



CAREER PATHWAYS IN LANE COUNTY

CONSTRUCTION AGGREGATE PROFILE



INSIDE:



- Types of local jobs in construction
- Skills you need to get hired
- Training and post-secondary education options for after high school graduation
- Information about local companies and the prospects for jobs in Lane County
- What you can do to get started now on a career in construction

JOBS IN CONSTRUCTION

SKILLED TRADES: A variety of specialists are involved in the construction of structures. Here are a few:

Carpenters build or remodel almost every kind of structure, including houses and commercial buildings, bridges, churches, factories, and highways. They work with power and hand tools to build wood framing for houses, roofs, stairs, decks, and sheaths, and forms for concrete.

Electricians work on electrical construction projects ranging from single-family residences to state-of-the-art industrial plants. They install conduits and wire lighting, switches, converters, and complex computerized systems.

HVAC (Heating, Ventilating and Air Conditioning) combines sheet metal and electrical work involving installation, wiring, service, and repair of environmental control systems and the fabrication and installation of ductwork.

Plumbers assemble, install, and repair pipes, fittings, medical gas systems, and fixtures of heating, water, and drainage systems, such as sinks, commodes, bathtubs, water heaters, hot water tanks, garbage disposal units, dishwashers, and water according to specifications and plumbing codes.

Roofers remove roofs, prepare roof surfaces, and install new roofs.



MANAGEMENT: Laborers often work for a company long enough to be promoted to a management position.

Superintendents are the contractor's representative at a construction site. The superintendent directs and coordinates the activities of the various trade groups on site. Superintendents focus on making sure that the work progresses according to schedule, that material and equipment are delivered to the site on time, and that the activities of the various workers do not interfere with one another.

Project Managers are responsible for overseeing a building project from start to finish. Their duties include hiring laborers and negotiating contracts, and it is also their responsibility to obtain all permits for a building site.

DRAFTERS: translate a designer's ideas into a finished picture using drawing and drafting skills. The drawings produced will be used as a guide by every other link in the chain of construction, both on-site and in the office.

PURCHASING MANAGERS: plan, direct, and/or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services.

SALES: sells a service or product to the customer through phone conversation, web demonstrations, skype, and/or trade shows.

Jack Reynolds, Jr. founded the Eugene branch of **Reynolds Electric** in 1980. Since then, the company has grown to 85 employees, with a branch in Bend. When asked what he likes most about the company, Director of Operations Tony Phifer said that he appreciates the camaraderie, the small business "family feel" of the company, and the opportunity to grow into new positions in addition to the benefits and pay. He added, "Work doesn't feel like work."

Representatives from the Construction-Aggregate industry emphasize that it is important for employees to be comfortable **working outdoors in physically-demanding conditions.**

Math and logical reasoning are very important for anyone that is interested in a career in construction. **Algebra and problem solving** are necessary to calculate volume, slopes or grades, levels, materials needed and profit margins. Estimators may need more advanced math.

Additionally, depending on the specialization, **Physics and Chemistry** help employees to understand currents, conductivity, voltage, materials, bearings, pulley systems, hydraulic pressures, reinforcements, and engines. Spatial reasoning and mechanical aptitude are also useful.

Undoubtedly, perhaps the most important set of skills is that of **good verbal and written communication.** This includes good spelling and grammar, as well as the ability to express oneself clearly to others. Teamwork is vital in construction. Tony Phifer, Director of Operations for Reynolds Electric says, "You need to be able to ask questions and explain when you need clarity--don't let pride get in the way."

*Nearly all of the industry representatives interviewed explained that employees are expected to have **good attendance, a drug-free status and a clean driving record.** These are **make-or-break factors** in whether a company will hire you.*

EMPLOYABLE SKILLS



In addition to good communication skills, workers must be **safety-conscious** and aware of their environment. Stan Pickett, President and General Manager of Delta Sand & Gravel says, "The most important thing is that someone is ready to work, well-rested and knows their surroundings to prevent serious injury."

Employees are also expected to be **motivated, adaptable, and willing to learn.** Heidi Wilson, Human Resources Representative from Hamilton Construction says, "Explore pre-apprenticeship programs in the summer, take safety classes from OSHA online or get trained in CPR." It is important to know the requirements for acceptance into an apprenticeship. Kevin Cohen, President of Kevin Cohen Plumbing, suggests that students get to know the various apprenticeship programs before choosing one.

Companies value workers that are **proactive, take initiative** when they finish a task, and are willing to invest effort into a company to progress in their career. Many managers and presidents started out as laborers and were promoted within the same company.

PROFESSIONALISM

Letty Maldonado, HR Assistant for Reynolds Electric says, "**Collaboration** is key--you're always on a team."

HOW CAN I GET A JOB IN CONSTRUCTION/AGGREGATE?

POST-4 YEAR DEGREE

- Get a Bachelor degree in Engineering. Or, in addition to experience in the field, get a degree in Business.
- Become a cost estimator, construction manager, general and/or operations manager.
- Earn an average of \$66,000 as a cost estimator or up to \$94,000 as the manager of a company.

POST-APPRENTICESHIP

- Complete a 4 or 5-year apprenticeship.
- Work while you complete your training, and/or complete a two year Associate of Applied Science degree along the way.
- Become a carpenter, electrician, plumber, or operator and earn an average of \$60,000 a year.

POST-HIGH SCHOOL

- Post diploma/GED, apply with a local company for a variety of entry-level positions
- Build up points toward your apprenticeship application by taking a night class.
- Make an average of \$35,000 as a laborer, painter, or electrician's helper.



Stan Pickett from Delta Sand & Gravel anticipates that the machinists of the future will be using GPS-controlled machines, sometimes from remote locations across long distances. He encourages students to be comfortable learning new technology and applications, reading plans and keeping up-to-date with the way technology will continue to change the construction/aggregate industry.

When asked, industry representatives said students who are interested in construction can do many things to prepare themselves for a career: volunteer for Habitat for Humanity or sign up for a DIY class at Jerry's or Home Depot. Students can arrange job shadows, learn the names or ask someone to show them how to use power tools. Take online safety classes through OSHA's Education Center. Here are some additional resources:

State Apprenticeship Info:

oregonapprenticeship.org

Build Oregon: <http://www.build-oregon.com/>

Lane Community College Advanced Technology:

<https://www.lanecollege.edu/advtech>

Events: Sand & Gravel Tour, LCC Hands-on Career Day, Construction/Utilities Career Day

Job shadows & internships: elevatelanecounty.org

GET STARTED!

