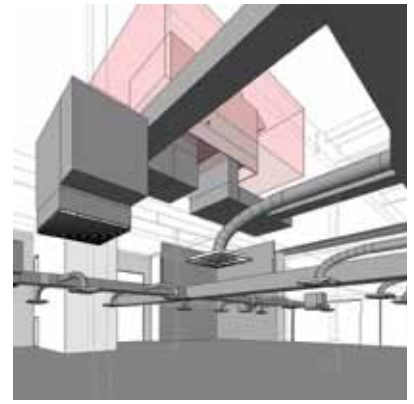
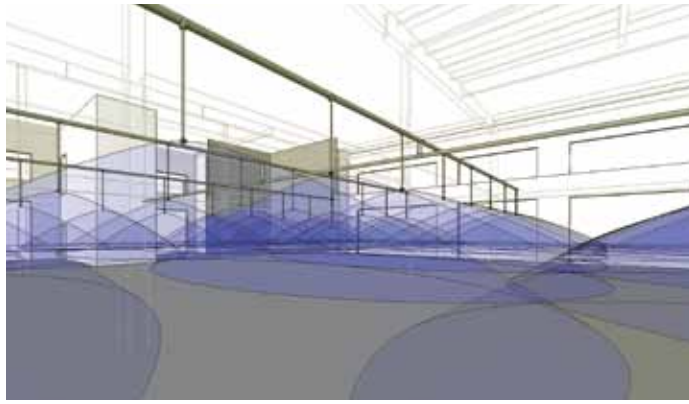
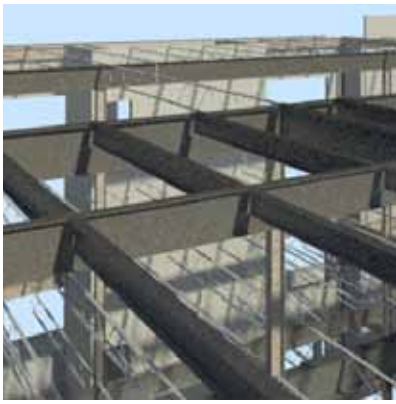




statement of qualifications for  
Building Services



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## building services

While we were founded in the Midwest, our service area has grown to include the entire nation and beyond. This success has allowed us to develop the capabilities to serve clients — from small rural areas to large urban centers — with diverse needs. Ulteig serves a wide range of facilities with comprehensive engineering, commissioning, and operational support services.

Ulteig's Building Services sector is made up of professionals representing a wide range of disciplines, working together to serve our clients with integrated building and site solutions. We provide a variety of services to education, community and commercial development, corporate/industrial, healthcare, and government markets.

Our team of expert professionals works with clients, from the planning stage to project completion. We can act as the owner's representative by providing construction administration and observation services or by being a partner on a design-build team.

We understand the significant impact our solutions have on energy and water use and the environment. We take seriously our responsibility to help our clients make informed decisions regarding their facilities and sites.



### Our Core Markets

Before design begins, we strive to understand the requirements, expectations, and concerns of our client's company culture. Each client and partner has specific project needs, and their goals must be understood to ensure a successful outcome. Frequent communication and Ulteig's drive for owner satisfaction help to maintain the connection with our client, while the need for accuracy, technical ability, and efficiency plays an important role in reaching established expectations.

The integration of Building Information Modeling (BIM) modeling, sustainable design concepts, integrated project management, videoconferencing, and other technologies into our practice allows for a seamless delivery of facilities/infrastructure project solutions of all types and sizes.

### Education

The focus of our education practice is the long-term support of our clients' facility management, capital planning, and campus development priorities. We understand that a 50- to 100-year facility life cycle means deferred maintenance, ongoing facility operations, and adaptive reuse, which demand as much — or more — attention as new facility developments.

Ulteig's education market draws on the diverse capabilities of our professional staff to deliver commissioning and energy management, campus utility system, fire and life safety, campus security and safety, facility asset assessments, and facility planning and design solutions.

### Community & Commercial Development

Ulteig provides full engineering services on a wide variety of commercial and residential development projects. From initial site master planning to the complete engineering design of the building and site components, our experienced staff and resources help ensure a successful project completion.

