



DENVER
ECONOMIC DEVELOPMENT
& OPPORTUNITY



Registered Apprenticeship Program Resource Guide 2019

**Denver Construction Careers Pilot
in partnership with
Construction Empowerment Initiative**

Table of Contents

Denver Construction Careers Pilot Overview	3
Registered Apprenticeship Overview	4
Existing Registered Apprenticeship Programs	5
Registering an Apprenticeship Program	7
Apprenticeship Program Cost Components.....	9
DEDO Support/Resources	10
WORKNOW Support/Resources	11
Pre-Apprenticeship Programs	12

Denver Construction Careers Pilot Overview

The Mayor and City Council are committed to ensuring that Denver residents – particularly those in economically disadvantaged areas and backgrounds – benefit from unprecedented investments being made in Denver’s infrastructure. This pilot program is the next step in our efforts to strengthen training and job placement supports for large public projects, building Denver’s workforce of the future.

The Denver Construction Careers Pilot (DCCP) focuses on approximately 15 major projects including the Colorado Convention Center expansion, key National Western Center facilities, significant construction at Denver International Airport, and select Elevate Denver Bond Program projects that are entering construction procurement in the next three years. These large-scale public projects represent the best opportunities to utilize and grow apprenticeship and job training in Denver.

The identified major infrastructure projects total more than \$900 million in value and will create job opportunities for Denver residents and other key populations as another important step in increasing access to opportunity for those that need it most.

Management of the Pilot is housed at Denver Economic Development and Opportunity (DEDO).

How does the Denver Construction Careers Pilot impact me?

Contractors will be required to utilize a certain percentage of registered apprentices and first-year apprentices for the city-funded projects included in the Pilot. (See the graphic below for more details.)

There are two paths you can take for your apprenticeships: join an existing registered apprenticeship program or create your own. We will explore both options in this guide.

Pilot Workforce Development Requirements

For several City-Funded projects, contractors will be required to submit a plan that includes the following sections:

1. Point of Contact	2. Outreach & Engagement	3. Training Strategy	4. Reporting & Tracking
Identify a Workforce POC to ensure the implementation of the Workforce Plan	Approach and plan for target areas defined by the DEDO Map Approach and plan for target populations: <ul style="list-style-type: none"> • Veterans • Formerly Incarcerated Individuals • TANF recipients • History of Homelessness • History with Foster Care • Graduates of pre-apprenticeship programs 	15% of construction hours performed by apprentices. Of those: <ul style="list-style-type: none"> • 25% of hours by residents in Targeted Areas or from Targeted Populations • 25% by first-year apprentices 	Metrics and strategies to track and report progress meeting the Workforce Plan <ul style="list-style-type: none"> • LCPtracker • B2G • Other TBD

How will this impact me?

Registered Apprenticeship Overview

Registered Apprenticeship Programs (RAPs) are apprenticeships that are approved by the U.S. Department of Labor (USDOL). Nationally there are over 150,000 employers using apprenticeship models to train people in more than 1,000 different occupations.

Benefits for Businesses:

- Highly skilled employees
- Reduced turnover costs and quicker time to hire
- Increased capacity to take on new projects
- More diverse workforce

Benefits for Workers:

- Increased skills
- Higher wages over time
- Transferable skills and credentials
- Career advancement options

Benefits for the City and County of Denver:

- Proven model to help job seekers immediately start working and increase skills and earnings
- Supports the development of a ready and able workforce
- Fosters diversity and inclusion on public projects

Registered Apprenticeship Programs include several core components:

- **Business leadership**
- **Structured training, both:**
 - On-the-Job with proper supervision.
 - The ratio of Apprentice to Journeyworker is program-specific and often dictated through State or local requirements.
 - Through Related Technical Instruction (RTI) including classroom and hands-on simulation
- **Rewards for skill gains** (usually in the form of wage gains)
- **National occupational credentials**

Programs are typically:

- Signatory
 - All signatory contractors have the ability to utilize any Registered Apprenticeship Program that they are part of (IBEW, IUOE, LiUNA, etc.).
- Non-signatory
 - Single Employer: Contractor may complete all aspects of RAP or may utilize training/education resources for RTI and program administration
 - Multiple Employer: More than one contractor utilizes “third-party” for administration of program and RTI.

Existing Registered Apprenticeship Programs

There are 47 Registered Apprenticeship Programs in Colorado that include multiple employers.

