



OPPORTUNITIES IN BUILDING TRADES

IOWA CAREER PATHWAYS



TABLE OF CONTENTS

Foreword	1
What Building Trades Means to Me	2 - 3
Technologies of the Future	4
Flexible Scheduling & Training Options	5
Experience + Entrepreneurship	6
Diverse Work Options	7
Career Interest Types	8
Using These Career Pathways	9
Building Trades Occupation Families	10
The Building Process	11
Craft & Skilled Trades	12 - 18
Planning & Design	19 - 24
Project & Site Management	25 - 28
Logistics & Supply Chain	29 - 33
Safety & Inspection	34 - 38
Sales & Marketing	39 - 43
Additional Career Options	44
Next Steps & Planning Recommendations	45
My Career Exploration Action Plan	46
Notes & Additional Thoughts	47



**COMMUNITY COLLEGES &
WORKFORCE PREPARATION**
PROSPERITY THROUGH EDUCATION

This project was completed by the Iowa Department of Education, in support of the Future Ready Iowa Initiative, through a public/private collaboration with the Iowa Laborer’s Education and Training Trust Fund, Iowa State Building & Construction Trades Council, National Association of Women in Construction, and Home Builders Association of Iowa. Special thanks to Storm Lake High School, Beisser Lumber Company, Waterloo Career Center, Portzen Construction Inc, Iowa City Area Association of Realtors, Iowa Workforce Development, and Iowa Economic Development Authority. Quantitative research was conducted to identify the most common occupations in the building trades in Iowa, in addition to a series of online surveys and in-person focus groups with employers in Storm Lake, Grimes, Waterloo, Dubuque, & Iowa City. This direct employer feedback and support was vital in building job descriptions and employer expectations, while the included education and wage levels are averaged based on labor market intelligence gathered from across the state.

FOREWORD

Building trades professionals build, expand, and improve our communities every day in Iowa, laying a stable foundation for business and population growth for future generations. Steady demand for safe, affordable, and sustainable residential, commercial, and industrial space to fuel a growing economy, combined with a consistent need to repair and improve critical infrastructure, such as highways, smart power grids, and high-speed telecommunications networks, require Iowans skilled in modern building trades, such as architecture, construction, and engineering.

To meet these and similar workforce needs of industries across Iowa, the Governor's Office established the **Future Ready Iowa Initiative** with a goal of 70 percent of Iowans possessing education or training beyond high school by 2025. To support this important initiative, the Iowa Department of Education partnered with the Iowa Laborer's Education and Training Trust Fund, Iowa State Building and Construction Trades Council, National Association of Women in Construction, and the Home Builders Association of Iowa to develop these promotional materials and career pathways to highlight a wide range of exciting career opportunities offered in Iowa's critical building trades industry.

A challenge to readers of this document, from students just beginning to learn about jobs to adults with extensive work experience who may be looking for a career change, is to drop any preconceived notions or ideas they may have about this industry. With an expansive list of skilled trades, diverse work environments, and innovations in technology, this industry offers much more than stereotypical dirty manual labor positions.

No matter your experience, background, personality, or interests, you will find great opportunities in the building trades that offer a good paycheck, pride in helping to build your community, huge potential for secure and long-term career growth, and the ability to transfer those skills anywhere in the world!

Download these pathways and additional resources at SectorPartnerships.EducateIowa.gov and FutureReadyIowa.gov.



WHAT BUILDING TRADES MEANS TO ME



AARON N. - JOURNEYMAN CARPENTER FOR HEARTLAND (DES MOINES, IA)

"I found out about this career from a friend and now work mostly on commercial construction projects with steel framing and sheet rock as part of an apprenticeship program here at Heartland. Something I like about this industry is that I get to travel and meet different people with each new project. My goal is to complete my apprenticeship, become a Foreman, and then eventually a Project Manager for Heartland. Anyone can find success in this industry as long as you show up and do your best!"

HEARTLAND



SAVANNAH W. - APPRENTICE LABORER FOR THE WEITZ COMPANY (DES MOINES, IA)

"The laborers apprenticeship program has helped me in many ways, the biggest being that they gave me a chance. There are still some men who believe woman shouldn't be in the trades, but it didn't feel that way when I walked in the door here. They offer a variety of different classes and if I didn't understand something, they took the time to walk me through it. I appreciate the program and without them I would not be a member of Laborers Local #177. Honestly, this isn't much different from any other job I've had and I hope to see more women in the trades in the future."



KYLE G. - SERVICE TECHNICIAN FOR STAR EQUIPMENT, LTD. (DES MOINES, IA)

"After graduating with a 2-year degree in Diesel Mechanics and working on large diesel trucks for a bit, I got interested in construction equipment which brought me to Star Equipment. Here I like how the days are always different. You're never working on the same piece of equipment and there are always new challenges to figure out. I also get the excitement of working on new and advanced technology. As a service technician, there is a strong sense of accomplishment when completing a new job or helping people with their equipment. You can also make great money without the high debt from going to a 4-year college!"



HOLLY F. - CONCRETE HAULER FOR KING'S MATERIAL INC. (CEDAR RAPIDS, IA)

"I've been around the concrete business all my life and always wanted to see it for myself. I had recently gotten my Class A CDL license and found this opportunity to drive a concrete mixer and deliver concrete to contractors in a safe and timely manner. Job sites are different every day and it is exciting and rewarding to help build our communities. I love the job and the people the most. King's has been a great career choice for me!"

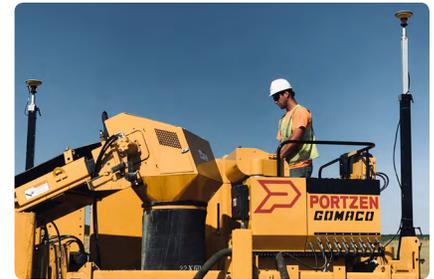
**KING'S
MATERIAL INC.**

TECHNOLOGIES OF THE FUTURE

Although there are already some amazing and innovative building science technologies in use across the state, below are a few additional examples that have the potential for creating new and exciting career opportunities. These technologies further fuel the need for a skilled workforce with advanced computers, information technology, and critical thinking abilities. Behind every new or improved technology are real people who set up, operate, and maintain them as we continue to build for the future.

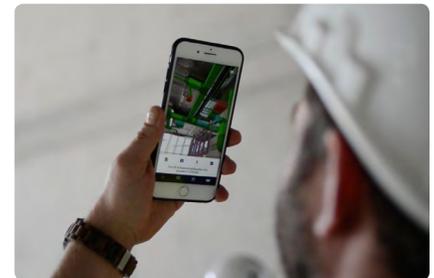
ADVANCED ROBOTS AND AUTOMATION

Advanced robotics provide a safer, quicker, and more efficient experience for building trades professionals by assisting with complicated mathematical equations, lifting and transporting heavy materials or equipment, and even allowing for automated or remote control of heavy earth moving or surveying machinery equipped with global positioning systems (GPS) accurate down to a fraction of an inch. Some companies have even begun deploying intelligent drone technology for a variety of purposes. Materials suppliers and some builders are also able to pre-fabricate aspects of a building project, or even an entire structure, in a remote location ahead of schedule or away from severe weather and other factors, and then have them transported for final construction on-site safer, quicker, and with less waste.



AUGMENTED REALITY AND 3D MODELING

Paper blueprints, schematics, and other documents are rarely found on modern building sites. Tablets, phones, and sometimes wearable devices (i.e. glasses or watches) allow users to interact directly with an expanding list of digital applications and tools, such as detailed 3D site plans, interactive materials placement layouts, and real-time inventory management. Some new technology even allows users to see through walls to find pipes, wiring, and other ductwork routed through a structure, preventing guesswork and costly, time-consuming, or dangerous mistakes and repairs. Building trades professionals are able to review this data and information in real time with team members in different locations, work sites, and even around the world.



SMART HOMES, BUILDINGS, AND INFRASTRUCTURE

"Smart" homes, buildings, streets, bridges, and other structures that are connected to the Internet present a new frontier for careers that blend the information technology and building trades industries. In addition to simple hands-free and voice-enabled convenience features, much of this new technology also increases the energy efficiency, durability, affordability, and safety of building projects by allowing a consistent and accurate flow of usage data, information analytics, and service or repair needs before a potentially expensive or dangerous breakdown, failure, or natural disaster occurs.



FLEXIBLE TRAINING OPTIONS – REGISTERED APPRENTICESHIP PROGRAMS LET YOU EARN WHILE YOU LEARN!

Many employers offer additional training options to fit varying schedules, learning preferences, and career goals. Many of the careers highlighted in this document have a corresponding Registered Apprenticeship option that offers hands-on training and related technical instruction (RTI) that allows Registered Apprentices to earn a paycheck from day one. Look for the Earn & Learn logo for a career that is apprenticeable. Visit EarnAndLearnIowa.gov to learn more about these great opportunities, view testimonials from actual apprentices in Iowa, and fill out a form to be contacted by a representative from a local IowaWORKS field office for a direct conversation.



A growing number of careers also include options to begin on-the-job training in high school or through one of Iowa's 15 community colleges, saving further time and money, allowing workers to begin earning a paycheck sooner and building for their future. Visit www.IowaIN.org and Clearinghouse.FutureReadyIowa.gov to locate, explore, and take advantage of additional local hands-on work-based learning opportunities in Iowa.



FLEXIBLE SCHEDULING OPTIONS – THREE- OR FOUR-DAY WORK WEEKS AND BONUS PAY OPTIONS

Another aspect of building trades that many workers appreciate are flexible and nontraditional scheduling options that are helpful to those with personal or professional responsibilities such as students and parents. Some even offer 10- or 12- hour shifts that allow employees to complete an entire week of work in three or four days, with the rest of the week off for relaxing, family time, or extended travel. Many employers are willing to work with employees on customized schedules, especially with a growing shortage of skilled and licensed trades professionals across the state to back-fill for retirements and competition in the market.

Most employers also offer hard-working and dedicated employees the opportunity to earn overtime pay or shift differentials as a perk for working off hours or weekends. Workers can expect to earn their normal hourly wages plus an added bonus for these shifts (i.e. \$20 per hour base + \$10 per hour bonus = \$30 per hour total). Additional incentives such as paid employee benefits, tuition reimbursement, and discounted health care allow workers in this industry to quickly make substantially more than some other industries.

EXPERIENCE + ENTREPRENEURSHIP – A PATH TO BE YOUR OWN BOSS

The building trades offers huge potential for starting a business and one day being your own boss. A mixture of hard work, skilled trade knowledge, and industry experience opens the door to business opportunities that often do not exist in other industries or that would take much longer and cost significantly more to achieve.

Business owners, trades managers, and other advanced building trades positions are often held by professionals with extensive industry experience and background, rather than formal education and advanced degrees. While education is a critical aspect of being successful in this industry, it is often to supplement what is being learned through hands-on experiences from an apprenticeship or other on-the-job training program. Specific skills can be earned or learned along the way, such as business management, leadership, and communication. Budding entrepreneurs can now market their services and speak directly to current and potential customers much more quickly, easily, and cheaply with social media and digital marketing tools. Specialized funding is also available from the Iowa [Economic Development Authority](#) and [U.S. Small Business Administration](#) to help plan, launch, and strengthen businesses within the building trades industry.

The diagram below highlights a common pathway for someone wanting to start their own building trades business as either their own company and direct service provider or that provides contracting and oversight services to other companies. Although not the only route for ambitious and driven entrepreneurs in Iowa, many appreciate learning on the job, having less student loan debt, and working at their own pace.



**SKILLED TRADES
APPRENTICESHIP/
TRAINING PROGRAM**

(Plumbing Apprentice)



**MANAGEMENT/
LEADERSHIP ROLE**

(Plumbing Foreman)



**BUSINESS OWNER/
CONTRACTING**

(Plumbing Company Owner)

DIVERSE WORK OPTIONS – YOU WORK WHERE?

