



**Project No. 2024-420: Eastern State Hospital
Activity Therapy Building Electrical, Mechanical
and Fire Sprinkler Renovation**

DSHS Campus, Medical Lake, WA 99022

November 30th, 2023

STATEMENT OF QUALIFICATIONS

Dear Selection Committee Members,

Columbia Engineering Group is pleased to present our Statement of Qualifications for Project No. 2024-420: Eastern State Hospital Activity Therapy Building Electrical, Mechanical, and Fire Sprinkler Renovation.

This project renovates the ESH Activity Therapy Building. The project aims to upgrade the power distribution, fire alarm system, HVAC system, and fire suppression system. The scope also includes a new lay-in security ceilings to conceal new ductwork and a new medication dispensary window. This project will be executed with an emphasis on DES vision and commitment to environmental sustainability. The Activity Therapy building will be occupied during renovation and the design will account for a phased design approach that will aim to maximize continuity of daily operations during occupancy.

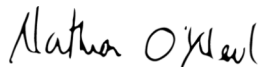
Columbia Engineering Group is a diverse business categorized as Veteran Owned and Small Business Enterprise with a highly skilled and experienced team of over 20 engineers. Our team includes civil, structural, mechanical, electrical, plumbing, fire protection and architecture professionals. CEG staff have extensive experience with renovations of aged buildings with little as-built information. We are well versed in designing systems for phased construction approach to allow occupancy during renovation. Furthermore, CEG's experience on the ESH campus provides a competitive edge through familiarity with the campus infrastructure, strong positive working relationships with maintenance/support staff and a thorough understanding of project management and delivery. We understand Eastern State Hospital's vision and programmatic needs and we are excited for the opportunity to further these goals.

Together, our team has provided engineering and construction services for hundreds of projects with similar requirements to this activity therapy building renovation. Our multi-disciplined team provides the ability to coordinate and optimize our designs and construction processes by understanding the key elements and challenges associated with aged building renovations. In recent years, CEG has been serving as an on-call engineering consultant for DES in Eastern Washington. With several projects in various stages of execution, both planned and emergency, each project requires improvements on aged infrastructure, multi-disciplinary engineering, and continuity of operations. These projects include but are not limited to: FSU Emergency Chiller Replacement, YVS Emergency Generator Replacement, Pine Lodge Standby Generator, ESH Laundry Waste line Replacement, LV Utility Line Replacement, YVS Campus Generator Replacement, ESH Electrical Feeder Replacement, and Gray Fire Emergency Response at Lakeland Village.

Through the delivery of these projects, CEG has demonstrated our dedication to service excellence and our ability to work seamlessly with DES project managers, facility personnel, contractors, and other stake holders. CEG has built a foundation of trust, and we hope to continue expanding our service to DES. CEG is dedicated to the successful delivery of projects on time, within budget, and to adding value during these projects through creative problem solving, active listening and partnering with DES to help advance the vision of the programs and to maximize the impact of investment dollars spent on capital improvements.

Columbia Engineering Group is the right choice for the Prime Consultant on this project, and we are eager to prove it.

Sincerely,



Nate O'Neel, *Principal*
Columbia Engineering Group
noneel@cegiusa.com
509-540-2936



STATE OF WASHINGTON
DEPARTMENT OF ENTERPRISE SERVICES

*1500 Jefferson St. SE, Olympia, WA 98501
PO Box 41476, Olympia, WA 98504-1476*

Consultant Selection Contact Form

Designated Point of Contact for Statement of Qualifications

For Design Bid Build, Design Build, Progressive Design Build, GC/CM & Job Order Contracting
(JOC) Selections

Firm Name: Columbia Engineering Group Inc.		
Point of Contact Name & Title: Nate O'Neel, Principal, Chief of Operations		
Email: noneel@cegiusa.com	Telephone: 509-540-2936	
Address: 2210 SE 352nd ave		
City: Washougal	State: WA	Zip: 98671

STATEMENT OF QUALIFICATIONS

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CEG a veteran owned small business

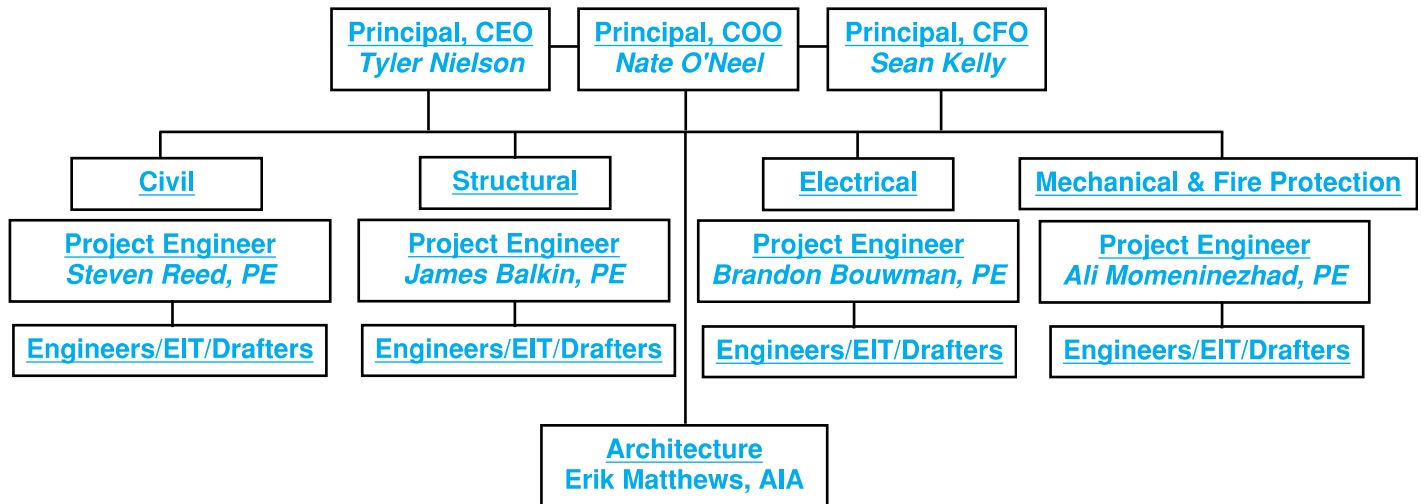
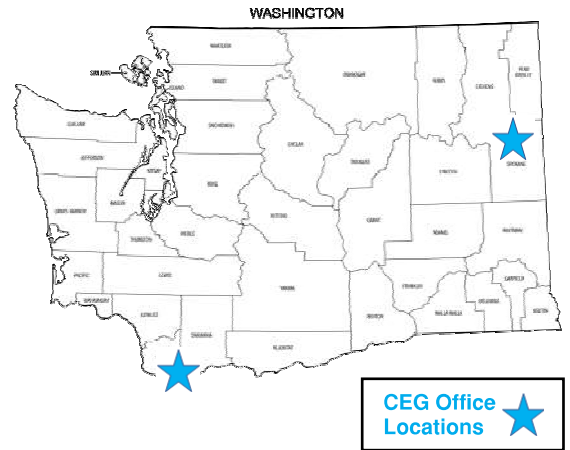
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Personnel and Firm Experience



THE RIGHT TEAM IS THE DIFFERENCE

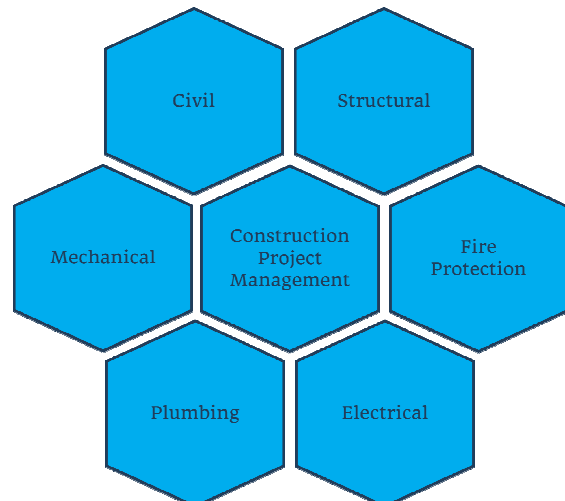
Columbia Engineering Group is a highly experienced and reputable engineering firm with a proven track record of delivering exceptional results to our clients. We have built strong working relationships with each of our partners through the delivery of numerous successful projects. We take pride in going the extra mile by truly understanding our client's needs and delivering tailored solutions that add measurable value to projects and advance the vision of the organization. As a veteran owned, small business, CEG brings a unique perspective and level of expertise to the table. We are highly adaptive, agile, and responsive to changing needs and circumstances, able to pivot when challenges arise to deliver the best outcomes for our clients. ***Your vision is our focus.***



ORGANIZATION CHART

The Interdisciplinary Edge

Columbia Engineering Group is an interdisciplinary engineering firm providing civil, structural, mechanical, fire protection, electrical, and plumbing engineering services. We bring a holistic approach to every project we undertake, leveraging our diverse expertise to deliver comprehensive solutions which are well integrated across disciplines. Our team of experts work closely with project stakeholders to understand objectives, constraints, budget, and desired outcomes. Our global perspective to project execution allows us to clearly identify challenges, obstacles, and opportunities at each level and deliver value added options that bring all the puzzle pieces together in a cohesive, best fit solution. We are dedicated to the highest levels of quality and service, providing exceptional results on every project we undertake.



