

## RESIDENTIAL COMBINATION INSPECTOR APPRENTICESHIP - OVERVIEW

### ISSUE

The inspection workforce is in crisis - an annual statewide workforce shortage of 115 residential inspectors and plans examiners is a major barrier to statewide housing production and, if not addressed, will cause significant delays in reviewing and approving housing projects.

### GOAL

A focused residential building inspection apprenticeship is needed to meet current and future demands for certified code professionals to review, inspect, and approve housing.



*Inspector Mike Ditty & Student Haylie Black Performing a Foundation Inspection*

The creation of a statewide apprenticeship program will include:

- Residential combination electrical, plumbing, mechanical, and structural inspector; and
- Residential plans examiner; and
- Certified permit technician; and
- Associate of Applied Science Degree from an accredited institution.

### NEEDS

With a focus on producing a multi-certified multi-disciplined inspector for low-rise residential housing, pursue uniform apprenticeship standards for building inspection curricula to include:

- Formal on the job training within a jurisdiction; and
- Consistent classroom curricula between community colleges; and
- Student access to BCD residential electrical and plumbing classes and examinations; and
- International Code Council (ICC) certifications: B1, M1, R3, and PT; and
- Oregon certifications: OIC, CAP (plumbing) and CAE (electrical).

Residential plumbing and electrical inspector training would be through BCD, and under the direct oversight of a jurisdiction's A-Level (commercial) certified inspector.

Creation of a statewide apprenticeship committee for oversight of the program that includes stakeholder support and industry partnerships.

Funding for an apprenticeship program that includes building inspection careers as a part of HECC's construction industry funding strategies.

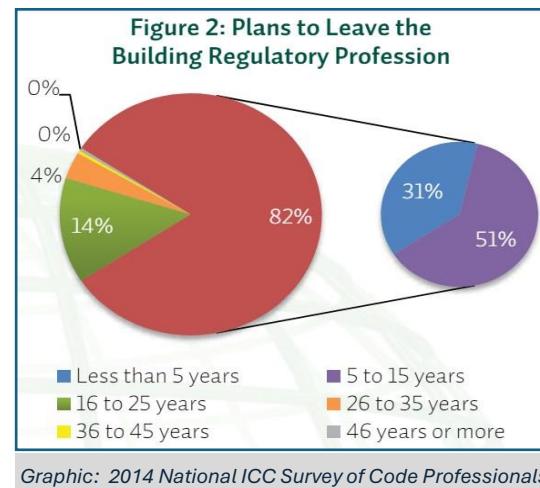
## INDUSTRY BACKGROUND AND OVERVIEW

### Code Professional Career Ladder

- **Permit Technicians** assist in the issuance of construction and development permits to ensure compliance with the adopted regulations and codes.
- **Plans Examiners** review construction plans to determine if they meet the requirements of the adopted building codes.
- **Building Inspectors** inspect structures to determine compliance with the approved plans and building codes. This includes residential combination inspectors.
- **Building Officials** manage the administration, interpretation, application and enforcement of the statewide building codes adopted by their jurisdiction.

### Current Shortage

In Oregon there are roughly 1,500 certified code professionals. There is a growing shortage of individuals to review, inspect, and approve building construction projects - including housing - to ensure they comply with minimum building safety codes. This was predicted in a 2014 nationwide survey by ICC where 82% of code professionals indicated they would retire or leave the industry by 2029.



There are primarily three entities who train code professionals for the workforce: Chemeketa Community College (CCC), Portland Community College (PCC), and State Building Codes Division (BCD) with BCD being the certifying regulatory authority.

According to the Oregon Employment Department, to maintain existing service levels and existing rates of growth, industry needs to produce 165 code professionals per year.

Statewide, under current training models, there are roughly 50 new code professionals being certified each year, leaving a gap of 115.

There are simply not enough candidates to backfill from retirements and other vacancies. And things are getting desperate. One Building Official recently reported receiving 200 new home plans with no staff to review the plans for basic code compliance, and no qualified plan review candidates after four recruitments.

### The Compounding Housing Shortage

Governor Kotek's EO 23-04 indicates there is a shortage of 140,000 homes across Oregon. Annually, the industry produces 20,000 housing units. A near doubling of annual production to 36,000 housing units for 10 years is needed to bridge the gap.

In order to provide a functional pipeline of additional well trained code professionals a new inspector training model is needed because the current model does not meet current needs, and it offers little hope of meeting future demands.

## **CURRENT PATHWAYS TO ENTRY**

### Where Do Code Professionals Come From?

Entry to the code professional career path is typically through the trades as injured workers, those who desire a career change, from high school Career and Technical Education (CTE) programs, military, or as code professionals from other states.

CTE programs are among the most valuable education programs for exposing students to construction skills and even to a lifelong career in the industry. The scope of a construction industry training program should incorporate career awareness about inspection occupations to expand the pool of potential inspectors.

### Industry Education Requirements

The typical entry level education for a Permit Technician is a high school diploma or equivalent. Building Inspectors and Plans Examiners typically require an Associate's degree, although, extensive construction background may be an acceptable educational substitute in some jurisdictions. Building Officials typically require a Bachelor's Degree.

### Permit Technician

#### **What Does a Permit Technician Do?**

A Permit Technician advises the public on permitting requirements and assists in the issuance of construction permits to ensure compliance with the provisions of the adopted regulations and codes.

Certification as a Permit Technician is not required, but highly desired by jurisdictions as a demonstration of knowledge and technical competencies.

Certification can be obtained by passing a certification exam from the International Code Council (ICC). Most candidates prepare through coursework via community college programs, or by the Oregon Permit Technicians Association.

#### Residential Plans Examiner

#### **What Does a Plans Examiner Do?**

A plans examiner reviews electronic blueprints and determines code compliance before construction begins to ensure construction plans meet minimum building safety, structural, and energy codes.

Certification as a Residential Plans Examiner (R3) is obtained through ICC or BCD. Preparation and training for certification is obtained through ICC, BCD or a community college program.

#### Residential Inspector

#### **What Does a Residential Inspector Do?**

A residential inspector inspects construction projects to determine compliance with approved plans and minimum building safety, structural, and energy codes.

#### **How to Become a Residential Inspector?**

Generally, inspectors are certified separately in each of the four disciplines (structural, mechanical, electrical, or plumbing). It can take years to become a multi-certified inspector. Residential combination inspectors can do inspections in multiple disciplines.

There are three paths toward becoming a certified residential inspector in Oregon:

- Successfully complete one of BCD's discipline specific residential inspector courses (division practicum); or
- Convert a certification obtained from the International Code Council (ICC) on your own or through a community college program, to an Oregon certification; or
- If eligible and with the necessary specialized experience, sit for an Oregon certification examination.

## **CONCLUSION**

The three main inspector training entities of CCC, PCC and BCD support this concept. Industry partner and stakeholder support are strongly desired and seen as necessary to bring the concept to fruition.

The Oregon Building Officials Association (OBOA) has signified strong support for this concept and is interested in potentially serving as an apprenticeship program sponsor.

With significant gaps in jurisdictional staffing who review, inspect and approve new construction projects, and the compounding effect of a massive statewide housing shortage, the time is now to pivot to a new apprenticeship model of training that focuses on producing a multi-certified **Residential Combination Inspector**.