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SUMMER 2020

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OF CONSTRUCTION

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#### DRYWALL FINISHING



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PA1

**Building Futures** 

Summer 2020







## Table of Contents

| Special Section   |     |   |
|---|-----|---|
| INDUSTRY RESOURCES<br>A complete guide to<br>apprenticeships, training, and pay | P21 | 6 |
| Departments   |     |   |
| <b>CAREERS</b> ]<br>Ready to apply to an<br>apprenticeship program?             | P19 |   |
| WORK SAFETY   | 229 |   |
| INTERESTS ]<br>Building a portfolio   | P31 | V |
| VIRTUAL INTERVIEWS I<br>The new norm, mastering<br>the virtual job interview    | 233 |   |
| SUCCESS<br>Honesty, your greatest skillset                                      | 235 | • |

#### Industry Profiles In-depth look into careers

| Architects                | <b>P37</b> |
|---------------------------|------------|
| Elevators Installers      | <b>P39</b> |
| Millwrights               | <b>P41</b> |
| Glaziers                  | <b>P43</b> |
| Solar                     | P45        |
| <b>Resources and News</b> |            |

| Transportation<br>Getting aroundP44 |
|-------------------------------------|
|                                     |

| Ad Index   |     |     |     |     |     |     |     |   |     | _     |    |   |
|------------|-----|-----|-----|-----|-----|-----|-----|---|-----|-------|----|---|
| Buzzworthy | ••• | ••• | ••• | • • | ••• | ••• | ••• | • | ••• | <br>P | 46 | j |

We're training and hiring!

#### utua ata

AGC–Associated General Contractors 830 members strong, essential, and still invested in the success of its industry.

**Cascadia Tech Academy** We surveyed students to find out what's so good about their construction program and why employers want to hire them!

**Built Enviro – Portland Zoo Remodel** A 10-yr. project + a \$57 million dollar home for the elephants.

A Recruiter Just Called Now what?

**Features** 

Pg 8

Pg 11

Pg 14



NEW WEBSITE BUILDINGFUTURESMAG.COM

**CHECK OUT OUR** 

It's cool, interactive, and has must-see videos on EVERYTHING CONSTRUCTION!

#### **COVER PHOTO**

**ABOUT:** 140 Columbia is a 469,533 sq. ft mixed-use development in downtown Portland, OR featuring 349 apartment units and 15,000 sq. ft. of retail.

Like with any project, it's the people that it make great, people like **John Quintrell, Project Foreman for WPI.** Throughout his career, he's made it his personal mission to work closely with new apprentices by empowering them with responsibility and setting the standard for what it means to be a "professional" in the trades. *Thank you, John!* 

Architect: WDG Developer: Alamo Manhattan Contractor: Anderson

PH0T0: John Quintrell (Project Foreman/Ft), Alex Krivoshapov (Weather Barrier Foreman, Bk. Right), Dree Warren (Project Leadman, Bk. Left), German Bracamontes Aguilar (Journeyman Taper, Mid. Left), Jessica Peiffer (Journeyman Carpenter, Mid. Right) & Michael Bell (Apprentice Carpenter, Mid. Ctr.)

Special thanks to Sam Jones, WPI. COVER PHOTO BY: Lynn Howlett Photography

#### INTRODUCTION

## Welcome to the Summer issue of **BUILDING FUTURES MAGAZINE**



"Were you considering your career options right when the pandemic and the resulting economic recession hit the world?" Now are you

wondering what industry can provide safe and long-term work when so many jobs seemed to have dissolved? Construction may be your answer.

Here in Oregon, construction kept going throughout the shutdowns. While students were figuring out remote learning, construction professionals were busy building homes, schools, and high-tech facilities. Construction firms also continued to look for new people to join their teams.

As construction professionals will tell you, there are always challenges. The biggest impediments during the pandemic for any company has been creating safety protocols. But that is what construction teams do every day: they figure out how to safely build complicated structures. It turns out that much of the construction industry has always practiced social distancing, worn gloves, and even worn masks as part of the job.

Of course, we are waiting to see how the economic fallout affects our country. There are complicated factors that play into the creation of jobs in any industry. But many of those factors will make construction a great opportunity for you. There will be retirements making room for promotion. There will be innovations to make buildings more environmentally friendly. And there will be new people needing places to live, work, and play. The construction industry will continue to be a strong career path for years to come. Start by reading about the opportunities in this magazine and then take the next right step for you.

John Killen **GUEST WRITER** 

John Killin is the Executive Director of Associated Wall and Ceiling Contractors (<u>www.awcco.org</u>). Combined, the contractor members of AWCC employ nearly 3000 construction professionals. Killin has been representing construction firms since 2000.

#### SUMMER 2020 · VOLUME 25 · ISSUE 2

Building

CHECK OUT OUR NEW WEBSITE WITH VIDEOS AND MORE RESOURCES buildingfuturesmag.com

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SHAPING THE FUTURE OF CONSTRUCTION WITH NEW IDEAS, RESOURCES, AND CAREER OPPORTUNITIES

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## MEET OUR EXPERTS





Aaron Bouchane

For the last ten years, Aaron Bouchane has developed and managed innovative workforce development programs both domestically and internationally. As one of AGC's Workforce Development Managers, Bouchane is working to develop and expand partnerships and programming that promote and prepare people for the living wage construction career opportunities across the state of Oregon and SW Washington.



Meg Kilmer

For more than twenty years Meg Kilmer helped high school students explore career options and plan their post-secondary steps as a Career Coordinator at Lincoln and Parkrose high schools in Portland, Oregon. Today she is the High School Outreach Coordinator for the Pacific Northwest Carpenters Institute, introducing youth to the Union Carpenters apprenticeship program.



Derek Lakin

Derek Lakin is a freelance writer who has more than a decade of experience covering everything from at-home genetic testing to plumbing and electrical how-tos. A lifelong cyclist, Lakin is also the founder of TreadBikely.com.



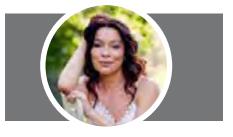
#### Jeanie Olinger

Jeanie Olinger is a former middle school math, science, and English teacher. She worked with and developed after-school programs to assist at-risk students. Before starting her writing career, Olinger taught ESL online on an international level. She worked primarily with adult students and helped them prepare for highstakes English tests required for them to attend English-speaking universities and schools. When not writing, Olinger can be found training for a half marathon, a triathalon, or hiking.



#### Eric Escoto-Saucier

Eric is an expert in human resources, non-profit staffing, new employee training and talent acquisition and recruiting. In his work, he makes it his mission to ensure that he finds the best fit for not only the company, but also for the candidate.



#### Jenni Wileman

Jenni Wileman is a freelance writer specializing in the construction and remodeling industry. She is a licensed contractor with almost 5 years of experience as a professional writer. Wileman is skilled at research and has a knack for making complicated topics easy to understand.

## What you DIDN'T KNOW about the **AGC**

►► Aaron Brochane

#### First, it stands for "The Association of General Contractors," and what they stand for is the continued success of the commercial construction industry and YOU!

#### 8 Weeks Have Shifted an Industry

Over the last eight weeks, conversation has shifted from training and workforce development to job site safety and an effort to keep construction up and running across Oregon. Schools are closed, training is at a standstill, and workforce development efforts have focused on averting layoffs and helping people navigate unemployment insurance. It is no surprise that many of the inquiries from workforce partners have been less about the skilled worker shortage and more about the status of Oregon's construction sector. Associated General Contractors Oregon-Columbia Chapter (AGC) has been at the forefront of this conversation, leading the effort to keep construction workers safe and the industry open during the shutdown.

#### 830 Members Strong, Stayed Working

AGC Oregon-Columbia Chapter, with nearly 830 member companies across Oregon and SW Washington, is the only trade association representing the full range of commercial construction companies. While the organization provides a variety of services for its members, it has four core pillars: member events and training, government affairs, workforce development, and safety. AGC's safety team works hard to keep contractor members and their employees safe while maximizing productivity, and never has this been more evident than over the last two months.

#### Stay Home - Save Lives

When the Oregon "Stay Home, Save Lives" order was delivered by Governor Kate Brown, AGC began working to ensure its members and the construction industry were ready to respond. AGC's safety team quickly began developing job site guidance, a social distancing officer job description, and job site posters and banners, while pivoting to an online training platform. The ability to quickly respond and get trusted and well-vetted resources into our contractors' hands undoubtedly helped set the stage to list construction as an essential business. And while AGC staff and its safety team worked tirelessly, it was the work of a broad coalition that coalesced to share resources and advocate for the industry that made the difference. As building continues, conversation is slowly turning back to workforce development, and that includes the impact of COVID-19.

#### Post Covid-19

As the industry came out of the Great Recession in 2008, it had to dig itself out of a workforce hole. There was an immediate need to ramp up pre-apprenticeship and registered apprenticeship training. Efforts were undertaken to increase outreach and awareness to educate younger populations, their parents, and other influencers about the well-paying career opportunities in construction. Existing Career and Technical Education (CTE) programs at the high school level needed new investments to catch up with industry standards, and to meet the growing workforce needs, and new construction CTE programs needed to be created across the state. State funding such as Measure 98 and CTE revitalization grants have spurred this development. Just as several regions around the state were in the process of developing preapprenticeship programs that would help educate and train interested people for apprenticeship and entry-level employment, COVID-19 hit.

#### Workforce Recruitment

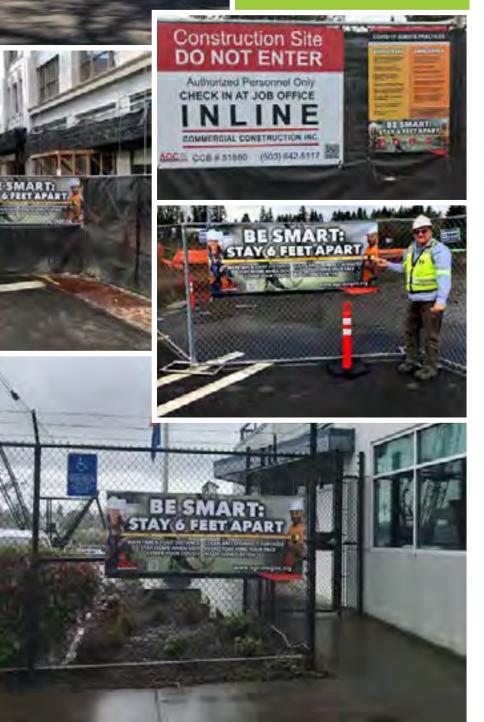
During this period, AGC also sought to increase its role in the development of a workforce pipeline. This has included the launch and expansion of Educator Externship, a summer program designed to expose, educate, and link teachers to the construction industry; the updating of the Build-Oregon brand, which includes a website, social media channels, and resources; and a workforce development grant program that has helped fund and support workforce initiatives across the state.







WHEN THE OREGON "STAY HOME, SAVE LIVES" ORDER WAS Delivered by governor kate brown, Agc began working to ensure its members and the construction industry were ready to respond.



