



# On-the-Job Training Program Manual

**Civil Rights Division  
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The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors.

## **Definitions**

**Alternative Training Program** means any program approved under 23 CFR §230.111(f)(1) and (f)(2). Programs approved by the U.S. Department of Labor as of the date of proposed use by a federal-aid highway contractor need not be formally approved by the State highway agency or the Federal Highway Administration (FHWA). Such programs, including their minimum wage provisions, are acceptable for use, provided they are administered in a manner reasonably calculated to meet the equal employment opportunity (EEO) obligations of the contractor. Other training programs developed by the contractor must be submitted to the State highway agency and FHWA for approval.

**Contractor-Based Training Program** means one in which trainees are assigned to a contractor, rather than a contract. The trainee works on a federal, state, or private project and the intent is for the contractor to graduate the trainee within a specific period of time. The contractor is eligible for reimbursement when the trainee is working on a Federal-aid highway project.

**Department** means the Oklahoma Department of Transportation.

**DOT** means the U.S. Department of Transportation, including the Office of the Secretary, the FHWA, the Federal Transit Administration, and the Federal Aviation Administration.

**Federal-aid contract** is any contract between the Department and a contractor that is paid for in whole or in part with DOT assistance.

**Craftsman** (Journeyman) means a person who is capable of performing all the duties within a given job classification or craft, or who has successfully completed a training course leading to Craftsman status.

**Program Sponsor** is that entity which shall be responsible for providing the necessary reports to the State to ensure compliance with the Davis Bacon Act and other standards as outlined in the Department's On-the-Job Training Program Manual and the On-the-Job Training Program Special Provision.

**Supportive Services** means those services provided to increase the overall effectiveness of approved on-the-job training programs for highway construction workers and highway contractors through the performance of various functions necessary to the program but which are not considered to be part of the actual on-the-job craft training.

**Trainee** means a person who is receiving on-the-job training through any program approved by the FHWA or the U.S. Department of Labor.

## **Policy Statement**

The Oklahoma Department of Transportation (hereinafter designated Department) has established an On-the-Job Training (OJT) Program in accordance with regulations of the U.S. Department of Transportation at 23 CFR Part 230, Subpart A, Equal Employment Opportunity on Federal and Federal-aid Construction Contracts. It is the policy of the Department to require full utilization of all available training and skill improvement opportunities to assure the increased participation of minority groups, disadvantaged persons, and women in all phases of the highway construction industry.

The federal OJT program is administered through a construction contract special provision. A copy of this special provision is located in Appendix A of this document.

## **Nondiscrimination in Programs and Activities**

### **Title VI of the Civil Rights Act (1964)**

Title VI of the Civil Rights Act of 1964 protects people from discrimination based on race, color or national origin in programs or activities that receive Federal finance assistance. Title VI states that: No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

### **Title VII of the Civil Rights Act (1964)**

Title VII of the Civil Rights Act of 1964 prohibits discrimination based on the grounds of race, color, sex, age, national origin, disability/handicap, or income and was passed to bring equality in hiring, transfers, promotions, compensation, access to training, and other employment related decisions.

### **FHWA-1273 – Section II, Nondiscrimination**

A contractor's minimum EEO requirements are set forth in the contract provisions referenced in the form FHWA-1273 as "Section II, Nondiscrimination." These include acceptance of a general operating policy that prohibits discrimination based on race, color, religion, sex, national origin, age, or disability. Contract provisions also require nondiscrimination in selection and retention of subcontractors, material suppliers, and vendors; maintenance of non-segregated facilities; on-the-job training/training special provisions; and adherence to employment preference in Appalachian contracts, where applicable.

### **Title 49, Code of Federal Regulations, Part 21**

Title 49, Code of Federal Regulations (CFR), Part 21 of the DOT Regulations of the implementation of Title VI require assurances from states that no person, on grounds of race, color, or national origin is excluded from participation, denied the benefits of, or in any way subjected to discrimination under any program or activity for which the recipient receives assistance from the DOT, including the FHWA.

### **Title 23 CFR 230**

The provisions of 23 CFR Part 230 are applicable to all state transportation agencies that receive federal financial assistance in connection with the Federal-aid Highway Program. Subpart A requires the establishment of the on-the-job training program and on-the-job training supportive services program.