Modern building trades offer the ability to research, design, create, and maintain a wide range of building projects in a growing number of locations or work environments, either indoors or outdoors, year-round. Building trades professionals work on sports stadiums, wind turbines, data centers, research facilities, and massive infrastructure projects each day in Iowa that will improve the lives of everyone in their community for generations.

The table below offers a few examples of the more common types of building projects and environments that offer these new and exciting opportunities. Each occupation description throughout this document is also clearly labeled with each to assist readers with finding one that may fit their personality or interest type. As technology continues to expand, so will the types of building projects. Which fits you best?

Work Environment	Description
Residential	Houses, apartments, duplexes, and townhomes that are owned or rented by inhabitants. Projects are generally small, short-term, and hours of work may be impacted by resident schedules. Offers a combination of indoor/outdoor work.
Commercial	Office buildings, restaurants, stores, and facilities that are used primarily for business purposes. Projects are generally large, long-term, and have fewer work hour limitations. Offers a combination of indoor/outdoor work.
Industrial	Power stations, factories, and warehouses or distribution centers that are used for business purposes, but may be located in remote areas and with few inhabitants. Projects are generally large, long-term, and offer a combination of indoor/outdoor work.
Infrastructure	Roads, bridges, telecommunications, airports, and other projects designed primarily for transportation or communication purposes. Projects are generally large, long-term, and almost entirely outdoors.
Public/Natural Resources	Parks, lakes, rivers, and other projects involving natural resources and public land. Projects are generally large, long-term, and almost entirely outdoors.
Agricultural	Barns, grain bins, hatcheries, and other structures involved primarily in the housing, production, and storage of agricultural or food products. Projects are generally large, short-term, and almost entirely outdoors.
Remodel/Restoration	Homes, buildings, and other structures that are historical, have been damaged by severe weather, or are in need of remodeling, demolition, or rebuilding offer a unique type of building project that is often small, short-term, and highly customized with a combination of indoor/outdoor work.
Power/Energy	Solar, wind, geothermal, and biomass are growing areas of sustainable or alternative energy production that provide unique types of new and improved building projects to power our communities. Projects range in size, length, and offer a combination of indoor/outdoor work.
Specialized	Some health care, education, infrastructure, and government projects may require advanced training or clearance because of heightened security concerns or special building codes, rules, regulations, and laws. Projects tend to be large, long-term, and offer a combination of indoor/outdoor work.

CAREER INTEREST TYPES - WHAT TYPE OF CAREER MATCHES YOUR PERSONALITY AND INTERESTS?

We are born with certain character traits, while some are developed as we grow and experience new things. There are many different tests or assessments available to help us determine what careers might match our personality or interests. The most common test includes six interest themes based on research by John Holland that can be taken for free at FutureReadyIowa.gov. These include the Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C) groups, reflected in the diagram to the right.

After identifying the top three preferred interest areas, a user is left with an interest type, such as RIA, CES, or ECR. Occupations in this document have been labeled with these codes to help readers better understand potential matches for further research and investigation. Don't worry if a career doesn't match exactly to your code as this is not an exact science, but rather a starting point to help guide users in their career exploration process. There are careers for everyone in the building trades.



R

REALISTIC

You like to work with your hands and use physical skills including repairing and making things with tools and machines. You prefer working on projects you can see and feel, not what can be imagined or theorized.

I

INVESTIGATIVE

You tend to focus on ideas and enjoy collecting and analyzing information. You are curious and tend to prefer situations with minimal rules or regulations. You tend to like math and science.

A

ARTISTIC

You focus on artistic self-expression, value independence, and are not afraid to experiment with ideas. You enjoy variety and tend to feel cramped in structured situations. Creativity guides you.

S

SOCIAL

You are highly concerned with people, make friends easily, and are a good communicator. You enjoy working with others to identify and solve problems. You are helpful, friendly, and trustworthy.

E

ENTERPRISING

You are goal-oriented and often provide leadership and a high degree of energy when working with others. You tend to get bogged down by too much science, data, and analytical thinking. You are more comfortable selling and negotiating.

C

CONVENTIONAL

You pay close attention to detail and work well with numbers and data. You prefer following the rules and working with clear expectations.

USING THESE CAREER PATHWAYS

The information in these pathways is not intended to cover every occupation within the building trades industry in Iowa. Rather, it is intended to provide the student, job-seeker, parent, educator, and others with a high-level view of in-demand or growing positions within each occupation family. Information has been averaged to help guide the reader in evaluating which of these jobs are of interest and worthy of further research through the online [Future Ready Iowa Career Coach](#) tool, which allows readers to customize labor, salary, education, and other information based on their specific location within the state. Additional recommendations for next steps and a career exploration action plan are included at the end of the document.

Occupations have been grouped into the following three levels based on factors such as typical education, experience, and wages. Many workers in this industry do not follow a direct pathway within the same occupation family, but rather enter and progress through a wide range of different careers from each family. Actual education requirements, job duties, and wage levels will vary from employer to employer around the state. Leadership and management opportunities are available in all families, but may not be reflected in these materials.

1. Entry Level: These positions are the best entry points for someone with little experience or education, as they typically require only a high school diploma or equivalent (HSED) or a technical training/certificate and little to no prior related work experience. Many workers enter this industry through the Craft and Skilled Trades family through a Registered Apprenticeship training program or an internship for some of the other families. Although some of these careers start with lower wages, they are often a great starting point with huge potential for promotion and advancement with hard work, dedication, and planning.

2. Mid-Level: These positions pay more than those at the entry level, but also often require some related work experience and additional education, such as a technical training/certificate, two-year associate's degree, or completion of an apprenticeship program. This is generally the point where workers have identified a career they enjoy and begin fine-tuning their skills and earning additional licensures. Some experienced workers from other industries or students who have completed internships or apprenticeship training programs may be able to enter at this elevated level.

3. Senior Level: These positions are typically high-level management or specialized positions and require significant experience in the industry, advanced education or training, and completion of an apprenticeship program, in addition to applicable licenses and leadership skills. Learning a specific organization's history, culture, and values is also often important to lead at this level.



BUILDING TRADES OCCUPATION FAMILIES

The building trades offer students and job seekers an opportunity to make a real and lasting impact in their community. Below are six general occupation groups, or “families,” that highlight some of the ways in which they can do so. Although these groups do not contain all of the great opportunities in this industry, these are some with the highest demand or potential for growth within the state of Iowa. Which describes you best?



CRAFT & SKILLED TRADES - THE CREATORS

[Common Interest Types: Realistic, Conventional, Investigative]

You enjoy creating things! Your ability to work with your hands to design, build, and fix things make you an invaluable part of the building process. You are truly a master of your craft and take great pride in seeing the direct impact on the community you help build.



PLANNING & DESIGN - THE VISIONARIES

[Common Interest Types: Investigative, Realistic, Conventional]

You turn ideas into reality! Your creativity and planning skills help to design, implement, and maintain a wide range of projects and all of the interconnected parts in between. You're able to work with a diverse group of people with a clear vision and communication style.



PROJECT & SITE MANAGEMENT - THE LEADERS

[Common Interest Types: Conventional, Enterprising, Investigative]

You keep everyone on track! Your ability to work with others, clear communication style, and attention to detail ensures that construction and building projects stay on time, under budget, and meet all customer goals and applicable rules, laws, and regulations.



LOGISTICS & SUPPLY CHAIN - THE EQUIPPERS

[Common Interest Types: Conventional, Realistic, Social]

You keep everyone supplied and working! Building projects require lots of materials and resources that need to be ordered, shipped, and delivered to the job site regardless of weather, shortages, and other delays. Your ability to plan ahead and keep a project moving is top notch!



SAFETY & INSPECTION - THE FIXERS

[Common Interest Types: Realistic, Conventional, Investigative]

You keep everyone safe! Modern building projects include heavy equipment, high voltage, and sometimes hazardous materials. Your attention to detail, thoroughness, and knowledge help ensure everything is maintained and working correctly so that everyone gets home safe at the end of their shift.



SALES & MARKETING - THE CLOSERS

[Common Interest Types: Enterprising, Conventional, Social]

You seal the deal! Your top notch communication, sales, and business skills help keep the business open and projects running. You play an important, but often indirect role by helping to promote, sell, and improve the products and services your company offers in your community and around the world.

THE BUILDING PROCESS – MORE THAN JUST WOOD AND NAILS

The occupations outlined in this document often have roles to play throughout a complex and interconnected modern building cycle. The diagram below showcases some of these stages and offers a brief description of what is being done, which families are likely involved, and how they interact with one another towards a successful building project. Which fits your personality and interest type best?

1) PLANNING & DESIGN

Overview: Initial stage of planning, designing, and consulting with customers and team members to determine timeline, cost, and best course of action to achieve project goals.

Families Involved: Planning & Design, Project & Site Management, Logistics & Supply Chain, Sales & Marketing
Common Interest Types: Artistic, Investigative, Conventional

2) SITE PREPARATION & DEVELOPMENT

Overview: Preparing the safe and level foundation of a project by adding, removing, or otherwise shaping dirt, water, and other physical aspects of a job site before any work can be done.

Families Involved: Project & Site Management, Craft & Skilled Trades, Logistics & Supply Chain, Inspection & Safety
Common Interest Types: Realistic, Conventional, Investigative

3) EXTERIOR CONSTRUCTION

Overview: Building the exterior “bones” of a property with rough walls, foundation, roofing, flooring, plumbing, electrical, insulation, and other features or systems.

Families Involved: Project & Site Management, Craft & Skilled Trades, Logistics & Supply Chain, Inspection & Safety
Common Interest Types: Realistic, Conventional, Investigative

4) INTERIOR FINISH

Overview: Putting the finishing touches on a project with the internal surfaces, painting, flooring, plumbing, electrical, heating/cooling, and other features, furnishings, coverings, or systems.

Families Involved: Project & Site Management, Craft & Skilled Trades, Logistics & Supply Chain, Inspection & Safety

Common Interest Types: Realistic, Conventional, Investigative

5) INSPECTION & MAINTENANCE

Overview: Preparing a property for sale through safety, inspection, and maintenance policies or procedures.

Families Involved: Inspection & Safety, Project & Site Management, Craft & Skilled Trades, Sales & Marketing

Common Interest Types: Conventional, Realistic, Investigative

6) SALES & MARKETING

Overview: Final stage of having a property appraised, listed, sold, and financed. May feed ideas back to teams from the Planning & Design or other stages.

Families Involved: Planning & Design, Project & Site Management, Sales & Marketing

Common Interest Types: Enterprising, Social, Conventional





Occupations in the *Craft & Skilled Trades* family focus on getting the job done! These skilled professionals receive specialized training in a specific area, such as electricity, plumbing, carpentry, or concrete work. Some career opportunities involve learning multiple skill sets, but most are designed to learn and perfect a single craft over time.

These professionals are often involved throughout the entire building process and can be found in a wide range of work environments, both indoors and outdoors. They help lay a stable foundation during work site development, put up the exterior “bones” of a project with walls, roofing, and windows, and finally finish the interior or “guts” with the routing of wires, plumbing, and ductwork, installing cabinets, appliances, and flooring, and hanging, staining, or painting drywall and other floor or wall coverings.

Most of these occupations require little formal education, and instead opt for an “earn and learn” apprenticeship model where skills are earned on the job observing and assisting a licensed master trades professional, while also taking necessary training in areas such as applied mathematics, job site safety, and other specialized skills. These occupations offer a good entry into the building trades with huge potential for advancement with focus, hard work, and dedication.

Someone who enjoys working with their hands, likes to see and feel their work, and doesn’t want to sit in an office all day would fit well in these careers. They take pride in building houses, roads, businesses, and other aspects of their community that will last for generations.



