

# ODOT Inspection Certification Program

## Overview

The Inspection Certification Program is one element of ODOT's Inspection Quality Assurance (QA) Program. The purpose of the Inspection Certification Program is to provide training and resources for Construction Inspectors, and to ensure consistent administration of highway construction contracts. The monitoring of construction activities by Certified Inspectors will promote industry best practice and will help to ensure quality materials and workmanship on ODOT construction projects.

The Inspection Certification Program:

- Improves Contractor compliance with approved Plans and Specifications
- Improves the level of knowledge among Construction Inspectors
- Provides clear and consistent expectations of Inspectors
- Improves the consistency of construction inspection practices
- Reduces the potential for construction claims and other contract disagreements
- Improves construction quality in the State of Oregon
- Complies with implied Federal requirements prescribed in Title 23 of the Code of Federal Regulations.

## Inspection Certification Program<sup>1</sup>

The Inspection Certification Program requires all Inspectors on ODOT construction projects be Certified by ODOT. It is required that all inspectors be certified in General Construction Inspection, and Inspectors may obtain Certifications in one or more discipline specific areas. Additional discipline specific Certifications are required when performing inspection duties in these areas. A description of the current Certifications is provided below.

As a point of clarification, the Project Manager is responsible for all inspection activities on a construction project and at times may need to supplement their Inspection workforce with non-Certified personnel during periods of heavy construction activity. Therefore, the program makes allowances for the temporary use of non-Certified inspectors. The following information outlines the activities that can be conducted by Certified and non-Certified inspectors.

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<sup>1</sup> Certification is required for all non-ODOT and ODOT new hire/promoted Inspectors. It is highly recommended for existing ODOT Inspectors.

## ***Certified vs. Non-Certified Personnel***

Activities that are performed by Certified Inspectors include the following:

- Inspect the work as needed to ensure it conforms with the Plans and Specifications and Approved Changes
- Ensure Quality Control testing is being performed as required
- Inform Quality Assurance personnel of problems or potential problems with field-tested materials
- Record progress and/or delays with the work
- Ensure source documents allow proper payment to the Contractor
- Work with the Project Manager, Contractor, and others to troubleshoot problems with construction
- Provide clear direction and guidance to non-Certified individuals that are assisting with monitoring the work
- Monitor the activities of non-Certified individuals

When circumstances occur that prevent the use of a Certified Inspector the Project Manager may assign specific tasks to a non-Certified individual. The Project Manager must ensure that non-Certified personnel have a thorough understanding of their assigned duties. Non-Certified personnel should review the applicable training and/or reference material before performing inspection activities.

Some examples of duties that could be performed by non-Certified personnel include the following:

- Collect weigh memos and record material receipts
- Work with a Certified Inspector to monitor specific aspects of a construction activity or process. For example: On an HMAC paving project, a non-Certified individual could be assigned to monitor one or more of the following:
  - HMAC temperature
  - Surface Preparation
  - Tack Coat application
  - Rolling patterns
  - HMAC Contamination (i.e. diesel, debris)
  - Clumps or crusted mix in the mat or on grade ahead of paver

In this example, the Certified Inspector would be on-site performing other various Inspection duties and would be receiving regular project updates from the non-Certified individual.

## **Certifications**

All Inspectors working on ODOT construction projects are required to possess the General Inspector (CGI) Certification. Additional Certifications are required when performing inspection duties in the other Certification areas. For example, if an Inspector is working on a paving project, he/she would be required to possess Hot Mix Asphalt Concrete Inspector (HMAC) Certification but not be required to obtain the Bridge Construction Inspector (CBCI) Certification until such time that he/she is expected to inspect Bridge work.

Inspector Certifications will be valid for a three (3) to five (5) year period, after which the Inspector will need to pass a re-Certification exam to extend their Certification for an additional three (3) to five (5) years.

Following is a summary of the Inspector Certifications:

**Certified Bridge Construction Inspector (CBCI):** Bridge Inspection Training will build on the General Inspector Certification by informing the Inspector of the various types and methods of bridge construction and proper Inspection practice.

**Certified Environmental Construction Inspector (CECI):** The purpose of this class is to build on the General Inspector Certification by informing Inspector's of general environmental issues, and NPDES permit requirements and Best Management Practices for Erosion and Sediment Control.

**Certified Drilled Shaft Inspector (CDSI):** The goal of this course is to build on the General Inspector Certification by providing Drilled Shaft Foundation Inspectors with the practical knowledge and Standard-of-the-Industry practices for the inspection of drilled shaft foundation construction.

**Certified General Inspector (CGI):** The General Inspector Training is intended to be a pre-requisite, or foundation, for the other discipline specific Certifications. The training focuses on the General Provisions, Contract Administration, Roles and Responsibilities, etc.