### **Department Policy – Nondiscrimination Statement**

The Department, a recipient of federal financial assistance under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person shall on the grounds of race, religion, color, national origin, sex, age, and disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any Department programs or activities.

### **Program Objectives**

The federal OJT program targets disadvantaged individuals, minority groups, and women for entry into journey level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Department and the FHWA. Approval or acceptance of a training program shall be obtained from the Department prior to commencing work on the classification covered by the program. It is the intention of this program that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Civil Rights Division and FHWA. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

The program goal is to:

- Provide flexibility for contractors in selecting the projects they can place trainees on by removing project specific based goals;
- Assist contractors in emphasizing on the recruitment of trainees who are likely to become members of a contractor's regular workforce upon completion of the program;
- Emphasize on training in skilled craft classifications; and
- Assisting contractors in meeting their Equal Employment Opportunity (EEO) goals through the training of women, minorities, and disadvantaged individuals.

### **Program Areas**

The federal OJT Program has been designed to ensure that the trainee consistently receives the level and quality of training necessary to perform as a Craftsman in their respective skilled trade classification. Skilled trade classifications may include equipment operator, carpenter, concrete paver, form setter, etc. (See

Appendix A)

A contractor participating in the OJT Program may use an alternate training curriculum or develop training programs of their own; however, it must be submitted to the Department and the FHWA Division Administrator for review and approval prior to its use.

**Annual Goal Methodology**

Each year, the Civil Rights Division sets an overall agency goal on the number of trainees to be enrolled for the calendar year (January to December). The goal is based on the contract volume of work awarded to a contractor by the Department during the three previous state fiscal years.

- a) The Civil Rights Division notifies contractors of their individual company’s goal by November 1st.
- b) The number of trainees assigned to a contractor for their annual goal will be based on the three (3) year average of their value of contracts awarded during the previous three state fiscal years.
- c) Contractors may enroll more than the trainees required to meet their annual goal even if the contractor has no minimum goal.
- d) In order for a trainee to be credited toward their annual goal and be eligible for reimbursement the contractor must enroll, report and track trainees.

Annual goal based on three (3) year average contracts (State & Federally funded) value with Department

Contract Value		Trainees Required Annually
Over \$50,000,000	>	3
\$30,000,000	To \$50,000,000	2
\$15,000,000	To \$30,000,000	1

**Trainee Requirements**

It is required that no individual be employed as a trainee in any classification in which they have successfully completed a training course leading to Craftsman status, or in which they have been employed as a Craftsman.

An individual may complete more than one job classification in an approved training program, however not simultaneously.

**Trainee Selection Procedures**

The contractor shall make every effort to enroll minority trainees, disadvantaged individuals, and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with the training special provision. Steps taken should include documentation on recruitment sources used, company postings, or any other form of recruitment.

This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

- a) The prospective trainee must express interest in entering the OJT Program, as well as exhibit sufficient commitment to complete the training. These criteria are captured on the OJT Program Enrollment Request Form.
- b) The individual must be 18 years of age or older to be employed on a federal-aid project.
- c) The contractor must be consistent with the trainee selection process and is required to show documentation on how the trainees were selected at the time the application is submitted for approval.

### **Trainee Wage Rates**

The trainee will be paid the appropriate Davis-Bacon wage rates for training crafts on Department federal-aid projects in accordance with the following:

- a) The contractor shall compensate the trainee at least 60 percent of the appropriate minimum Craftsman's rate specified in the contract for the first half of the training period;
- b) 75 percent for the third quarter; and
- c) 90 percent for the last quarter, respectively.

Contractors using alternate training programs as defined in the manual must compensate the trainee in accordance with the approved Davis-Bacon wage rates in the contract.

### **Trainee Goal Credit**

Credit will be allowed toward the contractor's annual goal for the year in which the trainee entered training.

Credit will be allowed for each trainee employed by the contractor, pending official enrollment and approval by the Civil Rights Division.

Credit will not be allowed when the contractor fails to provide acceptable training or evidences a lack of good faith effort in meeting the requirements of this program.