WARNING

**BE SMART:** 

STAY 6 FEET APAR

OT ENTER IF YOU HAVE BEEN

#### Demand for Skilled Trade Positions Remains

Despite all these efforts, the construction sector in Oregon is still short of the workforce it needs. Before COVID-19, contractors were struggling to hire skilled workers. In AGC of America's 2019 workforce survey, 87% of Oregon contractors surveyed reported a difficult time filling some or all their skilled trade positions. Moreover, 69% of contractors predict it will continue to be hard, or will become harder, to hire skilled trade workers. Now that COVID-19 has altered Oregon's economic landscape, the industry faces additional uncertainty and challenges as we look ahead.

#### Survey Says...

As Oregon begins to reopen, AGC has begun to look at how COVID-19 has impacted the industry. In a survey conducted by AGC of America in April, an increasing number of contractors have reported cancellations of upcoming projects and shortages of equipment and materials. For Oregon, the construction sector has remained open, which has allowed contractors to avoid large layoffs for the moment. COVID-19 will not be stopping the 41% of construction workers who will be retiring within the next 10 years. Because the industry has struggled to fill the pipeline with younger workers, the construction industry could be hit harder than most sectors by Baby Boomers retiring. Now, more than ever, is the time to ensure the gains made to develop and improve Oregon's construction workforce training system are not forgotten.

This includes ensuring investments, like Measure 98, are maintained and continue to support CTE classes and activities that connect learning to careers. Additionally, efforts to re-image the construction industry and its careers must continue. These efforts have allowed more people, particularly influencers, to learn about the industry and career opportunities. Never has there been more information available for interested people to understand and navigate the construction training and hiring process. AGC is working to understand what messages work well with young people and their parents, and which marketing avenues yield the best results.

The arrival of COVID-19 and its impact across the state has been significant. There will be much to consider and plan for over the next 3 to 18 months, and this includes the development of the next generation of skilled workers. It is important that momentum is not lost in promoting these living-wage careers, in developing and defining better pathways into this industry, and ensuring efficient and nimble construction training systems exist for anyone, anywhere. Otherwise, we will be right back where we started. ■

## AGC IS A LEADER IN CONSTRUCTION SAFETY

When COVID hit, AGC led the effort to keep construction employees safe and employed.



The construction industry faces a severe workforce shortage in the coming years. AGC will continue to lead efforts that help contractors recruit and retain the next generation of workers.

## Want to learn more about the industry, careers, and training? Visit Build-Oregon.com.

Are you an educator, counselor, or administrator looking to learn more about construction careers? Apply to AGC and WESD's Educator Externship Program.

Join the regional construction workforce conversation by becoming a member of AGC's Construction Workforce Coalition. Learn more at AGC-Oregon.org.



OANGER)



Visit www.agc-oregon.org or www.build-oregon.com for more info.

#### 2020 CTA PROGRAM SURVEY FACTS:

participated because they had an interest in construction

said the most interesting skill they learned was how to read blueprints

55% found the craft of wall construction most interesting felt the biggest benefit was increased interest in applying to an apprenticeship program

Some of the top advice passed along by students was, "Do it!" "Work hard!" and "If you want something, set your mind and don't give

up!"

#### Provides Students with Real-World Construction Skills, Industry Experience, and Self-Worth

Tech Academy

▶▶ Derek Lakin

Cascadia Tech Academy's Construction Program teaches high school students the core skills they need to land a job after graduation. Based on a Building Futures 2020 student survey, here's what they had to say.

"Unless you go to college you won't be successful," is one of the biggest myths Bill Draper and Lance Landis, Construction Technology Instructors at Cascadia Technical Academy, want to dispel.

As co-instructors, their mission is to prepare students to enter the workforce in their chosen occupation by developing professional soft skills and hands-on building skills. Together, they emphasize that students will exit the program as more employable people who can command more money and move far beyond entry-level.

With its career-focused curriculum, Cascadia Tech's Construction Technology Program has been available to all Clark County, Washington, high school juniors and seniors since 1983. By spending three periods, or two-and-a-half hours per day, in the program, students gain access to a variety of skills that can relate to entry-level construction industry jobs. For example, in the first-year program, junior high school students learn a variety of foundational skills such as safety, tool operation, how to read blueprints, and framing techniques. Then they use these skills in real-world projects like designing and building a scale-model home and constructing a shed during the spring. They complete their first year by working on an active job site.

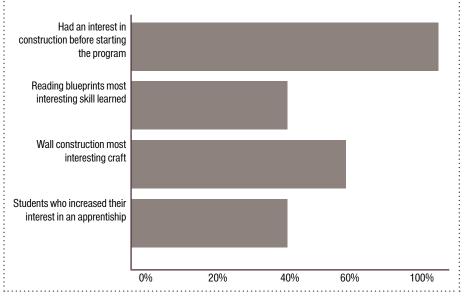
Second-year program students are bussed to a live job site, where they have the opportunity to work alongside industry sub-contractors while remaining under the supervision of instructor Lance Landis. There, they apply the skills they've learned during the first year, as relates to their applicable trade, by building a full-size house.

Compared to a traditional high school environment, Lance and Bill explain that this approach sets up a very different type of curriculum – one that gets students into the mindset that, "I'm your employer, and you're coming to work."

As a result, building inspectors and sub-contractors who work with Cascadia Tech's students frequently praise their professional behavior and high-quality skillset, a benefit the instructors credit to the program's focus on fostering high-level craftsmanship and work ethic.

Bill also points out that many of the program's students thrive as visual, kinesthetic learners who express intelligence differently and might not have had a lot of academic success at their setting school. The instructors emphasize, however, that once they achieve success in the program, this often translates into improvements in other educational areas.





CASCADIA TECH STUDENT SURVEY RESPONSE

66

Students realize they can make a really good living with these skills, which instills a lasting sense of self-worth.

These successes were recently validated by student responses to Building Futures magazine's 2019-2020 survey. Overwhelmingly, students appreciated the opportunity to work on a real house off-campus, gain hands-on skills, and learn how to remain focused and overcome obstacles.

Another standout response among CTA's Construction Program students was that it helped them experience success, and feel more confident using math in the real world.

Together, Bill and Lance explain that Cascadia Tech's Construction Program remains popular among Clark County high school students because of the authenticity they maintain inside the classroom.

Both instructors emphasize that there's nothing like working with students every day, whether one-on-one or in small groups, and showing them how to do something with their hands—other than play with their phone.

"They realize they can make a really good living with these skills," they add, "which instills a lasting sense self-worth." In fact, they point out that the proof is in the results since many of the unique program's graduates are employed as building contractors in and around the community.

Want to learn more about Cascadia Technical Academy's Construction Program?

Visit their website at Cascadiatechnicalacademy.org.





TECH ACADEMY Inspiring Greatness





#### Interested in learning CONSTRUCTION?

Want a hands-on experience to learn trade-specific skills needed to build a real house?

Construction Technology at Cascadia Tech Academy offers students an opportunity to prepare for entry-level positions in the construction industry for juniors and seniors in Clark County.

#### How can I enroll? Contact your high school counselor TODAY!

#### Want to help?

Call us for information on how you can help by serving on one of our advisory boards.

#### YOUR FUTURE AWAITS!

12200 NE 28th Street, Vancouver, WA 98682 (360) 604-1050 | www.CascadiaTech.org



Cascadia Technical Academy does not discriminate in any programs or activities on the basis of sex, race, creed, religion, color, national origin, age, veteran or military status, sexual orientation, gender expression or identity, disability, or the use of a trained dog guide or service animal and provides equal access to the Boy Scouts and other designated youth groups.

## OREGON ZOO

#### **The Innovative Construction of Elephant Lands**

► By Jenni Wileman

he Oregon Zoo is an amazing place. The 64-acre zoo is committed to conservation and has been since 1888, so it's no wonder why it houses some of the world's most innovative exhibits. It's home to over 1,800 animals and 232 species. With community support, in 2008, the zoo embarked on a \$125 million, 20-year master plan. At the heart of this master plan: *The Elephant Lands.* 

Elephant Lands is one of the zoo's most ambitious projects to date. Costing over \$57 million and taking 2<sup>1</sup>/<sub>2</sub> years to construct, it features

#### FLOORS MATTER

To cushion and protect the elephant's feet, the ground material was essential. The grounds in Elephant Lands were carefully considered and highly researched. Countless hours were spent by designers and geotechnical engineers looking for the "Goldilocks" of sand: not too hard, not too soft, not too sharp... but just right. Crews hauled in an impressive 15,000 cubic yards of elephanttested and zoo-approved sand.

#### CROSS-LAMINATED TIMBER WAS USED

The visitor center of the Elephant Lands was the first-ever commercial project in Oregon where contractors used crosslaminated timber. It's a unique material made from planks of wood "cross-hatched" together into larger sheets to offer more strength than traditional wooden planks. It's also sustainable and can be made from timber created in fire-prevention work, such as forest thinning and clearing of damaged trees. three outdoor habitats, nearly 33,000 square feet of indoor space, play structures, hanging feeders, and adventurous terrain. And all these creative features make it one of the most thoughtfully created elephant habitats *in the world*.

Architects SRG Partnership, Inc. led this massive project, along with general contractors Lease Crutcher Lewis and with the help of over a dozen engineers, designers, and hundreds of tradespeople and laborers. Designing and building this 6-acre world-class habitat incorporated almost every trade *imaginable*. HOME TO OVER 1,800 Animals And 232 Species





#### CAN COLD AND HEAT WORK TOGETHER?

Not only is the architecture of the Elephant Lands impressive above ground, but 12-feet below the surface contractors and crews buried an innovative geothermal system. Talk about high-tech! These underground "slinky" style coils are designed to draw heat away from cooling the polar bears to warming the Elephant Lands' 33,000-square-foot indoor habitat. This system saves energy and money, and is environmentally friendly.

# Contrast the product the terms of the product the terms of the product the terms of terms of the terms of te

#### **RENEWABLE ENERGY**

Installers decked the roof of Forrest Hall with an array of solar photovoltaic panels. This impressive display will generate about 20,000 kilowatt-hours of power yearly without releasing any CO2. There's even a solar hot water system with the ability to heat 1,500 gallons of water without natural gas. The architects and contractors made the most of every square foot of this design.



#### THE ELEPHANT POOL

Crews dug a massive 80-foot-wide and12-foot-deep pool with adjustable water levels and a gently sloping shoreline. They also installed a stateof-the-art filtration and water treatment system to keep it clean. There's even a spray jet water feature – providing tons of fun for the elephants.



NOW WH

A RECRUITER JUST CALLED...

#### ▶▶ By Eric Escoto-Saucier

efore we jump into how to respond to a call from a recruiter, we first need to understand the different types of recruiters and what exactly a recruiter does. There are three main types of recruiters: agency recruiters, corporate recruiters, and headhunters.