CAREER SPOTLIGHT:

Austin S. — Electrician for Interstates (Sioux Center, IA)

“I was looking for a career that offered challenging work and opportunities for advancement and took advantage of an apprentice program to learn the electrical trade. I like that every day is different and offers that challenge. I’ve already begun working in more of a supervisory and project management role at Interstates and want to continue training and building up other employees. I have no plans to give up my tools though. I still very much enjoy the physical work that it takes to build industrial products. I’ve been able to travel and visit facilities across the country that most people will never see.”





NOVICE/ENTRY LEVEL

Apprentice, Intern,
Assistant, Helper,
Technician

High School Diploma

Years 0 - 4

INTERMEDIATE/MID-LEVEL

Journeyman, Supervisor,
Coordinator, Foreman

High School Diploma +
Training & Professional
License

Years 5 - 9

ADVANCED/SENIOR LEVEL

Master, Manager,
Superintendent, Engineer

High School Diploma
+ Advanced Training &
Professional License

Years 10+

	NOVICE/ENTRY LEVEL	INTERMEDIATE/MID-LEVEL	ADVANCED/SENIOR LEVEL
Carpentry/Wood Working	\$12 - \$15/hr	\$24 - \$30/hr	\$35 - \$45/hr
Concrete/Masonry	\$12 - \$16/hr	\$25 - \$31/hr	\$36 - \$46/hr
Electrical/Power Generation	\$15 - \$19/hr	\$31 - \$39/hr	\$42 - \$52/hr
Equipment Operation/Maintenance	\$13 - \$16/hr	\$26 - \$33/hr	\$38 - \$48/hr
Glazier/Glass Working	\$11 - \$15/hr	\$22 - \$30/hr	\$35 - \$45/hr
HVAC/Sheet Metal Working	\$13 - \$18/hr	\$26 - \$36/hr	\$41 - \$51/hr
Insulation/Weatherization	\$13 - \$17/hr	\$26 - \$34/hr	\$39 - \$49/hr
Iron/Steel Working	\$12 - \$16/hr	\$24 - \$32/hr	\$37 - \$47/hr
Labor/Teamster	\$11 - \$15/hr	\$22 - \$30/hr	\$35 - \$45/hr
Landscaping/Groundskeeping	\$11 - \$15/hr	\$18 - \$22/hr	\$24 - \$30/hr
Painting/Drywall Finishing	\$10 - \$14/hr	\$20 - \$28/hr	\$33 - \$43/hr
Plumbing/Pipefitting	\$17 - \$21/hr	\$34 - \$42/hr	\$47 - \$57/hr
Roofing/Waterproofing	\$11 - \$15/hr	\$21 - \$29/hr	\$34 - \$44/hr
Sustainability/Alternative Energy	\$12 - \$16/hr	\$20 - \$28/hr	\$30 - \$40/hr



CARPENTRY/WOOD WORKING

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$12 - \$45/hour

Design, build, install, repair, and finish structures and fixtures from wood, plywood, and other materials using hand and power tools. Study specifications from blueprints, sketches, or building plans to prepare project layout, timeline, budget, and necessary materials, which may also include metals, plastics, and glass. Accurately and safely measure, cut, and join materials together with nails, screws, adhesives, and other fasteners.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Wood Working & Cutting
- 3) Hand & Power Tools
- 4) Mathematics & Measuring
- 5) Attention to Detail & Inspection
- 6) Critical Thinking & Problem Solving



Similar Roles/Titles:

Carpenter, Construction Carpenter, Finish Carpenter, Carpenter Apprentice, Wood Worker

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

CONCRETE/MASONRY

REC - REALISTIC, ENTERPRISING, CONVENTIONAL

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$12 - \$46/hour

Inspect, cut, and install building materials, such as brick, tile, concrete, glass, and terra-cotta blocks, with mortar, adhesives, and other substances to construct or repair walls, flooring, drainage, and other structures or systems. Measure distances, angles, alignments, and other project aspects to determine material needs, installation methods, and project timeline. May also paint, stain, seal, or finish blocks, concrete, and other materials.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Mathematics & Measuring
- 3) Listening & Following Instructions
- 4) Critical Thinking & Problem Solving
- 5) Inspecting & Handling Materials
- 6) Attention to Detail & Quality Control



Similar Roles/Titles:

Mason, Brick & Block Layer, Cement Mason, Concrete Finisher, Masonry Installer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

ELECTRICAL/POWER GENERATION

RIC - REALISTIC, INVESTIGATIVE, CONVENTIONAL

Typical Education/Training: High School Diploma/HSED + Hands-On Experience + Professional License

Wage Range: \$15 - \$52/hour

Design, install, and maintain electrical wiring, equipment, fixtures, and control systems in accordance with all appropriate safety, regulatory, and compliance codes or guidelines. Inspect, test, and repair electrical systems, equipment, or other components to identify hazards, defects, or other performance concerns. May also install, maintain, or repair above and underground power lines, utilities, and power relay stations.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Electricity & Electronics
- 3) Mathematics & Measuring
- 4) Computers & Technology
- 5) Reading & Comprehending Instructions
- 6) Critical Thinking & Problem Solving



Similar Roles/Titles:

Electrician, Lineman, Electrical Apprentice, Electrical Lineworker, Electrical Systems Mechanic

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



EQUIPMENT OPERATION/MAINTENANCE

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$13 - \$48/hour

Safely and accurately operate power construction equipment, such as graders, bulldozers, skid loaders, pile drivers, tractors, or front-end loaders to excavate, move, or grade work sites, erect structures, or pour concrete and other foundation materials. May also inspect, repair, and maintain equipment to keep operational and running smoothly, safely, and efficiently. May require specialized driver's license.

Knowledge & Skills:

- 1) Mechanical Tools, Equipment, & Systems
- 2) Machine Operation & Maintenance
- 3) Critical Thinking & Problem Solving
- 4) Safety & Quality Control
- 5) Mathematics & Measuring
- 6) Computers & Technology



Similar Roles/Titles:

Operating Engineer, Heavy Equipment Operator, Equipment Operator, Equipment Specialist, Operation Apprentice

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

GLAZIER/GLASS WORKING

RCA - REALISTIC, CONVENTIONAL, ARTISTIC

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$11 - \$45/hour

Inspect, repair, cut, and install windows or glass in skylights, store fronts, display cases, ceilings, tabletops, and other walls or surfaces. Read and interpret blueprints or specifications to determine size, shape, color, type, or thickness of glass, installation procedure, weatherization, energy efficiency, and other project needs. May work with other glass substitutes or window materials, such as plastics, metals, and composites.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Glass Working & Cutting
- 3) Hand & Power Tools
- 4) Critical Thinking & Problem Solving
- 5) Mathematics & Measuring
- 6) Attention to Detail & Inspection



Similar Roles/Titles:

Glass Technician, Glazing Technician, Glazing Apprentice, Glass Specialist, Glass Installer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

HVAC/SHEET METAL WORKING

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience + Professional License

Wage Range: \$13 - \$51/hour

Design, assemble, install, and repair heating, ventilation, and air conditioning (HVAC) or refrigeration systems and related equipment, ductwork, plumbing, and wiring. Cut, bend, shape, straighten, and join sheet metal pieces or components with hand, power, and soldering or welding tools. Work with technicians and trade professionals to ensure equipment and system safety, efficiency, and compliance.

Knowledge & Skills:

- 1) HVAC Systems & Repair
- 2) Plumbing & Electrical Systems
- 3) Hand, Power, & Welding Tools
- 4) Mathematics & Measuring
- 5) Attention to Detail & Inspection
- 6) Critical Thinking & Problem Solving



Similar Roles/Titles:

HVAC Installer, Sheet Metal Fabricator, Refrigeration Specialist, HVAC Technician, Heating and Cooling Specialist

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



INSULATION/WEATHERIZATION

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience + Professional License

Wage Range: \$13 - \$49/hour

Line, cover, and apply insulating materials to structures, pipes, ductwork, or other mechanical and refrigeration systems to help control and maintain temperature or climate. Determine the amounts, types, and installation methods of insulation needed based on factors such as location, surface shape, and equipment use. Safely and accurately measure, cut, and fit batt, roll, spray, or blown insulation materials with hand and power tools.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Mathematics & Measuring
- 3) Insulation & Weatherization
- 4) Attention to Detail & Inspection
- 5) Critical Thinking & Problem Solving
- 6) Computers and Technology



Similar Roles/Titles:

Insulator, Heat & Frost Worker, Insulation Apprentice, Weatherization Worker, Insulation Installer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

IRON/STEEL WORKING

RIC - REALISTIC, INVESTIGATIVE, CONVENTIONAL

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$12 - \$47/hour

Lift, position, and join iron or steel girders, columns, beams, and other structural pieces to form foundations, infrastructure, or completed structures and building frameworks. Verify vertical and horizontal alignment of parts and connect using bolts, rivets, welds, and other temporary or permanent methods, dismantling when necessary to correct or modify. Read specifications or blueprints to determine locations, quantities, and sizes of required materials.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Metal Working & Cutting
- 3) Hand, Power, & Welding Tools
- 4) Critical Thinking & Problem Solving
- 5) Mathematics & Measuring
- 6) Attention to Detail & Inspection



Similar Roles/Titles:

Iron/Steel Worker, Fitter, Welder, Iron/Steel Apprentice, Metals Specialist

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

LABOR/TEAMSTER

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$11 - \$45/hour

Assist a wide range of construction and trade professionals with tasks involving physical or skilled labor in the preparation, construction, remodeling, or demolition of buildings, infrastructure, and other types of work sites or building projects. Use hand or power tools and operate equipment to assist on projects as-needed, including clean-up procedures to ensure a safe, secure, and efficient job site.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Physical & Manual Labor
- 3) Hand & Power Tools
- 4) Mathematics & Measuring
- 5) Critical Thinking & Problem Solving
- 6) Listening & Following Instructions



Similar Roles/Titles:

Construction Laborer, Construction Worker, Teamster Worker, Labor Apprentice, Skilled Labor

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



LANDSCAPING/GROUNDSKEEPING

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$11 - \$30/hour

Prepare, build, landscape, or maintain the grounds of a property using hand or power tools and equipment, including for grading, mowing, planting, and water management purposes. May also assist in areas of water preservation, gardening, weeding, and pest control to ensure sites remain clean, safe, and visually appealing.

Knowledge & Skills:

- 1) Landscaping & Water Management
- 2) Comprehend & Follow Instructions
- 3) Attention to Detail & Inspection
- 4) Critical Thinking & Problem Solving
- 5) Customer & Personal Service
- 6) Mechanical Tools, Equipment, & Systems



Similar Roles/Titles:

Landscape Specialist, Landscape Management Technician, Groundskeeper, Grounds/Maintenance Specialist, Landscape Gardener

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

PAINTING/DRYWALL FINISHING

RCA - REALISTIC, CONVENTIONAL, ARTISTIC

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$10 - \$43/hour

Measure, prepare, and paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, spray guns, and other hand or power tools. Remove old paint and chemically treat or prime surfaces beforehand to prepare for better paint or coating adherence. May mix colors or oils to obtain desired color, consistency, or efficiency standards based on materials, location, climate, and other factors.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Painting & Surface Coverings
- 3) Mathematics & Measuring
- 4) Attention to Detail & Inspection
- 5) Critical Thinking & Problem Solving
- 6) Listening & Following Instructions



Similar Roles/Titles:

Painter, Paint/Finish Specialist, Industrial Painter, Surface Finisher, Drywall Applicator Specialist

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

PLUMBING/PIPEFITTING

RIC - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience + Professional License

Wage Range: \$17 - \$57/hour

Assemble, install, and maintain pipes, fittings, fixtures, and other materials used for heating, cooling, water, lubrication, waste removal, or drainage systems. Inspect, test, and repair plumbing systems for defective materials, leaks, clogs, and other potential hazards, replacing or fixing components and materials when necessary. Cut, bend, and join metal, plastic, and other types of pipes with various hand tools, power equipment, and other fasteners and adhesives.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Pipe Bending, Working, & Cutting
- 3) Hand, Power, & Welding Tools
- 4) Water & Fluid Dynamics
- 5) Mathematics & Measuring
- 6) Attention to Detail & Inspection



Similar Roles/Titles:

Plumber, Pipefitter, Steamfitter, Plumbing Specialist, Plumbing/Pipefitting Apprentice

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



ROOFING/WATERPROOFING

RCA - REALISTIC, CONVENTIONAL, ARTISTIC

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$11 - \$44/hour

Inspect, measure, repair, and install roofs and outer coverings of structures with shingles, asphalt, metal, wood, rubber, and other materials to meet desired energy, insulation, waterproofing, artistic, and other physical needs. May spray roofs, siding, foundations, and walls with material to bind, seal, insulate, or soundproof sections of structures. May assist with the inspection, repair, and installation of gutters, drainage, and other water-management systems.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Mathematics & Measuring
- 3) Water & Fluid Dynamics
- 4) Critical Thinking & Problem Solving
- 5) Safety & Inspection
- 6) Weatherizing & Insulation Methods



Similar Roles/Titles:

Roofer, Foundation Waterproofer, Exterior Service Technician, Roofing Technician, Siding Installer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

SUSTAINABILITY/ALTERNATIVE ENERGY

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Hands-On Experience

Wage Range: \$12 - \$40/hour

Design, assemble, install, and maintain sustainability or alternative energy systems and components, such as solar photovoltaic (PV), geothermal, wind, and biomass systems on roofs, walls, or other structures to meet sustainability, efficiency, or design specifications and in compliance with site assessment and schematics. May also plan, cut, assemble, and secure necessary structural framing, wiring, plumbing, and other components, testing when necessary to ensure compliance and safety.

