

## Essential Skills

# Building Path – Architecture & Construction

This path involves physical labor at construction sites and includes operating hand/power tools of all types, surveying/measuring equipment, and a variety of other equipment and instruments. Additionally, cleaning and preparing sites, erecting scaffolding, and cleaning up debris and other waste materials is common in this path.

## Building Path – Architecture & Construction Programs at Great Oaks

Program	Location
Commercial Residential Electricity	Diamond, Scarlet
Construction Technologies	Diamond, Laurel, Scarlet
Heating, Ventilating & Air Conditioning	Diamond, Laurel, Live, Scarlet
Heavy Equipment Operations & Engineering	Laurel, Live, Scarlet

## Next Ready Skills

Each career path has a specific set of skills/abilities that employees need for success in the industry. It is recommended that students have, are developing or can develop the skills/abilities listed below.

Effective Communicator	<ul style="list-style-type: none"><li>Express/explain thoughts/ideas individually and in groups</li><li>Observe/document/maintain/update accurate records</li><li>Listen/relay accurate information in written/verbal manner</li><li>Use active listening to give full attention/understanding to others</li><li>Practice professional social communication (social media/workplace conversations)</li></ul>
Critical Thinking	<ul style="list-style-type: none"><li>Study/understand specifications to prepare project layout/work activities</li><li>Follow sequenced activities accurately and make changes as necessary</li><li>Develop/follow procedures and processes safely</li><li>Distinguish between colors/symbols (blueprints/wiring diagrams)</li></ul>
Adaptable Navigator	<ul style="list-style-type: none"><li>Work independently with minimal supervision/high attention to detail</li><li>Anticipate client needs and respond accordingly</li><li>Respond/adapt to changes in /scope of work/project needs</li><li>Always maintain safety awareness and adapt to changes</li></ul>
Accountable Employee	<ul style="list-style-type: none"><li>Be on time, honest and keep commitments</li><li>Follow ethical work practices including honesty/trustworthiness</li><li>Participate in class/lab activities/discussions/teamwork</li><li>Connect/network with industry professionals</li><li>Complete work in a timely manner</li></ul>
Skilled Professional	<ul style="list-style-type: none"><li>Aware of surroundings to keep safe</li><li>Able to read/understand blueprints/construction documents</li><li>Make informed decisions quickly that benefit project outcomes</li><li>Build career-focused technical/professional skills</li></ul>

## Technology and Software

All career & technical education programs utilize various software and industry-specific equipment to prepare students for their careers. Students will independently access and use various online resources, technology, and equipment.

Here is an overview of key online and computer technology used in this pathway:

Vendor	Software/Learning Management System
NCCER	Core Curriculum: Craft Skills Trainee Guide Levels 1 & 2
CareerSafe	Online OSHA 10 credentialing preparation/testing platform
ESCO	EPA 608 Online Testing/testing resource
Microsoft Office	Word, PowerPoint, Excel and Outlook
Internet Browsing	Conduct career-related independent and group research

## Industry Credentials/Certifications

Credentials/certifications demonstrate knowledge and skills. They are typically earned by successfully completing an exam or skill-related training program. Exams are developed by industry professionals, not high school educators, and are used to verify that students have the skills needed for work.

Students can earn industry credentials/certifications while at Great Oaks. Available accommodations are subject to vendor and/or State of Ohio approval. Some credential/certification exams do not allow any accommodations. Contact campus Intervention Specialist for the most up-to-date permitted accommodations.

Permitted accommodations may include:

Extended time

Read-aloud/translation services

## Post-secondary

Great Oaks offers college credit courses in both academic and career technical programs.

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| College Credit Plus (CCP)                 | • The CCP program provides Ohio high school students an opportunity to complete college courses and earn transcribed credit.                                    |
| Career Technical Assurance Guides (CTAGs) | • CTAGs award college credit for career-technical coursework to students who complete an approved course and earn a qualifying score on the end of course exam. |
| Articulated Credit                        | • Some Great Oaks career-technical programs have agreements with colleges where students can earn credit toward a specific degree.                              |

## Additional Pathway Considerations

Some career pathways have additional standards students must meet to fully participate in Great Oaks programs. Programs in this pathway have some of the following requirements to participate in learning experiences and earn industry credentials/certifications.

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| Academic strengths  | <ul style="list-style-type: none"><li>• Math/numerical calculations (count/measure/compute/fractions/decimals)</li><li>• Geometry/spatial awareness</li><li>• Oral/written communication</li></ul>  |
| Safety              | <ul style="list-style-type: none"><li>• Some work sites require OSHA 10 certification</li><li>• Some sites require passing a drug screen</li><li>• Aware of workplace hazards (electrical/equipment/tools/power)</li><li>• Wear personal protective equipment (safety glasses, hardhats, gloves, safety harnesses, steel-toed boots/hearing protection)</li><li>• Read/follow instructions/technical manuals</li><li>• Understand hazards associated with equipment/tools/worksites</li><li>• Follow policies/procedures/codes to protect people/data/property</li><li>• Remain aware of surroundings such as live electrical points/overhead dangers/gas lines/underground utilities/falling objects</li></ul>   |
| Career expectations | <ul style="list-style-type: none"><li>• Work in various weather conditions (indoors/outdoors/summer/winter)</li><li>• Work at various heights, using ladders, stooping/bending</li><li>• Record information (time/materials used/accidents/changes to work)</li><li>• Recommend/develop/perform general/preventative maintenance for tools/equipment</li><li>• Diagnose malfunctioning equipment and correct issues</li><li>• Study/read blueprints/sketches/plans for project layout and completion</li><li>• Understand/use materials specified in blueprints/plans</li><li>• Work collaboratively with experts across the building pathway</li><li>• Stoop/bend/walk/carry items safely</li><li>• Use arm/eye-hand coordination/manual dexterity to grasp/manipulate/assemble items</li><li>• Use hand/power tools</li><li>• Distinguish details/differences visually and auditorily</li><li>• Perceive distance/depth of objects in space</li><li>• Lift and carry heavy objects (up to 80 pounds)</li><li>• Comply with standards/policies/procedures (safety/maintenance)</li></ul> |