

# ENGINEERING/ARCHITECTURAL TECHNICIAN

## Competency Profile

**Description of Work:** Engineering/Architectural Technicians perform technical duties supporting engineers and other professionals in areas such as construction, materials testing, design, surveys, and/or program/regulatory compliance. Work functions may include: inspection for compliance and/or code; collection and analysis of field data; testing of materials; review, modification and/or design of plans; analysis of engineering related data, products, and/or functions. Work may include a leadership role.

### ROLE DESCRIPTIONS BY COMPETENCY LEVEL

Contributing	Journey	Advanced
<p>Performs entry-level technical duties in one or more major areas of a program supporting engineers and other professionals. May require general knowledge of compliance and/or regulatory standards. Assignments at this level are routine in nature and follow established guidelines and procedures. Work is subject to review by higher-level technical and professional staff.</p>	<p>Performs moderately complex technical duties in one or more major areas of a program supporting engineers and other professionals. May require a working knowledge of compliance and/or regulatory standards. Assignments at this level may vary from established guidelines and procedures. Work is subject to review by higher-level technical and professional staff.</p>	<p>Performs complex technical duties in one or more major areas of a program supporting engineers and other professionals. Implements activities either independently or through the coordination of work efforts of other employees. Reviews completed tasks and overall accomplishments for accuracy. Requires advanced knowledge of compliance and/or regulatory standards. May serve as a supervisor/technical resource to lower level staff. Work is subject to review by higher-level professional staff.</p>

**ENGINEERING/ARCHITECTURAL TECHNICIAN**  
Competency Profile

<b>Competency</b>	<b>Definition</b>
<b>Technical Knowledge</b>	Technical skill and knowledge of engineering area(s) of assignment. Keeps current in equipment and standards and safety. Knowledge of specific codes and construction processes. Use of software packages to depict picture of engineering project. Specialized at the advanced level. May involve federal and state regulation knowledge and interpretation.
<b>Inspections</b>	Inspects specific areas such as highways, buildings/structures/facilities, the environment, or other related area; may test equipment and/or processes; documents findings, take some corrective actions.
<b>Survey</b>	Conducts accurate surveys, operates equipment and performs manual labor onsite. May include geodetic surveying.
<b>Testing</b>	Testing of products in a lab or field setting using specific guidelines. Test or monitor testing to ensure safety and design standards.
<b>Communication</b>	Communicates technical information regarding programs and/or regulations to individuals and groups both within and outside work unit in a manner suited to the characteristics and needs of the audience. Clearly and concisely conveys information orally or in writing to individuals or groups. Listens and responds appropriately to others.
<b>Leadership</b>	Crew leader. Establishes expectations and clear direction and expectations to meet goals and objectives of on-going work for a group of employees. Motivates and engages employees through effective communication. See this at journey and advanced

Note: Not all competencies apply to every position/employee; evaluate only those that apply. Competency statements are progressive.

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**Technical knowledge:** Technical skill and knowledge of engineering area(s) of assignment. Keeps current in equipment and standards and safety. Knowledge of specific codes. Use of software packages to depict picture of engineering project. Specialized at the advanced. May involve federal and state regulation knowledge and interpretation.

Contributing	Journey	Advanced
<p>1. Understands and applies the general concepts, practices, and theories used in the technical specialty area under direct supervision.</p> <p>2. General knowledge of state and/or federal rules and regulations to determine compliance.</p> <p>3. Applies general knowledge and skill in the use of equipment and software.</p>	<p>1. Applies a working understanding of concepts, practices, and theories used in the technical specialty area with limited supervision.</p> <p>2. Applies a working knowledge of state and/or federal rules and regulations to determine compliance.</p> <p>3. Applies working knowledge and skill in the use of equipment and software.</p>	<p>1. Applies a thorough expertise and understanding of concepts, practices, and theories used in the technical specialty area; serves as technical expert while independently accomplishing assigned task.</p> <p>2. Thorough knowledge of state and/or federal rules and regulations for specific program area, to ensure compliance and provide guidance/interpretation.</p> <p>3. Applies thorough knowledge and skill in the use of equipment and/or software.</p>

**Inspections:** Inspects specific areas such as highways, buildings/facilities, the environment, or other related area; may test equipment and/or processes; documents findings, take some corrective actions.