### **Contractor Reimbursement**

The contractor will, upon the request and submittal of a trainee summary of hours to the Civil Rights Division, be reimbursed \$0.80 per hour upon the successful completion of training given to an employee in accordance with an approved training program. Upon the review and approval of such request, the Civil Rights Division will forward the approved number of reimbursable hours to the Resident Engineer to facilitate the reimbursement on the federally funded project that included the most training time to the trainee. Training hours can only be reimbursable up to the number of training hours needed to complete the training program. Anything over the required training hours are not reimbursable. Training hours spent on non-federally funded projects are not eligible for reimbursement.

In cases when requesting reimbursement on a federally funded project that the trainee spent more training hours on has been finalized or there will be a considerable for the contractor to receive

reimbursement; then the reimbursement will be paid on the next federally funded project that the trainee spent the most training hours on.

### **Contractor Enrollments**

Within 60 days of the annual notification or no later than January 15 whichever is latest, one or more of the trainees must begin their training on a project. Should the contractor not have any individuals enrolled and undergoing training by that time, the following information must be provided to the Civil Rights Division:

The contractor's action plan utilizing the Department's Contractor OJT Plan form.

- a) A listing of recruitment sources used for minority, women, and disadvantaged individuals, such as community organizations, associations, newspapers, and flyers.
- b) A copy of the applicant log that shows name of the applicant, gender, race, ethnic data, and date of application.
- c) The Metropolitan Statistical Area(s) used for outreach and recruitment where each of the contractor's projects are located.

### **Contractor Responsibilities**

Contractor responsibilities in implementing the training special provision include the following:

- a) Training **must** start on a federal-aid highway construction project which also must contain the OJT special provision;
- b) Training may occur on non-federally funded construction projects; training hours may be counted toward graduation if properly reported to the Department by the Contractor. However, any training hours on non-federally funded projects will not be eligible for federal reimbursement;
- c) The number of trainees shall be distributed among the work classifications based on the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment;
- d) The contractor will periodically review the training and promotion potential of minorities, women, and disadvantaged employees and will encourage eligible employees to apply for such training and promotion;
- e) The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each;
- f) The contractor is required to furnish each trainee with a copy of a training schedule and with monthly reports reflecting the total training hours accumulated;
- g) Upon graduation, the contractor will provide each trainee with a certificate showing the type and length of training satisfactorily completed; and
- h) If a trainee vacates the program or is terminated, the contractor is required to make a good faith effort to replace the trainee within 30 calendar days of the termination. A trainee may be terminated for cause by the Contractor at any time. Termination can include but not limited to insubordination, drug or alcohol at work, failing drug test, falsifying company records, poor performance, theft, or violating company policy.

### **Contractor Reporting Requirements**

- a) The contractor is required to submit the OJT Program Enrollment Form to the Civil Rights Division within seven business days of its intent to assign trainees to a project and the training

classification to be utilized.

- b) The contractor will report on the previous month's OJT activity by submitting the training hours for each trainee on the Association of Oklahoma General Contractors' (AOGC) website by the 10<sup>th</sup> of each month. The website can be found at [www.webuildoklahoma.com](http://www.webuildoklahoma.com). The OJT link on the website will take you to the login screen. Any questions on the website and entering training hours can be directed to Casey Davison at [cdavison@webuildoklahoma.com](mailto:cdavison@webuildoklahoma.com) or 405-763-5230. If the trainee did not perform training during the reporting month, the contractor will notify the Civil Rights Division as to why there was no training performed. If requested, reimbursement will be made under the federal-aid contract that the trainee spent more training hours on.
- c) The certified payroll must reflect the trainee's training classification, that the employee is a trainee, and the actual number of hours trained for that payroll period.
- d) Upon graduation or if the trainee is terminated for cause, the contractor will notify the Civil Rights Division and submit the information on AOGC's website within seven business days of graduation or termination.
- e) The contractor will utilize the appropriate forms as described herein to notify the Department of the termination of the trainee and the enrollment of the replacement trainee. The replacement trainee need not be enrolled in the same training classification code as the terminated trainee.

### **Contractor Compliance**

The contractor has a fundamental role and responsibility to take all reasonable and necessary steps to ensure that the terms and conditions of its contract are fully met. This includes, but is not limited to, its employment policy. The contractor is responsible for having in place and implementing an EEO policy that ensures equal access to employment and training.

