

CONSTRUCTION INSPECTOR CERTIFICATION PROGRAM

COLORADO DEPARTMENT OF TRANSPORTATION

COURSE CATALOG 2011
April 5, 2016

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CHIEF ENGINEERS POLICY MEMO #25

Date: March 4, 2005
To: Region Transportation Directors, Professional Engineer IIIs, and Resident Engineers
From: Craig Siracusa, Chief Engineer
Subject: Construction Inspector Qualification Program Policy Memo 25

As a follow up to the memo issued on October 25, 2004, I would like to communicate progress in the implementation of the CDOT Inspector Qualification Program. The Inspector Qualification Board of Directors has developed the following policies in regard to prerequisites, certification requirements and program implementation.

Required Prerequisite Classes:

- Technical Series (EPS Assistant I thru EPS Technician III)
 - Basic Highway Math
 - Basic Highway Surveying
 - Basic Highway Plan Reading
 - Erosion Control Supervisor

- Professional Series (EIT I thru EIT III)
 - Basic Highway Surveying
 - Basic Highway Plan Reading
 - Erosion Control Supervisor

The specialty certifications, such as CAPA Asphalt Inspection, WAQTC, and Major Structures, will only be required when an inspector is working on a project where those items of work are performed. For example, a person working on an asphalt overlay would need the pre-requisites plus the CAPA asphalt inspection; a person working on an embankment would need the pre-requisites plus the WAQTC soils; etc. The specialty training requirements apply to the full range of both the technical and professional series listed above.

Supervisors will be required to anticipate and incorporate the required specialty training needs into training plans as required by project assignments Resident Engineers are also encouraged to look at the background of their Project Engineers (both licensed and not licensed). Resident Engineers should include the categories that they believe are appropriate in the Project Engineers' training plans as well.

Program Implementation:

- The above requirements will be mandatory on CDOT projects after March 1, 2006.
- The scopes of work in future consultant contracts must include the certification requirements for inspectors effective March 1, 2006.

The qualification program products can be accessed both internally and externally at:
<http://www.dot.state.co.us/CHRMEmpCorner/empdev.cfm>

I encourage you to begin to work with your employees to structure a plan that addresses the specific needs.

CERTIFICATION: BASIC HIGHWAY MATH

BRIEF DESCRIPTION: There is a great deal of mathematics used in the construction field. Each day the construction inspector must use arithmetic, algebraic, and geometric skills in their work. This basic math exam covers all of these areas. The Basic Highway Math Self Study Manual is available for review on the CDOT website

(<http://www.coloradodot.info/programs/tetp/construction-inspector-qualification/>)

EXAMS OFFERED IN DENVER:

January 4, 2016	May 9, 2016	September 12, 2016
February – 8, 2016	June 13, 2016	October 17, 2016
March 14, 2016	July 11, 2016	November 14, 2016
April 13, 2016	August 15, 2016	December 12, 2016

LOCATION: Colorado Department of Transportation
Materials Training Center
4670 Holly Street
Denver, CO 80216

TIME: 9:00 AM (90-minute exam)

CONTACT: Kevin Ryburn
303.757.9855
Fax: 303.757.9868
Kevin.Ryburn@dot.state.co.us

NOTE: **CALCULATORS MAY BE USED FOR THIS EXAM. EXAM IS CLOSED-BOOK**

FEE: \$25.00 money order or check payable at time of exam.
Make money order or check payable to CDOT or
CDOT employees must bring cost center number.
Cash or credit cards not accepted.

CERTIFICATION: BASIC CONSTRUCTION SURVEYING

BRIEF DESCRIPTION: It is important for a construction inspector to understand construction staking and layout. Even if the inspector is not performing the duties of the surveyor, understanding the background is important to be competent at the job. The Basic Construction Surveying Self Study Manual is available for review on the CDOT website

[\(http://www.coloradodot.info/programs/tetp/construction-inspector-qualification/\)](http://www.coloradodot.info/programs/tetp/construction-inspector-qualification/).

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January 4, 2016	May 9, 2016	September 12, 2016
February – 8, 2016	June 13, 2016	October 17, 2016
March 14, 2016	July 11, 2016	November 14, 2016
April 13, 2016	August 15, 2016	December 12, 2016

LOCATION: Colorado Department of Transportation
Materials Training Center
4670 Holly Street
Denver, CO 80216

TIME: 10:30 AM (90-minute exam)

CONTACT: Kevin Ryburn
303.757.9855
Fax: 303.757.9868

Kevin.Ryburn@dot.state.co.us

NOTE: **CALCULATORS MAY BE USED FOR THIS EXAM. EXAM IS CLOSED-BOOK**

FEE: \$25.00 money order or check payable at time of exam.
Make money order or check payable to CDOT or
CDOT employees must bring cost center number.
Cash or credit cards not accepted.