Project Approach

At CEG, we understand that facilities managers are often charged with balancing many competing projects with limited resources, and prioritizing projects in alignment with the vision is a constant balancing act. We approach each project with the intent of maximizing the positive impact of our service. We seek first to understand the needs and vision of the organization. Then we work with stakeholders at all levels to extract the needs and desires for the project outcomes within the context of the short & long term vision for the facility. We develop value added options, operational continuity plan, risk management plan, cost controls, and schedule that provide maximum return on investment. CEG is the ACE in your corner, keeping your best interest in mind, and driving excellence in the project delivery with your vision in focus.

Columbia Engineering Group's approach to project management focuses on nine key areas:



Project Assessment

CEG works with stakeholders at all levels to understand the project objectives and needs.

- Define project objectives and critical success factors.
- Define project constraints such as budget, market conditions, timeline, resources, and continuity of operations.
- Define SMART objectives. Simple, Measurable, Achievable, Relevant, & Timely
- Evaluate as built conditions and identify deficiencies in code compliance, capacity, and design.
- Perform applicable code research and confer with local building authorities.
- Evaluate system capacity and performance against future programmatic plans.
- Develop technical options which maximize return on investment.
- Utilize data-driven decision making.

Scoping

We collect and organize information from the project assessment to clearly outline options for paths forward in a clear and concise manner. This allows for a well-informed decision making process with known costs and benefits that allows our clients to make the best choice.

- Identify best cost to benefit options which minimize risk and maximize return on investment.
- Develop the project scope based on clear objectives and constraints.
- Define the work breakdown structure (WBS). Identify tasks, milestones, deliverables, and work execution plan. This functions as a framework for tracking progress and managing resources.
- Get stake holder buy-in. Ensure the identified solutions serves all involved from project managers to end users.

Building the Project Delivery Team

CEG takes a systematic approach to formulating the right project delivery team by identifying the necessary skills, expertise, and experience required to complete the project successfully.

- Beginning with the project scope and requirements, and understanding the vision and objectives of the organization.

- Identify roles and responsibilities needed to complete the project, pairing deliverables with responsible individuals. This includes the project manager, engineering lead, technical specialists and subject matter experts, necessary subconsultants, and other support staff deemed necessary for the project.
- Involving the stakeholders in decision making process through the project delivery to ensure buy-in and client satisfaction.

Developing the Project Plan

CEG uses a systematic approach to developing the plan, by identifying the key tasks, deliverables, timelines, and resources required to achieve success on time and within budget.

- Identify key tasks from the scope of work.
- Develop a work breakdown structure (WBS) which provides a granular definition of the tasks and deliverables required for the project.
- Determine the project timeline, understanding the changing circumstances and dependencies at each phase of the project.
- Consider dependencies between tasks and define the critical path.
- Allocate resources by assigning deliverables and tasks to key members of the project delivery team.
- Create a project schedule using sophisticated project management tools and software and identify scheduling conflicts.

Developing the Risk Management Plan

CEG leverages our many years of engineering experience to understand keys to success in delivering the project, and what risks jeopardize the critical factors of the project at each stage. We then formulate a plan for mitigating risk to achieve success in the face of unforeseen challenges.

- Identify potential risks such as technical issues, project management and staffing issues, safety, environmental impact, material lead times, financial risks, and other critical risk factors.
- Build a risk analysis matrix which identifies the likelihood of each risk, the impact to the project, and assign a score for each risk factor in the matrix.
- Prioritize risks within the matrix based on the level of severity each risk poses to the project and which risks must have contingency plans to mitigate threats to successful project execution.
- Develop specific risk mitigation strategies for risks which pose a significant threat to project delivery.
- Monitor and control risks as they arise in the project execution.
- Work the plan by keeping it up to date and evolving throughout the execution of the project as more information becomes available and circumstances change.

Developing the Continuity of Operations Plan (COOP)

We understand many projects require continuity of operations, and temporary services are sometimes required to maintain operations. Temporary services maintain continuity but are often expensive and don't add value. That's why we use a systematic approach to continuity of operations to ensure we minimize costly temporary services and maximize the value of project investment dollars.

- Define critical services and essential functions.
- Risk assessment and project plan identify threats to continuity of operations.
- Communicate needs well in advance.
- Organize resources and risk mitigation strategies.
- Ensure recovery plans and procedures are in place to restore service with minimal downtime.

Managing Scope Schedule and Budget

Plan the work and work the plan. CEG relies heavily on the systems we use to define the project in order to monitor the progress and milestones as the project unfolds.

- Well defined scope, schedule, and budget.
- Utilization of the project plan, risk mitigation plan.
- Maintaining regular structured communication with stakeholders.
- Control project changes through a formal change management process.

Communication

CEG is accustomed to thinking on our feet and being adaptable to changing circumstances. When new information comes into play, or outside circumstances force hard decisions we find success through creativity and teamwork. The backbone of finding solutions to emergent issues is communication.

- Ensuring project objectives are well understood.
- Regular communication to update stakeholders on progress and changes.
- Facilitate collaboration and input from stakeholders from the project owner, the designer, the contractors, and operating technicians.
- Manage expectations and understand challenges and options.
- Identifying and resolving issues as soon as they come up.
- Ensure safety and continuity of operations.
- Maintain excellent quality and customer service.

Project Close Out

CEG ensures that the objectives of the project are met, and the project is delivered successfully to the client.

- Finalization of all deliverables.
- Conducting the final inspections and punchlists.
- System commissioning, as-built documentation delivery, and training for staff.
- Operations & maintenance manuals and warranty certificates.
- Permitting closeout and final inspections from AHJs
- Client signs off on the completed project.





CHIEF EXECUTIVE OFFICER, ELECTRICAL ENGINEER

Ty Nielson, Principal
Columbia Engineering Group

Ty Nielson, CEO of Columbia Engineering Group, is an electrical engineer and business leader with over 15 years of experience in engineering, construction, and business management. Ty is a veteran and former US Navy Nuclear Propulsion Engineer. Ty earned his BS in electrical engineering and has experience in systems engineering, large scale critical power infrastructure, high voltage power systems engineering, and reliability engineering. With a passion for engineering, business, and leadership, Ty is a visionary who is committed to excellence and innovation. His capability to analyze, strategize, build, lead, and inspire great teams and formulate solutions which meet client needs brings CEG to the front of the pack.

"Engineering is a team sport, from concept to completion. For every great engineering solution, there is a great team that brought it to life. I love solving challenging problems and seeing the power of bringing talented people together to serve our communities." Ty, CEG

EDUCATION

Eastern Washington University
BS Electrical Engineering

US Navy Nuclear Power School

US Navy Electrical
Apprenticeship School

RELEVANT PROJECT EXPERIENCE

DOD | T3 230kV Transformer Refurbishment
DOD | Powerhouse 4160V Station Service Replacement
DOD | 110MW Generator Rotor Winding Replacement
DOD | 100MW Generator Stator Failure Root Cause Analysis
DOD | 15kV SF6 Breaker Refurbishment
DOD | T3 and T4 115kV High voltage bushing replacements
DOD | T7 550kV refurbishment and oil processing
DOD | Transformer Dissolved Gas Analysis
DOD | Ventilated lead acid battery capacity testing
DOD | 2.7GW Power train equipment evaluation
DOD | 230kV Transformer Forensic Failure Analysis
DOD | Electromagnetic Interference Analysis
DOD | 15kV isolated phase bus duct repair

DOD | Spare Transformer Evaluation and Refurbishment
DOD | Sweep Frequency Response Analysis
DOD | Infrared imaging and analysis
DOD | 90MW Generator Corona Probe and winding analysis
DOD | Regional Reliability Engineering Program Management
Microsoft | Data center hydronic system modifications
Plummer Forest Products | Manufacturing line extension
Food Cart | support structures
Happy Healthy Homes | Residential addition

**Limited project information due to DOD NDA*



CHIEF OPERATIONS OFFICER, ELECTRICAL ENGINEER

Nate O'Neel, Principal
Columbia Engineering Group

Nate O'Neel is the Chief Operations Officer and a seasoned electrical engineer with over 15 years of experience in construction, engineering, and business serving multiple agencies. His ability to identify issues, understand agencies' objectives both long-term and short, & present options with detailed approaches builds trust and consensus with project execution. His project navigational skills of identifying outside factors that influence project success mitigates risk and provides a holistic view of the dynamics associated with each project. Nate's leadership style has been described as collaborative, attentive, and welcoming. Each of his projects is approached with sustainability, programmatic integration, schedule, & financial well-being.