Contributing	Journey	Advanced
<p>1. Conducts routine inspections for compliance with contract agreements, standards/codes and specifications. May be subject to review.</p> <p>2. Maintains standard records; reports needs and/or concerns.</p>	<p>1. Independently conducts moderately complex inspections for compliance with contract agreements, standards/codes and specifications.</p> <p>2. Maintains detailed records; performs analysis of findings and may recommend some corrective actions.</p>	<p>1. Independently conducts complex inspections for compliance with contract agreements, standards/codes and specifications. May serve as lead or resource.</p> <p>2. Maintains detailed records; analyzes findings and recommends corrective actions. May serve as lead or resource.</p>

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**Survey:** Conducts accurate surveys, operates equipment and performs manual labor onsite. May include geodetic surveying.

Contributing	Journey	Advanced
1. Serves as survey crew member, assists with operating and maintaining equipment, staking out limits, checking alignment and grade; stakes and plots parameters; performs land and property searches and plot information.	1. Serves as survey crew leader, independently directs activities of other survey crewmembers in collecting field data on moderately complex surveys.	1. Serves as survey crew leader, independently directs activities of other survey crewmembers in collecting field data on complex surveys; accuracy is critical to nature of the survey.

**Testing:** Testing of products in a lab or field setting using specific guidelines. Test or monitor testing to ensure safety and design standards.

Contributing	Journey	Advanced
1. This is entry-level technical work in a specific materials area or performing sampling, testing and inspection duties to determine the adherence to codes/standards. May require limited decision-making and judgment.	1. This is moderately complex technical work in either a specific materials area or performing a range of sampling, testing and inspection duties to determine the adherence to codes/standards. Work may involve a wide range of decision-making and judgment.	1. This is the most complex technical work in either a specific materials area or performing a wide range of sampling, testing and inspection duties to determine the adherence to codes/standards. Work involves a wide range of decision-making and judgment.

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**Communication:** Communicates technical information regarding programs and/or regulations to individuals and groups both within and outside work unit in a manner suited to the characteristics and needs of the audience. Clearly and concisely conveys information orally or in writing to individuals or groups. Listens and responds appropriately to others.

Contributing	Journey	Advanced
<p>1. Effectively uses verbal and nonverbal skills to express routine or simple technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>2. Uses appropriate language that is easy for others to understand.</p> <p>3. Communicates with other staff to ensure that tasks are completed correctly and in a timely manner.</p>	<p>1. Effectively uses verbal and nonverbal skills to express non-routine or moderately complex technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>2. Modifies delivery, language or material to account for the characteristics and needs of the audience.</p> <p>3. May lead co-workers in completing projects or surveys. Reports survey findings or project status to higher-level management.</p>	<p>1. Effectively uses verbal and nonverbal skills to express complex technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>2. Modifies delivery, language or material to account for the characteristics and needs of the audience.</p> <p>3. Organizes co-workers, outside employees, and/or contracted employees to correct concerns/issues.</p>

**Leadership:** Crew leader. Establishes expectations and clear direction and expectations to meet goals and objectives of on-going work for a group of employees. Motivates and engages employees through effective communication. See this at journey and advanced.

Contributing	Journey	Advanced
<p>1. N/A</p>	<p>1. Supervises crew and/or a separate program function of moderate complexity.</p>	<p>1. Functions in a full supervisory role for direct reports. May perform/supervise several administrative functions; or supervises a separate function of considerable complexity.</p>

**Minimum Training and Experience:** Two-year technical degree in the area of assignment, or equivalent combination of training and experience. Applicable certifications may be required. Technicians are trained in the applicable laws or inspection procedures through some combination of classroom and on-the-job training.

Note: This is a generalized representation of positions in this class and is not intended to identify essential work functions per ADA. Examples of competencies are primarily those of the majority of positions in this class, but may not be applicable to all positions.