Under 23 CFR and 23 USC 140, the Department has the authority to conduct contractor compliance reviews of contractors to ensure compliance with the equal employment opportunity contract special provisions and the implementation of special requirements for the provision of on-the-job training (23 CFR230.111).

### **Department Responsibilities**

- a) Upon receipt of the OJT Program Enrollment Form, the Civil Rights Division will either approve or deny the request and notify the contractor of the decision in writing. If the request is approved, the Civil Rights Division will notify the AOGC and the Resident Engineer responsible for the project on which the trainee will begin their training.
- b) Each month, the contractor will submit the training hours on AOGC's website, which will contain sufficient data and narrative content to enable evaluation of both progress and problems encountered. The Civil Rights Division will verify the training hours indicated on the website against the certified payroll.
- c) The Civil Rights Division will conduct interviews with the trainees. The division should conduct at least one interview per contractor during the training period to verify the trainee's status and/or progress toward completing the training program.
- d) To ensure that the contractors' trainee goals are complied with, the Department will monitor the contractor's recruitment efforts, training, and hiring. This will be accomplished by a review of the OJT Program reporting forms.
- e) The Civil Rights Division will continually monitor the contractor's OJT progress through an OJT database developed and maintained by the Department. The database will include the information obtained from the contractors' reporting.

### **Alternate Training Programs**

Approval or acceptance of a training program shall be obtained from the Department and the FHWA Division Administrator prior to commencing work on the classification covered by the program. It is the intention of 23 CFR Part 230 Appendix B of Subpart A that training is to be provided in the construction crafts rather than clerk-typists or secretarial type positions. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the FHWA Division Office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

The contractor may propose another skilled or semi-skilled craft training program for use in fulfilling its OJT requirements, based on its company workforce needs, by submitting a written request detailing the reason for the proposed training program. The contractor's proposed craft training program must be approved by the FHWA and the Department, or by the U.S. DOL.

Such a request should be forwarded to the Civil Rights Division. A copy of the contractor's proposed training program must accompany the contractor's written request.

# **Appendix A**

## **Special Provision**

**OKLAHOMA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION  
FOR  
ON-THE JOB TRAINING PROGRAM**

Purpose. The purpose of the On-The-Job Training (OJT) Program is to provide training for minority, female, and socially and economically disadvantaged individuals, in order that they may develop marketable skills and gain journeyman status in the skilled classifications in which they are being trained.

A copy of the OJT Training Program may be obtained from the Oklahoma Department of Transportation Civil Rights Division, or the Association of Oklahoma General Contractors (AOGC). It is the Contractor's responsibility to familiarize themselves with the OJT Program requirements to ensure compliance with the program when assigned an annual goal.

Description. The training of minorities, women, and socially and economically disadvantaged individuals toward journeymen status is a primary objective of this OJT Program. Accordingly, the Contractor shall make every effort to enroll eligible Trainees to the extent that such persons are available within a reasonable area of recruitment. The Contractor is responsible for demonstrating the steps taken in pursuance thereof prior to a determination of compliance with this Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether the applicant is a member of a minority group or not. The prospective Trainee must express interest in entering the OJT Program, as well as exhibit sufficient commitment to completing the training.

Trainee Assignment. Training assignments are determined based on a three-year average of the Contract volume of State and Federally funded work awarded to a Contractor by the Oklahoma Department of Transportation during the three previous state fiscal years (July 1st to June 30th). The Oklahoma Department of Transportation Civil Rights Division will notify Contractors meeting the selection criteria of their annual training goal assignment prior to January 1st.

ANNUAL GOAL BASED ON THREE (3) YEAR AVERAGE CONTRACT (STATE & FEDERALLY FUNDED)  
VALUE WITH THE DEPARTMENT

Contract Amount	Minimum Trainees Required Annually
> \$50,000,000	3
\$30,000,000 to \$50,000,000	2
\$15,000,000 to \$30,000,000	1

No employee of the Contractor shall be employed as a Trainee in any classification in which they have successfully completed a training course leading to journeyman status, or in which they have been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application, or by other suitable means.