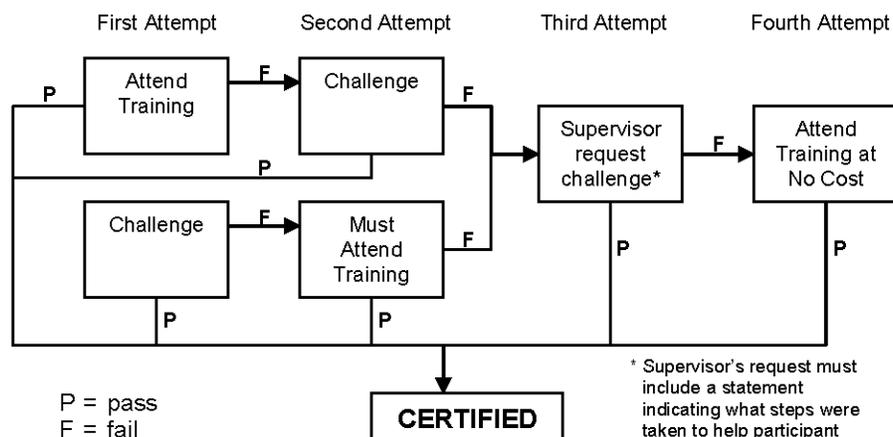
**Certified Hot Mixed Asphalt Concrete Inspector (HMAC):** The purpose of the HMAC Inspector class is to build on the General Inspector Certification by providing each participant with information and tools to be an effective HMAC Inspector. Attention is focused on inspection of items that are critical to HMAC performance and how to fulfill the necessary contract documentation requirements.

**Certified Traffic Signal Inspector (CTSI) --** Traffic Signal Inspection training is designed to build on the General Inspector Certification by providing the training and resources necessary to properly inspect Traffic Signal and Electrical Installations on State

Highways. The training focuses on Traffic Signals, but applies to all Electrical Installations.

## Certification Process

Under the Inspection Certification Program, to become Certified, Inspectors are required to demonstrate their understanding of the inspection process by passing an examination. Training is available, but not required, for each of the Inspector Certifications. Experienced inspectors may choose to challenge the Certification examination without attending training. The chart below shows the exam process:



Training course materials are available for download or purchase<sup>2</sup>. through the ODOT Construction Section internet site to allow inspectors who intend to challenge the exam an opportunity for self study. Participants are required to bring their own current version of the training course materials to the challenge exam<sup>3</sup>.

The schedule for training courses is set every fall for classes during November through April. The schedule and registration requirements are available on ODOT's Inspection Certification Program website<sup>4</sup>. Training course participants will receive course materials the first day of the course as part of their paid registration.

Inspector Certifications will be valid for a 3 to 5<sup>5</sup> year period, after which the Inspector will need to complete a reCertification course and/or examination to extend their Certification for an additional 3 to 5 years.

<sup>2</sup> [http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/docs/manual\\_purchase\\_form.doc](http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/docs/manual_purchase_form.doc)

<sup>3</sup> The requirements for each class are outlined on ODOT's Publication Page:

<http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/publications2.shtml>

<sup>4</sup> <http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/Cert/InspCert.shtml>

<sup>5</sup> Certified Traffic Signal Inspector Certification is valid for 3 yrs from the date of issue. The remainder of the Certifications are valid for 5 yrs.

The QA Unit will work with all of the training providers to ensure a consistent Certification/re-Certification process that will measure an Inspector's skills and ability.

Training and Certification is strongly recommended at the earliest opportunity for New Inspectors and other non-Certified individuals. Certification exams are readily available for non-Certified individuals to challenge. Non-Certified individuals who have demonstrated competence on the job are encouraged to challenge the applicable Certification Exam(s) and obtain proper Certification.

### ***Certification Examinations***

To apply for the Certification, the applicant may either register for one of the approved training classes, where the exam will be administered as part of the class, or submit an application to challenge the exam<sup>6</sup>. Challenge exams will be scheduled at a time that is convenient for ODOT and the applicant.

Exams are:

- a. Open Book
- b. Multiple choice and true or false questions about inspection procedures, specifications, plans, and other relevant documents.
- c. Written exam time lines vary depending on the needed Certification. In general, 2 to 4 hours are given to complete the exam.
- d. The passing score is 80% for all Certifications.

### **Documentation of Certification**

Upon the successful completion of the current examination(s), the participant's name, address, and/or company affiliation will be entered in the official registry of Certified individuals for the appropriate Certification. The official registry is maintained by the ODOT Construction Section and can be accessed on the internet at the following address: [www.odot.state.or.us/techserv/operatns/techcert/techcertDynamic/Index1.cfm](http://www.odot.state.or.us/techserv/operatns/techcert/techcertDynamic/Index1.cfm)

It is anticipated that many Inspectors will hold multiple Certifications. Each Certified Inspector will be given a laminated wallet-size identification card, which indicates all areas of Certification, and official letter(s) indicating Certification(s) held.

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<sup>6</sup> [ftp://ftp.odot.state.or.us/techserv/construction/QA\\_Certification/challenge\\_registration\\_form.pdf](ftp://ftp.odot.state.or.us/techserv/construction/QA_Certification/challenge_registration_form.pdf)