We serve as a design consultant for both new construction and remodels. With existing buildings and the potential for tenant turnover in commercial markets, we are experienced in the review and analysis of existing building systems and components. We provide recommendations and design solutions that are both cost-effective and energy-efficient.

### **Corporate/Industrial**

Ulteig's corporate experience includes a wide range of projects, such as corporate campuses, new additions and upgrades, and warehouse spaces. Our industrial experience includes a large spectrum of industries, such as power, renewable fuels, petroleum and chemical, mining, iron processing, manufacturing, pharmaceutical, and food processing.

### **Healthcare**

Today, administrators who are charged with building and renovating healthcare facilities must use their limited resources in a way that offers the most benefit to patients, family members, and staff. Although safety, comfort, and privacy for patients and their families are among our top priorities, we also work closely with facility operations staff to provide systems solutions that are dependable, efficient, and convenient to operate.

The ever-changing infrastructure needs in healthcare facilities charge us to understand everything from emergency power generation and distribution to imaging centers. We understand what owners need by working closely with them, asking questions, and encouraging open communication to provide solutions — every step of the way.



### **Government**

Our government services encompass a variety of project types for federal, municipal, state, and local agencies. Projects we have completed include fire protection; facility design for structural, mechanical and plumbing, electrical, and communications; and civil site design.

We also provide project management and construction management for federal clients. We have performed projects through a number of contracting methods, including A/E IDIQ, design-build, BPA, GSA schedule, and as prime contractor design agent.



## capabilities

Ulteig is able to provide engineering, commissioning, and operational support service needs for virtually any kind of facility or site. We understand the significant impact our solutions have on the financial, environmental, and social bottom lines. We take seriously our responsibility to help our clients make informed decisions regarding their facilities and sites.

### **Civil Engineering**

Successful site development involves more than just parking lots. Our civil engineers create infrastructure and site solutions to meet our clients' project objectives while balancing environmental, code, and site performance standards. Our engineers also help ensure a smooth Best Management Practice (BMP) permitting process — protecting the project schedule and the budget.

### **Structural Engineering**

The design of building structures and assessment of their performance are the two primary focuses of our practice. Whether designing or reviewing the “bones” of a facility, upgrading industrial equipment frames and foundations, or analyzing and resolving structural needs through the life of a building, our engineers offer a broad range of capabilities. Ulteig also provides valuable building codes analysis, third-party plan review, and expert witness services.

### **Fire Protection Engineering**

Fire protection engineering is an important part of helping our clients protect people, physical assets, and continuity of operations. An effective fire protection system depends on the right design, including the size, type, layout, and control of each system. Ulteig also provides valuable building codes analysis, third-party plan review, and expert witness services.

### **Mechanical Engineering**

Ulteig offers a complete scope of mechanical engineering services to help our clients develop high-performance buildings. From HVAC, plumbing, and building automation systems to geothermal/ground source systems, power generation, and central plants, we possess a demonstrated success in a wide range of facility types.

**Electrical Engineering**

Combining design expertise with practical knowledge of value engineering, Ulteig brings a combination of quality engineering and cost-effective design. Our electrical capabilities include power distribution system design at all voltage levels, power quality studies, short-circuit and arc flash hazard analyses, emergency power system design, critical and clean power distribution systems, renewable power systems, power management, and control system design.

**Commissioning**

Commissioning is the process of ensuring that systems are designed, installed, tested, and operated in conformance with the owner's design intent. Commissioning begins with planning and includes design, construction, start-up, acceptance, and training, and it can be applied throughout the life of the building. Throughout our decades of planning and design work, we have seen that early definition of owner expectations creates a strong foundation for excellent design, construction, and system operations.

**Lighting Design**

Innovative use of lighting enhances both the aesthetics of a space and the energy efficiency of a building. As energy-efficient lamps are combined with suitable lighting controls, a building's lights become an illumination system. Incorporating such considerations as daylight-harvesting and occupancy-sensing capabilities, our lighting designers play a key role in the design of high-performance buildings.

**Technology Systems Design**

Just as we have created a stand-alone lighting design team, our technology systems designers focus solely on audiovisual systems, technology and data systems, communications, and security. Working in close collaboration with our electrical engineers, Ulteig's technology design experts deliver low-voltage, high-impact solutions.