"Engineering and construction are my passions. I love the process of finding multiple solutions to complex problems within the Clients budget for them to choose from. I enjoy seeing a project grow from inception to closeout and every step along the way." Nate, CEG

EDUCATION

Eastern Washington University
BS Electrical Engineering

Eastern Washington University
Master of Business
Administration

RELEVANT PROJECT EXPERIENCE

DSHS | ESH - PL Electrical Feeder Replacement
DSHS | Pine Lodge Optional Standby Generator
DSHS | ESH Laundry Wasteline Replacement
DSHS | YVS 100-Cottage Generator Replacement
DSHS | ESH FSU Chiller Replacement
DSHS | Rosewood Generator Replacement*
OMD | M-F Armory HVAC Upgrade
WDFW | Region 3 Headquarters Renovation
City of Okanogan | Superior Court Phase I
Washington State Patrol | Storage Building
Microsoft | HVAC Upgrades
EWU | Martin Hall Fire Alarm*
Pend Oreille County Public Hospital District #1 |
Newport Clinic*
Mose Lake School District | Administration Office*
Mose Lake School District | Warehouse*
Providence Health Care | Mother Gamblin 4th Floor
Renovation*
Providence Health Care | St. Mary Medical
Neuroscience*
Providence Health Care | Kadlec Mammography
Clinic*

DSHS | YVS Campus Generator Replacement
DSHS | ESH 1N3 & 3N3 Forensic Ward Renovation*
DSHS | Lakeland Village Electrical Infrastructure Phase 2*
DSHS | ESH Eastlake Emergency Generator Replacement*
DSHS | Lakeland Village Fiber Optic Improvement*
DSHS | Pine Lodge Lift Station*
Spokane Falls Community College | MV Electrical Infrastructure*
Providence Health Care | St. Mary Medical CT Room Remodel*
Universal Health Services | Inland Northwest Behavior Hospital*
Quincy School District | Quincy High School*
Quincy School District | Quincy Junior High Modernization*
Quincy School District | George Elementary School Gym Addition*
Quincy School District | Pioneer Elementary School Gym Addition*
Quincy School District | Mountain View Elementary School Gym
Addition*
City of Spokane | Riverfront Park's Pavilion*
Ellensburg School District | Morgan Middle School*
EWU | Arc Flash Study*
Sacred Heart Medical Care | Doctor's Building Elevator Replacement*
EWU | Einstein Bros Bagel*
Plastic Surgery NW | Essential Electrical System*



CHIEF FINANCIAL OFFICER, CONSTRUCTION MANAGER

Sean Kelly, Principal
Columbia Engineering Group

Sean Kelly is the Chief Financial Officer and is a seasoned business leader with more than 15 years of experience in construction and business management. He began his career as a US Navy Nuclear Propulsion Engineer. His passion for entrepreneurship and engineering has created a pedigree of project management and business building excellence. Sean is a natural leader with a strong focus on collaboration and teamwork. He has a keen sense for identifying and nurturing talent, and an ability to bring out the best in his team members. With a deep understanding of financial and business management, Sean is committed to driving growth and maximizing value for Columbia Engineering Group and its stakeholders.

EDUCATION

Eastern Washington University
BBA Business Administration

US Navy Nuclear Power
School, US Navy OCS

Sean has a long history of commercial and residential construction, including extensive envelope improvements to aged commercial buildings including roof, windows, doors, siding, and full interior renovations. Sean has been involved in re-roofing and replacement of roof assembly systems on commercial buildings including TPO and PVC membranes with insulation, cover board, parapet cap, curbs and flashing around mechanical equipment, and structural repairs. He has also specialized in the replacement of siding and windows on wood framed and masonry commercial and multifamily buildings, including removal and installation of metal panel systems, and windows with full frame replacements and retrofit replacements. In the last 10 years Sean has managed more than 1500 projects involving aged building renovations and is an expert in this field.

***"I'm proud to be a part of this fantastic team of experts, helping to make the world a better place. I am eager to take my capabilities to the next level as I concentrate my attention on the company's financial solidarity, and maintaining optimal operations throughout the company."* Sean, CEG**



ACCOUNTANT

Kathy Woods, Associate
Columbia Engineering Group

Kathy brings more than 30 years of accounting and business management experience, with more than 20 years in the construction industry. Kathy is an insightful leader and closely analyzes the financial health of the company and each project to ensure each project remains in scope and on budget.

***"CEG works together as a team to keep our services top notch."* Kathy, CEG**

EDUCATION

Certified in accounting and
finance

LEAD STRUCTURAL ENGINEER

James Balken, P.E., Associate Principal
Columbia Engineering Group

James has 9-years of experience as an engineer and project manager serving governmental agencies. He holds a P.E. license in both mechanical & structural engineering and loves the pursuit of knowledge. His service skills have been described as very personable, consistent, & excellent at describing complex problems in simple terms. James' keen eye for understanding root cause, active pulse on project's health, & current market conditions mitigates risk to our client's projects. James' project success & repeat clients can be attributed to his excellent organization, communication, & leadership skills. ***"As a perfectionist, I can only create designs which I can stand behind indefinitely."* James, CEG**

RELEVANT PROJECT EXPERIENCE

DOD | Powerhouse & Generators HVAC Upgrades
DOD | Industrial HVAC & Fire Suppression System Design
DOD | Hydroelectric Generator Thrust Cooling System
DOD | 30FT Hydraulic Cylinder Design
DOD | Below the Hook (BTH) Crane Lifting Devices Certification
DOD | Powerhouse Structural Load Calculations
DOD | Crane Control System Optimization
DOD | Crane Drive Pinion Gear Analysis

Ridgefield | Commercial Development HVAC Design
Ridgefield | Commercial Development Plumbing Design
Ridgefield | Core and Shell Mechanical Systems Design
Omak | Structural Engineering and Analysis
Sawmill | Manufacturing line upgrades
Data Center | Hydronic cooling system optimization
Ephrata | Membrane temporary structure analysis
Omak | Agricultural pumping system optimization

^Limited project information due to DOD NDA

EDUCATION

Eastern Washington University
BS Mechanical Engineering

University of Alabama
MS Civil Engineering



LEAD MECHANICAL AND FIRE PROTECTION ENGINEER

Alireza Momeninezhad, MSc., P.E., Associate, LEED Green Associate

Columbia Engineering Group

Alireza is a Licensed Professional Mechanical Engineer, and serves as a lead design engineer at Columbia Engineering Group. With over 20 years of experience, Ali's positive attitude and dedication to excellence shine through in the complex HVAC, plumbing, and fire protection projects he undertakes. Proficient in REVIT and energy modeling software, he excels in setting the standard on diverse design challenges. His career journey spans a range of industries, fostering adaptability and a commitment to high-value solutions.

"I love designing and the challenge of finding optimal solutions for various environments. My passion for continuous learning drives me to engineer innovative high quality designs that are up to date with the latest technological developments." Ali, CEG

EDUCATION

University of Technology Tehran
MSc. Mechanical Engineering
Kerman University

BS Mechanical Engineering

RELEVANT PROJECT EXPERIENCE

Mirada Hills Hospital*
Monte Vista Village*
Walton Co Beverly Tower*
4 Over Glendale*
Glendale Galleria*
Sunrise Marquis Hotel*
Entiat High/Middle School*
Mackin Auto Body
SPARC Rehab Facility

Thorp ES School*
Hough ES School*
HRL Laboratories*
Calpoly University*
Humboldt State University*
Lockheed Martin Xray Room*
Residence Inn Marriot Hotel*
Duval Office
Sutton Trucking Hub

Amat R&D Semiconductor cleanroom*
Stanford Lab Accelerator*
Elgin, AMAT semiconductor cleanroom*
Union Pacific Railroad Ripon Station*
SF Bay Area Rapid Transit*
AHF Connie Norman Healthcare Center*
Armstrong Teasdale High Rise Building*
Sunmodo Warehouse
Millar Food Pod



LEAD CIVIL ENGINEER

Steven Reed, P.E., Associate

Columbia Engineering Group

Steven is a highly regarded civil engineer, acclaimed for his rigorous attention to detail and comprehensive approach to civil and municipal projects, particularly within private site development. With strong capabilities in client management and project planning, he consistently ensures projects meet the highest standards of accuracy and completeness. Steven's knack for identifying potential obstacles, coupled with his understanding of client's objectives, enables him to present detailed and thorough solutions, fostering trust and consensus in project execution. He is known for his strategic management of external factors and his systematic approach to project dynamics, which guarantees effective risk mitigation and successful project outcomes. Steven's commitment to each project, underpinned by sustainability, punctuality, and financial integrity, makes him an invaluable asset in the civil engineering industry.

"I get excited about new developments and finding solutions to challenging lots and locations. I love being able to start with an empty space of earth and design a functional and productive set of systems." Steven, CEG

RELEVANT PROJECT EXPERIENCE

3-Floor Quadplex (structural) | Hillcrest Development*
Adams Street Waterline | City of Klamath Falls*
Agency Subdivision | Klamath Agency*
Athletics Exterior Renovation | Oregon Institute of Technology*
Canyon East Corporate Park | Vector Development*
Chiloquin Water Main Replacement | City of Chiloquin*
Cleveland Ave. Water Main | City of Klamath Falls*
Coffee Stand - Hanford, CA*
Distribution Center Renovations | Panattoni Development*
Domino's - Gallatin, TN | Domino's - Team Murph*
Etna Street Waterline Replacement | City of Klamath Falls*
Force-main and Treatment Lagoons Design | City of Chiloquin*
Foundation Design (structural) | Davenport Chapel*
Geothermal Vault Cover (structural) | City of Klamath Falls*

IPT Lakewood Trailer Storage Lot | KG Investment Properties*
Lagoon Sludge Sonar Analysis | S. Suburban Sanitary District*
NW Precast Sewer and Water Main Design | NW Precast*
One Stop Auto Development | One Stop Auto*
Oregon Shores Water System Analysis | City of Chiloquin*
Outpost Rd. A-Frame Home (structural)*
Pomeroy Dam Irrigation Design | Q Bar X Ranch*
Quail Mountain Detention Pond | Quail Mountain Storage*
Rainier Cold Storage Development | Redco Development*
Salmon Phase 1 Lot Expansion | Salmon Phase 1 LLC*
Sedron Treatment Plant | Sedron Technologies*
Shelter Cove Resort (structural) | Shelter Cove Resort*
South Bay Apartments | Blue Fern Development*
Sprague River Levee Removal Analysis | Trout Unlimited*

EDUCATION

Oregon Institute of
Technology
BS Civil Engineering



EDUCATION

Western Michigan University
BS Electrical Engineering

LEAD ELECTRICAL ENGINEER

Brandon Bouwman, P.E., Associate Principal
Columbia Engineering Group

Brandon has over 16-years experience serving governmental agencies across the nation. His expertise with different programmatic & operational needs of governmental facilities ensures compliance and sustainability. His designs add value, are cost effective, easy to construct, & minimizes maintenance costs. Brandon is skilled at guiding program project managers through scoping, quantifying, presenting solutions with pros & cons associated with aging infrastructures & construction administration that best serve the Client. His project success & repeat clients can be attributed to his organizational, communication, & leadership skills.

