

STATEMENT OF QUALIFICATIONS



PROJECT NO. 2024-342 WESTSIDE PRISON HOUSING UNIT HVAC PRE-DESIGN
DEPARTMENT OF CORRECTIONS, 7345 LINDERSON WAY SW, TUMWATER, WA 98501

H A R G I S 09.04.2024





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September 4, 2024

State of Washington
DEPARTMENT OF CORRECTIONS
7345 Linderson Way SW
Tumwater, WA 98501

ATTN: Susan Isham, DOC Project Manager

RE: **DOC PROJECT NO. 2024-342**
Westside Prison Housing Unit HVAC Pre-Design

Occupant comfort and indoor air quality in dated facilities have been areas of concern for building operators. As public agencies look for creative solutions, they are balancing several factors that influence project success. Over the past several years, many have turned to us to develop discreet scopes of work that represent the best use of public resources. We have helped owners navigate access to critical equipment, mitigate scope creep that could trigger code required upgrades, align with legislative mandates, and support system performance reporting requirements.

In delivering services to a wide range of facility types, we've honed our technical aptitude and project management acumen to lead planning efforts. Exercised across the campuses identified in the RFQ, as well as key DOC initiatives, we are afforded a deep understanding of the agency's long-term goals, facility conditions, considerations, and operating dynamics. We have demonstrated our ability to lead the full spectrum of system planning and implementation - from PRR development to leading design and construction activities as the prime consultant.

In the following pages, we have highlighted our team, which has dedicated an average of 26 years to the profession of consulting engineering, project approach, and related experience. They share a passion and commitment to continuing to serve Washington State and its public safety needs.

As your program managers, we welcome the opportunity to demonstrate how we work as a team to realize project objectives.

On behalf of Hargis Engineers,



RON ELIASON, PE, PMP
Principal, Mechanical
Program Manager



JARED ROBILLARD, PE, LEED® AP
Principal, Mechanical
Co-Program Manager/ Quality Assurance



RON ELIASON
PE, PMP
PRINCIPAL, MECHANICAL
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1201 Third Avenue, Ste. 600
Seattle, WA 98101



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: Hargis Engineers		
Point of Contact Name & Title: Ron Eliason, Principal		
Email: ron.eliason@hargis.biz	Telephone: 206.436.0444	
Address: 1201 Third Avenue, Suite 600		
City: Seattle	State: WA	Zip: 98101

Consultant Selection Contact Form

EXECUTIVE SUMMARY

The scope of this project bridges technical aptitude with consultancy acumen. As an initiative that will address occupant comfort with the potential to improve system performance, its success hinges upon a consulting team's ability to develop feasible options to meet the program's intent. Over the past twenty-plus years, we have invested in such a team and developed peer relationships that have delivered well-coordinated solutions for Washington state agencies (page 9).

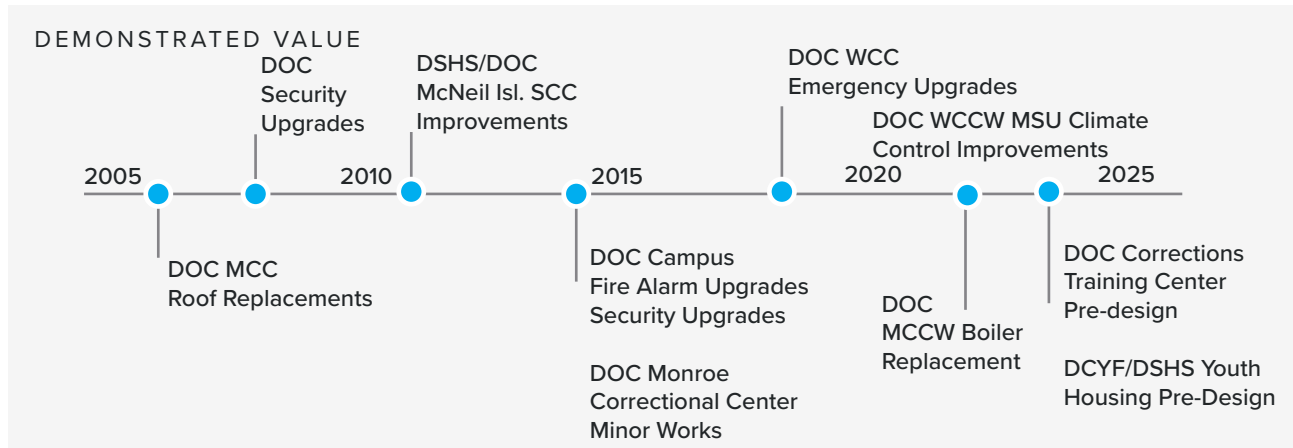
We were introduced to Washington State's behavioral and rehabilitation programs through our work with the Department of Corrections (DOC), Department of Social & Health Services (DSHS) and Department of Children, Youth & Families (DCYF) in 2007, 2012 and 2019 respectively. Leading discreet upgrades and supporting capital improvements within these access-controlled environments, we became intimately familiar with the technical, operational, and programmatic requirements of these unique facilities. Bringing that experience forward to serve this scope of work, we have supported the agency's mission and capital investments under phased, accelerate, and emergency schedules.