Regardless of the method used, the Contractor's records should document the findings in each case.

**Program Requirements.** Fulfill all of the requirements of the OJT Program including the maintenance of records and submittal of monthly reports documenting program performance. Trainees shall be paid at least sixty percent (60%) of the appropriate minimum journeyman's rate specified in the Contract for the first half of the training period, seventy-five percent (75%) for the third quarter, and ninety percent (90%) for the last quarter. Contractors will be reimbursed for each training hour in accordance with the OJT Program Manual.

Furnish the Trainee with a copy of the program that will be followed during the training. Maintain Trainee performance records, and furnish periodic reports which document the Trainee's performance in accordance with the OJT Program Manual. Upon completion of the training, provide each Trainee with a certification showing the type and length of training completed.

**Compliance.** Fulfillment of contractual responsibilities is achieved by having provided acceptable training to the number of Trainees required by the annual goal assignment within the calendar year (January 1st to December 31st).

When the annual training goal cannot be achieved with female or minority Trainees, the Contractor must produce adequate documentation of a Good Faith Effort to the Oklahoma Department of Transportation Civil Rights Division. Good faith efforts are those efforts designed to achieve equal opportunity through positive, aggressive, and continuous resulted measures (23 CFR 230.409(g)(4)). Good faith efforts should be taken as Trainee hiring opportunities arise.

Noncompliance with this Special Provision or the OJT Program may be cause for corrective measures in accordance with the ODOT Standard Specifications Subsection 102.04, "Refusal of Proposals," and Subsection 108.10, "Default of Contract."

# **Appendix B**

## **Classifications**

Training Program	Number of Training Hours
Asphalt Paving Equipment Operator - Screed	1,000
Asphalt Paving Machine Operator	1,040
Asphalt Raker	520
Backhoe / Track hoe Operator	1,040
Bulldozer Operator	720
Carpenter	1,040
Cement Mason / Concrete Finisher	1,000
Concrete Paving Machine Operator	1,040
Construction Grade Checker	1,100
Crane or Any Machine Power Swing Equipment	1,200
Front End Loader	520
Ironworker (Structural) / Reinforcing Steel Setter	720
Mechanic	1,440
Motor Grader Operator	1,040
Oiler	1,040
Pipe Layer	520
Roadway Milling Machine Operator	1,000
Roller Operator (Asphalt / Finish Operator)	1,000
Roller Operator (Soil / Subbase Compaction)	520
Scraper Operator	600
Tractor / Box Blade Operator	520
Trenching Machine Operator	1,000
Truck Driver	1,040

## **Asphalt Paving Equipment Operator – Screed**

Approximate training time: **1,000 hours**

- I. Orientation and Observation
  - A. Safety Procedures.....**5 hours**
  - B. Observation of machine in operation .....**35 hours**
  - C. Starting and manipulating levers for moving equipment and attachments .....**30 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**5 hours**
  - B. Routine fueling, lubrication and servicing..... **150 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Screed regulation indoctrination and operation..... **100 hours**
  - C. Operation of machine.....**670 hours**

## **Asphalt Paving Machine Operator**

Approximate training time: **1,040 hours**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operations ..... **35 hours**
  - C. Starting and manipulating levers for moving equipment  
and attachments ..... **30 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Routine fueling, lubricating and servicing ..... **150 hours**
  
- III. Actual Operation of Equipment
  - A. Safety operating procedures ..... **5 hours**
  - B. Observation of machine in operations ..... **120 hours**
  - C. Operating of machine ..... **690 hours**

## **Asphalt Raker**

Approximate training time: **520 hours**

- I. Orientation and Observation
  - A. Safety Procedures.....**5 hours**
  - B. Observation of placement of materials .....**5 hours**
  - C. Perform duties of asphalt shoveler ..... **35 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**5 hours**
  - B. Routine fueling, lubricating and servicing .....**35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Adjustment of screed to regulate width and depth  
of material ..... **35 hours**
  - C. Distribution of material. .... **395 hours**

## Backhoe/Track hoe Operator

Approximate training time: **1,040 hours**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operation ..... **50 hours**
  - C. Starting and manipulating levers for moving equipment and attachments..... **45 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Routine fueling, lubricating and servicing ..... **295 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Trenching operations (for Pipe laying, etc.) ..... **300 hours**
  - C. Excavation (for structures, footings, etc.) ..... **300 hours**
  - D. Special applications and functions ..... **35 hours**