Knowledge & Skills:

- 1) Electricity & Sustainable Energy
- 2) Basic Building & Construction
- 3) Mathematics & Measuring
- 4) Safety, Inspection, & Quality Control
- 5) Computers & Technology
- 6) Critical Thinking & Problem Solving



Similar Roles/Titles:

Solar Panel Installer, Wind Turbine Technician, Alternative Energy Specialist, Sustainability Specialist, Biomass Specialist

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

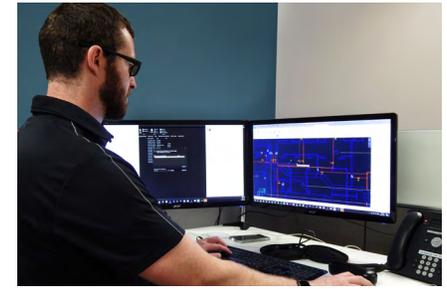
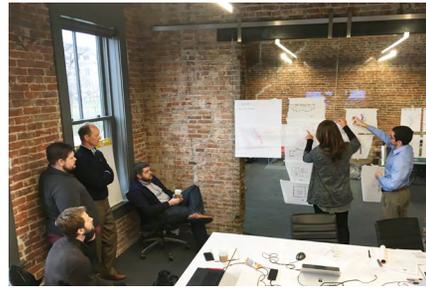
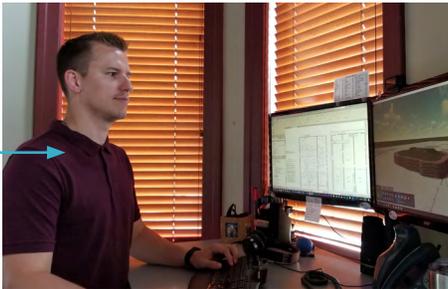
* Wage range is an average of entry level to experienced workers.



Occupations in the *Planning & Design* family focus on turning ideas or concepts into reality! These professionals use their vision and creativity to work with customers to create customized site development plans, 3D structural or landscaping blueprints, and detailed project design plans that will be used by other skilled and trade professionals throughout the building process.

Many of these occupations require a higher level of formal education, such as an Associate's or Bachelor's degree, but some only require a technical certificate and little or no industry experience. A growing number of these careers offer an "earn and learn" option as well, such as an internship or Registered Apprenticeship.

Someone who is creative, enjoys working with technology, and doesn't mind working in an office setting will do well in these careers. Travel may be required to survey or visit potential work sites, but advances in satellite imagery, advanced global positioning systems (GPS), and smart drone technology are changing and expanding how many of these careers are practiced.

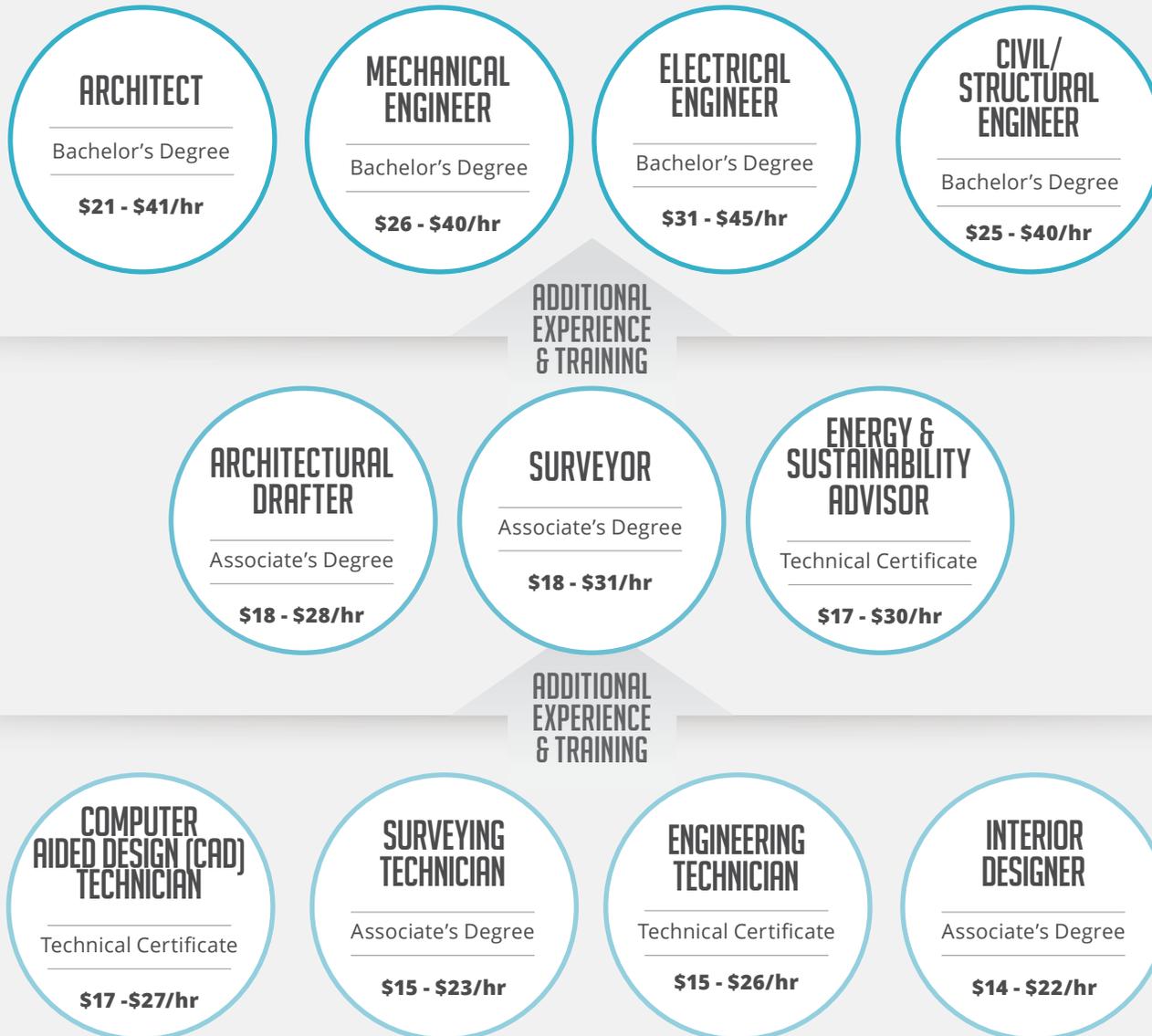


CAREER SPOTLIGHT:

Derek P. — Architectural Associate & Digital Media Manager at Martin Gardner Architecture (Marion, IA)

"I first learned about the building trades in high school through various mechanical and architectural drafting classes and then continued to explore them at Iowa State University. I'm involved in many phases of the design process, from programming to construction administration, where I use digital tools like Revit and AutoCad to create both still and animated 3D renderings. What I like most about my job and this industry is the fact that we get to design and construct the actual world around us. If you like working with your hands, building things, learning tangible skills that you can take with you anywhere in the world for the rest of your life, and making an excellent living, sometimes with virtually no student debt, the building trades has an opportunity for you."





PLANNING & DESIGN

THE VISIONARIES



INTERIOR DESIGNER

ENTRY LEVEL

AES - ARTISTIC, ENTERPRISING, CONVENTIONAL

Typical Education/Training: Associate's Degree

Work Experience: 0 - 3 years

Wage Range: \$14 - \$22/hour

Plan, design, and furnish the interior space of homes, offices, apartments, and other buildings or public areas to meet intended purposes or customer goals, such as raising productivity, selling merchandise, aiding in the healing process, or improving lifestyle. Use 3D modeling and other design software to consult with architects, engineers, and other professionals to keep projects on time and within budget.

Knowledge & Skills:

- 1) Interior Design & Aesthetics
- 2) Basic Building & Construction
- 3) Computers & Technology
- 4) Active Listening & Communication
- 5) Critical Thinking & Problem Solving
- 6) Customer & Personal Service



Similar Roles/Titles:

Interior Design Consultant, Interior Design Coordinator, Interior Design Director, Interior Design Principal, Interior Design Project Manager

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

SURVEYING TECHNICIAN

ENTRY LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 0 - 3 years

Wage Range: \$15 - \$23/hour

Research, conduct, and document property measurements, elevations, and relation to natural features, structures, and other physical barriers with various hand tools, electronic instruments, and drones or advanced surveying technology. Make sketches or maps, enter data into computers, and analyze or compare findings to other sources, such as satellite imagery and infrared heat scans.

Knowledge & Skills:

- 1) Engineering & Geography
- 2) Basic Building & Construction
- 3) Mathematics & Measuring
- 4) Surveying Tools & Equipment
- 5) Analytical Thinking & Problem Solving
- 6) Computers & Technology



Similar Roles/Titles:

Survey Crew, Engineering Technician, Surveying Instrument Assistant, Surveying Specialist, Instrument Operator

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Power/Energy, Specialized

ENGINEERING TECHNICIAN

ENTRY LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 0 - 3 years

Wage Range: \$15 - \$26/hour

Apply engineering theory and principles to help plan, design, and oversee the construction and maintenance of structures and facilities, usually under the direction of engineering staff. Collect, analyze, and report data research findings, often with detailed dimensional drawings, maps, and diagrams created and managed with advanced or 3D modeling and design software or applications.

Knowledge & Skills:

- 1) Engineering & Technology
- 2) CAD or AutoCAD Software
- 3) Mathematics & Measuring
- 4) Mechanical Tools & Equipment
- 5) Analytical Thinking & Problem Solving
- 6) Comprehend & Follow Instructions



Similar Roles/Titles:

Civil Designer, Engineering Assistant, Design Technician, Engineer Technician, Civil Engineering Technician

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.

PLANNING & DESIGN

THE VISIONARIES



COMPUTER-AIDED DESIGN (CAD) TECHNICIAN

ENTRY LEVEL

RIA - REALISTIC, INVESTIGATIVE, ARTISTIC

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 0 - 3 years

Wage Range: \$17 - \$27/hour

Assist drafters with the development, review, and analysis of detailed design drawings and specifications for building and construction projects, using computer-aided design (CAD) equipment and other advanced design software. Consult and coordinate with other workers to design, layout, or detail components and systems and to resolve problems to ensure high levels of quality and safety.