Occupation Title	Program Name/Website Link
Boilermaker I	Boilermakers Western States JATC
Bricklayer (Construction)	Colorado S/W Trowel Trades JATC
Bricklayer (Construction)	Construction Industry Training Council
Cabinetmaker	Colorado Carpenters & Affiliated Trades JATC
Carpenter	Colorado Carpenters & Affiliated Trades JATC
Carpenter	Colorado Contractors Association, Inc.
Carpenter	Construction Industry Training Council
Cement Mason	Colorado S/W Plaster/Cement Mason JATC
Construction Craft Laborer	Colorado Laborers and Contractors JATC
Dry-Wall Applicator (Alternate Title: Drywall Applicator Specialist)	Colorado Carpenters & Affiliated Trades JATC
Electrician (Alternate Title: Interior Electrician)	Colorado Springs Electrical Industry JATC
Electrician (Alternate Title: Interior Electrician)	Construction Industry Training Council
Electrician (Alternate Title: Interior Electrician)	Denver Joint Electrical ATC-Inside
Electrician (Alternate Title: Interior Electrician)	IEC Rocky Mountain
Electrician (Alternate Title: Interior Electrician)	IEC Southern Colorado Chapter
Electrician (Alternate Title: Interior Electrician)	Pueblo Electrical JATC
Electrician (Alternate Title: Interior Electrician)	Western Colorado Electrical JATC
Elevator Constructor (Alternate Title: Elevator Constructor Mechanic)	International Union of Elevator Constructors
Floor Layer	Carpet/Linoleum/Tile Layer S/W JATC
Glazier	Colorado S/W Glaziers/Glassworkers JATC
Heating & Air-Conditioner Install/Service	Colorado Springs Plumbers/ Pipefitters JATC
Insulation Worker	Heat and Frost Insulators JATC
Operating Engineer	Western Colorado Contractors Association ATC
Operating Engineer (Alternate Title: Heavy Construction Equipment Mechanic)	Colorado Contractors Association, Inc.
Operating Engineer (Alternate Title: Heavy Construction Equipment Mechanic)	Operating Engineers
Painter (Const)	Colorado Area Painting & Decorating JATC
Painter (Const)	Construction Industry Training Council
Pipe Fitter (Construction)	Colorado Springs Plumbers/ Pipefitters JATC
Pipe Fitter (Construction)	Construction Industry Training Council
Pipe Fitter (Construction)	Denver Pipefitters JATC

Pipe Fitter (Construction)	Western Slope Plumbers and Pipefitters Joint Apprenticeship and Journeyman
Plasterer	Colorado S/W Plaster/Cement Mason JATC
Plumber	Colorado Springs Plumbers/ Pipefitters JATC
Plumber	Construction Industry Training Council
Plumber	Denver Plumbers JATC
Plumber	Western Slope Plumbers and Pipefitters Joint Apprenticeship and Journeyman
Residential Wireman	Denver Joint Electrical ATC - Residential
Roofer	Southern Colorado Roofers JATC
Sheet Metal Worker	Colorado Statewide Sheet Metal Workers JATC
Sheet Metal Worker	Construction Industry Training Council
Structural Steel Worker (Alternate Titles: Ironworker or Structural Ironworker)	Colorado Statewide Ironworkers JATC
Taper (Alternate Title: Drywall Finisher)	Colorado Area Painting & Decorating JATC
Telecommunications Technician (Alternate Title: Broadband Technician)	Colorado Springs Electrical Industry Telecomm JATC
Telecommunications Technician (Alternate Title: Broadband Technician)	Colorado Springs Electrical Industry Telecomm JATC
Telecommunications Technician (Alternate Title: Broadband Technician)	Denver Joint Electrical ATC-Telecommunications
Tile Finisher	Colorado S/W Trowel Trades JATC
Tuckpointer, Cleaner, Caulker	Colorado S/W Trowel Trades JATC

To learn more about current registered apprenticeships available in Colorado go here:

- Colorado Department of Labor and Employment: <https://www.colorado.gov/pacific/cdle/apprentice/programs>
- Build Colorado, managed by Associated General Contractors of Colorado and Colorado Contractors Association: <https://www.buildcolorado.com/apprenticeships-education>

Registering an Apprenticeship Program

There are a wide variety of pre-existing registered apprenticeship programs, but if you would like to pursue registering your own program, here are some resources to get started.

Denver Economic Development and Opportunity (DEDO) cannot approve or register a program – that function lies with the United States Department of Labor. We are here if you have questions or need connections to the right people or resources.

Here are some topics for consideration when creating your own registered apprenticeship program:

1. What Occupation are you Training For?

The process for registering a program can sometimes be faster if there is already a program approved for that particular occupation, establishing standards for the hours required, the type of training, etc.

Total Construction occupations available for apprenticeship (ONET Code 47): 252

See the list of occupations here: <https://www.doleta.gov/OA/occupations.cfm>.