"It's a real pleasure to earn the trust of a client slowly over time by doing what is right." Brandon, CEG

RELEVANT PROJECT EXPERIENCE

DOD T6 Transformer Supply	DOD Spare Transformer Supply
DOD Powerhouse II 3-Unit Transformer Refurbishment	DOD GSU Transformer Supply
DOD Hydropower Maintenance MATOC IDIQ	DOD 1-Unit Transformer Repair
DOD Riverdale / Station Service Transformer Supply	DOD Transformer Replacement & Forensic Failure Analysis
DOD 8-Unit Excitation System Replacement	DOD Unit 6 Assembly & Additional Unit
DOD T1 Transformer Rehabilitation	DOD 2-Unit SF6 Gas-Insulated Step-Up Transformer
DOD Bridge Crane Rehabilitation	DOD 2-Unit Ester Transformer Supply
DOD Mobile District 4-Powerplant Transformer Supply	DOD Unit 1 & 2 Excitation Replacement
DOD 15kV Shunt Reactor Refurbishment	
DOD Switchgear Relocation & Transformer Installation	
DOD 230kV Transformer Forensic Failure Analysis	
DOD Multi-Plant NERC Testing Contract Oversight	
DOD 500kV Transformer Replacement & Forensic Failure Analysis	

^Limited project information due to DOD NDA



EDUCATION

Clemson University
BA Architectural Design

University of Oregon
MA Architecture

LEAD ARCHITECT

Erik Matthews, AIA, Associate
Columbia Engineering Group

Erik has more than thirty years of architectural design experience & licensed in Washington. He received his BA in Architecture in 1988 and MA in Architecture in 2001. His portfolio includes commercial, residential, public, and governmental projects. Erik is supported by a team of designers and drafters who help bring his designs to life. In his career, Erik has developed numerous designs for aged building infrastructure and renovation as well as new construction designs. He has experience with public bid processes, project meetings, and project publications. Erik's experience includes design for accessibility and functionality, incorporating ADA standards in modern designs.

"I enjoy working on projects which provides value to our communities and improves peoples quality of life, functionally and aesthetically." Erik, CEG

RELEVANT PROJECT EXPERIENCE

The Belmont Apartments & Retail	Monterey Peninsula College	University of Santa Cruz Arts Building
Mosier Creek Apartments	Gates Fire Hall	University of Santa Cruz Fitness Building
The Emma Rae Apartments	Umpqua Bank Neighborhood Stores	Portland Trailblazers Practice Facility
1934 Apartments	KEEN Footwear	9 story high rise building in Portland
HRH Apartments	Numiss Mixed Use Building	
Umatilla Place	Converse New York Showroom	
Mosier Townhomes	GSA Tenant Improvements Portland	
Cascade Lofts Townhomes	Sherwood Public Works Facility	
York School Co-Lab	University of Washington Athletic Center	



EDUCATION

Worcester Polytechnic
Institute
BS Civil & Environmental
Engineering

MSc. Civil & Environmental
Engineering

CIVIL & STRUCTURAL ENGINEER

Hishan Fernando, P.E., Associate
Columbia Engineering Group

Hishan has 14 years of experience as a civil and structural engineer. He has a variety of experience including foundations, vertical structures of wood, steel, and concrete, elevator shafts, platforms, canopies, bridges, and parking structures. He has a diverse level of project experience in public, state and federal government, commercial, hospitality / mixed-used, healthcare, higher education, sports & recreation, & K-12. Hishan also has extensive experience in civil design development, land use planning, permitting, grading, sewer, storm water, and environmental engineering. He plays an active role in project management, maintaining client relationships, and providing environmentally sustainable designs.

"I enjoy the complex interplay of engineering design. Civil and Structural engineering is fascinating to me and I like analyzing various design approaches to obtain the optimal design within the project constraints." Hishan, CEG

RELEVANT PROJECT EXPERIENCE

Ft. Belvoir Community Hospital Facility*
32,000SF Parking garage structure*
New York Transit Authority structural rehab of 12 stations*
MBTA Boston tunneling methodologies*
Elevator designs*
Commercial Development Civil and Sewer design*



EDUCATION

San Francisco State University
BS Civil Engineering

Sacramento State University
MS Civil Engineering

CIVIL & STRUCTURAL ENGINEER

George K. Neth, P.E., S.E., Associate
Columbia Engineering Group

George brings 40 years of experience as a structural & civil engineer. George's expertise with different programmatic & operational needs of State facilities ensures compliance with regulations. His ability to account for outside factors that influence project success translates into well-coordinated, well-executed initiatives in the best interest of the Client. George has delivered hundreds of successful projects.

RELEVANT PROJECT EXPERIENCE

Seismic (PML) assessments for hundreds of commercial properties in CA, WA, OR, NV, UT, & AZ.
Structural inspection & damage assessment reports for more than two-hundred damaged properties following 1994 Northridge & 1989 Loma Prieta earthquakes.
Forensic engineer for fifty projects
Civil & structural engineer for several food processing plants (Land O'Lakes, California Dairies, Leprino Foods, Laura Chenel Chevre, & Dairy Farms of America).
Civil & structural engineer for large concrete parking structures (3COM, University of Santa Clara, Applied Materials, U.C. Davis, Modesto Memorial Hospital, City of Santa Cruz, & State of California).
Civil & structural engineer for seismic retrofit of unreinforced masonry buildings in downtown San Rafael, CA
Post-tensioned concrete design for a seventeen story hotel (Red Lion) in Modesto, CA
Civil & structural engineer for two parking garages in San Jose International Airport
Deep pile marine foundation design for Brickyard Cove in Point Richmond, CA
Crane design at Alameda Naval Air Station & Oakland Army Supply Depot
Civil & structural engineer for two concrete 100k SF tilt-up buildings



MECHANICAL ENGINEER

Sushil Kumar, P.E., LEED AP+, CxA, CEM Associate

Columbia Engineering Group

Sushil has over 17-years of experience serving multiple market sectors in HVAC, plumbing, & fire protection design. His ability identify issues, understand agencies' objectives both long-term and short, & present options with detailed approaches builds trust and consensus with projects execution. Sushil is detail oriented, budget conscious, schedule driven, utilizes cost-effective techniques, and energy efficiency modeling. He has orchestrated projects from inception through closeout in the educational, health-care, governmental, commercial & industrial market sectors.

EDUCATION

Indian Institute of Technology
BS Mechanical Engineering

University of Chicago
Master of Business
Administration

RELEVANT PROJECT EXPERIENCE

DSHS | ESH Laundry Wasteline Replacement
DSHS | ESH FSU Chiller Replacement
Glen Ellyn School District | Hadley Jr. High School
HVAC Upgrade
Kildeer Countryside | Twin Grove Middle School Chiller
& Boiler Replacement
Aurobindo Pharma | Phase 3 Expansion

Mounds View Public School | Edgewood Middle School
Vancouver School District | Lincoln Elementary School
Aptakisc-Tripp School District | Aptakisc Jr. High School HVAC
Upgrade
Premier Pools & Spa | Storage Warehouse
True Foods Kitchen Restaurant



MECHANICAL ENGINEER

Jitendra Valmik, P.E., LEED GA, CxA Associate

Columbia Engineering Group

Jitendra has over 15 years of experience in mechanical systems, having served various State agencies. His keen attention to detail and extensive knowledge of program requirements have been instrumental in driving system upgrade projects across the State. Jitendra's technical skills and leadership have benefited the academic, mission-critical, and healthcare industries. He is adept at designing cost-effective and energy-efficient systems. Jitendra's excellent communication skills enable him to clearly articulate system dynamics, evaluate existing conditions, and present viable options to support program project managers, which is critical to project success.

"My top priorities are ensuring client success, providing excellent customer service, and meeting programmatic needs." Jitendra, CEG

RELEVANT PROJECT EXPERIENCE

Mounds View Public School | Edison Elementary School
Joliet Township School District | Joliet High School
Mounds View Public School | Edgewood Middle School

Vancouver School District | Lincoln Elementary School
Aptakisc-Tripp School District | Aptakisc Jr. High
School HVAC Upgrade



MECHANICAL ENGINEER

Nicko Arugay, Associate

Columbia Engineering Group

Nicko is a skilled mechanical engineer and MEP and fire protection designer with 5 years of experience with low rise and high rise commercial and residential development. His skills include HVAC, electrical and plumbing, and fire sprinkler design. Nicko has developed fire sprinkler systems in numerous applications including high rise residential, commercial, industrial, healthcare, and education facilities.

