Civil Engineers

What They Do
Plan, design and supervise construction of building structures and facilities, including roads, buildings, airports, pipelines, tunnels, dams, bridges and systems for water supply and sewage treatment.

Is This For You?
Work Interests are described in the following categories (compatible with Holland’s Model). People who tend to succeed in this career are:

Realistic (Doers) — Prefer to work with objects, things, machines, tools, plants or animals. They have mechanical ability, enjoy being outdoors and working with their hands.

Investigative (Thinkers) — Interested in science and logic. They like to analyze, evaluate and solve problems, and enjoy learning and understanding the causes of events.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

Indepenence — Allow employees to work on their own and make decisions.

Working Conditions — Offer job security and good working conditions.

Recognition — Offer advancement, potential for leadership, and are often considered prestigious.

Abilities reflect a person’s aptitude to acquire skills and knowledge. The following abilities are important for success in the career.

• Deductive Reasoning
• Inductive Reasoning
• Information Ordering
• Oral Comprehension
• Oral Expression
• Problem Sensitivity
• Mathematical Reasoning
Basic Skills You Need

- Critical Thinking
- Reading Comprehension
- Active Listening
- Complex Problem Solving
- Mathematics
- Operations Analysis
- Speaking
- Time Management
- Science

Education & Training

Civil engineer positions require the minimum of a bachelor’s degree in civil engineering or a related program. Some employers prefer a master’s or even a doctoral degree. Civil engineers must be licensed by the South Dakota Board of Technical Professions. For more information, please see the South Dakota Board of Technical Professions website at https://dlr.sd.gov/btp.

Recommended Levels* for the National Career Readiness Certificate

- Applied Math 6
- Workplace Documents 6
- Graphic Literacy 6

*Using the median skill level.

Where They Work

The South Dakota industries which employ the largest number of civil engineers are:

- Professional, Scientific and Technical Services
- State Government, Excluding Education and Hospitals
- Local Government, Excluding Education and Hospitals
- Federal Government

South Dakota Employment & Wages

<table>
<thead>
<tr>
<th>2018 Workers</th>
<th>2028 Workers</th>
<th>Numeric Change</th>
<th>Percent Change</th>
<th>Average Demand for Workers</th>
<th>Annual Median Wage</th>
<th>Annual Average Wage</th>
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</thead>
<tbody>
<tr>
<td>1,232</td>
<td>1,363</td>
<td>131</td>
<td>10.6%</td>
<td>113</td>
<td>$74,498</td>
<td>$77,449</td>
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</tbody>
</table>

Additional References

Labor Market Information Center
www.dlr.sd.gov/lmic

Career OneStop
www.careeronestop.org

O*Net Online
www.onetonline.org

mySkills myFuture
https://www.myskillsmyfuture.org/

Auxiliary aids and services are available upon request to individuals with disabilities. U.S. DOL funded. For details, see dlr.sd.gov/lmic/eta_grant.aspx.

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Provided By

Labor Market Information Center
South Dakota Dept. of Labor and Regulation
605.626.2314

Visit dlr.sd.gov/hotcareers to obtain the most recent workforce data and trends and more resources, including this document. Also available are explanations of the terms used in this occupational profile.

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