## **Bulldozer Operator**

Approximate training time: **720**

- I. Orientation and Operation
  - A. Safety procedures.....**5 hours**
  - B. Observation of machine in operation .....**35 hours**
  - C. Starting and manipulating levers for moving equipment and attachments..... **30 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**5 hours**
  - B. Routine fueling, lubricating and servicing .....**35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Movement and stockpiling of material .....**150 hours**
  - C. Pushing and rough grading..... **125 hours**
  - D. Clearing and grubbing .....**125 hours**
  - E. Finish grading .....**175 hours**
  - F. Special applications .....**30 hours**

## **Carpenter**

Approximate training time: **1,040**

- I. Orientation and Safe Use of Tools of the Trade
  - A. Power and hand tools..... **20 hours**
  - B. Materials selection ..... **20 hours**
  
- II. Applied Techniques of Highway Construction Carpentry
  - A. Safety procedures.....**5 hours**
  - B. Pier, pile and cap formwork .....**145 hours**
  - C. Decking formwork .....**150 hours**
  - D. Parapet and hand railing formwork ..... **150 hours**
  - E. End wall formwork .....**150 hours**
  - F. Box culverts, inlets and headwall formwork ..... **150 hours**
  
- III. Blueprint or Construction Plans Reading and Application..... **50 hours**
  
- IV. Basic Form Design Familiarity .....**95 hours**
  - A. Safety procedures .....**5 hours**
  
- V. Stripping and Salvage of Forms for Re-use ..... **95 hours**
  - A. Safety procedures ..... **5 hours**

## Cement Mason / Concrete Finisher

Approximate training time: **1,000 hours**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of use of straight edges and steel trowels..... **25 hours**
  - C. Observation of forming and finishing of edges and joints .... **25 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**  
Routine cleaning work area and materials; holding materials,  
tools, and handling canvas belting or burlap strips... .. **235 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Basic operation of tools ..... **200 hours**
  - C. Use of straight edges and steel trowels ..... **200 hours**
  - D. Forming and finishing edges, joints, curbs, and gutters..... **300 hours**

## Concrete Paving Machine Operator

Approximate training time: 1,040

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operation ..... **35 hours**
  - C. Starting and manipulating levers for moving equipment and attachments.....**30 hours**
  
- II. Care and Maintenance
  - A. Safety Procedures..... **5 hours**
  - B. Routine fueling, lubricating and servicing .....**150 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures .....**5 hours**
  - B. Screed regulation indoctrination and operation.....**120 hours**
  - C. Operation of machine..... **690 hours**

## Construction Grade Checker

Approximate training time: **1,100**

### I. Orientation, Observation & Basic Tasks

- A. Safety procedures, care & safety of equipment and personnel on the jobsite...**25 hours**
- B. History of Sectional Survey, Townships, Ranges, Metes and Bounds.....**25 hours**
- C. Run rods for benches and cross-section elevations. Position and hold the vertical rods in order to measure angles, distances, and elevations.....**100 hours**
- D. Search for section corners, property irons, and survey points. Set out and recover stakes, marks, and other monumentation.....**100 hours**
- E. Maintain equipment and vehicles used by surveying crews.....**100 hours**
- F. Perform manual labor, such as cutting brush for lines, carrying stakes, rebar, and other heavy items, and stacking rods.....**100 hours**
- G. Place and hold measuring tapes when electronic distance-measuring equipment is not used. Learn how to make tape corrections.....**50 hours**

### II. Actual Operation of Equipment

- A. Test, adjust and operate surveying instruments such as prisms, theodolites, and electronic distance-measuring equipment (GPS).....**300 hours**
- B. Compile information necessary to stake projects for construction, using engineering plans. Side Slope Calculations, Slope Staking.....**100 hours**
- C. Record survey measurements and descriptive data, using notes in the GPS data collector or fieldbook.....**100 hours**
- D. Lay out grids, and determine horizontal and vertical controls. Horizontal and vertical curve layout computations.....**100 hours**

