom courses for use by NCDOT Transportation Supervisors.

To request a training slot for this Academy, make the request through your immediate supervisor.



## TRANSPORTATION SUPERVISORS ACADEMY

### FUNDAMENTALS OF SUPERVISION

**Description:** The goal of this program is to have participants establish a personal foundation for continued growth based on the knowledge and skills needed by a successful NCDOT Transportation Supervisor. The Transportation Supervisors Academy is a formal training program available exclusively to Transportation Supervisors. The program draws upon supervisory experience that will allow the participants to share ideas and techniques they use in various types of situations. The attendees will also be challenged to develop new and innovative ways of confronting different issues. The training is designed to be highly interactive and hands-on. The Fundamentals of Supervision is the first level of training for the Transportation Supervisors Academy. The most fundamental competency that is required of any supervisor is the ability to communicate and work with people. The emphasis of training in this level addresses these issues.

**Type:** Classroom Training

**Target Audience:** Supervisors

**Length of Course:** 32 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance  
Operations

**Prerequisites:** Must be a  
Transportation Supervisor

**Cost:** None

**Certification:** None

### ADVANCED SUPERVISORY TECHNIQUES

**Description:** As a supervisor advances in level, roles and responsibilities change. The AST presents the participants with challenges to help them develop techniques for handling their changing roles and responsibilities. In addition, technical modules are introduced to include contract administration, planned maintenance, emergency response, and SBP administration. The Advanced Supervisory Techniques is the second level of training for the Transportation Supervisors Academy. This level of training concentrates on developing competencies in personnel skills and technical matters including contract administration, planned maintenance, and emergency management.

**Type:** Classroom Training

**Target Audience:** Supervisors

**Length of Course:** 32 hours

**Examination:** None

**PDH:** None

**Provider:** State Maintenance  
Operations

**Prerequisites:** TSA Fundamentals of  
Supervision

**Cost:** None

**Certification:** None