Knowledge & Skills:

- 1) CAD or AutoCAD Software
- 2) Design & Drawing
- 3) Engineering & Technology
- 4) Mathematics & Measuring
- 5) Building & Construction
- 6) Analytical Thinking & Problem Solving

Similar Roles/Titles:

CAD Designer, CAD Drafter, Drafting Assistant, Design Drafter, Civil Drafting Technician

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

ARCHITECTURAL DRAFTER

MID LEVEL

ARI - ARTISTIC, REALISTIC, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$18 - \$28/hour

Prepare and deliver detailed drawings, designs, charts, and plans for buildings, structures, and other construction projects according to specifications provided by architects and engineers, often with computer-aided design (CAD) equipment, 3D modeling, and other interactive design tools. Consider and analyze building codes, site or spacing limitations, and other project factors.

Knowledge & Skills:

- 1) Engineering, Design, & Technology
- 2) CAD or AutoCAD Software
- 3) Mathematics & Measuring
- 4) Mechanical Tools & Equipment
- 5) Analytical Thinking & Problem Solving
- 6) Comprehend & Follow Instructions



Similar Roles/Titles:

Drafter, Architectural Designer, Civil Drafter, Draftsman, Civil Designer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

SURVEYOR

MID LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$18 - \$31/hour

Direct, conduct, or verify land survey findings and related studies, including data relevant to the shape, gravitation, elevation, and dimension of land or land features for construction and land development purposes, often in collaboration with architects, engineers, and other trades professionals. May also assist with property boundary investigations or disputes.

Knowledge & Skills:

- 1) Engineering & Geography
- 2) Building & Construction
- 3) Mathematics & Measuring
- 4) Surveying Tools & Equipment
- 5) Analytical Thinking & Problem Solving
- 6) Attention to Detail & Inspection

Similar Roles/Titles:

City Surveyor, Land Surveyor, Survey Manager, Survey Project Manager, Survey Superintendent

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.

PLANNING & DESIGN

THE VISIONARIES



ENERGY & SUSTAINABILITY ADVISOR

MID LEVEL

CEI - CONVENTIONAL, ENTERPRISING, INVESTIGATIVE

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 4 - 7 years

Wage Range: \$17 - \$30/hour

Set-up, conduct, and analyze results of energy audits of homes, buildings, and other related systems. Make recommendations to improve the operation, maintenance, or energy efficiency of new or existing structures. May also assist with financial impact studies and pursuing grants, tax credits, and other financial incentives to cover associated costs of repairs, improvements, or new equipment.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Inspection & Attention to Detail
- 3) Critical Thinking & Problem Solving
- 4) Mathematics & Measuring
- 5) Energy Efficiency & Sustainability
- 6) Data Collection & Analysis

Similar Roles/Titles:

Building Energy Consultant, Building Performance Specialist, Energy Efficiency Consultant, Sustainability Specialist, Sustainable Building Consultant

Typical Project Types:

HResidential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

ARCHITECT

SENIOR LEVEL

AIE - ARTISTIC, INVESTIGATIVE, ENTERPRISING

Typical Education/Training: Bachelors Degree

Work Experience: 8+ years

Wage Range: \$21 - \$41/hour

Research, plan, and design architectural structures, such as homes, buildings, factories, parks, and infrastructure projects with advanced design and modeling tools in accordance with environmental, safety, and other regulations. Consult with customers, develop contracts, and direct or oversee activities of technicians, contractors, and other project staff to ensure customer needs and goals are met.

Knowledge & Skills:

- 1) Architecture & Landscape Design
- 2) Project & Time Management
- 3) Mathematics & Measuring
- 4) Data Collection & Analysis
- 5) Analytical Thinking & Problem Solving
- 6) Computers & Technology

Similar Roles/Titles:

Design Architect, Principal Architect, Project Architect, Senior Architectural Designer, Landscape Architect

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

CIVIL/STRUCTURAL ENGINEER

SENIOR LEVEL

RIC - REALISTIC, INVESTIGATIVE, CONVENTIONAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$25 - \$40/hour

Research, design, and oversee the construction and maintenance of buildings, facilities, and other structures, such as roads, railroads, bridges, pipelines, and water or sewage systems with advanced design and modeling tools. May inspect work and project sites to ensure compliance with design specifications, budget, timeline, and other regulatory or safety guidelines.

Knowledge & Skills:

- 1) Engineering & Technology
- 2) Project & Time Management
- 3) Mathematics & Measuring
- 4) Data Collection & Analysis
- 5) Building & Construction
- 6) Analytical Thinking & Problem Solving

Similar Roles/Titles:

Hardscape Engineer, Civil Engineering Manager, Infrastructure Engineer, Design Engineer, City Planner

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



MECHANICAL ENGINEER

SENIOR LEVEL

IRC - INVESTIGATIVE, REALISTIC, CONVENTIONAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$26 - \$40/hour

Research, plan, and design tools, engines, machines, and other mechanically functioning equipment and how they interact with one another as part of a larger interconnected system for building and construction projects. Oversee installation, operation, maintenance, and repair of equipment throughout the entire building process based on factors like budget, efficiency, energy, time, and quality.

Knowledge & Skills:

- 1) Complex Problem Solving Skills
- 2) Engineering & Technology
- 3) Mechanical & Systems Analysis
- 4) Drafting & Design
- 5) CAD or AutoCAD Software
- 6) Mathematics & Physics

Similar Roles/Titles:

Mechanical Drafter, Systems Engineer, Application Engineer, Equipment Engineer, Mechanical Design Engineer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

ELECTRICAL ENGINEER

SENIOR LEVEL

IRC - INVESTIGATIVE, REALISTIC, CONVENTIONAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$31 - \$45/hour

Design, develop, and supervise the installation of electrical equipment, components, or entire systems. Consult with engineers, customers, or others to discuss existing or potential engineering projects or products. Test electrical equipment and components to ensure compliance with safety and environmental rules and regulations, making repairs, improvement, or recommendations when needed.

Knowledge & Skills:

- 1) CAD or AutoCAD Software
- 2) Electricity & Safety Controls
- 3) Power Generation & Management
- 4) Mathematics & Measuring
- 5) Advanced Computers & Technology
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Electrical Project Manager, Industrial Project Manager, Lean Manager, Account Manager, Technical Project Lead

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

** Wage range is an average of entry level to experienced workers.*



Occupations in the *Project & Site Management* family focus on keeping projects on track! A modern building and construction project involves a wide range of skilled professionals, materials suppliers, trades contractors, and other partners who need to be organized and rallied towards a common goal.

These professionals manage and oversee a building project from beginning to end, paying special attention to timelines, budgets, and other aspects impacting the various stages and interconnected systems that can derail a project quickly. Before any work can begin on site, however, careful planning and development is also necessary to address any environmental, regulatory, compliance, and permitting factors to ensure a finished project will not be at risk for flooding, heavy winds, and other hazards.

Although many of these occupations will require some sort of formal education above high school, industry experience can often serve as a substitute to enter and advance in this family quickly. A strong skill-set and understanding of the various stages in the building process is critical to account for various types of setbacks, challenges, and other issues that can quickly stall a project or cut deeply into profits.

Someone who enjoys working with others, has an eye for detail, and appreciates following checklists will do well in this family. They will find pleasure in seeing a project from start to finish and helping to keep everything and everyone moving in the right direction.



CAREER SPOTLIGHT:

Jody B. — Carpenter Foreman at Neumann Brothers, Inc. (Des Moines, IA)

“As a Carpenter Foreman, I lead a crew of carpenters in all sorts of different tasks, like framing, trim work, and general layout for each project. I really like the challenge of figuring out new things with this job. Each project presents new challenges and you need to be creative to figure out how to get things done. I plan to continue learning more about the business side of this industry and working my way up.”





SUPERINTENDENT

High School

\$21 - \$45/hr

**PROJECT
MANAGER**

Bachelor's Degree

\$26 - \$41/hr

SENIOR
LEVEL

ADDITIONAL
EXPERIENCE
& TRAINING

**COST
ESTIMATOR**

Associate's Degree

\$19 - \$23/hr

TRADES FOREMAN

High School

\$20 - \$32/hr

**PROJECT
ENGINEER**

Associate's Degree

\$16 - \$26/hr

MID
LEVEL

ADDITIONAL
EXPERIENCE
& TRAINING

**PROJECT
COORDINATOR**

High School

\$13 - \$20/hr

ENTRY
LEVEL



PROJECT COORDINATOR

ENTRY LEVEL

CEI - CONVENTIONAL, ENTERPRISING, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED

Work Experience: 0-3 years

Wage Range: \$13 - \$20/hour

Provide administrative support for building and construction projects by conducting research, preparing reports, handling information, and performing clerical functions, such as scheduling meetings, facilitating communication between team members, and organizing billing, financing, or permitting paperwork or digital records.

Knowledge & Skills:

- 1) Project & Time Management
- 2) Computers & Technology
- 3) Written & Oral Communication
- 4) Basic Building & Construction
- 5) Critical Thinking & Problem Solving
- 6) Inspection & Attention to Detail

Similar Roles/Titles:

Project Aide, Project Assistant, Project Clerk, Office Assistant, Project Management Intern

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

COST ESTIMATOR

MID LEVEL

CEI - CONVENTIONAL, ENTERPRISING, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$19 - \$23/hour

Research, prepare, and deliver cost estimates for construction and building projects to aid in project bidding or determining price of associated products or services, sometimes specializing on residential, commercial, or industrial projects. Consult with engineers, architects, contractors, suppliers, and other building professionals when necessary. May also assist with negotiation and financing processes or procedures.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Accounting & Finance
- 3) Mathematics & Measuring
- 4) Mechanical Tools & Equipment
- 5) Analytical Thinking & Problem Solving
- 6) Project & Time Management

Similar Roles/Titles:

Construction Estimator, Cost Analyst, Cost and Risk Analysis Manager, Cost Consultant, Cost Engineer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

PROJECT ENGINEER

MID LEVEL

CEI - CONVENTIONAL, ENTERPRISING, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$16 - \$26/hour

Assist project managers, superintendents, foremen, and other trades professionals with administrative and management support services, such as monitoring project progress, purchase and use of materials, and using design and other interactive technology to update project designs or drawings based on various site or project factors. May also train and supervise lower-level project, administrative, or clerical staff.

Knowledge & Skills:

- 1) Project & Time Management
- 2) Computers & Technology
- 3) Written & Oral Communication
- 4) Basic Building & Construction
- 5) Critical Thinking & Problem Solving
- 6) Inspection & Attention to Detail

Similar Roles/Titles:

Assistant Project Manager, Project Management Associate, Project Development Assistant, Senior Project Coordinator, Executive Project Assistant

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

** Wage range is an average of entry level to experienced workers.*



TRADES FOREMAN

MID LEVEL

ERC - ENTERPRISING, REALISTIC, CONVENTIONAL

Typical Education/Training: High School Diploma/HSED

Work Experience: 4 - 7 years

Wage Range: \$20 - \$32/hour

Directly supervise, coordinate, and schedule the activities of construction and trades professionals on a work site. Inspect work progress, equipment, and sites to verify safety and ensure that projects are meeting time and budget guidelines. May also assist with training in construction methods, operation of equipment, safety procedures, and company or association policies.

Knowledge & Skills:

- 1) Building & Construction
- 2) Management & Leadership
- 3) Listening & Communication
- 4) Mathematics & Measuring
- 5) Attention to Detail & Inspection
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Construction Supervisor, Front Line Supervisor, Field Supervisor, Trades Manager, Site Supervisor

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

SUPERINTENDENT

SENIOR LEVEL

ERC - ENTERPRISING, REALISTIC, CONVENTIONAL

Typical Education/Training: High School Diploma/HSED

Work Experience: 8+ years

Wage Range: \$21 - \$45/hour

Plan, direct, and coordinate the activities of all workers involved in the construction and maintenance of structures, facilities, and systems. Assist in the planning, research, and implementation of a construction project, including overseeing higher level safety, financial, and regulatory compliance aspects with foremen, supervisors, contractors, and other trades professionals and support staff.