"Engineering design is a passion for me, I enjoy the process of realizing a design from start to finish." Nicko, CEG

EDUCATION

BS Mechanical Engineering



MECHANICAL ENGINEER

Brian White, P.E., Associate, LEED Green Associate BD+C

Columbia Engineering Group

Brian is a creative building engineer with over a decade of experience, who thrives on tackling complex building and environmental challenges. He earned a master's degree in mechanical engineering from the University of North Florida and harbors a deep passion for renewable energy and architecture. Holding Professional Engineering licenses as well as being a certified Green Roof Professional, Brian is committed to his mission of advancing sustainability by designing cost-effective and energy-efficient buildings. His designs prioritize occupant comfort and aesthetics, creating an optimal environment that fosters wellbeing and productivity.

"Sustainability and environmental stewardship are important to me. I work to create great buildings which function well and integrate into the natural environment." Brian, CEG

RELEVANT PROJECT EXPERIENCE

Rocky Mountain Regional VA Medical Center*
Grand Junction VA Medical Center*
Starbucks*

Casino*
High End Residence (numerous)*

EDUCATION

University of North Florida
MS Mechanical Engineering



EDUCATION

NS Institute of Technology
BS Electrical Engineering

ELECTRICAL ENGINEER

Darshan Patel, Associate

Columbia Engineering Group

Darshan has 12 years of experience as an electrical engineer. He has a variety of experience including power distribution, lighting design, fire alarm, lighting control systems, emergency power systems, and medium voltage distribution. He has a diverse level of project experience in commercial, hospitality / mixed-used, healthcare, higher education, sports & recreation, K-12, government facilities, laboratory, mission-critical, and LEED design. He plays an active role in project management, maintaining client relationships, and providing mission critical electrical design.

"I enjoy the challenge of identifying and developing the best design solution within the clients budget and optimizing the performance of the equipment considering the full lifecycle cost of ownership." Darshan, CEG

RELEVANT PROJECT EXPERIENCE

Amazon warehouse*
Starbucks*

Watermark Country Club*
Istanbul Airport Facilities*
Riyadh Airport Cargo Freight Terminal*



EDUCATION

LD College of Engineering
BS Tech Mechanical
Engineering

ENGINEERING TECH

Rahul Patel, Associate, Leed Green Associate

Columbia Engineering Group

Rahul has over 12 years of progressive experience in MEP & FP design. He is adept at producing innovative & quality designs in MEP & FP. As an experienced designer Rahul brings a wealth of experience in commercial and industrial MEP engineering. His positive attitude and drive for excellence make him an optimistic team member who consistently finds great solutions to complex challenges.

"I love working with such a great team, and I'm excited to contribute to the delivery of great designs to our clients." Rahul, CEG

RELEVANT PROJECT EXPERIENCE

Aurobindo Pharma Phase 3*
Expansion*
Cannabis Grow Room*
Stone Ridge Apartments*

True Food Kitchen Restaurant*
Turkish Airlines New Istanbul Airport Facilities Design*



EDUCATION

MG University
BS Tech Mechanical
Engineering

ENGINEERING TECH

Amal Mathew George, Associate

Columbia Engineering Group

Amal is an experience MEP designer with over 5 years of experience in the commercial building design market. He has completed numerous design projects including HVAC, electrical, lighting, plumbing, and sustainable design practices for applications ranging from office buildings, educational facilities, health care institutions, retail spaces and more. His ability to integrate complex systems into architectural frameworks, ensuring optimal functionality, efficiency and end user satisfaction.

"I enjoy the process of design, particularly on challenging and complex projects." Amal, CEG

RELEVANT PROJECT EXPERIENCE

Goddard Preschool
Ridgefield | Commercial development
13 unit Multi-family Complex
4 story Multi-family Tower

Dental Clinic
Bakery
Self Storage Facility
EV charging stations

Sushi Restaurant
Swim School Facility
Pet Emergency
Hospital



EDUCATION

Institute of Infrastructure
Technology Research and
Management
BS Tech Mechanical
Engineering

ENGINEERING TECH

Aniket Patel, Associate

Columbia Engineering Group

Aniket is a HVAC & plumbing engineer with an extensive background in advanced design techniques. He is an excellent communicator and skilled designer with outstanding team leadership abilities to meet project milestones consistently. Aniket has vast experience in residential, high-rise buildings, health care, and agricultural project

"For me, building design is passion. I get to learn more with each & every project." Aniket, CEG

RELEVANT PROJECT EXPERIENCE

Casa Bella Residences 57 Story High Rise*
Cannabis Grow Facilities*
Fontainebleau Casino*

Nowhere Restaurant*
North Shore Dental Hospital*
Office Space Tenant Improvement*



ENGINEERING TECH

Romin Virani, Associate
Columbia Engineering Group

Romin has four years of experience in mechanical and plumbing design in commercial, residential, and institutional building. His expertise extends to energy modeling and building life-cycle cost analysis for large-scale commercial and residential projects. He is an expert in modeling in CAD/Revit and takes pride in his drafting presentation skills associated with mechanical engineering.

"I enjoy the multi-disciplinary approach to engineering, and getting the optimum solution for system as a whole."
Romin, CEG

RELEVANT PROJECT EXPERIENCE

Comfort Inn*
SEVG Bioscience Lab*
Cano Health Center*
5 story Mixed Use Highrise*
Kickstand Restaurant*
Wastewater Treatment Lab*

EDUCATION

Institute of Infrastructure
Technology Research and
Management
BS Tech Mechanical
Engineering



ENGINEERING TECH/BIM DIRECTOR

Vitaliy Gretchikhin, Associate
Columbia Engineering Group

Vitaliy is a highly experienced drafting and modeling professional, certified in numerous design platforms including Revit, AutoCAD, AGI32, Bluebeam, SketchUp, Photoshop, Newforma, & Dynamo. Vitaliy brings over seven years of experience in engineering drafting, is a creative problem solver and strong team leader in design. He has a keen eye for detail, take pride in his craft and holds other designers to our high standard of design presentation.

"Engineering and design is a passion for me, I love the continuous learning environment and creative process."
Vitaliy, CEG

RELEVANT PROJECT EXPERIENCE

Healthcare Facilities
Educational Institutions
Day Care Center
Transportation Facilities
Theaters and performing arts centers
Retirement and Senior living
Commerce and retail

EDUCATION

Spokane Community College
AAS Architectural
Technology



EXECUTIVE ASSISTANT

Kelsey Sluyter, Associate
Columbia Engineering Group

Kelsey is a seasoned professional with a strong background in sales, marketing, and organizational management. With over 15 years of experience, Kelsey has honed her expertise in driving sales growth, diversifying market sectors, and optimizing business operations. Her deep understanding of sales dynamics and market trends allows her to develop innovative strategies that drive revenue and expand market presence.

"I love keeping the business processes running smooth and constantly gaining efficiencies" Kelsey, CEG

EDUCATION

University of Oregon
BA Education

Columbia Engineering Group's team of engineers, techs, project managers, and business professionals have a plethora of experience serving various agencies, companies, municipalities, and developers. CEG engineers have extensive experience with **renovations of aged and occupied facilities. We formulate phased design plans for continuity of occupancy & operations during renovation.** The following is a summary of our staff's project experience:

HEALTHCARE	HEALTHCARE	DATA CENTER CONSTRUCTION
Sacred Heart Medical Care Providence Healthcare Mother Gamblin St. Mary Medical Neuroscience St. Mary Medical CT Room Kadlec Mammography clinic Universal Health Services Pend Oreille County Public Hospital Clinic Eastern State Hospital Pine Lodge DSHS Lakeland Village DSHS Plastic Surgery NW	DSHS Pine Lodge Optional Standby Generator DSHS ESH Laundry Wasteline Replacement DSHS YVS 100-Cottage Generator Replacement DSHS ESH FSU Chiller Replacement DSHS Rosewood Generator Replacement* White Flint Dental Associates SLO Pet Emergency Hospital Ambulatory Surgery Center Physician Offices Outpatient Imaging and Diagnostic Center Group Home for Developmentally Delayed Retirement Senior Assisted Living	Microsoft Data Center C09 Microsoft Data Center C06 Microsoft Project Explorer Vantage WA 12 Data Center Saby Data Center Building A Actapio Phase 2 and 3 Data Center Build Out
EDUCATION	EDUCATION	SUBSTATION CONSTRUCTION
Glen Ellyn School District Hadley Jr. High Kildeer Countryside Twin Grove Middle School Aurobindo Pharma Mounds View Public School Edgewood Middle School Vancouver School District Lincoln Elementary Aptakistic Tripp School District Jr. High Edison Elementary School Joliet Township High School	Eastern Washington University Martin Hall Moses Lake School District Admin Building Moses Lake School District Warehouse Spokane Falls Community College Quincy School District High School Quincy School District Jr. High Quincy School District George Elementary Quincy School District Pioneer Elementary Quincy School District Mountain View Elementary Ellensburg School District Morgan Middle School Eastern Washington University Campus Ridgefield Goddard Preschool	Ohme Substation Southridge Substation Gateway Substation
COMMERCIAL DEVELOPMENT	CLEAN ROOM / SEMICONDUCTOR	RESTAURANT
Microsoft Data Center Upgrades Ridgefield Pioneer Village Ridgefield Hillhurst Mackin Autobody Sunmodo Warehouse Sutton Trucking Hub Spokane Pavillion Marine Layer Tenant Improvement Canby Food Cart Pod Water Wings Swim School Ridgefield Discovery Ridge Agitation Station Laundromat	Disco Hi-Tech Cleanrooms HRL Semiconductor Cleanroom Solvay-Anaheim Cleanrooms AMAT R&D lab Cleanroom Elgin, AMAT semiconductor cleanroom	Sweet Bites Bakery Sushi Sake Restaurant Roxy's Pub Maya Juice Bar Dr. Pepper Victorville Galassos Bakery Popcorn Polis Evolution Fresh 100+ commercial and food service tenant improvements
GOVERNMENT/PUBLIC	GOVERNMENT/PUBLIC	RESIDENTIAL/MIXED-USE/HOSPITALITY
Washington State Patrol Service Bldg Oregon Military Department HVAC City of Okanogan Court House City of Spokane Riverfront Pavillion DOD Power System Upgrades (Numerous) DOD arc flash studies DOD protective system coordination DOD Transformer Refurbishment (numerous) DOD NERC compliance testing (numerous) DOD SF6 breaker replacements and overhauls DOD Generating station lube oil piping Bay Area Rapid Transit (BART) DOD Powerhouse HVAC DOD Industrial fire suppressions DOD Crane control system	DOD Root cause failure analysis DOD HV feeder replacement DOD Generator Refurbishment DOD Battery storage system DOD Forensic failure analysis DOD Crane Design City of Washougal Public Works bldg	57 Story Residential High Rise 4 story mixed use apartment complex 13 Unit multi-family complex Residential new builds and additions (numerous) Hotel and motel developments (numerous) Residence Inn Marriot Fresno Walton Co Montebello Beverly Tower Sunrise Marquis Hotel Hollywood Multi-story self storage facility Tip up building design (numerous) Multi-story parking garage (numerous) Seismic upgrades (numerous)