An agency recruiter works for a staffing agency and is recruiting candidates for temporary or temporary-to-hire (sometimes this is called contract work or contract-tohire) roles. This recruiter is essentially hiring you to work for the agency, but your job will typically be at a "client" company. The client company is the company who hired the staffing agency to fill an open position on a contract basis.

A corporate recruiter works directly for a company and may be recruiting for temporary and "permanent" (I use this term loosely – we'll cover more on this later) roles. If hired, you'll be working at the same company that employs the recruiter.

A headhunter is a very specialized type of recruiter that can be either an agency recruiter or a corporate recruiter and typically seeks out C-Suite executive-level candidates. A headhunter will often find their candidates currently working at a company. It's a headhunters job to recruit actively employed people into new companies. This is sometimes called "poaching candidates."

At the end of the day, all recruiters are trying to do is match the most qualified person to an open position while juggling what's best for the candidate and the company they represent. When a recruiter reaches out to you, there are a few things you need to consider before diving right in:

- Is this a recruiter from a company I applied to?
- Is this a recruiter from a staffing agency?
- Am I interested in a career change?

If the recruiter is calling from a company you applied to, congratulations! You're one step closer to a potential job offer from a company. During the initial contact from the recruiter, this is your first impression with the company. Make it count. As

> BE YOURSELF, BE HONEST, AND BE TRANSPARENT WITH YOUR RECRUITER.

you are applying to jobs, keep track of what companies and jobs you have applied to. Then, do a quick Google search of the company, and jot down the top three most important things you found out about the company. Base two to three questions off of what you found. This will set you ahead of the competition by showing your potential employer that you did your homework and are engaged in the process.

Staffing agencies often have a bad reputation, but they're a great resource for someone who needs to find a job fast and doesn't mind a potentially short-term assignment. When getting involved with a staffing agency, some of the first questions you need to ask are:

#### 1. Is this an active job order, or is this a pipeline?

- » An "active job order" means that the recruiter has an open job that they're trying to fill. Often, staffing agencies move very quickly. You need to be available for work within the week.
- » A "pipeline" is when a staffing agency is collecting candidates for future opportunities.

Both are fine options, it depends solely on how motivated you are to work, and how soon you need to be employed. With a pipeline, there is no guarantee that you'll be considered for an open position. Just something to keep in mind.



#### THE MILLION-DOLLAR QUESTION

"Am I interested in a career change?" Notice I didn't say, "ready for a career change," I said "interested." There's a big difference between the two. Interested in a career change could mean that you're gainfully and happily employed. There's nothing wrong with keeping your options open. After all, I'm sure you've got bills to pay and possibly a family to take care of. Complacency in jobs is dangerous. There will always be something bigger and better out there. It's there for the taking, you've just got to have an open mind. If you're "ready" for a career change, this could mean that everything in your current employment situation isn't peaches and cream. That's okay too. I will say, from both personal and professional experience - don't jump head first into the first company that calls you. Keep your options open, and don't make important career decisions when you're upset due to something that happened at work. The grass isn't always greener on the other side.

#### WHAT DO RECRUITERS LOOK FOR?

That's a loaded question, as we look for lots of things when evaluating candidates. I can't speak for any other recruiter out there, but some of the things I look for on a resume:

#### 1. Job Tenure

» "Job hopping" is often a red flag for me. I like to see at a minimum of one to two years of tenure at each company. However, if a candidate is at ABC Company as an HR Assistant for 6 months, and then is at XYZ Company for 1 year as an HR Generalist that shows me that the candidate is learning as much as they can and moving up.

#### 2. Measurable Achievements Listed

» I like to see things like "Implemented such-and-such process that produced an estimated savings to the company of \$XXX,XXX annually."

#### Continued on page 18 ▶▶

AT THE END OF THE DAY, ALL RECRUITERS ARE TRYING TO DO IS MATCH THE MOST QUALIFIED PERSON TO AN OPEN POSITION WHILE JUGGLING WHAT'S BEST FOR THE CANDIDATE AND THE COMPANY THEY REPRESENT. IMPORTANT

It's also extremely critical for me to mention that the recruiter is often your first glimpse into the company when they reach out. Just as the recruiter is trying to figure out if you're a good fit for them, you need to determine if they are a good fit for you. If you have a "gut feeling" about a recruiter, trust your gut, to some extent. If the recruiter that reaches out is abrasive, or seems annoyed or rushed, drive the conversation to ensure that all of your questions are answered before the conversation ends. Always make sure that you have the entire picture before making a decision to proceed in the hiring process or not. I've turned down second interviews after having a poor experience with a recruiter at a company. Don't be afraid to be honest with the recruiter if you aren't excited about a position, or the company. Recruiters will almost always respect you more if you're transparent and upfront with them.

#### 3. Spelling, Grammar, and Punctuation

» Chances are, I'm not recruiting for a magazine publisher or an editor in chief. I'm not looking for scholarlevel verbiage. I need to see that the words used are spelled correctly, used correctly, and the appropriate punctuation is utilized. Misspellings in resumes are a red flag for me, as it is a knee-jerk reaction of "this person may not be as detail oriented as I need them to be for the job."

#### 4. Accurate Contact Information

» Please, please, please be sure that the phone number and email listed on your resume are accurate.

If I can leave you with one takeaway from all of this – be yourself, be honest, and be transparent with your recruiter. If you're no longer interested in a position, let the recruiter know. Don't "ghost" us. Do your research on the company, and when interviewing, be yourself! Don't be nervous. You're just telling us your story. You are the expert on your experience; we are just trying to figure out what you've done, and what you enjoy doing.





#### **ABOUT ERIC**

I'm a highly skilled recruiter with a knack for finding the best talent and matching them to the perfect job. As a Talent Acquisition Specialist and new employee trainer for Lowes, it's my focus to ensure that I'm finding the best fit for not only the company but also for the candidate.

The opinions and statements contained throughout this article are my own. The views expressed here do not necessarily reflect the views of my past or present employer(s), nor do the views expressed reflect those of this magazine.



## **READY TO APPLY TO AN**

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### What if the program of your choice isn't accepting applications – then what!? By Meg Kilmer

#### **READY SET GO!**

You've done your homework, you've picked a trade you are interested in pursuing, and you're ready to apply for an apprenticeship. What happens when the apprenticeship you want to apply to is closed or not taking applications? What does that mean?

#### ROADBLOCKS

You are bound to hit some roadblocks along the way to a job in a very competitive field. Hopefully you can quickly identify these and continue on your way. One of the roadblocks you may encounter will be delays in apprenticeship program openings due to COVID-19. Not to worry, the industry is on it and working diligently to restructure their programs to ensure the utmost in safety for their participants. So what can you do while on hold?

#### TRUST YOUR SENSE OF DIRECTION

If you believe that a construction career is perfect for a hands-on, practical problem-solver like yourself, stay the course. Understand that it may take longer to get to your destination, but you can get there. Think about what you can do to improve your chances of being accepted into an apprenticeship program. *Here are some next-step ideas to get you started.* 

#### 1. Choose a Healthy Lifestyle

Like others who make their living using both mental and physical abilities, construction workers are sometimes called occupational or industrial athletes. They have jobs that require a high degree of flexibility, stamina, skill, coordination, and strength. Maintaining or improving your level of fitness is important to future success in construction. Make positive choices that ensure you will be able to pass your pre-employment drug test too.

#### 2. All Work is Good Work

Can you explain how any previous employment you've had will make you an asset? Maybe it was physically challenging work that improved your endurance and strength. What did your boss and co-workers appreciate about you? Was it your punctuality, being the first to volunteer, cheerfully accepting new tasks, or your ability to get along with your co-workers?



#### 3. Target Your Job Search for Skills & Knowledge

All work is good work, but imagine what you could learn if you worked at a lumber yard or plumbing supply company. Retail experience at a hardware or home improvement store could introduce you to tools and materials used in the trades. Learn to use tools by helping a neighbor build a deck or install a fence. Prove you can get up early and work hard all day by joining a landscaping or trail building crew or getting hired as a hand on a farm or ranch.

#### 4. Research Pre-Apprenticeship Programs

Some apprenticeship programs recommend that prospective applicants complete a pre-apprenticeship program. What is available in your community? Programs vary in length from weeks to months, are offered by community-based organizations or community colleges, and are usually free or low-cost. Completing a preapprenticeship demonstrates your commitment to the trade and will give you specific skills and experiences to discuss in a future interview. Job Corps also offers in-depth pre-apprenticeship programs for youth ages 16-24.

#### 5. The Military Route

The military may seem like a detour away from your career in the skilled trades, but the construction industry welcomes military veterans back to civilian careers. Many apprenticeship programs offer direct entry to veterans. Helmets to Hardhats is a national nonprofit (helmetstohardhats.org) which connects transitioning military service members with registered apprenticeship programs. Should you choose to enlist, you may qualify for one of the many Military **Occupational Specialties** (MOS) related to construction such as Carpenter, Plumber, Electrician, or Concrete and Asphalt Equipment Operator. If this route appeals to you, start your research at todaysmilitary.com. This website, produced by the United States Department of Defense, doesn't promote any particular branch of the U.S. Military but offers a broad overview and introduction to military service. Recruiters from the specific branches (Air Force, Army, Marines, Navy, etc.) will be able to offer you more specific details about available job openings in constructionrelated occupations.

#### A ROADBLOCK IS JUST A DETOUR

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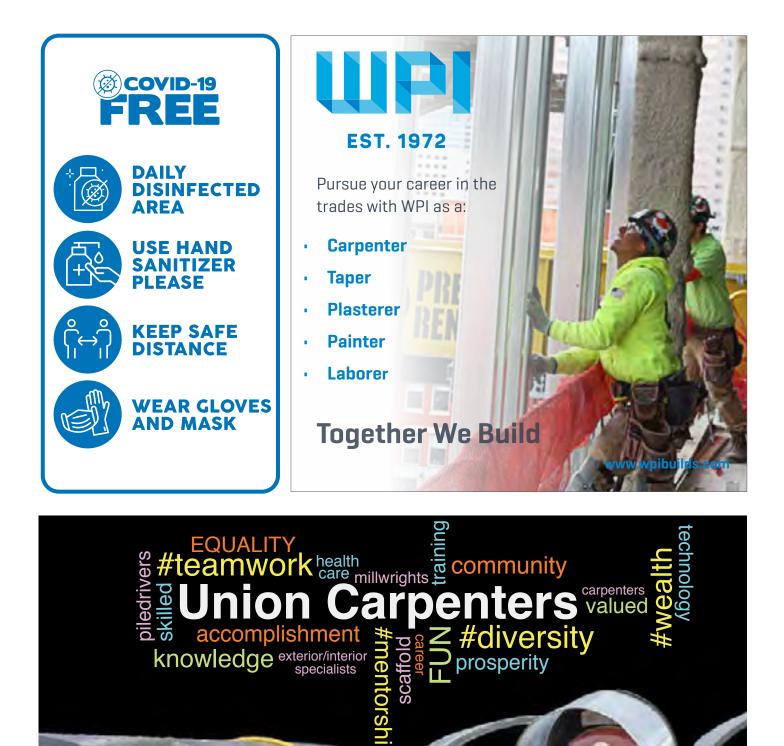
You may face roadblocks in your journey toward success but keep in mind that you can become a stronger candidate during a detour. If you get discouraged along the way, or if someone tells you "no," then maybe you re talking to the wrong person. Be patient and persistent.