CERTIFICATION: BASIC HIGHWAY PLAN READING

BRIEF DESCRIPTION: The Plan Reading Course presents a step-by-step procedure on how to read, interpret, and relate to a standard set of roadway plans; to help identify and interpret symbols used in a standard set of plans; and to help develop the necessary skills to interpret a set of plans in non-technical terms. Along with the Manual you will use plan sheets and standards that specifically relate to it. The plan sheets/standards included have been reduced to half their original size so they can be handled more easily. The intent is to provide well rounded exposure to highway construction plans. The Basic Highway Plan Reading Manual is available for review on the CDOT website

[\(http://www.coloradodot.info/programs/tetp/construction-inspector-qualification/\)](http://www.coloradodot.info/programs/tetp/construction-inspector-qualification/).

EXAMS OFFERED IN DENVER:

January 4, 2016	May 9, 2016	September 12, 2016
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March 14, 2016	July 11, 2016	November 14, 2016
April 13, 2016	August 15, 2016	December 12, 2016

LOCATION: Colorado Department of Transportation
Materials Training Center
4670 Holly Street
Denver, CO 80216

TIME: 12:00 A.M. (90-minute exam)

CONTACT: Kevin Ryburn
303.757.9855
Fax: 303.757.9868
Kevin.Ryburn@dot.state.co.us

NOTE: **CALCULATORS AND RULERS MAY BE USED FOR THIS EXAM. .
EXAM IS CLOSED-BOOK**

FEE: \$25.00 money order or check payable at time of exam.
Make money order or check payable to CDOT or
CDOT employees must bring cost center number.
Cash or credit cards not accepted.

CERTIFICATION: HOT MIX ASPHALT INSPECTOR

BRIEF DESCRIPTION: In order to become a Hot Mix Asphalt Inspector, the required prerequisite course is the Laboratory for Certification of Asphalt Technicians (LabCAT) Level A – Laydown Certification. LabCAT is a partnership between the Colorado Department of Transportation (CDOT), the Federal Highway Authority (FHWA), and the Colorado Asphalt Pavement Association (CAPA). The certification program is administered by the Rocky Mountain Asphalt Education Center (RMAEC).

Level A-Laydown Certification: Material testers working at the laydown operation and responsible for sampling and conducting compaction tests and inspectors inspecting paving operations on CDOT projects are required to pass this certification. Hot mix asphalt aggregate sampling proficiency must be demonstrated from various locations as well as compaction measurements using nuclear density gauge readings and correlation determinations from core samples.

Before attending the Hot Mix Asphalt Inspector (LabCAT Level I) class, the applicant must have at least 6 months experience in laydown operations with at least 60 days of performing the responsibilities of an inspector. Inspectors are required to pre-qualify for their initial certification.

LOCATION:

Rocky Mountain Asphalt Education Center
6880 S. Yosemite Court Suite 110
Centennial, CO 80112

CONTACT:

Diane Hammond
Phone: 303.741.6148 ext. 154
Fax: 303.741.6146
Email: rmaec@co-asphalt.com

FEE:

Level A for CDOT or a CAPA member is \$200 and non-member is \$420.
Level I for CDOT or a CAPA member is \$250 and non-member is \$400.

Registration must be completed prior to the registration close date. Registration closes at 2:00 pm on the Wednesday prior to the session start date. Cancellations or reschedules made after 2:00 pm on the Wednesday prior to the session start date may be assessed a \$100 cancellation/reschedule fee. Technicians who do not attend a scheduled session and have not scheduled a qualified substitute, are subject to the full registration fee. No refunds will be given.

WEBSITE: www.co-asphalt.com

See the website for more information on dates and times.

CERTIFICATION: CONCRETE PAVEMENT INSPECTOR

BRIEF DESCRIPTION: In order to become a Concrete Transportation Inspector on Colorado Department of Transportation (CDOT) projects, the required course is the CDOT- Colorado Ready Mix Concrete Association (CRMCA) Concrete Pavement Inspector Certification.

Some of the topics covered for the course will be Sampling Fresh Concrete, Slump of Concrete, Unit Weight & Yield, Making & Curing Specimens, Temperature of Freshly Mixed Concrete, and Air Content of Concrete.