Oregon Military Department | M-F Armory HVAC Upgrade

The Armory's HVAC system couldn't keep up with the way the spaces were being utilized, resulting in large temperature swings from one space to another. The project re-evaluated the dated units & distribution system with respect to space usage resulting in a modern HVAC system sized to keep up with programmatic demand. The project replaced several units, added roof-top units, adjusted the duct distribution, & modernized the automation system. CEG performed the mechanical, structural, & electrical design.



WDFW | Region 3 Headquarters Renovation

The client outgrew the facility and the building no longer suited their programmatic needs. A study was performed that reviewed the programmatic needs versus costs of purchasing an alternate building, building new, or renovation coupled with current construction market conditions. Due to budget constraints, the client selected to renovate several spaces within their existing building and add a large addition. CEG performed the electrical engineering including interior/exterior lighting & controls, power distribution, fire alarm, access control, & data infrastructure design.



Washington State Patrol | Equipment Building

A mission critical, expensive asset was being exposed to weather deterioration & risk of vandalism. The project design captured a new equipment storage building with interior/exterior lighting, fire alarm, intrusion detection, solar ready, & power distribution systems.



Plastic Surgery NW | Essential Electrical System

The client noted operational deficiencies in their electrical system, programmatic needs and required modernization. A robust electrical system was designed to support their surgical equipment within the operating rooms. The project redesigned the electrical distribution system to comply with their needs and current regulations.



Mackin Auto Body | Automotive Repair Garage

The project consisted of a new 20k SF automotive repair facility with offices. CEG designed the electrical, mechanical, and plumbing infrastructure. The system design included high efficiency HVAC units coupled with radiant gas heating to reduce air flow for the sensitive nature of work being performed in the shop, advance lighting control systems reduced power demand, compressed dry air system design, natural gas distribution, and grease-waste interceptors.



Sutton Trucking | Regional Distribution Hub

The project was a new 27k SF trucking hub with multiple mechanic bays, wash bays, parts storage, offices, & a break room. CEG designed the mechanical, electrical, & plumbing systems for this facility. The design captured variable refrigerant system for energy efficient heating and cooling, reduced power LED lighting with advance controls, power distribution, fire alarm system, domestic water distribution & sanitary sewer with grease interceptor.



Marine Layer Tenant Improvement | Retail Outlet Store

CEG designed the mechanical, electrical, plumbing for a new retail outlet clothing store located in Bellevue Square Mall. The project included modification of the mall's HVAC system to accommodate the new outlet store, upgraded the fire alarm, provided a new panel to serve the space and LED lighting with photometric calculations.



The Goddard School | Pre K Education

CEG provided mechanical and plumbing design for a 2 story preschool and daycare facility. The facility consisted of classroom, bathrooms, break rooms and multiple meal prep areas. The project included the design of a robust, multi-zoned heat pump system with fan coil units for maximum efficiency to reduce operations cost, domestic water distribution system, and sanitary waste & venting design.



Disco Hi-Tech | Semiconductor Clean room

CEG provided electrical & plumbing engineering services for a new clean room used to manufacture semiconductor. The project observed stringent requirements of Class 10,000 ISO clean room. The design captured luminaries rated for the environment with photometric modeling, access control system with sally ports & door interlocks, power distribution with isolation transformers for sensitive equipment, complex process piping, chemical waste water system, domestic water distribution & sanitary waste system.



Glen Ellyn School District | Hadley Jr. High School HVAC Upgrade

The insufficient cooling capacity was disrupting learning due to occupant discomfort. Several of the existing units were no longer operational and the system was in need of replacement. The project modernized the HVAC system. Increasing system capacity and efficiency. The project restructured the distribution, installed new units, & replaced the building automation system. Mechanical & electrical engineering services were performed including design, permitting, & construction administration.



Kildeer Countryside | Twin Grove Middle School Chiller & Boiler Replacement

The chiller and boiler serving the school reached its service life and needed to be replaced. The project modernized the infrastructure, replaced the units with more modern high efficiency components, & brought the system up to current code. Mechanical & electrical engineering services were performed including design, permitting, & construction administration.



Mounds View Public School | Edgewood Middle School

The Project renovated the school and added several programmatic spaces. The design captured HVAC, plumbing & fire suppression systems. Mechanical engineering services were performed including design, permitting, & construction administration.



Aptakisic-Tripp School District | Aptakisic Jr. High School HVAC Upgrade

The existing HVAC units were in poor condition and needed to be replaced. The project captured replacing the HVAC units, brought the system up to current code, and updated the building automation system panel. Mechanical & electrical engineering services were performed including design, permitting, & construction administration.



True Foods | Kitchen Restaurant

A tenant space was renovated to support a new restaurant. The design captured a commercial kitchen, HVAC, plumbing & fire suppression system with type 1 hoods.



Site Package | Land O'Lakes Butter & Powdered Milk Plant

This project was new construction to build a butter & powdered milk plant. CEG engineers designed the civil site package including site grading, domestic water, fire suppression water supply, sewer, storm, & hardscapes



Parking Structure | University of Santa Clara

New parking structure to support the University's growing need for more parking space. CEG engineers designed the civil site package including site grading, fire suppression water supply, storm, & hardscapes.



Site Package | Tilt-up Building

the project built a new 100k SF commercial retail building. CEG engineers designed the civil site package including site grading, domestic water, fire suppression water supply, sewer, storm water, & hardscapes.



Site Package | California Dairies Powdered Milk Plant

The project was new construction to build a powdered milk plant. CEG engineers designed the civil site package including site grading, domestic water, fire suppression water supply, sewer, storm water, & hardscapes.



SPARC Rehab Center | Addiction Treatment Center

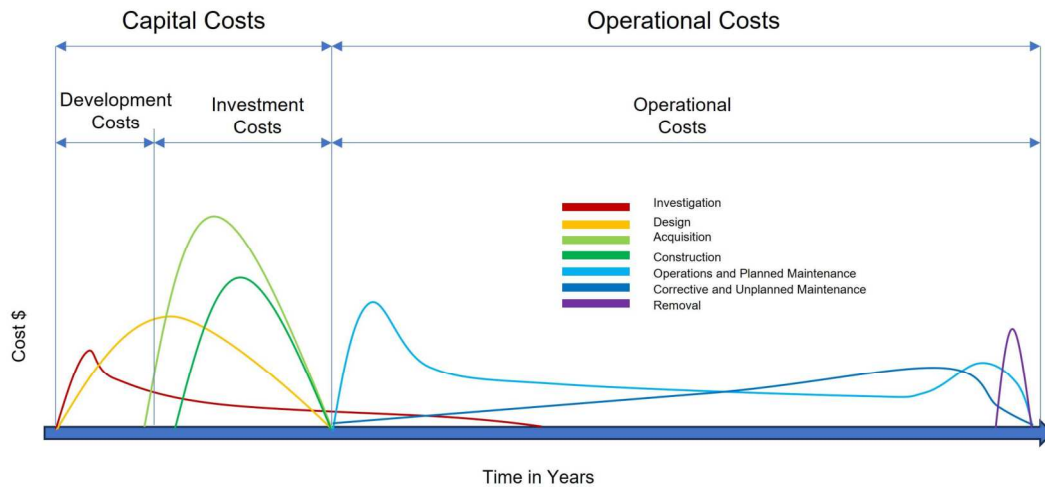
CEG designed the civil, mechanical, electrical, & plumbing infrastructure for the new 3 story, 15k SF rehab facility. The project included grading, sewer, storm water, domestic water, HVAC with high efficiency VRF, power distribution with backup generation, data infrastructure, LED lighting with photometric calcs, advance lighting controls with occupancy sensing & daylight harvesting, fire alarm, and access control system.

Washington Military Department | Readiness Center

CEG provided electrical engineering for the Moses Lake Readiness Center facility upgrade. This project modernized the electrical distribution, lighting, & fire alarm system.