#### i

#### While waiting to get into an apprenticeship program, consider beefing up your skill set with these learning tools.

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- Are you ready for the math aptitude test required by some apprenticeship programs? Look for sample questions on the program's website or refresh your algebra skills at Khan Academy (www. khanacademy.org/math/ algebra).
- Can you quickly read a tape measure? Take a look at WikiHow for some great tips and tricks: (www.wikihow. com/Read-a-Measuring-Tape).
- Do you really know what to expect from an apprenticeship? Enroll in the free Skilled Trades: Construction Apprenticeship Foundations course on LinkedIn Learning (https://www.linkedin. com/learning/skilledtrades-constructionapprenticeshipfoundations/ how-to-start-a-newcareer-in-the-trades).







#### **APPRENTICESHIPS** START WITH AN INTEREST IN CONSTRUCTION

There's a lot of talk about apprenticeships, but before you can explore that, you really need to think about what construction is.

Construction is the built environment. Everywhere you look you can see the effects of construction, from buildings and roads to power dams and sports arenas; these projects were all built by a team of professionals who have used their talents to build, rebuild, and repair great things.

The team of people that it takes to build pretty much anything is made up of architects with vision, engineers with know-how, and craftsmen with the expertise to put it all together. There are countless skills and job opportunities available to anyone wanting to be a part of this great industry.

#### INTERESTED? Let's talk about WHERE TO START:

- First, get inspired. Read through the pages of Building Futures for insight into just how interesting this industry is.
- Take a look at some of the crafts we have profiled starting on page 37 of this issue, and then for more crafts you can read past issues of *Building Futures* magazine online at: www.buildingfuturesmag.com.
- 3 Study our "resources pages" for a list of various crafts, what they pay, and the associated training programs found throughout the state.
- 4 Use the web addresses for each training program to read more about crafts that interest you, and their requirements for applying to their program. Many programs offer pre-apprenticeships as well as apprenticeships.

#### What is APPRENTICESHIP and HOW DO YOU GET ONE?

Apprenticeship is occupational training that combines onthe-job experience with approved employers and classroom instruction, providing you with a steadily increasing income while preparing you to become a licensed journey worker in a trade. It is recognized across the United States as a pathway to a lifelong career, a competitive salary, an education, and advancement within the industry.

Applying for an apprenticeship is like applying for a job. You have to meet qualifications, and then follow the directions given for the individual training programs. Apprenticeships are more competitive than ever so I suggest that you do anything possible to give you the edge. Throughout this issue we have provided expert advice and suggestions that we hope will help you.

#### WORDS TO KNOW

**PRE-APPRENTICESHIP:** These programs introduce people to the industry and to the necessary skills to enter a trade or apprenticeship program. Programs are available through community-based organizations, high schools, labor organizations, workforce agencies, or community colleges. APPRENTICESHIP: Apprenticeship programs vary in length, with apprentices receiving a mix of structured on-the-job work experience with an employer and relevant academic and technical instruction, often through partnerships with local two- and four-year colleges, organized labor, or other training partners. JOURNEYMAN: A journeyman is someone who has completed their apprenticeship program or is a fully



#### BENEFITS OF APPRENTICESHIP TRAINING:

Earn while you learn.
 Hands-on job training.
 Career path advantage.
 Increased confidence.
 Improved productivity.
 Mentor support.



#### MINIMUM PROGRAM REQUIREMENTS.

- A. Must be 18 years or older to work on job site.
- **B.** Be drug and alcohol free.
- **C.** Access to reliable transportation is a MUST.
- D. HS diploma or GED (on track or currently received).
- E. GPA, math, aptitude, & interview skills.
- F. Experience (preapprenticeship, trade-related courses, trade-related hobbies, career-related volunteer work, work experience).
- **G.** Work attitude and ethic.

skilled practitioner who can work independently in a given trade.

**INTERNSHIPS:** Internships provide paid or unpaid short-term work experience lasting a few weeks or months. Interns gain on-the-job learning experience that can help them decide on a specific training or career path.

## How has COVID-19 AFFECTED TRAINING programs here in Oregon and SW Washington?

New COVID-19 restrictions have already begun to affect access to apprenticeship and training programs, with many having to limit their classes and others turning to online resources. Let's face it, this is a hands-on industry, and a major part of apprenticeship training is working alongside experienced professionals.

#### SO, WHAT'S THE PLAN?

The industry is still figuring it all out. Ideas in practice at the time of this writing include allowing for some classroom work to be moved online. Hands-on training is being moved from indoor labs to outdoor spaces to accommodate sixft-by-six-ft areas for social distancing. Students showing up for class are experiencing staggered times for briefings and health checks. Of course, after training is complete, all equipment is being sanitized.

The bottom-line: industry and training programs are hard at work redefining apprenticeship training in the era of COVID-19. We remain invested in your futures, and in your training and job opportunites.

THERE ARE COUNTLESS SKILLS AND JOB Opportunities available to anyone wanting to be a part of this great industry.

#### Understanding How Apprentices are PAID?

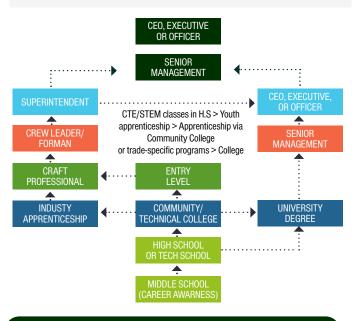
This can be tricky. The industry generally pays what is called prevailing or base wage. Apprentices are paid a wage scale that begins at 40% to 50% of a journeyperson's rate and increases progressively with satisfactory completion of work assignments and training segments. Near the end of the apprenticeship term, pay ranges from 90% to 95% of the full journeyperson's rate. In addition, apprentices are paid a "fringe rate," or benefits.

To help give you an idea of what you could make once your training is completed, we have calculated Oregon's 2020 prevailing wages plus your fringe wage. Keep in mind, numbers can change based on where you work and then, of course, there's always overtime!

No matter what, the average annual salary for an apprentice who completes his or her program is more than \$50,000. Compared to high school graduates, workers who complete an apprenticeship can earn approximately \$300,000 more over the course of their careers. Not bad!



#### A LOOK AT CONSTRUCTION CAREER PATHS



#### COMMON BENEFITS "FRINGE RATES" FOR CONSTRUCTION WORKERS

- Tuition reimbursement
- Dental insurance
- Health insurance
- 401(k)
- Paid time off
- Vision insurance
- 401(k) matching
- Stock ownership plan
- Life insurance
- Retirement plan
- Disability insurance
- Referral program



#### APPRENTICESHIP TRAINING OPTIONS:

Refer to Map on pg 25 for Areas

#### ARCHITECT Pay \$51,00 - 96,000

**Job:** At the start of a project, architects meet clients to discuss their requirements. Architects prepare and present initial proposals, typically in the form of a sketch design including feasibility studies or site reports. As the project progresses, they maintain communication with the client, providing detailed plans, specifications, and budgets, scheduling progress reports, and arranging meetings to resolve any problems that occur during the design or construction phase.

#### Training:

Architects must be licensed and complete a professional degree in architecture.

#### BOILERMAKERS Pay \$68,800

Job: Boilermakers work with steel, aluminum, and other metals to build, repair and maintain boilers, cranes, tanks, pipelines, cableways, pressure vessels, and structural frames. They rig and lift loads with rope, steel cables, and chains, and operate power tools.

#### Training:

Union: Southern Oregon Boiler Operators JATC Phone: 541-245-7912 Area: 4, 5



#### CARPENTER Pay \$58,310

**Job:** Carpenters construct, erect, install, and repair structures and fixtures made from wood, steel, and other materials. They are involved in many different kinds of construction workers such as: millwrights, piledrivers, scaffold erectors, shipwrights, tradeshow workers, floor coverers, and building insulators.

#### Training:

Union: Oregon SW Washington Carpenters JATC Phone: 503-287-3708 Email: training@pnci.org Website: www.pnci.org Area: Statewide

Non–Union: Oregon/Columbia Carpenters JATC Phone: 503-256-7300 Email: info@nwoc.com Website: www.nwcoc.com Area: 1, 2, 3, 4, 6, 7

#### Non-Union

Oregon/Columbia Carpenters JATC Phone: 503-256-7300 Email: info@nwoc.com Website: www.nwcoc.com Area: 1, 2, 3, 6, 7

#### Non-Union

Lane/Douglas Counties Carpenters JATC Phone: 503-256-7300 Email: info@nwoc.com Website: www.nwcoc.com Area: 3, 4

#### CONSTRUCTION MANAGERS Pay: \$51,000 - \$160,000

**Job:** Construction project managers control the time, cost, and quality of construction projects. They plan and coordinate all aspects of the construction process, including hiring contractors and working with engineers, architects, and vendors.

#### Training:

Construction firms typically prefer managers to have a combination of construction experience and a bachelor's degree in a construction-related field.

#### DRYWALL INSTALLER/FINISHER PAY: \$57,190

**Job:** Fasten drywall panels to the inside framework of building. Prepare panels for painting by taping or finishing joints. Work with ceiling tile installers to build walls. Prepare panels by sawing, drilling, or cutting holes in panels for electrical outlets, air-conditioning units, and plumbing.

#### Training:

Union: OR & SW-WA Drywall Finishers JATC Phone: 503-287-4856 Website: https://www.rtctraining.org Area: 1, 2, 3, 4

Union: OR SW Washington Carpenters JATC Phone: 503-287-3708 Website: www.pnci.org Area: 2, 3

#### ELECTRICIAN Pay: \$53,590 - \$73,560

Job: There are different categories of electricians including inside wiremen who install the power, lighting, and controls in commercial and industrial buildings. Limited energy technicians install circuits and equipment for low voltage systems like phones, computer networks, and security systems. Residential wiremen install electrical systems in houses.