LOCATION:

CDOT Training Facility
4670 N. Holly St.
Denver, CO. 80216

CONTACT:

Stacy Ehrlick
Phone: 303.290.0303
Fax: 303.290.8008
Email: Stacy@coloradocca.org

FEE:

CDOT-CRMCA Concrete Pavement Inspector Certification Course for CDOT and CRMCA members is \$240 and non-members is \$340.

A 50% refund will be given for written cancellations received 7 days prior to certification. A \$50 transfer fee will be charged to change to a later class. Transfer must be confirmed 24 hours prior to class. Enrollment is limited. Registration deadline is one week prior to class date.

WEBSITE: www.crmca.org

See the website for locations, times and dates.

CERTIFICATION: SOILS INSPECTOR

BRIEF DESCRIPTION: In order to become a Soils Inspector on Colorado Department of Transportation (CDOT) projects, the required course is the Western Alliance Quality Transportation Construction (WAQTC) Soils Inspector. The purpose of the Soils Inspector course is to provide the inspector with the knowledge and information needed to interpret soils test results. This course is uses CDOT methods and practices as found in the CDOT Field Materials Manual and in the Standard Specifications for Road & Bridge Construction. The Self Study Manual is available to download for free at the below referenced website. An open book, written exam will be administered. There is no practical for this certification.

LOCATION:

CDOT Training Facility
4670 N. Holly St.
Denver, CO. 80216

CONTACT:

Ground Engineering Consultants
Phone: 303.289.1989
Fax: 303.289.6742
Email: info@groundeng.com

FEE: The registration fee for the Soils Inspectors course is \$200. Your registration form should can be completed on line at groundeng.com/waqtc at least 3 weeks prior to the desired test date. The exam is limited to a minimum of 10 participants and registered on a first come basis. Classes may be cancelled due to the amount of participants. If there are no-shows with no response there will be a fee of \$150 charged to your company. For reschedules 48 hours prior to the exam, there will be a charge of \$25, for cancellations 48 hours prior to the exam there will be a \$50 charge. If the participant should not pass the written exam, he/she may retake the written exam the same day at no additional charge (first time retest only). If the participant fails and reschedules, he/she needs to return to a future scheduled class at full charge.

WEBSITE: groundeng.com/waqtc

See the website for registration, exam dates, class time, schedules, and free manuals to download.

CERTIFICATION: Western Alliance Quality Transportation Construction (WAQTC)

BRIEF DESCRIPTION: The purpose of this class and exam is to assure that individuals responsible for the QA/QC aspects of highway transportation projects are qualified to perform soils tests in accordance with applicable procedures. The Self Study Manual is available for review at the below website. There will be a written exam for the soils testing and a proficiency demonstration on soil tests.

TRAINING: CONSTRUCTION INSPECTION REFRESHER MATERIALS

Training Material Available:

Hot-Mix Asphalt Paving Handbook, 2000	Manual
Bridge Inspector's Reference Manual Volumes 1 and 2	Manual
Field Handling Techniques for Epoxy-Coated Rebar	Video From Staff Bridge

Entire Course Catalog Available:

<http://www.dot.state.co.us/CHRMEmpCorner/empdev.cfm>

Training Material Descriptions:

Hot-Mix Asphalt Paving Handbook

US Army Corp of Engineers Handbook (219 pages) presents information on the production and placement of asphalt mixtures. The Handbook provides useful guidance on project organization, plant operations, placement and compaction of hot-mix asphalt.

To download a free copy: Hot Mix Asphalt Paving Handbook – [Click here](#) and click on UN 13

Bridge Inspector's Reference Manual Volumes 1 and 2

This manual provides comprehensive information on programs, procedures, and techniques for inspecting and evaluating a variety of highway bridges.

To order a copy from Amazon: Bridge Inspector's Reference Manual Volumes 1 and 2 – [Click here](#) \$189.00

Field Inspection of Reinforcing Bars

Staff Bridge has a copy of the Concrete Reinforcing Steel Institute (CRSI) Guide on Field Inspection of Reinforcing Bars that presents an overview of the placing of reinforcing bars, including the criteria and code governing construction, bar sizes and grade markings, mill test reports, fabrication, placing and concrete cover tolerances, and splicing.

To purchase: Field Inspection of Reinforcing Bars (Guide) – www.crsi.org click on “store” \$24.95 + shipping & handling