As we approach developing the pre-design, we understand stakeholders expect the program to balance scope with available resources and create a viable path forward.

Key to realizing that objective will be developing a plan that addresses the technical components of the project, provides a plan for housing displaced residents, and identifies a viable system that will provide cooling and tie into existing BMS system. As we develop the plan, we will be applying our experience (pages 8-13) to lead the programming and technical attributes. Joining us in this endeavor is a team of specialists with a proven track record for successful outcomes.

For more than 35 years, KMB has provided design and planning services to meet the needs of Washington State's secure facilities. Their expertise in serving discreet scopes of work, specifically HVAC replacements, roof repairs and replacements, and tenant improvements allows them a comprehensive understanding of the construction process and potential impacts to facility operations. Coupled with their experience in the three sites listed, they have developed a rapport with local stakeholders and third-party contributors who will influence the project's outcome.

JMB Consulting Group has provided cost estimating for a wide variety of publicly funded projects for over 30 years. Partnering with the team on several renovations over the past decade, Jon understands the unique conditions and considerations associated with access-controlled, phased projects in hardened facilities.



01 CONTINUITY IS KEY
Where commitment and tenure meet, programs excel. Our team averages **23 years** of experience and have served Hargis clients consistently for an average of **15 years**.

02 INDUSTRY LEADERSHIP
Personally invested in industry advancements, our team has **provided technical consultancy** to governing bodies to support the built environment.

03 EFFICIENCY BY DESIGN
Well-executed designs stem from well-defined plans crafted by **experienced professionals** who can effectively navigate the technical and non-technical elements of a project.

04 ENTERPRISE VERSED
Serving **enterprise programs for over 40 years**, our methods are tested and proven on scalable projects.

05 CLIENT ADVOCATE
We invest resources to serve clients beyond the project, bringing forth ideas to improve and enhancement through project delivery and facility operations...**a value that is realized long after project closeout.**

When experience matters, clients turn to us for consistency, quality and thought leadership.

KEY PERSONNEL

KEY PERSONNEL

The team we have committed to the program have the technical acumen and project management skills to meet stakeholders' objectives. They have demonstrated their ability to plan and deliver discreet scopes of work within active, access-controlled environments that have benefited Washington state's departments of Corrections, Social & Health Services, and Children, Youth & Family. As members of a collective team that values tenure and continuity of services to clients, they are continuing a **22-year tradition** of serving the state's most secured and vulnerable populations.

Leading the team are **Ron Eliason** and **Jared Robillard**. Ron, as the principal-in-charge, will be responsible for the overall program: contracts, staffing, quality of deliverables, and technical leadership. Jared will lead the quality assurance/control reviews and serve as a backup to Ron for times of planned and unforeseen unavailability.

PROGRAM & PROJECT LEADERSHIP



35

RON ELIASON

PE, PMP®

PRINCIPAL, MECHANICAL
PROGRAM MANGER - 10%*



20

JARED ROBILLARD

PE, LEED®, AP

PRINCIPAL, MECHANICAL
CO-PROGRAM MGR & QA/QC - 3%

TECHNICAL LEADERSHIP

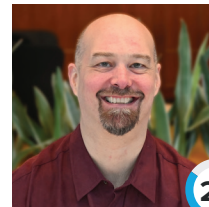


30

MATT STRAIN

PE, LEED® AP

SR ASSOCIATE, MECHANICAL
PROJECT MANAGER - 30%



27

ANDREW CLAGETT

PE, LEED® AP

ASSOCIATE, MECHANICAL
7%



19

JON BEADE

PE

ASSOCIATE, ELECTRICAL
12%



15

BEN HELMS

PE, RCDD

ASSOCIATE, TELECOM/ SECURITY
3%

ARCHITECTURE



18

TONY LINDGREN

PE, ASSOC. DBIA

PRINCIPAL, KMB
5%



25

GREG COOK

AIA, CCHP

PROJECT MANAGER, KMB
10%



18

OWEN BOWER

PE, SE

PRINCIPAL, LUND OPSAHL
5%



35

JON BAYLES

COST ESTIMATING

JMB CONSULTING GROUP
5%



20

MIKE BARANICK

PE, CEM®, CMVP®

SENIOR ASSOCIATE
ENERGY/CBPS - 5%

STRUCTURAL

COST ESTIMATING

LCCA/CONSERVATION

YEARS OF EXPERIENCE



with firm
industry

* anticipated percent allocated to pre-design

Ron will work closely with project manager **Matt Strain** and the architectural specialist, **Tony Lindgren**, to develop a plan that aligns with campus operations and DOC's goals. As well as structural engineer, **Owen Bower**, to identify structural modifications required to support the equipment and any structural modifications. The plan will be based on system options developed by the team with energy modeling by **Michael Baranick** and cost estimating by **Jon Bayles**. Options will be based upon a phasing strategy to maintain operations, funding cycles, and the best-use of resources to align the pre-design intent of the scope of work.