#### Training:

Union: NIETC JATC (NECA/IBEW Electrical JATC) Inside Electrical – Ltd. Energy Technicians, Class A & B JATC – Ltd. Residential Electrician JATC Phone: 503-262-9991 x5059 Website: www.nietc.org Area: 1, 6 & WA State



Non–Union: IEC – Independent Electrical Contractors Inside Electrical – IETC Training Ctr. – Ltd. Energy Technicians, Class A & B – Ltd. Residential Electrician JATC

Phone: 503-598-7789 Website: www.iecoregon.org Area: 1, 2, 6 & WA State

Non–Union: Protective Signaling JATC Ltd. Energy Technician – Class A Phone: 503-475-6396 Website: www.protectivesignalingjatc.org Area: 1 & WA State

Mixed: Mid-Willamette Industrial TATC Ltd. Energy Technician – Class A Mid-Willamette Industrial TATC Area II Ltd. Energy Technician JATC Website: www.linnbenton.edu/business/apprenticeship Area: 2

Union: Central Electrical JATC Inside Electrician Ltd. Energy Technician – Class A Phone: 541-917-6199 Website: www.cjatc.org Area: 1, 2, 3, 7

Mixed: Southern Willamette-Valley Ltd. Energy Electrical JATC Ltd. Energy Technician – Class A & B Phone: 541-279-1543 Website: www.nwapprenticeship.org

Union: Crater Lake Electrical JATC Inside Electrical – Ltd. Energy Technicians – Ltd. Energy Technician – Class A & B Phone: 541-773-5888 Website: www.clejatc.org/applicant.html Area: 4, 5, 7

Non–Union: Central OR Ltd Energy Electrical JATC Inside Electrical – Ltd. Energy Technicians – Ltd. Energy Technician – Class A & B Phone: 541-279-1543 Website: www.nwapprenticeship.org Area: 7

#### ELEVATOR INSTALLER/MECHANIC Pay: \$97,100

**Job:** Assemble, install, maintain, and repair electric or hydraulic freight or passenger elevators, escalators, dumbwaiters, or moving walkways and similar equipment in new and existing buildings. Modernize outdated equipment.

#### Training:

Union: OR-SW-WA Elevator Industry JATC Phone: 503-252-5852 Website: www.neiep.org/Help/Default. aspx?id=ElevatorIndustryFAQ Area: Statewide

#### TRAINING RESOURCE SECTION



tanks, boilers, ducts, refrigeration equipment, and other surfaces requiring thermal temperature control. Asbestos workers remove asbestos-containing materials

#### Training:

Union: OR SW-WA Heat and Frost Insulators & Asbestos Workers JATC Phone: 503-255-5124 Website: www.insulators36.org/apprenticeship Area: Statewide

#### HEAVY TRUCK DRIVER PAY: \$45,510

**Job:** Heavy truck drivers operate gasoline and dieselpowered trucks or tractor-trailers. Drivers need to know how to operate special equipment for loading, transporting, and unloading as well as how to handle special loads, including hazardous materials.

#### Training:

Non–Union Interstate Trucking JATC

Phone: 503-249-5865 Website: interstatetruckingjatc.com Area: 1



#### IRONWORKER Pay \$64,860

Job: Ironworkers erect the structural framework for high-rise buildings, bridges, power plants, and towers. They place reinforcing steel in concrete forms for roadways, foundations, and structures.

#### Training:

Union: Pacific NW Ironworker & Employer JATC Phone: 503-775-0877 Website: www.nwiw.com/CONTACT29.htm Area: Statewide

#### LABORER

Pay: \$46,540

**Job:** Skilled/unskilled laborers prep worksites, load and unload building materials, run equipment, set up scaffolding, and are essential to highway construction, building, and environmental remediation.

#### Training:

Union: Oregon Laborers JATC Phone: (541) 740-4753 Website: www.oregonlaborers.com Area: Statewide

Non-Union: Oregon Columbia Laborers JATC Phone: 503-256-7300 or 1-800-309-1442 Website: www.nwcoc.com Area: Statewide

#### FIRESTOP CONTAINMENT PAY: \$50,820

**Job**: Workers install approved fire-stop and smokestop systems for floors and ceilings. They may also install sound, air movement, and infectious disease control systems.

#### Training:

Union: OR SW-WA Heat and Frost Insulators & Asbestos Workers JATC Phone: 503-255-5124 Website: www.insulators36.org/apprenticeship Area: Statewide

#### FLOORING INSTALLER Pay: \$48,300

**Job:** Install, replace, and repair all types of carpets, plastic laminates, and other decorative coverings in buildings, airplanes, ships, swimming pools, stores, automobiles, and athletic fields using manual and power tools to measure, hammer, cut and shear, spread and stretch, and prepare floors.

#### Training:

Union: OR & SW-WA Floor Covering JATC Phone: 503-481-3420 Website: www.finishingtradesinstitute.org Area: Statewide

#### GLAZIER/WINDOW INSTALLER Pay \$63.220

**Job:** Glaziers, architectural metal and glass workers, fabricate, fit, and install framing systems and plateglass windows, skylights, mirrors, store fronts, facades, and specialty glass in commercial and residential buildings.

#### Training:

Union: OR SW-WA Glaziers, Architectural Metal & Glassworker JATC Phone: 503-491-7359 Website: www.mhcc.edu/GlassWorkers Area: 1, 2, 3





#### MASONRY TRADES (MULTIPLE) Pay: \$61,320

**Job:** Masonry trades are bricklayers who set marble, slate, tile and terazzo, and finishers who use concrete blocks, bricks, and manmade or natural stone to build fences, walls, walkways, and more.

#### Training:

Union: Oregon SW-WA Mason Trades JATC Phone: 503-234-3781 Website: www.bac1or.org Area: Statewide, Bricklayer, Marble Setter, Terrazzo Worker, Finisher & Tile Setter Area: 1, Caulker

Non-Union: Oregon Columbia Masons TATC Phone: 503-256-7300 Website: www.nwcoc.com Area: 1, 2, 3, 7, Bricklayer Area: 1, 2, 3, 7, Cement Mason

Union: Oregon & SW-WA Cement Masons JATC Phone: 503-408-8555 - 866-408-8555 Email: jatc@cementmasons555.org Area: Statewide

#### MILLWRIGHT Pay: \$65,570

**Job:** Millwrights are mechanics who install, dismantle, repair, reassemble, and move machinery, conveyor systems, escalators, giant electrical turbines, and generators in factories, power plants, and construction sites.

#### Training:

Union: OR SW Washington Carpenters JATC Portland: 503-287-3708 Tangent: 541-601-4104 o Redmond: 877-287-9282 Email: training@pnci.org Website: www.pnci.org Area: Statewide

#### OPERATING ENGINEER Pay: \$59,340

**Job:** Operating and technical engineers operate bulldozers, motor graders, backhoes, paving machinery, and cranes that build highways and site infrastructure. They work mines, dig wells, survey sites, pave and grind roads, drill, and hoist steel and slabs.

#### Training:

Union: OR SW-WA IUOE LOCAL #701 Phone: 503-650-7701 Website: www.oetraining.org Area: Statewide

Non-Union: OR/Columbia Heavy Equip Operator JATC Phone: 503-256-7300 or 1-800-309-1442 Website: www.nwcoc.com Area: Statewide

#### TRAINING RESOURCE SECTION

Non-Union: Knife River Oregon JAC Phone: 541-928-6491 Website: www.kniferiver.com Area: 1, 2, 3, 4, 7

#### PAINTING & WALL COVERING Pay: \$43,000

**Job:** Painters prepare wood, masonry, drywall, plaster, concrete, and metal surfaces prior to the application of paint, high performance coatings, waterproofing, fireproofing, and decorative finishes in residential and commercial, marine, industrial, and bridge settings.

#### Training:

Union: Oregon & SW Washington Painters JATC Portland: 503-287-4856 Website: www.rtctraining.org Area: Statewide Area: 1, Traffic Control Painter

#### PILE DRIVER/COMMERCIAL DIVERS Pay: \$106,580

**Job:** Pile drivers work with pile-driving rigs that drive metal, concrete, or wood piling into the earth to hold back dirt during excavations, and are a fundamental part of the foundation system for skyscrapers and concrete pilings that hold up docks, wharves, and bridges.

#### Training:

Union: OR SW WA Carpenters JATC Portland: 503-287-3708 or 877-287-9282 Tangent: 541-601-4104 or 877-287-9282 Redmond: 877-287-9282 Website: www.pnci.org Area: Statewide



**PLASTERERS AND STUCCO MASONS Job:** Plasterers apply plaster on masonry, metal, and wire lath (stucco) or gypsum to finish interior walls and ceilings of residential and commercial buildings.

Training: Union: The Plasterers Local 82 Phone: 503-254-4022 Website: www.plastererslocal82.com/info/ Apprenticeship Area: Statewide

#### PLUMBERS/STEAMFITTERS/PIPEFITTER Pay: \$82.640

**Job:** Plumbers install and repair water supply lines, waste disposal systems, and related appliances and fixtures. Steamfitters assemble and install pipe to

carry water, steam, compressed air, gases, etc. HVAC/ refrigeration techs install, maintain, and service refrigeration, heating, ventilating, and air conditioning systems. Pipefitters grade trenches and culverts to lay pipe for storm, sewers, drains, and water mains.

#### Training:

Union: OR SW-WA NW-CA Plumbers and Steamfitters JATC Tualatin: 503-691-1997 Eugene: 541-726-1131 Redmond: 541-419-5128 Medford: 541-821-1282 Eureka: 541-821-1282 Website: www.ua290.org Area: Statewide

Non-Union: North Coast Plumbers JATC Phone: 503-861-9487 Area: 1

Non-Union: Area I Plumbers JATC Phone: 503-675-0548 Website: www.areaonejatc.com Area: 1

Non-Union: Area II Plumbers JATC Phone: 503-991-5203 Website: www.area2app.com Area: 1, 2, 6

Non-Union: Area III Plumbers JATC Phone: 541-636-3592 Area: 3, 4

Non-Union: Area IV (Coos Bay) Independent TAC Area V (Rogue Valley) Plumbers JATC Area VII Plumbers JATC Phone: 541-344-6473 Area: 3, 4, 5

Non-Union: Klamath Basin Plumbers JATC Phone: 541-880-2234 Website: www.klamathcc.edu Area: 5

Non-Union: Ontario TATC Phone: 208-452-4970 Area: 6

Non-Union: Blue Mountain TATC Phone: 541-278-5854 Website: www.bluecc.edu Area: 6, 7

#### ROOFER Pay: \$57,460

**Job:** Roofers and waterproofers install, replace, and repair the roofs, waterproofing, and air barrier systems of buildings using shingles, slate, asphalt, aluminum, wood, or related drainage materials.

Training: Union: OR/SW-WA Roofers & Waterproofers JATC Phone: 503-546-4235 Website: www.orswroofersapp.com Area: Statewide SHEET METAL/HVAC WORKER Pay: \$60,820 Job: Sheet metal/HAVC workers fabricate and install fittings and duct work for heating, ventilation, and air-conditioning systems in residential, commercial, and industrial applications.

#### Training:

Union: OR SW-WA NW-CA Steamfitters JATC Toll Free: 800-452-2912 Website: www.ua290.org Area: Statewide

Union: Portland Sheet Metal Worker JATC Phone: 503-257-1022 Website: www.sheetmetal-16.org Areas: 1, 2, 3, 4, 5, 6, 7

Non-Union: Mid-Valley Sheet Metal Workers JAC Phone: 503-399-5255 Website: /www.chemeketa.edu/programs-classes/ program-finder/apprenticeship/sheet-metal Area: 1, 2

Non–Union: Area III Sheet Metal/HVAC Env Sys JATC Phone: 541-279-1543 Website: www.nwapprenticeship.org Area: 3, 4, 7

Non–Union: South Central Oregon Sheet Metal JATC Phone: 541-245-7912 Website: www.roguecc.edu/workforce Area: 5

#### SOLAR HEATING AND COOLING INSTALLER Pay: \$73,291

**Job:** Install or repair solar energy systems designed to collect, store, and circulate solar-heated water for residential, commercial, or industrial use.