## Crane or Any Machine Power Swing Equipment

Approximate training time: **1,200 hours**

- I. Orientation and observation
  - A. Safety procedures..... **10 hours**
  - B. Observation (as a passenger) of machine in operation..... **50 hours**
  - C. Starting and manipulating levers for moving equipment and attachments ..... **45 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **10 hours**
  - B. Routine fueling, lubricating and servicing ..... **375 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **10 hours**
  - B. Excavation for footings and removal of unsuitable materials... ..... **200 hours**
  - C. Loading and unloading materials ..... **125 hours**
  - D. Trenching for pipe, etc..... **150 hours**
  - E. Hoisting materials..... **75 hours**
  - F. Placement of beams, pipe, girders, piles, etc..... **75 hours**
  - G. Charge hoppers with materials on asphalt and concrete plants ..... **75 hours**

## Front End Loader

Approximate training time: **520 hours**

- I. Orientation and Observation
  - A. Safety procedures.....**5 hours**
  - B. Observation of machine in operation ..... **20 hours**
  - C. Starting and manipulating levers for moving equipment and attachment.....**15 hours**
  
- II. Care and Maintenance
  - A. Safety Procedures.....**5 hours**
  - B. Routine fueling, lubricating and servicing .....**35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Loading materials ..... **250 hours**
  - C. Excavation.....**150 hours**
  - D. Special applications ..... **35 hours**

## **Ironworker (Structural) / Reinforcing Steel Setter**

Approximate training time: **720**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of steel being set and welding of rods..... **15 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Steel bar placement..... **50 hours**
  
- III. Actual Steel Setting
  - A. Rod fastening..... **80 hours**
  - B. Rod cutting ..... **80 hours**
  - C. Rod welding ..... **80 hours**
  - D. Rod placement..... **255 hours**
  - E. Fabrication of reinforcement assembly ..... **150 hours**

## Mechanic

Approximate training time: **1,440 hours**

- I. Orientation and Observations
  - A. Safety procedures.....**15 hours**
  - B. Cleaning, disassembling and inspection of engine parts..... **40 hours**
  - C. Installation and adjustment of minor parts ..... **50 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**15 hours**
  - B. Engine reconditioning..... **200 hours**
  - C. Clutch installation..... **50 hours**
  - D. Transmission reconditioning .....**100 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures .....**20 hours**
  - B. Electrical systems ..... **200 hours**
  - C. Hydraulic systems..... **200 hours**
  - D. Final drive and track assemblies..... **150 hours**
  - E. Welding and fabrication .....**100 hours**
  - F. General field maintenance ..... **300 hours**

## Motor Grader/Blade Operator

Approximate training time: **1,040**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operation ..... **100 hours**
  - C. Starting and manipulating levers for moving equipment and attachments ..... **95 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**5 hours**
  - B. Routine fueling, lubricating and servicing .....**35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Scraping and leveling dirt on roadway .....**180 hours**
  - C. Spreading and mixing materials on roadway ..... **170 hours**
  - D. Shaping and blading subgrades .....**150 hours**
  - E. Balancing and rough shaping base course materials ..... **150 hours**
  - F. Fine grading and dressing of shoulders and slopes..... **145 hours**

## Oiler

Approximate training time: **1,040 hours**

- I. Orientation and Safe Use of Tools of the Trade
  - A. Lubrication and requirements of mechanical equipment.....**20 hours**
  - B. Materials selection ..... **20 hours**
  
- II. Applied Techniques of the Oiler
  - A. Safety procedures..... **5 hours**
  - B. Equipment characteristics and lubrication points.....**145 hours**
  - C. Oil changes, filter changes, grease guns, hard packing of grease, greasing bearings.....**450 hours**
  - D. Minor adjustments to drive chains and clutches .....**150 hours**
  
- III. Shop and Field Practices ..... **50 hours**
  
- IV. Equipment Operation and Operation of Oil, Grease and Fuel Service Truck..... **190 hours**
  - A. Safety procedures.....**10 hours**

## Pipe Layer

Approximate training time: **520**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of spade operation and laying of pipe... **20 hours**
  - C. Study of various types of pipe and related materials... **5 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Ditch preparation, handling of materials and tools ..... **20 hours**
  