2. Program Design



Time-Based

- Program progression based on hours
- Maximum program hours vary from 2,000 – 8,500 hours
- Average apprentice completes 2,000 hours of On-the-Job Learning (OJL) per year



Competency-Based

- Program progress based on evaluation of observable, measurable skills
- **Not currently available for construction craft trades**



Hybrid

- Program progression based on both hours and skills evaluation
- Minimum and maximum hours listed for each program
- Example: Carpenter 5,200-8,000 hours
- If Apprentice demonstrates proficiency in all required skills by 5,200 hours program is complete.
- If Apprentice needs more OJL to obtain proficiency in all required skills program can be extended up to 8,000 hours.

At a minimum, most programs will need to answer the following questions:

1. Who will teach the classroom portion of the training? This might be through an education institution or a trained professional educator.
2. Who will oversee the on-the-job training portion? Topics need to align with the classroom lessons.
3. What is the Program progression? Productivity should increase over time and you should map clear milestones that lead to associated wage gains.
4. What support systems will you have in place? Depending on your organizational structure, you may want to consider identifying a mentor for the apprentice, think through how supervisors will interact with the apprentice and trainer, and have an apprenticeship steering committee to build buy-in and feedback loops within your organization

3. From Design to Standards

Your program design will eventually have to be presented as apprenticeship program “standards.” USDOL has boilerplate templates that outline the required elements you will need to submit when registering.

There are different boilerplates based on:

- a. how many **employers** will participate in your Registered Apprenticeship program, and
- b. whether any **intermediaries** will be involved, such as a labor organization or a community-based organization.

USDOL uses the following language to describe each type of program:

	One Employer	Two or More Employers
No Intermediaries	"Single Employer" Program	"Employer Consortia" Program
One or More Intermediaries	"Jointly-Managed Single Employer" Program	"Jointly Managed with Multiple Employers" Program

You can download the boilerplates here: <https://www.doleta.gov/oa/boilerplates.cfm>

And here you can request access to a Standards Builder Guide:

<https://www.doleta.gov/oa/registration/form.cfm>

For more information about creating a new registered apprenticeship program go here:

- Colorado Department of Labor and Employment: <https://www.colorado.gov/pacific/cdle/apprenticeships>
- US Department of Labor Toolkit: <https://www.dol.gov/apprenticeship/toolkit.htm>.

For questions or assistance, contact: Cynthia McLain, State Director, US Department of Labor, Office of Apprenticeship, 303-844-1620 McLain.Cynthia@dol.gov

Apprenticeship Program Cost Components

The table below shows potential costs of apprenticeship programs. It is not all-inclusive.

	Administrative Personnel Duties	Tuition for Related Technical Instruction (RTI)	Books for RTI	Association Dues	Per Hour Contribution for Union Training Fund	Other Union Collective Bargaining Agreement Fees	Hourly Wage for Apprentice During RTI
Single Employer (Creation of new Registered Apprenticeship Program)	X	V*	X				V*
Multi-Employer Association (Non-Signatory)		X	V*	X			V*
Multi-Employer JATC (Signatory)			V*		X	X	V*

V* - Varies depending on contractor's choice

Single Employer Contractor Costs (Non-Signatory)

- Contractor needs a designated individual(s) to:
 - Administrate program (includes apprentice enrollment, recording and reporting On-the-Job Learning (OJL), etc.)
 - Self-perform or contract with separate entity for Related Technical Instruction (RTI)

Contractor Costs (Non-Signatory)

Multiple Employer

- Membership dues for “third party” (AGC-Colorado, CCA, IECRM, etc.). Varies by association
- Tuition/Books: \$2,000 - \$4,800/year for each apprentice
- Contractor may choose whether or not to pay apprentices hourly wage during Related Technical Instruction (RTI)

Contractor Costs (Signatory)

- Contribute a per hour fee to Union training fund for all hours worked by Union employees*
- Example: Contractor employs 5 full-time craftworkers (approx. 2,000 hours/year for each employee), fee: \$0.50/hour, annual cost = \$5,000
- Contractor can utilize as many apprentices as needed as long as proper ratio is not exceeded based on program standards
- Contractor may choose whether or not to pay apprentices hourly wage during Related Technical Instruction (RTI)

**This contribution is only for the training fund. There are other contribution requirements that may be part of the contractor's Collective Bargaining Agreement (CBA)*

DEDO Support/Resources

What funding resources are available to support my apprentices?

Subsidized training

Under the Workforce Innovation and Opportunity Act (WIOA), funding is available to offset the training costs of a new employee. On-the-Job Training (OJT) is for individuals who are hired into a full-time position with a business who is participating in the program.

- Employee's wages can be subsidized through the Denver Workforce Center at 50% during the training period up to six months and \$3,000 - as funds are available
- During on-the-job training, the business helps the individual develop the skills and work ethics needed for the position and place of business. Upon *successful completion* of training, the business agrees to retain the individual in the position.