#### Training:

Non-Union Renewable Energy JATC Phone: 541-279-1543 Area: Statewide

#### SPRINKLER FITTER

Pay: \$63.990 Job: Sprinkler fitters are pipefitter specialists in fire protection. They install fire protection systems designed for commercial buildings.

#### Training:

Non-Union OR & SW-WA Sprinkler Fitters JATC Phone: 503-726-5433 Website: www.abcpnw.org Area: Statewide

#### WALL & CEILING CONSTRUCTION

**Job:** Wall and ceiling contractors hire carpenters, plasterers, drywall finishers, laborers, estimators, and project managers to frame walls, hang drywall, paint, and design walls and ceilings using stucco, Venetian plaster, and other beautiful finishing materials.

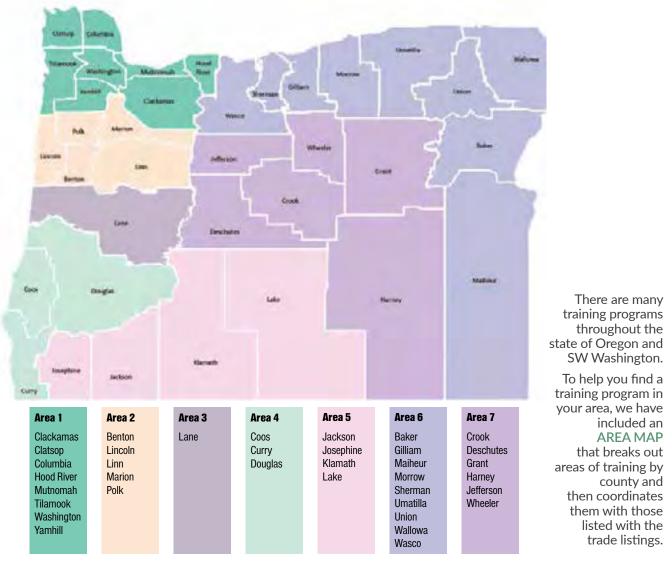
#### Training:

Union: Associated Wall & Ceiling Contractors Phone: 503-295-0333 Website: www.awcco.org Area: Statewide

" **CHOOSING TRAINING IN THE CONSTRUCTION INDUSTRY HAS BEEN THE BEST DECISION THAT** I HAVE EVER MADE! EVERY DAY I LEARN SOMETHING NEW SO I AM **NEVER BORED.** 



#### HOW TO USE THIS MAP





#### PRE-APPRENTICESHIP PROGRAM PROVIDERS

Pre-apprenticeship programs are a wonderful opportunity to obtain the basic knowledge and skills necessary to compete for entry into approved apprenticeship programs. These programs are short in duration and provide participants classroom and hands-on instruction in safety, tool use, and more. Below is a list of adult and youth preapprenticeship providers. Contact these providers to find more information on their programs and class schedules.

#### ADULT PRE-APPRENTICHSIP PROVIDERS

**Carpenters Trade Preparation** 503-287-3708 www.pnci.org/apprenticeship.lasso

Center for Advanced Learning (CAL) 503-667-4978 www.calcharter.org

Chemeketa Community College 503-589-7747 www.chemeketa.edu/programs-classes/program-finder/apprenticeship/high-school-pre-apprenticeship-program

Constructing Hope 503-281-1234 www.constructinghope.org

CREW - Coffee Creek www.oregon.gov/doc/inmate-programs/Pages/ job-training.aspx IMPACT NW Manufacturing Bridge 503-660-3173 www.impactnw.org/programs/youthfamily/ urban-opportunities/pathways-to-manufacturing

Ironworkers National Women's Pre-Apprenticeship 503-775-0877

Ironworkers Pre-Apprenticeship 206-244-2993 www.iw86appr.org

NIETC Electrical Training Alliance (ETAP) 503-262-9991 www.nietc.org

Oregon Tradeswomen Inc (OT) 503-335-8200 x 21 www.tradeswomen.net

Pacific NW Ironworkers Pre-Apprenticeship Pilot Program NW Ironworkers Local 29 503-775-0877

Portland Community College Swan Island Trades Center 971-722-5651 www.pcc.edu/programs/apprenticeship/ pre-trades.html

Portland Opportunities Industrialization Center (POIC) 503-737-7222 www.portlandoic.org/contact

Rogue Community College Construction Program 541-245-7912 go.roguecc.edu/department/apprenticeship

Trades Related Apprenticeship Coaching (TRAC) WA Corrections Center for Women www.iw86appr.org

#### YOUTH PRE-APPRENTICESHIP PROGRAM PROVIDERS

Benson Polytechnic High School 503-916-5100 www.bensonhs.pps.k12.or.us/construction.php

Cascadia Technical Academy www.cascadiatechnicalacademy.org

Job Corps - Oregon recruiting.jobcorps.gov/Home/Locations/OR

Job Corps - Washington recruiting.jobcorps.gov/Home/Locations/WA

Lane-PACT (Pre-Apprenticeship Const. Tech) Lane ESD 541-461-8275

Portland Youth Builders 503-286-9350 www.pybpdx.org

Reynolds Learning Academy 503-667-4673 www.reynolds.k12.or.us/rla/trading-program

Reynolds High School HVAC 503-667-3186

St. Helens High School, Building Const. Dept. 503-633-7416 www.sthelens.k12.or.us/Domain/140

US Dept of Labor www.dol.gov

For an extended list, please visit: www.oregon.gov/boli/ATD/Pages/A\_AG\_ PreApprentice.aspx







## **SAFETY** has always been **#**

COVID-19 has just added another layer >> By Jeanie Olinger

#### There's a lot of talk about PPEs these days. So, what are they and why do they matter?

Personal Protective Equipment (PPE) is an essential component of any safe workplace. PPE's are worn to minimize the risks and hazards of a wide variety of working conditions. Without proper PPE, workers can be exposed to significant risk of injury or illness.

#### **STANDARD PPE GEAR:**

Standard PPEs for the construction industry haven't changed too much over the years. If you have been on or driven past a construction site, you've probably seen some of the equipment worn by construction workers. **Your standard equipment includes:** 

- Hard hats. These are essential on construction sites and protect workers from swinging and falling objects that could strike the head.
- **Safety glasses**. These are worn whenever there is danger of flying debris or harmful dust getting into the eyes.
- Specific types of protective gloves. There are different types of gloves used for different tasks to protect against cuts and burns.
- Hearing protection. Because things can get loud out on a busy work site, pre-molded ear plugs work to protect workers hearing from prolonged exposure to high levels of noise.
- Steel-toed boots. These protect your feet from what's under them, and what can fall on top of them.
- **Safety vests**. A safety vest allows the wearer to be seen, especially in a low-visibility situation.

#### **COVID-19 HAS CHANGED CONSTRUCTION JOB SITES**

While working through the middle of the COVID-19 pandemic, there are several guidelines that the CDC has recommended to help workplaces prevent the spread of the coronavirus. Some of the practical steps that are being utilized are in the sidebar on the right.

At the end of the day, safety is about taking responsibility for your actions. Safety not only protects you, but those around you.

#### **PPES ARE WORN TO MINIMIZE THE RISKS AND HAZARDS OF A WIDE VARIETY OF WORKING CONDITIONS.**

.....





#### New COVID-19 Safeguards for JOBSITE SAFETY

- Signage
- Staggered work schedules
- Self-distancing in high-traffic areas and in elevators
- Building and materials cleaning protocols
- Reduce dust levels
- Limited in-person meetings
- Extra cleaning of toilet and handwashing facilities



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## **NO WORK EXPERIENCE** Try Building a Portfolio of SKILLS

#### **READY TO LOOK INTO APPRENTICESHIP OPPORTUNITIES?**

Much like applying for a job, the process of finding and applying to an apprenticeship program can be very competitive. Most programs are going to want to see evidence of basic qualifications, experience, and genuine interest.

Building an application portfolio can improve your chances of getting an interview, so let's look at what these are and how to build one.

First, what they are and what they are not.

An application portfolio is more than a resume. It provides a more complete picture of your accomplishments, skills, education, and interests. It can often be just the edge you need to make it to the top of the list when applying for an apprenticeship.

#### APPLICATION PORTFOLIOS CAN Improve your Chances of Getting An Interview

#### **BUILDING AN APPLICATION PORTFOLIO**

Tips for apprenticeship applicants to build a competitive application portfolio:

#### 1. Construction-Related Volunteer Opportunities

Volunteering shows commitment to community and your ability to work alongside others with tools, plus it's a great way to build the "hands-on" section of your resume if you lack trade related experience.

#### **Industry-Related Classes**

Industry-related classes demonstrate an investment and motivation to learn more about the trades. Classes available at your local community college include welding, blueprint reading, basic electrical theory, and woodworking.

#### **Documentation of Hobbies**

Building and repairing projects around the house provide for opportunities to photo-document your experience using hand and power tools and trade-related skills such as problem solving, measurement, and planning.

#### **Industry-Related Work**

Interview committees like to see a documented history of working with tools or construction materials, performing physical labor, and willingness to work outdoors in all weather conditions. They look for letters of recommendation that demonstrate work ethic, attitude, and physical and mechanical ability.

#### 2. Pre-Apprenticeships

Pre-apprenticeships can expose you to many different building trades and help you become familiar with terminology, hand and power tool use, job expectations, construction safety, and more.

#### **3. Minimum Requirement**

When applying to an apprenticeship program you will be expected to provide a cover letter, letters of recommendation, and a skillsbased resume in addition to documentation that you can meet the minimum program requirements. Every program is different so make sure you review these requirements carefully.

#### Resources to help you build your portfolio:



- d. HS diploma or GED (on track or currently received).
- e. GPA, math, aptitude, & interview skills.
- f. Experience (pre-apprenticeship, trade-related courses, trade-related hobbies, career-related volunteer work, work experience).
- g. Work attitude and ethic.



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## THE NEW NORMAL

**MASTERING THE VIRTUAL JOB INTERVIEW** Expert advice for navigating the process, wowing an employer, acing the interview, and landing the job.

#### ►►Bv Derek Lakin

Virtual interviews, which use videoconferencing and other technologies, are big time-savers.

According to Frank Burgoyne, leading interview success coach and founder of Yourinterviewsuccess. com. "You don't have to travel to the company's office, and they don't have to worry about the logistics involved."

Although it might feel foreign, Burgoyne emphasizes that you can use many of the same best practices as inperson meetings.

#### **BEFORE YOUR VIRTUAL JOB INTERVIEW**

"Make sure you've studied the job description, understand every requirement, and you're prepared to convey how you meet the requirements," Burgoyne says.

