

# ASPHALT INSPECTION 1

## Class Description and Outline

This two-day class will be an introduction into the role of the Asphalt Inspector, both in the asphalt plant and on the grade. Topics will include ethics, contractor interaction, project observation, identifying issues and resolving disputes. The class is geared to all DOT, city, county, and consulting engineer inspectors and contractor personnel who are looking for a strong knowledge base of asphalt inspection, safety on the grade, material production and best practices in building the highest-quality paving projects.

### **Class Outline**

#### **1. Defining the Role of the Asphalt Inspector**

- A. Principles of Inspection
- B. Terminology and Acronyms
- C. Basic Safety on the Grade
- D. Developing Project Partnerships
- E. Inspection Ethics
- F. Introduction to Iowa DOT Specifications
- G. Agency Differentiation – City, County, Consulting

#### **2. Asphalt Plant Inspection**

- A. Asphalt Aggregates and RAP
- B. Properties of Asphalt Binders /Traffic Levels
- C. Asphalt Mix Design / JMF 956 / Shades Program
- D. Asphalt Production Plant
- E. Asphalt Plant Safety
- F. Roles of Certified Plant Inspector v. Plant Monitor
- G. Plant Calibration

#### **3. Testing of Asphalt Materials**

- A. Introduction to the Asphalt Lab
- B. Comprehensive Asphalt Testing Procedures
- C. Specialized Material Testing
- D. Roles of Contractor/Agency in QC/QA
- E. Utilizing the Plant Report and Daily Field Report (DFR)
- F. Dispute Resolution

#### **4. Asphalt Paving Inspection**

- A. Asphalt Paving Equipment
- B. Asphalt Paving Best Practices
- C. Asphalt Compaction and Air Voids
- D. Asphalt Paving Safety
- E. Asphalt Sampling
- F. Security of Sample
- G. Project Coordination and Communication

#### **5. Field Inspection Daily Duties**

- A. Field Inspection Checklist / DFR Inputs
  - 1) Temperature
  - 2) Tickets
  - 3) Thickness
  - 4) Yield
- B. Safety on the Grade
- C. Tonnage and Sampling Locations

#### **6. Inspection of Asphalt Rehabilitation Operations**

- A. Milling
- B. Cold-in-Place Recycling
- C. Full-Depth Reclamation
- D. Safety

#### **7. Inspection of Asphalt Maintenance Projects**

- A. Crack Sealing
- B. Chip Sealing
- C. Fog Sealing
- D. Microsurfacing

#### **8. Traffic Control Operations**

- A. Traffic Control Procedures and Specifications
- B. Signage Set-up
- C. Daily Inspection of Devices
- D. Flagger Operations – TC /214
- E. MUTCD

## **9. Introduction to Documentation and Reporting**

- A. Survey 1,2,3
- B. Daily Field Report (DFR)
- C. Plant Report
- D. Percent Within Limits (PWL) and AAD
- E. Doc Express

## **10. Problem Solving in the Field / Best Practices w/ Q & A Session**

- A. Segregation
- B. Smoothness
- C. Tack Coat
- D. Mix Issues
- E. Compaction Issues
- F. Cold Weather Paving
- G. Moisture Issues
- H. Joints
- I. Subgrade Issues
- J. Contract Modifications
- K. Non-Compliance Orders

## **11. Course Review and Question & Answer**