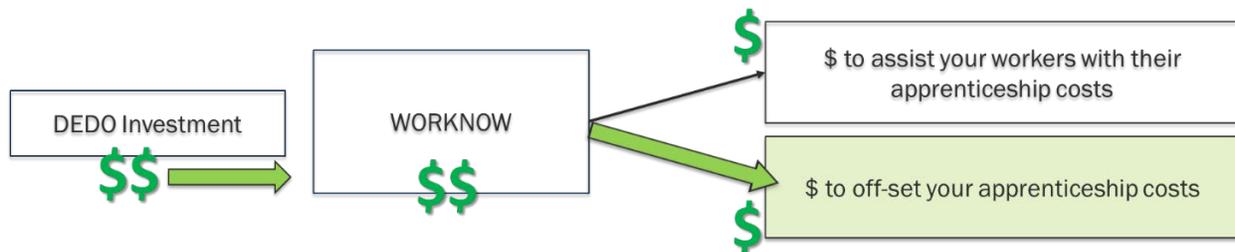
How does an employer qualify?

Businesses must meet the following requirements to participate:

- Be offering a new, permanent, full-time position that provides 32-40 hours of work per week
- Have established operations in Colorado for at least 120 days
- Have no layoffs within the past 60 days
- Offer wages paid at the current industry standard for the position
- Agree to retain the employee following successful completion of the training.

For questions or assistance on subsidized training, contact: James Roina, Employer Services Liaison – Workforce Services, 720.913.1609 james.roina@denvergov.org

WORKNOW Support/Resources



[WORKNOW](#) provides three levels of support/resources for apprenticeships:

1. Depending on funding availability, up to **75% of tuition payment assistance** for registered apprentice related instruction for up to **three apprentices** per contractor upon application approval. Applicable on Elevate Denver Bond Projects.
 - Tuition support is paid to registered apprenticeship provider or to apprentice depending on program structure
 - One semester billing cycle with option to renew for a second semester
 - 1-Year pilot for certified firms, if successful, then the project will be expanded

Note: Still vetting prioritizing fund distributions and sustaining funding sources
2. Supportive Services for current and potential apprentices – help to retain or attract employees
 - Boots, gas cards, books, tool gift cards
 - Assistance in getting a driver’s license reinstated or taking license exam (through partner network)
 - Resource information on housing, foodbanks, childcare
3. Support for applying to registered apprenticeships
 - One-on-one and group math tutoring
 - Pre-apprenticeship bootcamps through partner network (hands-on skills building programs that include core safety certificates such as OSHA-10)
 - Referrals to GED or high-school equivalency attainment
 - Help with getting correct paperwork in order and interview coaching

For questions or assistance on WORKNOW, contact: Katrina Wert, Director Center for Workforce Initiatives, Community College of Denver, 303.352.6019 Katrina.Wert@ccd.edu

Pre-Apprenticeship Programs

As you are starting your registered apprenticeship program, pre-apprenticeship programs can be a great resource to recruit new apprentices.

Pre-apprenticeship programs do not go through the same approval process as registered apprenticeship programs, but the U.S. Department of Labor Office has defined quality pre-apprenticeship programs as those that incorporate the following:

- Connection to existing apprenticeship programs
- Approved training and curriculum
- Opportunity to earn an industry-recognized credential
- Hands-on learning with a career focus
- Access to support services and career counseling.

Below is the list of pre-apprenticeship programs currently approved by Denver Economic Development and Opportunity (DEDO) and WORKNOW. If there are other programs you think would be appropriate for consideration as recognized pre-apprenticeship programs by the City, please reach out to your DEDO project liaison.

Construction Careers Now

The Construction Careers Now program consists of a 4-week Introduction to Construction Careers curriculum through Emily Griffith Technical College.

Website: <https://www.buildcolorado.com/CCN>

Contact: Erika Anderson erika@agccolorado.org and Jim Spence jim@agccolorado.org

Colorado Homebuilding Academy

The Colorado Homebuilding Academy offers an 8-week Construction Skills Bootcamp that covers the basics of construction skills, OSHA-10 certification, and basic training specific to various trades.

Website: <http://cohomebuildingacademy.org/>

Contact: Robert Hernandez robert.hernandez@cohomebuildingacademy.org

The Master's Apprentice

The Master's Apprenticeship is a 7-week program that covers basic construction, life skills, and connections to apprenticeship programs in carpentry, electrical, HVAC, plumbing, and masonry.

Website: <https://themastersapprentice.org/>

Contact: Nick Brattin 720-768-2794

For Questions or Comments on this guide, contact:

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Denver Economic Development & Opportunity is leading an inclusive and innovative economy for all Denver residents, businesses, and neighborhoods. By supporting local and global businesses and stabilization efforts in our city's diverse neighborhoods, we are creating opportunity for everyone to make a home, get a job, and build a future in Denver.

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