"Also, write down several relevant questions on a piece of paper. Not asking questions is a surefire way to self-sabotage your prospects," he adds.

Test out your equipment and practice with the help of a friend. "Place books under your computer until it's at eyelevel, so you don't look like you're in a fishbowl," Burgoyne says.

#### Unclutter your background, "place a lamp behind your laptop to illuminate your face, and avoid bright light coming in from outside," he recommends.

Finally, "let everyone in your family know you need privacy and make sure your animals can't be heard."

#### **DURING YOUR VIDEO INTERVIEW**

In addition to dressing professionally, Burgoyne points out that you'll want to "go out of your way to be enthusiastic about the job and the company, which is easy to lose over video."

"Keep a glass of water nearby," he says, and "be careful with silences, which can feel especially long over

video. If you're unsure how to answer. say to the interviewer, 'That's a great question. Can you give a minute?"

.....

Make sure to smile warmly when you first say hello, and thank the interviewer when you finish. "You don't want to be fake." Burgovne says, "but you do want your personality to come through."

"You can't shake their hand over video, so your smile becomes your handshake," he emphasizes.

#### **AFTER YOUR VIRTUAL JOB INTERVIEW**

Burgoyne points out that the followup rules remain the same. "Send a thank you email. A lot of people don't bother to do this, so you can move yourself to the head of the pack," he recommends.

However, avoid making the employer feel that you're impatient or upset. "Remain polite, let them know you're expressing interest, and that you're just following up."

"The process can take a while," Burgoyne says. "Stay open to the company's timeline, and trust that you did what was necessary to maximize your chances of success."

**S**YOU'RE NOT ABLE TO SHAKE THEIR HAND IN A VIRTUAL INTERVIEW. **SO YOUR SMILE BECOMES YOUR** HANDSHAKE.



VIRTUAL JOB **INTERVIEW QUICK TIPS** 

#### Dos:

- Test your technology and practice beforehand
- Smile warmly and remain engaged
- Send a thank you follow-up email

#### Don't:

- Pause for long periods
- Decline to ask questions when prompted
- Become impatient when following up





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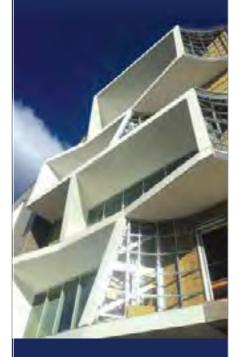
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## HONESTY

### Your greatest skillset or degree will not make up for lack of honesty and integrity

#### ►►By Jeanie Olinger

#### BEING HONEST WITH YOUR-SELF BREEDS SUCCESS

You're sitting in a job interview for the fifth time this week. It's more than concerning to have back-to-back interviews and still have zero job leads. You're tempted to tell the interviewer you have any skillset they want just to get the job, even if you know it isn't in your capacity to deliver. But being dishonest comes at a cost. It is a recipe for disaster.

#### **POWER OF SELF-HONESTY**

Being honest with others starts with being honest with yourself. If you are not honest with yourself, you can't be honest with others. When you start a relationship or a new job on a falsehood, you'll have no foundation to build upon. It's all a sham. Be honest with yourself first, then others about your knowledge and abilities.

Honesty will earn you respect. Building trust is an essential key to any successful relationship and it starts with telling the truth. Being honest is the quickest way to build rapport. If you are not honest with an interviewer when describing your abilities and skills, it won't take long until they will discover they have been lied to. That can mean a quick ticket home without a good reference to use in the future.

#### **TEACHABILITY IS AN ASSET**

Don't beat yourself down for something you don't know. It's not a flaw to not know how to do something. It is a flaw to not be willing to learn new things. Being honest about what you cannot do can also be turned into a positive. If you cannot do a skill, tell the interviewer that you do not know how to do it. Then, tell them you are an eager learner and willing to be taught. Teachability is a great attitude and can carry you a long way.

#### **SUCCESS VIA HONESTY**

When you are honest with yourself about what you can or cannot do, you set yourself up to succeed. You are more likely to get hired to do what you do know how to do, and you will excel rather than fail. Not only will you be successful on the job site, you'll have a good reference for your next job and for your resume.



BEING HONEST BUILDS A QUICK RAPPORT AND RESPECT WHETHER YOU GET THE POSITION OR NOT.

#### L INTEGRITY & HONESTY QUESTIONS IN AN INTERVIEW

"

An interviewer may want to ask some questions to help determine how your values match their company culture. To help you prepare for those, take a look at these questions and think about how you might answer them:

- How would your team members describe you?
- What has been the biggest challenge for you and how have you tackled it?
- Why is it important to build trust with your colleagues?
- When have you admitted a mistake to coworkers?
- What is your greatest weakness?
- How do you tackle a problem you are facing?
- When have you admitted a mistake to coworkers?
- What is your greatest weakness?
- How do you tackle a problem you are facing?





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## **INDUSTRY PROFILE:** ARCHITECT



# BECOME AN ARCHITECT

►By Jenni Wileman

1

4



Get Your Degree - from a NAAB accredited university

- 2 Complete Your Internship do this while in school through the IPAL program
- **3** Pass the Architecture Registration Exam
  - Apply for Your License

rchitects are artists and the conductors of the buildings they design. An architect will analyze and design based on project needs, the use of space, zoning laws, site specifications, environmental impact, and accessibility. They then prepare and draw up detailed blueprints for contractors to follow. From there the architect will oversee construction to ensure everything is built according to the plans.

## Architecture is an exciting, technical, and creative field.

Becoming an architect is not as complicated as you *think*. In fact, you can do it with time, dedication, and hard work. All states require architects to obtain a license. You will need to meet education, experience, and examination requirements in your state to apply for licensing.

First, you must earn a *professional architecture degree* from a university program accredited by the National Architecture Accrediting Board, NAAB. This begins with obtaining a Bachelor's in Architecture, which takes around 5 years to complete. Courses cover design, drafting blueprints, the history of architecture, construction methods, building materials, and technology.

From there, you will complete an internship to show on-the-job experience. This varies from state to state but can take anywhere from 3 to 4 years to finish. The good news? You can do most of this *while you're getting your degree*. It's a program called Integrated Path to Architecture Licensing, or IPAL.

The next step is to pass the Architectural Registration Exam or ARE. Once you have done that, all that is left is to apply and get your license. **Did** you know that the 2019 median pay for architects was \$80,750, while the top 10% averaged an impressive \$137,620?

You might think, this is going to take a lot of time to complete. So break it down into baby steps and do one at a time. Rest assured the *time will pass* anyway, so why not *follow your dreams* in the meantim? **YES... YOU GOT THIS!** 

## Architecture Quick Facts

#### **ENTRY-LEVEL EDUCATION**

Bachelor's Degree in Architecture

#### **JOB OUTLOOK**

8% growth FASTER THAN AVERAGE

#### **MEDIAN PAY IN 2019**

\$80,750 Median Pay \$137,620 Top 10% High Earners

#### WORK EXPERIENCE

No Prior Work Experience is Needed

#### **EMPLOYMENT CHANGE**

133,900 Jobs in 2018 11,200 New Jobs Estimated from 2018 - 2028

Quick Facts from the US Bureau of Statistics.

## 

## EXPO2GO: YOUR ONLINE CAREER JOURNEY

Visit portlandworkforcealliance.org to explore Expo2Go, an online community resource for high school students, featuring information about Oregon's top employers in the construction industry and the many leading colleges, unions and apprenticeship training centers.







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## **INDUSTRY PROFILE: ELEVATORS**

## **3 REASONS** BECOMING AN ELEVATOR INSTALLER COULD CHANGE YOUR LIFE



#### ▶ ► By Jenni Wileman

re you looking to change your life and make more money without a degree? A career as an elevator installer might be right for you. They assemble, install, inspect, maintain, and troubleshoot issues with elevators, escalators, and moving walkways. Read on to find out why entering the exciting world of elevator installation might be your dream come true.

#### No College Degree Required

The beauty of coming in at entry level is that your internship is paid! Yes, you get paid to train. And, you don't need any experience at all to apply. Now, it can't get much better than that, right?

If you want to gain an edge you can take a certification course. The National Association of Elevator Contractors offers straightforward certification training. The CET<sup>™</sup> Level 1 is 4 courses and level 2 is 8 courses.

There are text-based workbooks, onthe-job skills verification, and unit/course exams. Once you complete everything you will graduate from a Certified Technician to a Certified Elevator Installer.

The NAEC even has a job bank to help place you after certification.

#### Make More Money

Can you really make more money without the expense of a college degree? You can! According to the Bureau of Labor Statistics Elevator Installers make almost \$80K a year on average.



#### It's a Rapidly Growing Field

Do you notice that cities seem to be building up instead of out? This, among other factors, is creating a demand for elevator installers. According to the Bureau of Labor Statistics, the field is growing at an aggressive rate of 10%, which is 5% higher than most other jobs. ACCORDING TO THE BUREAU OF LABOR AND STATISTICS, THE FIELD IS GROWING AT AN AGGRESSIVE RATE OF 10%, WHICH IS 5% HIGHER THAN MOST OTHER JOBS.

- Only a High School Diploma Required
- No Experience Required
- No Degree Required
- CET Certification Courses Available CAT Certification Courses available On-the-Job Paid Training – Apprenticeship
- In 2018 There Were 27,000 Jobs and Projected Job Growth 10% (Faster than Average)
- \$79,780 Average Pay

#### Now Is Your Time

The exciting world of elevator installation is also a rewarding one. You will be keeping people safe while achieving financial freedom, so it's a win-win.



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Today I was asked, "Isn't bricklaying hard?" and I said, "Well yeah, but with determination and willpower, you can do anything!" – Kristie Reeves, Journeyman Bricklayer

edit: Toledo Ima







## **INDUSTRY PROFILE: MILLWRIGHT**

## WHAT'S A MILLWRIGHT AND WHY ARE THEIR SALARIES SO HIGH?

Are you good with your hands? Do you have great problem-solving skills? Do you want a job with advancement potential? Does paid training sound great to you? Becoming a millwright might be the right choice for you!

#### ▶ ▶ By Jenni Wileman

### Becoming a millwright might be the right choice for you!

illrights are highly skilled at installing, maintaining, dismantling, and repairing machinery and equipment. Certain specialties of millwork are in higher demand than others. Take some time to find out what areas you like and focus your training in those areas. It will improve your chances of finding a fulltime job that you love. See: www.oregon.gov/boli/ATD/ pages/a\_itrades\_millwright.aspx

Most millwrights break in through an apprenticeship. **You do not need any experience** to apply for an apprenticeship either, just a high school diploma and a willingness to learn.

You will receive a combination of paid on-the-job training and classroom instruction. You'll work under the guidance of a more skilled journeyman, who will supervise and teach you all the things you need to know. Each year an apprentice needs at least 144 hours of relevant technical instruction and up to 2,000 hours of paid onthe-job training. Most programs will require you to complete a 3- to 4-year apprenticeship before becoming a journeyman. This is a career opportunity and not just a job.