**High-Definition Scanning**

To achieve our clients' goals, we can provide high-definition scanning of existing buildings and structures — both interior and exterior. A high-definition scan can provide the exact location of building details, which can be captured in a matter of minutes. This eliminates the need for tedious hand measuring and possible errors. In addition, the scan gives accurate detail of the existing systems information that may allow for equipment to be reused and not replaced.

**Building Information Modeling**

As a multidiscipline engineering firm, we design our civil, structural, mechanical, plumbing, fire protection, and electrical systems using BIM software. This software, along with the high-definition scanning data, can be integrated to complement the design and allow for a 3D image of the systems. These tools identify potential conflicts prior to construction, producing higher-quality projects and helping to reduce construction time, material waste, and overall construction costs.





## about ulteig

From urban infrastructure to building systems, airports, and highways to energy, land, and water, we help people build and sustain the systems that support vital communities.

Since our founding in 1944, Ulteig has grown to include hundreds of professionals who represent a wide range of disciplines. We are an employee-owned company that delivers comprehensive engineering, planning, and surveying services.

### **Building Services**

Our Building Services sector consists of professionals representing a wide range of disciplines, working together to serve our clients with integrated building and site design solutions. We provide a diverse list of capabilities, only available from a full-service firm, to government, healthcare, education, corporate/industrial, and community/commercial development clients.

### **Energy Services**

Our Energy Services sector works with clients ranging from global energy producers to local power cooperatives. We connect energy sources and power generation to end users. We are recognized leaders in this industry, providing services and expertise on projects worldwide.

### **Land Services**

Ulteig's Land Services sector combines the practices of land surveying with GIS and right-of-way acquisition services to deliver comprehensive capabilities. Ulteig is recognized for mobilizing projects of all types in all locations — from local lot surveys to electric transmission and pipeline corridors across the country.

### **Civil Services**

Our Civil Services sector consists of core practices in surface transportation, aviation, water/wastewater, water resources, and municipal engineering. Engineers and technicians in these practices offer specialized engineering, environmental, and planning services to government agencies at all levels.

What truly distinguishes Ulteig is our ability to leverage resources from across all of our sectors. For example, we use the 3D laser scanning capabilities of our Land Services sector to create a 3D Revit model during a structural analysis project. We access the FAA expertise of the aviation staff in our Civil sector to guide a site master plan near a busy regional airport. We collaborate with the renewable power generation and electrical distribution experts of our Energy sector to help a building owner determine the best design for on-site wind and solar generation. Our ability to utilize the knowledge and experience of a wide variety of industry experts — within Ulteig — is unparalleled.



## the ulteig advantage

### Locations

Ulteig offers a wide range of services and expertise to give you easy and instant access to a wealth of knowledge, skill, and talent. Because we are a multidiscipline, full-service firm, we offer an array of services that few companies can match.

Our company has grown to include offices in the following locations:

- Bismarck, ND
- Cedar Rapids, IA
- Denver, CO
- Detroit Lakes, MN
- Fargo, ND
- Minneapolis, MN
- Sioux Falls, SD
- Williston, ND

### Community Partner

We live our core values by building a work environment that stimulates innovation, enhances teamwork, and drives our clients' success. This desire to succeed extends beyond our company walls. We encourage our staff to volunteer and to be involved in activities that help shape our communities to be places where everyone is proud to work, live, and play.

### Our Mission

To create sustainable, cost-effective, and environmentally sound communities.

### Our Vision

To advance the business of energy, water, and our built-environment.

### Sustainability

Considering how to best use natural resources in planning and design is a cornerstone philosophy at Ulteig. You will see this commitment in our renewable wind energy, waste heat recovery, clean water and wastewater, and energy-efficient and sustainable building projects. This is the way we have always done business.

At Ulteig, we pledge to continually take a fresh approach to sustainable engineering. We will strive to produce energy while, at the same time, reducing the demand for it. We will protect and restore, save and recycle, and take a leadership role in our communities by finding new ways to think green in everything we do.



Ulteig is proud to be a member of the US Green Building Council.

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