Knowledge & Skills:

- 1) Building & Construction
- 2) Management & Leadership
- 3) Listening & Communication
- 4) Accounting & Finance
- 5) Time & Project Management
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Construction Superintendent, Project Executive, Project Superintendent, Construction Manager, General Contractor

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

PROJECT MANAGER

SENIOR LEVEL

ECl - ENTERPRISING, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$26 - \$41/hour

Consult and negotiate with internal and external customers to determine project details, budget, and deadlines. Coordinate projects and delegate tasks across various design, construction, and business operations teams. Monitor, gather, and assess information for project status reports, ensuring compliance with regulations and keeping projects on time and within budget.

Knowledge & Skills:

- 1) Communication & Negotiation
- 2) Mathematics & Problem Solving
- 3) Computers & Technology
- 4) Basic Building & Construction
- 5) Engineering & Design
- 6) Time & Project Management

Similar Roles/Titles:

Project Lead, Project Owner, Senior Project Engineer, Project Development Lead, Project Director

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



Occupations in the *Logistics & Supply Chain* family focus on keeping everyone supplied! They are a critical part of the building process that equips teams from the other occupation families to do their best work each and every day.

These professionals forecast current and future project supply needs, negotiate with suppliers to get the best prices, order new or replacement parts, materials, and other resources, and finally help to ensure everything is transported safely and quickly to the work site to keep everyone working and projects on-time. This is often easier said than done because of various factors, such as severe weather, supply shortages, transportation issues, and other potential set-backs.

Many of these careers require a high school diploma or equivalent and a specialized certification or training to be successful. Similar to the *Craft & Skilled Trades* family, these occupations can be a good entry into the building trades industry, with huge potential for advancement with focus, hard work, and dedication.

Someone with initiative, enjoys supporting others, and is able to deal with uncertainty will do well in these careers. An eye for detail and ability to think quickly is also often needed to solve sudden issues and stay ahead of potential supply shortages.



CAREER SPOTLIGHT:

John M. — Concrete Pump Operator for American Concrete Pumping (Manchester, IA)

"I first learned about and got interested in the building trades in high school through electrical and basic building classes. I started working for a concrete company when I was 15 as a laborer and worked my way up through the ranks with different companies before landing at American Concrete Pumping. I like that no two days are the same and the technology we use is just amazing to supply concrete to so many different types of projects. I also appreciate meeting new customers and helping them meet their goals, especially when you see the same people or the finished product being used and enjoyed years later."







RIGGER

ENTRY LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED

Work Experience: 0 - 3 years

Wage Range: \$16 - \$21/hour

Set up, inspect, test, or repair rigging, supporting structures, hoists, lifts, and other pulling gear to safely move construction materials and equipment on job sites. Use hand signals, radios, and other methods to help tilt, dip, and turn suspended loads to maneuver over, under, and around obstacles. Select gear such as cables, pulleys, and winches, based on load specifications, weather, and other site factors.

Knowledge & Skills:

- 1) Basic Building & Construction
- 2) Hand & Power Tools
- 3) Mathematics & Measuring
- 4) Listening & Following Instructions
- 5) Lifting & Hoisting Equipment
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Materials Rigger, Crane Rigger, Load Rigging Specialist, Rigging Foreman, Rigging Supervisor

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MATERIALS HANDLER

ENTRY LEVEL

REI - REALISTIC, ENTERPRISING, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED

Work Experience: 0 - 3 years

Wage Range: \$12 - \$17/hour

Manually move freight, stock, and other building or construction materials or perform other general labor in a supply warehouse, distribution center, or work site. Attach tags or mark containers and shipments with identifying information. Read work orders and record numbers of units stored, handled, or moved with production and tracking sheets or tickets, often with computers and mobile devices.

Knowledge & Skills:

- 1) Comprehend & Follow Instructions
- 2) Gather & Analyze Data
- 3) Computers & Technology
- 4) Materials Inspection & Monitoring
- 5) Communication & Critical Thinking
- 6) Safety & Quality Control

Similar Roles/Titles:

Materials Receiver, Materials Tender, Merchandise Pickup/Receiving Associate, Shipping and Receiving Materials Handler, Warehouse Worker

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MATERIALS TRANSPORTER

ENTRY LEVEL

RCS - REALISTIC, CONVENTIONAL, SOCIAL

Typical Education/Training: Technical Certificate/Diploma & Commercial Driver's License (CDL) **Work Experience:** 0 - 3 years **Wage Range:** \$13 - \$21/hour

Drive trucks over established routes or within an established territory to deliver products to customers and work sites. Check vehicles to ensure that all mechanical, safety, and electronic systems are in good working order. Maneuver trucks into loading or unloading positions, following signals from loading crew and checking that vehicle and loading equipment are properly positioned, sometimes on undeveloped and rough terrain at work sites.

Knowledge & Skills:

- 1) Driving & Operating Vehicles
- 2) Comprehend & Follow Instructions
- 3) Loading & Unloading Cargo
- 4) Safety Regulations & Procedures
- 5) Reliability & Problem Solving
- 6) Transportation Technology & GPS Systems



Similar Roles/Titles:

Materials Hauler, Delivery Driver, Line Haul Driver, Over the Road Driver (OTR Driver), Heavy Truck Driver Apprentice

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



CRANE OPERATOR

MID LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 4 - 7 years

Wage Range: \$17 - \$27/hour

Inspect, adjust, and operate cranes, mechanical booms, tower lifts, and other hoisting equipment used to safely move heavy equipment and materials vertically or horizontally at a work site, sometimes in tight areas and high above the ground. May work with or direct riggers, materials handlers, and other job site helpers. Professional license may be required.

Knowledge & Skills:

- 1) Building & Construction
- 2) Lifting & Hoisting Equipment
- 3) Mathematics & Measuring
- 4) Listening & Communication
- 5) Equipment Inspection & Maintenance
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Tower Operator, Heavy Equipment Operator, Overhead Crane Operator, Winch Operator, Crane Engineer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MATERIALS PURCHASER

MID LEVEL

ECS - ENTERPRISING, CONVENTIONAL, SOCIAL

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 4 - 7 years

Wage Range: \$20 - \$31/hour

Purchase resources and materials necessary for building and construction projects. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for equipment and supplies according to contractual agreements. May also assist with contract negotiation and project bidding procedures.

Knowledge & Skills:

- 1) Mathematics and Statistics
- 2) Sales and Negotiation
- 3) Computers and Technology
- 4) Business and Finance Fundamentals
- 5) Communication and Relationships
- 6) Basic Contract Language and Analysis



Similar Roles/Titles:

Purchasing Buyer, Purchasing Agent, Buyer, Procurement Agent, Materials Coordinator

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

LOGISTICS PLANNER

MID LEVEL

RCS - REALISTIC, CONVENTIONAL, SOCIAL

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$20 - \$32/hour

Analyze and coordinate the logistical functions for a building or construction project, including receiving, distribution, delivery, and waste management of materials or resources on job sites. Maintain and develop positive business relationships with customers and vendors to assist in long-term business growth and success.

Knowledge & Skills:

- 1) Analyze Data and Information
- 2) Logistics and Supply Chain
- 3) Project Management & Leadership
- 4) Production Processing and Systems
- 5) Communication and Coordination
- 6) Supply Storage and Organization



Similar Roles/Titles:

Logistician, Logistics Team Lead, Supply Chain Planner, Logistics Analyst, Logistics Engineer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



SUPPLY CHAIN MANAGER

SENIOR LEVEL

ECI - ENTERPRISING, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$21 - \$45/hour

Direct or coordinate production, purchasing, warehousing, distribution, or financial forecasting activities to limit costs and improve accuracy, customer service, or safety. Examine existing procedures for opportunities to streamline inventory management activities and systems to meet production and distribution needs for fast-paced building and construction projects.

Knowledge & Skills:

- 1) Management & Leadership
- 2) Computers & Technology
- 3) Sales & Negotiation
- 4) Critical Thinking & Adaptability
- 5) Communication & Coordination
- 6) Supply Chain & Logistics

Similar Roles/Titles:

Supply Chain Director, Supply Chain Vice President, Logistics Manager, Logistics Solution Manager, Logistics Operation Manager

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MATERIALS MANAGER

SENIOR LEVEL

ECS - ENTERPRISING, CONVENTIONAL, SOCIAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$28 - \$47/hour

Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing and transporting materials, products, and services used in the construction and building process. Locate, interview, and negotiate contracts with suppliers and vendors to maintain a consistent and reliable supply of materials and inventory in a profitable manner to ensure long-term growth.

Knowledge & Skills:

- 1) Supply Chain & Logistics
- 2) Management & Leadership
- 3) Communication & Organization
- 4) Complex Problem Solving Skills
- 5) Sales & Negotiation
- 6) Warehouse & Inventory Management

Similar Roles/Titles:

Inventory Supervisor, Inventory Manager, Purchasing Manager, Director of Purchasing, Building Supplies Manager

Typical Project Types:

Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.

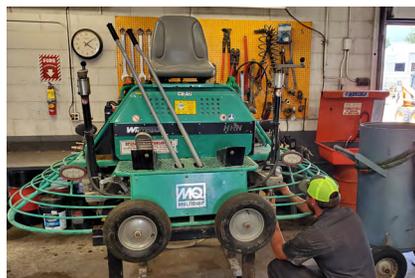


Occupations in the *Safety & Inspection* family focus on keeping everything and everyone safe! They help protect the lives and well-being of not only those on the work site but everyone who lives and works in a community.

These professionals work hard to ensure the homes, buildings, roads, bridges, and other structures within our communities are clean, safe, and efficient. They help to inspect new or existing construction projects, provide recommendations to improve safety or efficiency, and maintain existing structures or interconnected infrastructure, telecommunication, or water and utility systems. They work with the other occupation families and various local, state, and federal agencies to ensure all necessary rules, regulations, and laws are understood and followed throughout the building process.

Many of these occupations will require some advanced training or certification in addition to a high school diploma or equivalent. To be the best, they also need to stay updated on new occupational health and safety certifications and training. Advances in technology will also continue to expand these roles and how they are practiced.

Someone who appreciates following the rules, working with their hands, and doing things the right way the first time will do well in these careers. From work site to finished project, they play a critical role in getting everyone home safe each night.



CAREER SPOTLIGHT:

Trey M. — Safety Technician for Turner Construction Company (Des Moines, IA)

“After graduating from Pittsburg State University with a degree in construction management and emphasis in safety, I was unsure of what path I wanted to take to begin my career. In school, I learned that safety is a new and emerging field in construction and I was intrigued that there is a field that tailored specifically for people to help construction workers work safe and get the job done in a proficient manner. I now work with Turner Construction at the Altoona Data Center with over 1,200 construction workers helping to solve problems in the field as well as working through the different challenges that arrive during the different phases of construction. It is very gratifying to know that I helped people work safe so they will be able to go home and enjoy doing things they love to do outside of work.”



SAFETY DIRECTOR

Bachelor's Degree

\$25 - \$45/hr

ADDITIONAL
EXPERIENCE
& TRAINING

OCCUPATIONAL HEALTH & SAFETY SPECIALIST

Associate's Degree

\$21 - \$34/hr

CONSTRUCTION/ BUILDING INSPECTOR

Associate's Degree

\$21 - \$30/hr

MAINTENANCE SUPERVISOR

Technical Certificate

\$22 - \$33/hr

PROPERTY MANAGER

Associate's Degree

\$15 - \$33/hr

ADDITIONAL
EXPERIENCE
& TRAINING

OCCUPATIONAL HEALTH & SAFETY TECHNICIAN

Technical Certificate

\$14 - \$22/hr

HEAVY EQUIPMENT MECHANIC

Technical Certificate

\$16 - \$24/hr

MAINTENANCE TECHNICIAN

High School

\$12 - \$20/hr

SENIOR
LEVEL

MID
LEVEL

ENTRY
LEVEL



MAINTENANCE TECHNICIAN

ENTRY LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED

Work Experience: 0 - 3 years

Wage Range: \$12 - \$20/hour

Keep machines, mechanical equipment, facilities, or building grounds repaired and in safe and optimal working order. Diagnose mechanical, structural, or safety problems and determine how to correct them by checking paper or digital blueprints, repair manuals, technical journals, or parts catalogs. Work closely with engineers, mechanics, and other maintenance or inspection staff.