- III. Actual Handling of Pipe and Spade
  - A. Ditch grading with compressed air driven or hand spade ..... **50 hours**
  - B. Handle materials, assist in lowering pipe ..... **50 hours**
  - C. Work with pipe later in laying all types of pipe and duct.  
Adjust pipe to elevation insert spigot end of pipe into bell  
end of last laid pipe ..... **365 hours**

## Roadway Milling Machine Operator

Approximate training time: **1,000**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operator... .. **35 hours**
  - C. Starting and manipulating levers for moving equipment and attachments..... **30 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Routine fueling, lubrication and servicing..... **150 hours**
  
- III. Actual Operation of Equipment
  - A. Safe Operating procedures..... **5 hours**
  - B. Screed regulation indoctrination and operation..... **100 hours**  
Operation of machine..... **670 hours**

## **Roller Operator (Asphalt / Finish Operator)**

Approximate training time: **1,000**

- I. Orientation and Observation
  - A. Safety procedures.....**5 hours**
  - B. Observation .....**35 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**5 hours**
  - B. Routine fueling, lubricating and servicing .....**35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Roll base course to desired compaction.....**425 hours**
  - C. Roll asphalt, surfaces to desired compaction and smoothness and assure proper sealing of joints..... **490 hours**

## Roller Operator (Soil /Subbase Compaction)

Approximate training time: **520**

- IV. Orientation and Observation
  - A. Safety procedures.....**5 hours**
  - B. Observation and starting manipulating levers for moving equipment and attachments.....**25 hours**
  
- V. Care and Maintenance
  - C. Safety procedures.....**5 hours**
  - D. Routine fueling, lubricating and servicing .....**35 hours**
  
- VI. Actual Operation of Equipment
  - E. Safe operating procedures ..... **5 hours**
  - F. Compacting Operations.....**360 hours**
  - G. Special Applications and Functions ..... **85 hours**

## Scraper Operator

Approximate training time: **600**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation (as passenger) of machine  
in operation ..... **40 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Routing fueling, lubricating and servicing ..... **40 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **10 hours**
  - B. Loading ..... **170 hours**
  - C. Spreading material ..... **170 hours**
  - D. Rough roadway grading..... **90 hours**
  - E. Compaction of embankment..... **70 hours**

## Tractor / Box Blade Operator

Approximate training time: **520 hours**

- I. Orientation and Observation
  - A. Safety procedures..... **5 hours**
  - B. Observation of machine in operation ..... **30 hours**
  - C. Starting and manipulating levers for moving equipment and attachments .....**25 hours**
  
- II. Care and Maintenance
  - A. Safety procedures..... **5 hours**
  - B. Routine fueling, lubricating and servicing ..... **35 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **5 hours**
  - B. Pulling compaction implements ..... **150 hours**
  - C. Pull graders for dressing operations..... **150 hours**
  - D. Ground clearing assistance.....**115 hours**

## Trenching Machine Operator

Approximate training time: **1,000**

- I. Orientation and Observation
  - A. Safety procedures..... **10 hours**
  - B. Observation (as a passenger) of machine  
in operation ..... **50 hours**
  - C. Starting and manipulating levers for moving  
equipment and attachments ..... **40 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**10 hours**
  - B. Routine fueling, lubricating and servicing ..... **340 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **10 hours**
  - B. Excavating for footings and removal of  
unsuitable materials ..... **200 hours**
  - C. Loading and unloading equipment.....**200 hours**
  - D. Trenching for pipe, etc. .... **140 hours**

## Truck Driver

Approximate training time: **1,040**

- I. Orientation and Observation
  - A. Safety procedures..... **10 hours**
  - B. Observation (as a passenger) of vehicle  
in operation ..... **50 hours**
  - C. Starting and manipulating vehicle..... **40 hours**
  
- II. Care and Maintenance
  - A. Safety procedures.....**10 hours**
  - B. Routine fueling, lubricating and servicing .....**340 hours**
  
- III. Actual Operation of Equipment
  - A. Safe operating procedures ..... **10 hours**
  - B. Loading and unloading materials and operation  
of vehicle ..... **580 hours**

# **Appendix C**

## **OJT Forms**