

Drilled Shaft Inspector CBT

Lesson 1 - Introduction

Welcome to the Drilled Shaft Inspector Course. This is Lesson 1 - Introduction.

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Welcome to the Drilled Shaft Inspector Course. This is a course designed to assist students to understand the specifications and inspection practices in FDOT projects. The course and examination are based on the January 2015 Workbook Version of the FDOT Standard Specifications of Roadway and Bridge Construction.

Course Goal

To be an effective Inspector, it is imperative that you understand what is expected of you and what you will be held responsible for. The goal of this course is to provide you with a basic understanding and a working knowledge of the role and responsibilities of a Drilled Shaft Inspector.

Learning Objectives

In this course you will learn the basics of Drilled Shaft installation. From excavation to post installation testing, a step-by-step review and discussion of the various phases will be presented. The following basic aspects will be covered:

- Terminology
- Drilled Shaft Equipment
- Construction Process
- Construction Materials
- 455 Specifications
- Inspector Duties

The terminology of drilled shaft construction will be covered together with the equipment, much home-made, that is unique to the drilled shaft installation business. The drilling fluids used for installation vary and will be reviewed.

The 4 installation methods, per 455 specification are, dry, wet, temporary and permanent casing, will be discussed. Each has its own process, typical problems, etc. The pertinent 455 Specifications will be covered in detail. The specification version the course is based upon is the January 2015 Workbook.

Lesson Overview

Lesson 1 welcomes you to the course. Lesson 2 includes a detailed review of the equipment used in constructing drilled shafts. Various rigs and tools are covered. Lesson 3 discusses the four methods of drilled shaft construction, as defined in the 455 Specifications, are reviewed in this lesson. Some of the typical problems encountered

with the various methods are discussed, together with the applicable 455 specifications.

Lesson 4 - this lesson provides for a look at the most common construction documents associated with drilled shaft construction, from the Inspector's view point. A sample Plan set and typical Drilled Shaft Installation Plan are reviewed.

Lesson 5 - in this lesson, the Inspector's role, duties and responsibilities are examined together with Inspector functions as the Contractor and Equipment arrive on-site. Applicable 455 Specifications are reviewed, including requirements for Pilot Holes.

Lesson 6 covers the shaft excavation and cleaning processes and key Inspector functions during these phases. Applicable 455 specifications are reviewed together with various Inspector required duties. Lesson 7 discusses how the Inspector is to verify that the reinforcing cage is assembled in accordance with the project plans. Details on cage construction, including side & bottom spacers, CSL access tubes and rebar are reviewed in this lesson, together with applicable 455 Specifications.

Lesson 8 covers the various methods of concrete placement for a drilled shaft, Inspector required record-keeping, and development of the Concrete Volume curves. Applicable 455 Specifications are also reviewed in this lesson. Lesson 9 reviews the Post-installation load and integrity testing required. Additionally, construction tolerances are reviewed in detail.

The Resources page / Appendix includes a glossary of terms, applicable 455 specifications and commonly used forms.

What is a Drilled Shaft?

Let's take a look at what is a drilled shaft. A Drilled Shaft is an excavation, filled with reinforcement and concrete used to support structure loads within the materials it is installed in.

End of Lesson

This is the end of lesson 1. Please select the next lesson button on this page to continue to the next lesson.