Knowledge & Skills:

- 1) Building Maintenance & Construction
- 2) Comprehend & Follow Instructions
- 3) Mechanical Tools & Machines
- 4) Computers & Technology
- 5) Machine Maintenance & Repair
- 6) Safety Regulations & Procedures



Similar Roles/Titles:

Repair Technician, Maintenance Team, Maintenance Technician, Facilities Manager, Maintenance Mechanic

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Power/Energy, Specialized

OCCUPATIONAL HEALTH & SAFETY TECHNICIAN

ENTRY LEVEL

RCS - REALISTIC, CONVENTIONAL, SOCIAL

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 0 - 3 years

Wage Range: \$14 - \$22/hour

Observe, collect, and maintain data on work environments for analysis by occupational health and safety specialists, providing recommendations where necessary to improve health and safety, such as to limit chemical, physical, biological, and ergonomic risks to workers. May assist in training employees on work site safety equipment and policies.

Knowledge & Skills:

- 1) Health & Safety Regulations
- 2) Customer & Personal Service
- 3) Critical Thinking & Problem Solving
- 4) Active Listening & Questioning
- 5) Mathematics, Physics, & Measuring
- 6) Inspection & Data Analysis

Similar Roles/Titles:

Construction Safety Consultant, Environmental, Health, and Safety (EHS) Technician, Health and Safety Tech, Project Safety Assistant, Construction Safety Professional

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

HEAVY EQUIPMENT MECHANIC

ENTRY LEVEL

CIR - CONVENTIONAL, INVESTIGATIVE, REALISTIC

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 0 - 3 years

Wage Range: \$16 - \$24/hour

Inspect, diagnose, adjust, repair, and maintain mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors used on building and construction work sites, often outdoors on-site and with hand, power, and digital scanning tools. Dismantle, test, and order replacement parts when necessary to keep machinery and equipment running safely and smoothly.

Knowledge & Skills:

- 1) Mechanical Tools, Equipment, & Systems
- 2) Attention to Detail & Inspection
- 3) Safety Regulations & Procedures
- 4) Critical Thinking & Problem Solving
- 5) Hand, Power, & Welding Tools
- 6) Computers & Technology



Similar Roles/Titles:

Construction Equipment Mechanic, Industrial Mechanic, Equipment Technician, Field Mechanic, Field Service Technician

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



MAINTENANCE SUPERVISOR

MID LEVEL

ECR - ENTERPRISING, CONVENTIONAL, REALISTIC

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 4 - 7 years

Wage Range: \$22 - \$33/hour

Directly supervise and coordinate the activities of mechanics, technicians, installers, and repairers of construction equipment or related facilities. Plan, lead, and teach members of the maintenance team regarding new equipment or safety and regulatory standards. Create or read maintenance reports and advise management of proposed updates or recommendations.

Knowledge & Skills:

- 1) Building Maintenance & Construction
- 2) Computers & Technology
- 3) Management & Leadership
- 4) Mathematics & Measuring
- 5) Mechanical Tools & Equipment
- 6) Safety Regulations & Procedures

Similar Roles/Titles:

Facilities Manager, Facility Maintenance Supervisor, Maintenance Foreman, Maintenance Manager, Maintenance Planner

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Power/Energy, Specialized

PROPERTY MANAGER

MID LEVEL

ECR - ENTERPRISING, CONVENTIONAL, REALISTIC

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$15 - \$33/hour

Plan, direct, and coordinate the selling, buying, leasing, maintenance, and governance activities of residential, commercial, or industrial properties in accordance with all safety, legal, and other regulations or laws. May also assist with homeowner associations, land management, permitting and taxation, and inspection or audit procedures.

Knowledge & Skills:

- 1) Management & Leadership
- 2) Real Estate Property & Inspection
- 3) Contracts & Service Agreements
- 4) Conflict Management & Resolution
- 5) Active Listening & Understanding
- 6) Computers & Technology



Similar Roles/Titles:

Property Services Coordinator, Community Manager, Association Manager, Property Supervisor, Resident Manager s

Typical Project Types:

Residential, Commercial, Industrial, Public/Natural Resources, Specialized

CONSTRUCTION & BUILDING INSPECTOR

MID LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$21 - \$30/hour

Inspect homes, buildings, and other structures or construction project sites using engineering skills to determine structural soundness, safety, and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical, plumbing, or waste management systems. Professional license may be required.

Knowledge & Skills:

- 1) Building Maintenance & Construction
- 2) Inspection & Attention to Detail
- 3) Critical Thinking & Problem Solving
- 4) Mathematics & Measuring
- 5) Computers & Technology
- 6) Safety Regulations & Procedures

Similar Roles/Titles:

Inspector, Building Code Administrator, Building Inspection Engineer, Project Inspector, Site Inspector

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



OCCUPATIONAL HEALTH & SAFETY SPECIALIST

MID LEVEL

ICR - INVESTIGATIVE, CONVENTIONAL, REALISTIC

Typical Education/Training: Associate's Degree

Work Experience: 4 - 7 years

Wage Range: \$21 - \$34/hour

Review and evaluate work environments for health and safety concerns. Make recommendations and design programs or procedures to help protect workers from potentially hazardous chemical, physical, and environmental factors. May conduct inspections and enforce laws and regulations governing the health and safety of all employees within a work site or facility.

Knowledge & Skills:

- 1) Health & Safety Regulations
- 2) Computers & Technology
- 3) Critical Thinking & Problem Solving
- 4) Active Listening & Questioning
- 5) Mathematics, Physics, & Measuring
- 6) Inspection & Data Analysis

Similar Roles/Titles:

Safety Officer, Environmental, Health, and Safety (EHS) Officer, Health and Safety Manager, Safety Consultant, Health & Safety Technician

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

SAFETY DIRECTOR

SENIOR LEVEL

ERC - ENTERPRISING, REALISTIC, CONVENTIONAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$25 - \$45/hour

Plan, direct, and coordinate the activities of an organization to ensure compliance with safety, regulatory, and quality standards throughout the entire building, construction, and maintenance process, from raw materials to final sale and regular maintenance or upkeep. Oversee the maintenance and inspection teams, training employees, and consulting with other department heads and governing or legislative groups.

Knowledge & Skills:

- 1) Building & Construction
- 2) Management & Leadership
- 3) Listening & Communication
- 4) Mathematics & Finance
- 5) Safety Regulations, Laws, & Procedures
- 6) Critical Thinking & Problem Solving

Similar Roles/Titles:

Compliance Officer, Occupational Health Director, Site Safety Director, Project Superintendent, Director of Compliance

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



Occupations in the *Sales & Marketing* family seal the deal! They keep the business running smoothly and profitably so that everyone continues to work and gets paid.

Simply having a great product or service isn't enough if no one is aware of or wants to purchase it. These professionals follow the project from beginning to end and help to ensure that it is properly funded, marketed, and sold in a timely manner and following all appropriate rules, regulations, and standards. They also often work closely with the *Planning & Design* family and other teams for customer leads on new projects and maintenance, inspection, or improvement plans for existing structures and projects.

Many of these occupations will require advanced education or training in addition to a high school diploma or equivalent. Experience in the industry may serve as a replacement, however, to help professionals "speak the language" when selling or consulting on building projects. Experience with social media and digital marketing is often a must as this industry becomes more digitized and managed in a virtual environment. An added perk for some of these occupations is that they may include the opportunity for increased wages through commissions based on sales performance, allowing workers to make substantially more than their base pay.

Someone who works well with others, has a competitive side, and doesn't mind spending most of their time in an office setting will do well in these roles. They often work behind the scenes to ensure customers are happy and more likely to return for business or refer others.



CAREER SPOTLIGHT:

John M. — Sales Representative at Beisser Lumber Company (Grimes, IA)

"While in high school I had no idea what I wanted to be when I grew up and took the suggestions of a lot of my role models to go to college. A year later and still not knowing what I wanted to do, I got an opportunity from a family member to work at Beisser Lumber pulling and delivering lumber orders. I realized I liked the construction industry, working with my hands and putting in a day's work outside. I was interested in design, drafting, and estimating so I enrolled at Des Moines Area Community College, while also working full-time, and earned an Associate's Degree in Architectural Technologies that led to jobs with Beisser in residential design, estimating and now outside sales. I wish I would have known about these careers earlier in life that don't require a four-year degree. I would have enrolled in the DMACC program right after high school and saved a lot of time. The opportunities and earning potential are limitless."







SALES REPRESENTATIVE

ENTRY LEVEL

ECS - ENTERPRISING, CONVENTIONAL, SOCIAL

Typical Education/Training: High School Diploma/HSED

Work Experience: 0 - 3 years

Wage Range: \$17 - \$34/hour + Commission

Identify the needs of current and potential customers through direct and indirect interaction and research. Match customer needs with product offerings, negotiate sales, and train customers to operate and maintain construction or related supplies, materials, and equipment. Estimate or quote prices, credit or contract terms, warranties, and delivery dates. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Communication & Interpersonal Skills
- 2) Sales & Negotiation
- 3) Social Media & Marketing
- 4) Basic Building & Construction
- 5) Computers & Technology
- 6) Customer Service & Critical Thinking

Similar Roles/Titles:

Sales Associate, Outside Sales, Inside Sales, Contract Associate, Technical Sales Representative

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

REAL ESTATE AGENT

ENTRY LEVEL

RCI - REALISTIC, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: High School Diploma/HSED + Professional License

Work Experience: 0 - 3 years

Wage Range: \$12 - \$24/hour + Commission

Rent, buy, or sell residential, commercial, and other types of real estate property, generally for clients. Conduct research to study property listings, interview prospective clients, show or tour properties, discuss conditions of sale, and draw up real estate contracts. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Communication & Interpersonal Skills
- 2) Sales & Negotiation
- 3) Social Media & Marketing
- 4) Real Estate Property & Inspection
- 5) Computers & Technology
- 6) Customer Service & Critical Thinking

Similar Roles/Titles:

Realtor, Real Estate Broker, Real Estate Sales Agent, Property Sales Agent, Sales Associate

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Power/Energy, Specialized

PROPERTY FINANCING ASSISTANT

ENTRY LEVEL

RCS - REALISTIC, CONVENTIONAL, SOCIAL

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 0 - 3 years

Wage Range: \$13 - \$18/hour + Commission

Conduct research, summarize findings, and provide recommendations for real estate appraising, sales, and financing professionals, such as property records, loan applicant information, and legal or insurance documents. May also assist with the final review and approval process for loans, titles, permits, insurance, and other financial services or products. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Real Estate Property & Inspection
- 2) Research, Data, & Analytics
- 3) Customer & Personal Service
- 4) Critical Thinking & Problem Solving
- 5) Basic Accounting & Finance
- 6) Computers & Technology

Similar Roles/Titles:

Loan Officer Assistant, Loan Analyst, Financing Clerk, Financing Processor, Title Examiner

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



LOAN OFFICER

MID LEVEL

CES - CONVENTIONAL, ENTERPRISING, SOCIAL

Typical Education/Training: Bachelor's Degree + Professional License

Work Experience: 4 - 7 years

Wage Range: \$18 - \$34/hour + Commission

Research, evaluate, approve, and recommend residential, commercial, or other real estate project financing or credit loans. Consult and advise borrowers on financial status, payment methods, financing terms, and other regulatory or financial aspects regarding the building, purchase, or management of properties. May assist with hiring, managing, and training of related staff members. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Real Estate Property & Financing
- 2) Mathematics & Data Analytics
- 3) Customer & Personal Service
- 4) Critical Thinking & Problem Solving
- 5) Accounting & Economics
- 6) Computers & Technology

Similar Roles/Titles:

Real Estate Financing Specialist, Commercial Loan Officer, Mortgage Loan Officer, Mortgage Loan Originator, Property Financing Specialist

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MARKETING SPECIALIST

MID LEVEL

IEC - INVESTIGATIVE, ENTERPRISING, CONVENTIONAL

Typical Education/Training: Technical Certificate/Diploma

Work Experience: 4 - 7 years

Wage Range: \$19 - \$31/hour

Research market conditions and gather information to determine potential sales of a building or construction product or service in local, regional, or national areas. Measure the effectiveness of marketing, advertising, and communications programs and strategies, including social media and other digital tools. Collect and analyze data on competition, customer base, and other methods of marketing and distribution.