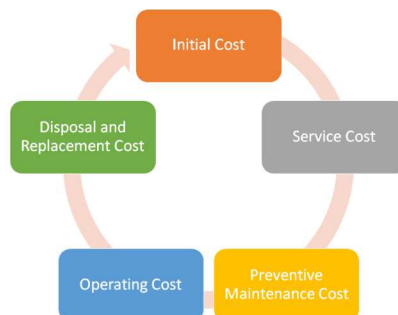


At Columbia Engineering Group, we employ a life cycle cost analysis (LCCA) methodology to help clients make the best financial decisions for their projects. CEG focuses on the lowest total lifecycle costs and best net present savings compared to a baseline scenario. We understand the many aspects which contribute to life cycle costs for various systems, components, and materials. We are familiar with The Office of Financial Management's LCCM model and tool and understand the methodology of performing the lifecycle cost analysis. Our LCCA process involves data collection, discounted cash flow analysis, comparison of alternatives, sensitivity analysis, and decision-making. This allows us to provide clients with multiple options and a comprehensive overview of the total cost of ownership perspective.



By integrating LCCA into our design process, we assist clients in prioritizing investments based on economic value and efficiency while considering business needs, funding availability, schedule constraints, and community interests. Our approach ensures projects align with long-term goals and financial objectives. At various milestones in the design phase, construction and lifecycle costs are considered to ensure alignment with the budget and project scope.

We are committed to delivering sustainable and cost-effective solutions that optimize resources and deliver enduring value. As an example of integrating lifecycle cost analysis into the design process for a retrofit upgrade at a DES owned facility, CEG performed a lifecycle analysis for a prematurely failed chiller. We performed a root cause analysis, determined the cause of the premature failure and designed for a correction to the root cause of the failure during the emergency equipment replacement project, and within the clients original project schedule and budget. By providing this value added design, the projected useful life of the equipment increased by over 200%, dramatically reducing lifecycle replacement costs and total cost of ownership for the client and ensuring maximum return on investment.



An example where CEG engineers provided LCCA was for a large wind turbine manufacturing facility located in Iowa. This facility is comprised of three buildings 591k SF, 230k SF, and 123k SF in size. The project sustainability goals were supported with lifecycle cost analysis. LCCA was performed and utilized in the selection of the HVAC system, electrical infrastructure equipment, and building insulating materials. Numerous options were analyzed for the total cost of ownership, including initial purchase and installation costs, maintenance, and equipment life expectancy. The LCCA indicated a savings of over \$300k/yr in energy costs after selecting the insulating materials alone.

Sustainable Design Commitment:

At CEG, sustainable design is more than a commitment—it's a core principle that guides every project we undertake. We believe in creating engineering solutions that minimize environmental impact, enhance energy efficiency, and provide long-term benefits to our clients. Sustainable design, to us, means meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Our Experience with Sustainable Design:

CEG has a track record of successfully incorporating sustainable design principles into a wide range of engineering projects. Our team of experienced engineers has worked on numerous projects that have achieved LEED (Leadership in Energy and Environmental Design) certification, demonstrating our capability to implement sustainable practices effectively.

CEG has 5 team members with LEED certifications:

Alireza Momeninezhad, MSc., P.E., LEED Green Associate

Sushil Kumar, P.E., LEED AP+

Jitendra Valmik, P.E., LEED

Brian White, P.E., LEED Green Associate BD+C

Rahul Patel, LEED Green Associate



Recent LEED Projects Contributed To:

Elgin AMAT Semiconductor:
LEED Gold

Ultimum 2 Battery Cell Plant
LEED Silver

How We Achieve Sustainable Design:

Energy Modeling: We utilize advanced software "Energy Pro" for energy modeling of buildings and systems to best understand the energy balance in the building. Our energy models include many contributing energy aspects from daylight, wind, & environment factors, to building materials, system efficiencies, occupancies and building uses.

Energy Efficiency: We prioritize energy-efficient HVAC and electrical systems, utilizing the latest technologies and materials to reduce energy consumption and operational costs.

Renewable Energy Integration: We explore opportunities for integrating renewable energy sources such as solar panels into our designs to reduce reliance on fossil fuels. We design electric vehicle charging stations and prepare for electrified automotive fleets.

Resource Conservation: Our designs focus on the responsible use of resources, including water-saving fixtures, efficient lighting systems, and sustainable building materials.

Waste Reduction: We work to minimize construction waste through careful planning and material selection, and we encourage recycling and reuse whenever possible.

Indoor Environmental Quality: Our designs prioritize indoor air quality, thermal comfort, and access to natural daylight, ensuring a healthier and more productive environment for building occupants.

Benefits of Sustainable Design for Our Clients:

Engaging in sustainable design practices offers a multitude of benefits to our clients, including:

Cost Savings: Energy-efficient systems and resource conservation measures can lead to substantial operational cost savings over the life of a building.

Environmental Stewardship: Sustainable design reduces a project's environmental footprint and contributes to a greener, more sustainable future.

Enhanced Building Performance: Improved indoor environmental quality results in increased occupant satisfaction, productivity, and well-being.

Regulatory Compliance: Many jurisdictions require sustainable design elements, and our expertise in this area ensures compliance with local regulations and codes.

Positive Reputation: Demonstrating a commitment to sustainability can enhance your organization's reputation and attract environmentally-conscious stakeholders.

Columbia Engineering Group is currently serving as an on-call consultant for DES in Eastern Washington for both Electrical and Mechanical Engineering services. This demonstrates our strong technical abilities, qualifications, working relationships, and familiarity with DES facilities and personnel. Some of our recent projects with DES are highlighted here:

DEDICATED - RESPONSIVE - HIGH QUALITY ENGINEERING SERVICES

Eastern State Hospital FSU Chiller Replacement: This project responded to 2 failed hydronic chillers serving the forensic wards at Eastern State Hospital. CEG provided engineering and construction administration for this project. The scope of the project initially was a simple like and kind replacement of the failing chiller units. CEG found a number of ways of providing added value on this project; the existing chillers were failing well before their expected lifespan, and we provided an analysis of the root cause of the failure, by doing so we came to understand the airflow in the chiller yard was insufficient to shed heat from the chillers and was therefore resulting in excessive duty cycle and causing premature failure. CEG incorporated a correction to this root cause failure by replacing a portion of solid wall in the chiller yard with a fence, correcting the airflow problem during the project within the original budget allotted for replacing the chillers. This likely saved DES hundred of thousands of dollars in valuable capital investment funds and extended the life of the existing chillers as well as the replacement chillers by years. CEG also designed infrastructure to connect temporary chillers quickly in the event that an additional chiller failure occurred in the future, thereby limiting risk to the facility, assisting in the continuity of operations, and allowing a rapid restoration of service.

Yakima Valley School Emergency Generator Replacement: This project replaced a failed standby generator on the Lakeland Village Residential Rehabilitation Campus. CEG added value during this project by designing the incorporation of a small chiller unit that could be utilized in conjunction with the replacement standby generator in the case of a loss of primary power.

Yakima Valley School Campus Generator Replacements: This project expands on the standby generator emergency replacement project by replacing all remaining standby generators for the campus. CEG is adding value in this project through extensive analysis of the existing infrastructure which has limited as built information. CEG is working within the allowable budget to find a solution which upgrades the electrical infrastructure to a higher capacity, increases the reliability of the power system through redundant power supplies and automatic transfer switches, and limiting cost to DES through detailed design which allows for detailed cost estimating by contractors, thereby limiting risk of budget overruns through change orders in construction phase.

Eastern State Hospital Wasteline Replacement: This project replaced 3 - 3 story laundry wasteline stacks in Eastern State Hospital. CEG added value in this project in numerous ways. CEG evaluated the infrastructure and worked with site staff to identify the root causes of waste water back ups. CEG designed an up-sized drainage and ventilation system which provides adequate flow for an expanded number of washers on each floor. CEG also added value in this project when the design set was put out for bid and the project received no bidders. CEG identified potential contractors, contacted and briefed them on the project, and encouraged them to bid on the project, which ultimately successfully resulted in the project being awarded for construction at the next solicitation. CEG then provided construction administration services during the project construction to ensure proper installation of the designed system on time and within budget.

Lakeland Village Utility Line Replacement: This project upgrades the campus water main infrastructure by replacing key sections of water main supply lines throughout the campus. CEG is adding value in this project by progressing quickly through design to accelerate the construction schedule, designing temporary supply systems during construction, replacing and repairing critical valves, working with limited as built information, and designing the new system in such a way as to limit the cost during construction and avoid removal of trees.

Eastern State Hospital Electrical Feeder Replacement: This project upgrades campus medium voltage system by replacing approximately 35,000 feed of cabling throughout the Medical Lake Campus, replacing underground electrical pathways and medium voltage switchgear. The project supports future goals of upgrading the electrical infrastructure to support and electrical transport system, and establish a long term reliable medium voltage infrastructure on the campus.

Lakeland Village Gray Fire Emergency Response: In August 2023 a large wildfire "The Gray Fire" severely burned the Medical Lake area and burned down a series of power poles providing the main electrical supply to the Lakeland Village Residential Rehabilitation Center, leaving the facility reliant on the emergency back up generator system (also designed by CEG engineers). CEG received the call indicating the fire had damaged the primary power infrastructure supplying the Lakeland Village Campus on Saturday afternoon at 3pm. CEG engineers acted quickly to analyze the damaged portions of the system through phone conversations with site staff. Materials to repair the infrastructure were not locally available, so CEG engineers travelled to the regional distribution supply house in Beaverton Oregon, specified and obtained the appropriate materials by coordinating with staff at the distribution center after hours on the emergency basis, then transported the materials across the entirety of the State of Washington in the middle of the night to Medical Lake. In the meantime CEG contacted numerous lineman crews during the night and found crews that could respond to the emergency the following morning. On Sunday morning CEG arrived on site with the repair materials, and lineman crews, coordinated with the site staff, evaluated the damage, tested the cables and directed the repair work to the primary damage location. Furthermore, electrical transients resulting from the supply failure caused failures of downstream equipment such as distribution transformers. CEG worked with site staff and local suppliers to replace the damaged transformer. Power was restored to the campus within 24 hours of calling CEG to respond, this was weeks in advance of the expected restoration of power. CEG then worked with site staff and LNI to complete the review of design changes to the system resulting from the transformer replacement, and document the system changes in as built drawings.