The best part, according to the US Bureau of Labor Statistics, the annual salary of most millwrights is around \$52,860 (\$25.41 per hour.) But, the top 10 percent can earn more than \$72,375, leaving a lot of room for advancement!

So if you are undecided about a career, becoming a millwright might check all the boxes!

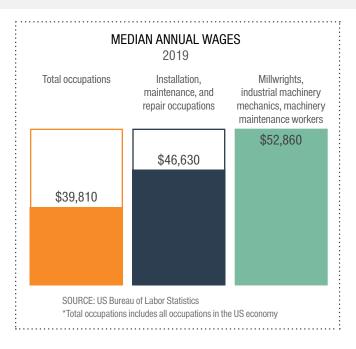


#### You will learn:

- How to read and interpret blueprints
- About hydraulics
- Mill maintenance
- Welding techniques

- How to troubleshoot maintenance issues
- How to inspect and repair machinery
- How to operate industrial equipment

THE TOP 10 PERCENT CAN EARN MORE THAN \$72,375. LEAVING A LOT OF ROOM FOR ADVANCEMENT!



## You have choices. Be independent.

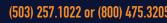
Merit shop apprenticeship programs give you options in the electrical trades



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## **INDUSTRY PROFILE: GLAZIER**

## THEUNEXPECTED CRAFTSMANSHIP OF GLASS

► By Jenni Wileman

laziers sound like an exclusive group of superheroes, right? Well, they kind of are. How do you think Metropolis got its shine?

Every city's skyscrapers and storefronts had glaziers working on their shiny exteriors. But glaziers are not limited to window panes alone. They also work on many other types of glass installations. They have mastered the art of selecting, cutting, installing, replacing, and removing all types of glass and plastics.

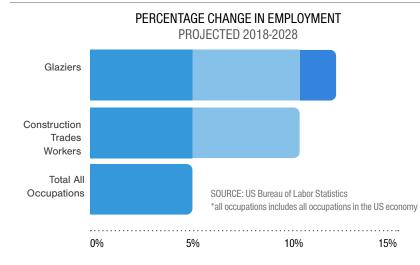
A glazier typically enters the exciting field through an apprenticeship program. You do not need job experience to apply, but you will need your high school diploma or equivalent.

These programs combine paid onthe-job training with related classroom instruction. Employers, unions, and contractor associations are known to sponsor apprenticeship programs. Technical training includes learning basic math, how to read blueprints, general construction techniques, and different installation techniques.

After completing at least a 3-year apprenticeship program, glaziers are considered skilled journeymen. They are then able to work alone, but more often work in teams.



EVERY CITY'S SKYSCRAPERS AND STOREFRONTS HAD GLAZIERS WORKING ON THEIR SHINY EXTERIORS.



There is a high demand for glaziers driven by new construction and work on existing buildings. Their projected job arowth from 2018 to 2028 is 11%. According to the US Bureau of Labor Statistics. this is more than double the average rate for all occupations. What's even more impressive is that in 2019 the median annual wage for glaziers was almost \$45,000, with some alaziers makina more than \$83,000. So there is definitely room to grow in this exciting and demanding field.



#### Did you know?

| Large panes of glass are called<br>lights   |
|---|
| Glaziers need to have<br>knowledge of Solar Photovoltaic<br>systems                   |
| Arc welding is a skill needed by glaziers   |
| A glazier is more formally known<br>as an architectural glass and<br>metal technician |
| Glaziers also work with plastics  |

# GETTING AROUND

Transportation can be an important issue when looking for training and employment. Here are some valuable resources and ideas we hope you find helpful:







getthereoregon.org



There are eight Get There regional partners in Oregon. See which regional partner your count is assigned to with the map and key below

- COMMUTE OPTIONS
- POINT2POINT AT LANE TRANSIT DISTRICT
- GEORGE TRANSLINK Administered by Mid-Columbia Economic Development District
- METRO
- CASCADES WEST TRANSPORTATION OPTIONS
- ROGUE VALLEY TRANSPORATION DISTRICT
- CHERRIOTS TRIP CHOICE
- NEW TRANSPORTATION OPTIONS

The organizations below provide information on transportation options, programs, and services throughout Oregon. Contact the organization closest to your worksite for more information.

#### North Willamette Valley

 Greater Portland area: Metro (oregonmetro.gov)

orogoniniou o.gov)

#### **Mid-Willamette Valley**

• Salem-Keiser area: Cherriots Trip Choice (cherriots.org/tripchoice)



- Lane County: Point2Point Solutions (Itd.org/point2point)
- Corvallis area: Cascades West Rideshare (ocwcog.org/transportation/ cascades-west-rideshare)



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#### Southwest Oregon

 Medford/Rogue Valley: Rogue Valley Transit District (ntd org)



 Clatsop, Tillamook and Columbia counties: Northwest Transportation Options (nworegontransit.org/ transportation-options)



#### The Columbia Gorge

 Hood River County: Mid-Columbia Economic Development District (mcedd.org) Central and Eastern Oregon



 Baker, Crook, Deschutes, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Wallowa, Wasco, and Wheeler counties: Commute Options (commuteoptions.org)

## **INDUSTRY PROFILE:** SOLAR

# IN WILEMAN WILEMAN

#### ►►By Jenni Wileman

he desire to consume responsibly is driving more individuals and businesses to use renewable energy. Solar Photovoltaic (PV) installers are at the forefront of this movement. They're helping businesses and homeowners take advantage of solar technology. Solar panels convert sunlight to electricity and are most often times placed in an array on rooftops. And it's solar PV installers that put these systems in place.

Do you want an exciting career with a purpose? Being a solar PV installer is a great career path!

### According to the US Bureau of Labor Statistics solar installers typically do the following:

- Plan PV system configurations based on customer needs and site conditions
- Measure, cut, and assemble the support structure for solar PV panels
- Install solar modules, panels, and support structures in accordance with building codes and standards
- Connect PV panels to the electrical system
- Apply weather sealant to the equipment being installed
- Activate and test PV systems
- Perform routine PV system maintenance

This is a highly technical and labor-intensive field that you do not need any experience to enter. In fact, most employers only require a high school diploma or equivalent. What's even better? Most solar installers learn through an apprenticeship program while making money. Yes, you get paid to train in an exciting field.

Employers oftentimes offer on-the-job training or apprenticeships, which can last anywhere from a few days to a few months. If you really want a jump-start on your career, there are colleges and on-line training programs available. Courses range from basic safety all the way to certification for an installer.

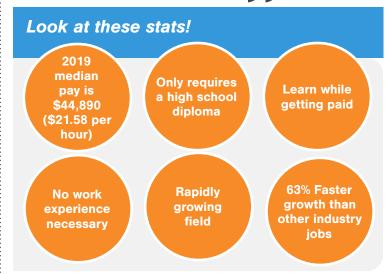
Some solar PV manufacturers may also provide free training on their systems. This usually includes system overviews and installation techniques for their products, and it can set you apart from other job applicants.

And if you're a military veteran, you may benefit from the Solar Ready Vets program. This is a joint program of the U.S Departments of Defense and Energy that connects veterans with training and jobs in the solar industry.

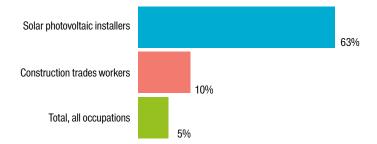
If you want a career that is rapidly growing and is making a difference then become a solar PV installer.



THE DESIRE TO CONSUME RESPONSIBLY IS DRIVING MORE INDIVIDUALS AND BUSINESSES TO USE RENEWABLE ENERGY. SOLAR PHOTOVOLTAIC (PV) INSTALLERS ARE AT THE FOREFRONT OF THIS MOVEMENT.



#### SOLAR PHOTOVOLTAIC INSTALLERS Percent change in employment, projected 2018-28



Note: All occupations includes all occupations in the U.S. Economy. Source: U.S. Bureau of Labor Statistics, Employment Projections program A special note of appreciation to all of the advertisers and sponsors of the June issue of Building Futures magazine. Your generous support provides thousands of readers access to information, training, and employment opportunities throughout Oregon and SW Washington.

#### CONTACT THESE COMPANIES – TELL THEM YOU HEARD ABOUT THEM IN BUILDING FUTURES MAGAZINE – THEY CARE ABOUT YOU AND YOUR FUTURE SUCCESS!

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| Assoc. of General Contractors/Columbia Chap<br>www.agc-oregon.org               | Milwaukee Tools<br>www.milwaukeetool.com | 18  |                           |
| Associated Wall & Ceiling Contractors<br>of OR & SW Washington<br>www.awcco.org | 3  | NECA/IBEW<br>www.nietc.org  | 40                        |
| Bear Electric, Inc.<br>www.bearelectric.com                                     | 36                                       | NW College of Construction<br>www.nwcoc.com                             | 2                         |
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| Cascadia Tech Academy<br>www.cascadiatechnicalacademy.org                       | 13                                       | Oregon & SW Washington Roofers & Waterpr<br>www.roofersunionlocal49.com | oofer:<br><mark>36</mark> |
| Finest in the Finishing Trades, The www.finishingtrades.org                     | 48                                       | P & C Construction<br>www.builtbypandc.com                              | 30                        |
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| Hamilton Construction<br>www.hamil.com  | 36                                       | Roofers Union Local 49<br>www.roofersunionlocal49.com                   | 40                        |
| Hoffman Construction Company<br>www.hoffmancorp.com                             | 38                                       | Sheet Metal Institute<br>www.sheetmetalinstitute.org                    | 42                        |
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| International Union of Operating Engineers - II<br>www.iuoe701.com              | UOE 701<br><b>4</b>                      | Western Partitions (WPI)<br>www.wpibuilds.com                           | 20                        |
| Knife River Corporation<br>www.kniferiver.com                                   | 32                                       |   |                           |
| Lynn Howlett Photography<br>www.lynnphoto                                       | 32                                       |   |                           |





Bend High School's Technology Building was the location for Central Oregon's first all-sectors CTE summit. Held on March 11th, 31 CTE teachers from the region met to talk about their upcoming lesson plans and activities, and to meet with industry partners. Special thanks to Bekki Tucker, CTE Coordinator, for putting this insightful meeting together.



#### FOREST GROVE HIGH SCHOOL'S VIKING HOUSE GOES ON THE MARKET!

Prior to schools closing, Forest Grove Construction students worked overtime, evenings, and on Saturdays to complete over 90% of the home they were building, helping to put the project ahead of schedule. Finish work has been completed, and a private tour of the home was held for students and families before putting the home on the market. For more information and a ton of amazing photos, go to:

www.fghsvikinghouse.com/viking-house-2020

#### **RESCHEDULED EXPOS – worth the wait!**

When COVID-19 impacted our communities in March, Oregon Tradeswomen moved their Career Fair from May to September, anticipating we would be past the health crisis. Given what we now know, they have made the very difficult decision to cancel this year's event and will plan to host their next event on **May 14 & 15, 2021 at NECA/IBEW.** For more info go to: tradeswomen.net/fair/



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