Knowledge & Skills:

- 1) Research, Data, & Analytics
- 2) Customer & Personal Service
- 3) Critical Thinking & Problem Solving
- 4) Sales & Marketing
- 5) Social Media & Communication Tools
- 6) Computers & Technology

Similar Roles/Titles:

Realtor, Real Estate Broker, Real Estate Sales Agent, Property Sales Agent, Sales Associate

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

REAL ESTATE APPRAISER

MID LEVEL

ECI - ENTERPRISING, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Bachelor's Degree + Professional License

Work Experience: 4 - 7 years

Wage Range: \$17 - \$38/hour

Inspect, appraise, and report value of residential, commercial, and other real estate property for purchase, sale, rental, or investment purposes. May conduct in-depth research, such as interviewing residents, taking pictures or videos, checking code and permit needs, examining income or operating cost records, and identifying other geographic or community-based factors impacting value.

Knowledge & Skills:

- 1) Real Estate Property & Inspection
- 2) Research, Data, & Analytics
- 3) Customer & Personal Service
- 4) Critical Thinking & Problem Solving
- 5) Accounting & Finance
- 6) Computers & Technology

Similar Roles/Titles:

Appraiser, Certified Real Estate Appraiser, Property Appraiser, Real Estate Consultant, Valuation Consultant

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.



SALES MANAGER

SENIOR LEVEL

CES - CONVENTIONAL, ENTERPRISING, SOCIAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$29 - \$56/hour + Commission

Plan, direct, and coordinate sales distribution and strategy by establishing sales territories, quotas, and goals, including the establishment of associated training programs for real estate agents and sales representatives. Analyze sales statistics gathered by staff to determine variables such as sales potential, inventory requirements, and changing customer preferences. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Management & Leadership
- 2) Customer & Personal Service
- 3) Contracts, Budgets, & Financial Models
- 4) Active Listening & Understanding
- 5) Social Media & Communication Tools
- 6) Sales & Marketing

Similar Roles/Titles:

National Sales Manager, Regional Sales Manager, Sales and Marketing Vice President, Sales Director, Sales Engineer

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

TECHNICAL SALES ENGINEER

SENIOR LEVEL

ERS - ENTERPRISING, REALISTIC, SOCIAL

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$31 - \$52/hour + Commission

Advise teams and sell products requiring extensive technical expertise and support for installation or use. Prepare and deliver technical presentations that explain products or services to current and prospective customers, sometimes at work sites, trade shows, and on live production floors. May include opportunity for increased wages through commissions based on sales performance.

Knowledge & Skills:

- 1) Design & Drafting Software
- 2) Sales & Negotiation
- 3) Social Media & Communication Tools
- 4) Technical Knowledge of Building Materials/Services
- 5) Communication & Marketing
- 6) Customer & Personal Service

Similar Roles/Titles:

Senior Sales Representative, Customer Engagement Manager, Product Manager, Product Sales Engineer, Account Executive

Typical Project Types:

Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

MARKETING MANAGER

SENIOR LEVEL

ECI - ENTERPRISING, CONVENTIONAL, INVESTIGATIVE

Typical Education/Training: Bachelor's Degree

Work Experience: 8+ years

Wage Range: \$30 - \$55/hour

Plan, develop, and coordinate marketing policies and programs, such as determining product demand and competitive market analysis. Develop pricing strategies with the goal of maximizing profits or share of the market while ensuring customers are satisfied. Oversee product or project development and monitor trends that indicate the need for new or improved products and services.

Knowledge & Skills:

- 1) Sales & Negotiation
- 2) Management & Leadership
- 3) Communication & Marketing
- 4) Computers & Technology
- 5) Market Research & Analytics
- 6) Social Media & Digital Marketing Tools

Similar Roles/Titles:

Director of Marketing, Brand Manager, Business Developer, Marketing Officer, Marketing Planner

Typical Project Types:

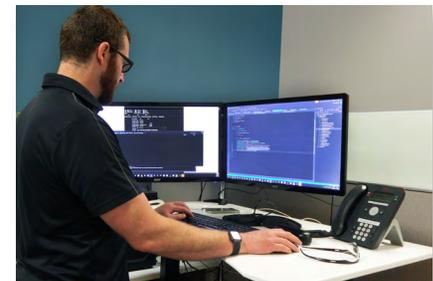
Residential, Commercial, Industrial, Infrastructure, Public/Natural Resources, Agricultural, Remodel/Restoration, Power/Energy, Specialized

* Wage range is an average of entry level to experienced workers.

ADDITIONAL CAREER OPTIONS - THERE IS A CAREER FOR EVERYONE IN THE BUILDING TRADES!

Don't see a career you like? This document is not meant to cover every possible career option in the building trades in Iowa, so don't worry if you don't see something that immediately grabs your attention or seems to match your career interest type. There are a wide range of additional career options available that are necessary for all types of businesses, regardless of industry, size, or location. Below are just a few examples of where you might also fit within this exciting and fulfilling industry:

- ▶ **INFORMATION TECHNOLOGY** – A wide range of careers that focus on the use of computers and other technology to receive, store, transmit, and work with different types of information and data.
COMPUTER PROGRAMMERS, CYBER SECURITY ANALYSTS, NETWORK ENGINEERS, HELP DESK SUPPORTS, GRAPHIC DESIGNERS, AND WEB DEVELOPERS.
- ▶ **HUMAN RESOURCES** – Those in charge of overseeing various aspects of employment for a company, such as recruitment, employee benefits, and compliance with labor laws.
HIRING MANAGERS, BENEFITS COORDINATORS, TRAINING AND DEVELOPMENT SPECIALISTS, PAYROLL ADMINISTRATORS, AND RECRUITERS.
- ▶ **ADMINISTRATIVE AND FINANCIAL SERVICES** – A group of support careers that assist in the day-to-day operations of a successful company, such as keeping track of finances, monitoring government regulations, and administrative support to other departments.
ACCOUNTANTS, FINANCIAL ANALYSTS, ADMINISTRATIVE ASSISTANTS, FINANCIAL ADVISORS, INSURANCE AGENTS, AND SUPPORT CLERKS.
- ▶ **EXECUTIVE MANAGEMENT** – A team of individuals at the highest level of management of an organization who oversee the mission, vision, and general tasks of managing an organization.
PRESIDENTS, VICE PRESIDENTS, CHIEF OPERATIONS OFFICERS (COO), CHIEF INFORMATION OFFICERS (CIO), AND CHIEF EXECUTIVE OFFICERS (CEO).



NEXT STEPS & PLANNING RECOMMENDATIONS

This document was meant to begin the conversation about the great career opportunities available in the building trades in Iowa. Below are some additional recommendations for next steps readers can take to continue their career exploration journey. Utilize the basic career exploration plan and notes sections of the next few pages to begin putting thought into action. Links have been provided to help guide readers to additional online resources.

STUDENTS AND JOB SEEKERS

- **FUTURE READY IOWA CAREER COACH** – The free interactive Career Coach tool at FutureReadyIowa.gov is a great way for students and job seekers of all ages to learn more about their career interests and research specific occupations in the building trades, including the ability to customize labor market information, education offerings, and employer listings to their specific geographic location. The new [Clearinghouse for Work-Based Learning](#) also allows students to tackle projects to learn more about different industries and gain real-world experience.
- **VOLUNTEER, JOB SHADOWS, OR TOURS** – Contact an employer directly to ask questions, learn about current openings, and to request either a site tour or job shadow opportunity for a better idea of what it would be like to work for them. Internships and volunteering are also great opportunities to earn experience, build up a resume, and test out a career before making any long-term and expensive career decisions. Consult with counselors and educators for local opportunities or visit VolunteerIowa.org to search for additional openings.
- **EARN SKILLS AND CERTIFICATIONS** – Many careers in this industry will rely on some foundational skills and certifications that can be earned relatively easily and affordably by students and job seekers proactively before entering the workforce. Some schools even have dual-enrollment or pre-apprenticeship agreements that allow students to earn college credit, apprenticeship technical requirements, and even full work certifications before graduating. Having these skills, experience, and certifications will increase your chances of landing a great job compared to others who have not taken any such action to improve themselves.

EMPLOYERS, EDUCATORS, AND COMMUNITY SUPPORT PARTNERS

- **WORK-BASED LEARNING INTERMEDIARY NETWORK** – The Iowa Intermediary Network is made up of 15 regional networks that serve as a single one-stop point of contact by connecting businesses and schools with work-based learning opportunities. These can include job shadows, internships, site tours, guest speakers, and educator externships. Contact your regional [Intermediary](#) and access the [Work-Based Learning Guide](#) to learn more about setting up a successful local work-based learning experience. With adult supervision and appropriate privacy and safety measures, youth under the age of 18 can work in this industry.
- **IOWA STEM TEACHER EXTERNSHIPS** – Teachers across Iowa have the opportunity to take advantage of an externship program, where during the summer, they work side-by-side with knowledgeable and skilled building trades professionals who help bring the classroom curriculum to life. Teacher Externships are full-time, six-week temporary summer positions in local businesses and agencies for secondary STEM educators. Teachers earn a stipend of up to \$4,800 (including two days of professional development), as well as one graduate credit through the University of Northern Iowa's Continuing Education program. Teacher Externships provide educators with the exposure to answer questions about real-world application, prepare students for careers they may have in the future, and improve educational experiences. Visit IowaSTEM.gov/externships to learn more and apply for these great opportunities.
- **SECTOR PARTNERSHIPS AND BOARDS** – Employers, educators, and other community support partners can take a more active role in training and developing their local workforce by meeting to collaborate on local education, economic, and community issues. These employer-led groups are often referred to as sector partnerships or sector boards. There are currently over 60 of them spread throughout Iowa, with a growing number devoted exclusively to various aspects of the building trades. More information, group locations, contact information, and resources can be found at SectorPartnerships.EducateIowa.gov.

MY CAREER EXPLORATION ACTION PLAN

Use the following template to create a career exploration action plan for taking the next steps towards a fun, exciting, and fulfilling career in building trades!

	What is the goal?	Who is involved?	How will it be completed?	Where will it be completed?	When will it be completed?
Goal Example	I want to actually see what it is like to be an Electrician.	Me, my teacher, my parents, and an Electrician.	I will watch videos online and call a local electrical company or union to set up a job shadow opportunity to sit with and observe an Electrician at work.	Online and in-person at a local training center or job site.	Summer 2021
Goal #1					
Goal #2					
Goal #3					
Goal #4					



**COMMUNITY COLLEGES &
WORKFORCE PREPARATION**
PROSPERITY THROUGH EDUCATION

This product does not necessarily reflect the official position of the Iowa Department of Education. The Iowa Department of Education makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the Iowa Department of Education. Internal use by any organization and/or personal use by an individual for noncommercial purposes is permissible. All other uses require prior authorization. Revisions and/or corrections made when necessary.