DSHS | Pine Lodge Optional Standby Generator

Pine Lodge had several administrative buildings which were suffering intermittent power outages which interfered with their work flow capability. This project took an existing generator serving an abandoned building on the campus & re-purposed it to serve several smaller DSHS administration buildings. The design was a cost-efficient, innovative solution that added value by re-purposing existing assets to serve operational needs. CEG performed the electrical design consisting of voltage drop, fault current calcs, breaker coordination, feeder sizing, equipment evaluation, L&I plan review, and construction administration.



DSHS | YVS 100-Cottage Generator Replacement

The existing generator exceeded its serviceable life due to excellent maintenance but ultimately failed and needed to be replaced. CEG quickly responded to DSHS need for system replacement and modernization. The re-designed system brought the essential electrical system up to code. The project added a chiller for cooling during power outages to meet the programmatic needs of the facility and maintain operational continuity during emergencies. CEG performed the electrical design consisting of voltage drop, fault current calcs, breaker coordination, feeder sizing, equipment selection, L&I plan review, Dept. of Health plan review, and construction administration.



DSHS | ESH FSU Chiller Replacement

two of the three chillers serving several wards at Eastern State Hospital failed and needed to be replaced. Due to the failures being an unplanned expense, the project was designated an emergency replacement and limited to like and kind replacement for the chillers, a root cause analysis was not in the budget. During the project assessment and scoping investigation, it was noted one of the chillers was only halfway through its serviceable life and failed prematurely. As CEG always keeps the best interest of our clients as a top priority, we were not satisfied with simply replacing the failed chillers without understanding why they had failed prematurely. CEG analyzed the situation and found the close proximity of the solid walls of the chiller yard did not provide sufficient airflow and heat dissipation from the chiller units, resulting in the premature failure. CEG engineers discussed the issue with the DSHS program project manager and worked to find a cost effective solution to remedy the situation by removing a section of the solid wall and replacing with cyclone fence to improve airflow. During the design phase CEG engineers also provisioned permanently installed infrastructure to connect temporary standby chillers in case of any future failure to allow for rapid restoration of service. During this project, CEG worked with DSHS to maintain operational continuity of the wards serviced by the chillers, and the wards remained occupied during the project. CEG performed mechanical, electrical, and structural engineering design.



ESH | Laundry Waste line Replacement

The waste line infrastructure at an older facility often backed up even after the maintenance staff rooted the lines. The project identified the root cause as decades of sediment build up in horizontal and vertical lines as well as undersized drains and vents. The waste lines were replaced on four floors across several wards and brought the waste line infrastructure up to current code standards. The project also added several washer & dryer units to keep up with growing demand. CEG performed the mechanical and electrical engineering as well as construction administration. This project was performed in an occupied facility and continuity of operations were maintained during the project through to completion.



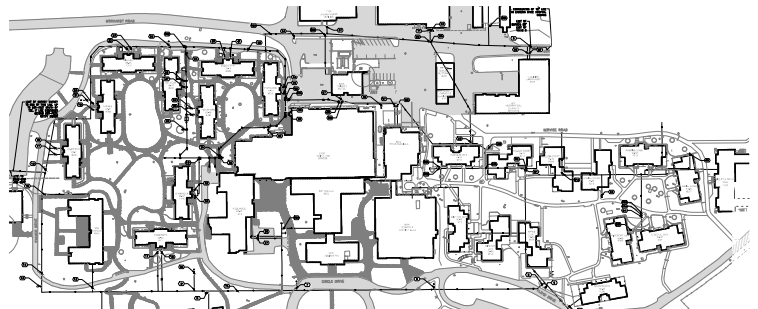
Lakeland Village | Gray Fire Emergency Response

In August of 2023 the Gray Fire burned a massive area surrounding Medical Lake. The fire encroached upon the Lakeland Village and Eastern State Hospital Campus and burned down power poles which provided medium voltage power to the Lakeland Village campus, forcing the campus onto standby generator power. It was expected the campus would be without power for several weeks until repairs could be completed. CEG engineers got the call that power was lost due to the fire on Saturday afternoon. By Sunday morning CEG had arrived on site with replacement materials, lineman crews, plans, test equipment and engineering staff, and power was restored to the campus by the end of the day. CEG worked further on the project to finalize changes to the system with L&I plan review.



Lakeland Village | Utility Line Replacement

This project designed the upgrade and replacement of aged underground water main. The project required a continuity of operations for buildings served by the main line and temporary water supply was provisioned for each during the change over. Design accounted for options which would reduce the construction cost and minimize disruption to the occupied campus.



State of Washington
Department of Enterprise Services
1500 Jefferson Street SE
Olympia, WA 98504

RE: Diverse Business Inclusion Plan

Selection Panel Members,

Columbia Engineering Group is Veteran-Owned and Small Business Enterprise offering in-house civil, structural, mechanical, electrical, plumbing, and fire protection engineering services. CEG is committed to diversity inclusion with 2/3 ownership being Veterans and 60% of CEG staff being comprised of women and minorities. We believe that diversity and inclusion broadens our awareness and perspective and allows us to deliver higher quality products and services to our clients.

Our diverse business inclusion plan is to self perform all scopes of work within our core service offering and subcontract support services and disciplines we do not self perform. For aspects of the projects which are not self performed, CEG works alongside several WMBE which provide support services for project execution such as specialized design and drafting support.

CEG is familiar with and regularly utilizes the Washington State Directory for Women and Minority Owned Businesses, as well as the Department of Veteran Affairs Veteran Owned Business Directory. CEG has developed working relationships with several WMBE and we work together on projects to satisfy requirements for diversity inclusion. Our teams are complimentary and we share information and resources to lift each other up, provide cross training, and help to improve our services to our communities.

The ratio of core service offering to subcontracted tasks will meet or exceed DES's aspirational goals for this project. If another opportunity were to arise that would strengthen our team by partnering with another small business, women-owned, minority-owned, or veteran-owned enterprise we would partner with these companies to improve diversity inclusion and strengthen our team.

Our goal is to achieve 40% Veteran owned, 40% Small business, 10% Woman owned, 10% Minority owned for anticipated percentage of contract amount for this project.

The following is a list of previous projects with diverse business participation:

DSHS | ESH FSU Chiller Replacement
DSHS | ESH Laundry Wasteline Replacement
DSHS | YVS 100-Cottage Generator Replacement
DSHS | Pine Lodge Optional Standby Generator
DSHS | YVS Campus Generator Replacement
DSHS | LV Campus Utility Line Replacement
DSHS | ESH Electrical Feeder Replacement
OMD | M-F Armory HVAC Upgrades

CEG acknowledges awareness and commitment to DES's diverse business utilization goals.

Warm Regards,



Columbia Engineering Group
www.cegiusa.com
509.720.7048

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)

2024-420

PART II - GENERAL QUALIFICATIONS*(If a firm has branch offices, complete for each specific branch office seeking work.)*

2a. FIRM (OR BRANCH OFFICE) NAME Columbia Engineering Group Inc.			3. YEAR ESTABLISHED 3	4. DUNS NUMBER 117904951
2b. STREET 2210 SE 352nd Ave			5. OWNERSHIP	
2c. CITY Washougal			a. TYPE Corporation	
2d. STATE WA			b. SMALL BUSINESS STATUS Active	
2e. ZIP CODE 98671			7. NAME OF FIRM (If block 2a. is a branch office) N/A	
6a. POINT OF CONTACT NAME AND TITLE Nathon O'Neel, Principal				
6b. TELEPHONE NUMBER 509-540-2936		6c. E-MAIL ADDRESS noneel@cegiusa.com		
8a. FORMER FIRM NAME(S) (If any)			8b. YR ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
01	Architect	1		001	Acoustics and Sound	1
02	Civil Engineer	1		094	Alarm & Security	1
03	Electrical Engineer	4		033	Boilers	1
04	Mechanical Engineer	4		212	Building Condition Assessment	1
05	Structural Engineer	3		017	Commercial Building	1
11	Fire Protection Engineer	1		018	Communication	1
15	Hydrologic Engineer	1		027	Dining Hall, Kitchen, Food svc	1
16	Programming	1		029	Educational Facilities	1
19	Telecom Engineer	1		034	Energy Infrastructure	1
30	Cost Estimator	1		032	Energy Management	1
34	Planner	1		024	Fire Alarms	1
94	Security Specialist	1		039	Garage, Vehicle Maintenance	1
				043	HVAC	2
				048	Medical Facilities	1
				050	Housing	1
				061	Lighting	1
				206	Load Studies	1
				079	Master Planning	1
				072	Office Buildings	1
				084	Prisons and Correctional	1
				089	Rehab Facilities	1
				101	Structural Design	1
	Other Employees					
	Total	20				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work	1	1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	2	2. \$100,00 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	4	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE 29 Nov 2023
c. NAME AND TITLE C. Tyler Nielson, Chief Executive Officer	



CEGIUSA.COM