As the plan progresses through option development project manager, **Matt Strain**, will serve as the primary day-to-day point of contact. He will guide the development of the pre-design document coordinating project deliverables, track, monitor, and report project fiscal and milestone progress and communicate project information to the team. He will be responsible for conducting on-site surveys, leading project meetings, and preparing the final document for the agency's use.

Andrew Clagett will provide a second layer of technical and engineering support, alongside the technical and architectural specialists committed to this project.



RON ELIASON, PE, PMP®
PRINCIPAL, MECHANICAL, PRINCIPAL-IN-CHARGE

Equally skilled at traditional and alternative project delivery methods, Ron has a talent for grasping client goals and translating them into mechanical engineering solutions. He effectively implements management approaches and design options that foster joint efforts amongst diverse teams serving municipal projects. Ron's technical focus and collaborative style promotes communication within project teams and offers systems tailored to succeed.

INVESTED
35 Years - Industry • 19 Years - Hargis

EDUCATE
University of Washington
BS Mechanical Engineering

EXPERIENCED
WA DOC, Correctional Training Center Pre-design
WA DOC, MCC WSRU and TRU Roof Rplmnt.
WA DSHS/DCYF, Youth Housing Pre-design
WA DOC, MCCCW Boiler Replacement
WA DOC, Maple Lane Campus Planning
WA DOC, MCC Fieldhouse Roof Rplmnt.
WA DCYF, Green Hill, North Baker & Spruce P2
WA DSHS, McNeil Island SCC Power House & Kitchen Upgrades
WA DSHS, WSH Fire Sprinkler Upgrades
King Co. Metro, Base Mechanical Upgrades (5)
UW, Chiller Replacements



JARED ROBILLARD, PE, LEED AP®
PRINCIPAL, MECHANICAL, QA/QC

Versed in system upgrades, Jared blends his technical knowledge to deliver systems that align with desired outcomes. Versed in legacy and modern-day system technologies, he blends his technical knowledge to deliver systems that align with desired outcomes. Experienced with live, continuous operating campus environments, he is versed in collaborating with stakeholders, professional peers and tradespersons to plan, design and execute system upgrades.

INVESTED
20 Years - Industry • 19 Years - Hargis

EDUCATE
University of Washington
BS Mechanical Engineering

EXPERIENCED
WA DOC, MCCW Building AA Chiller Rplmnt.
WA DOC, WCCW-MSU Climate Control Pre-design & Improvements
WA DOC, MCC WSR Dialysis
WA DOC, WCC Security Video Upgrade
WA DOC, CBCC Security Video Upgrade
WA DSHS, Maple Lane School, Cascade Unit Renovation
WA DSHS, WSH Fire Sprinkler Upgrade, Phase 1
King Co. Metro, North Base Mechanical Upgrades
Cascade Behavioral Health Facility Renovations
Kindred Hospital, Acute Care MEP Upgrades



MATT STRAIN, PE, LEED® AP
SENIOR ASSOCIATE, MECHANICAL

Matt serves 24/7 operating campus environments through his extensive experience assessing and developing infrastructure solutions to support continuous operating spaces. His ability to identify and execute scopes of work enables him to offer a full range of technical leadership and engineering services. His understanding of the system interdependencies serving these spaces enables him to engage those with the expertise to properly support the scope of work, and develop approaches for different delivery methods.

INVESTED

30 Years - Industry • 18 Years - Hargis

EDUCATED

University of Washington
BS Mechanical Engineering

EXPERIENCED

- WA DOC, CBCC Controls Integration
- WA DOC, MCC Controls Integration
- WA DSHS SCC, Kitchen Electrical Upgrades
- WA DSHS WSH, Infrastructure Upgrades
- WA DSHS WSH, Fire Sprinkler Upgrade
- WA DSHS WSH, Comm. Upgrades
- WA VA, American Lake Building Replacements (2)
- Pierce Co., Data Center Upgrades
- ValleyComm (911), Data & Call Center Upgrades



ANDREW CLAGETT, PE
ASSOCIATE, MECHANICAL

As a detailed engineer and an active project manager, Andrew focuses on the technical needs of Hargis' clients. He supports project teams by providing calculations, design work, analyses for heating and cooling loads and life cycle costs, and producing performance-based specifications. His project management duties span schematic development through construction administration and closeout, collaborating throughout each phase with diverse teams to guide projects towards final completion.

INVESTED

27 Years - Industry • 23 Years - Hargis

EDUCATED

Colorado State University
BS Mechanical Engineering

EXPERIENCED

- King Co. Metro, Base Mechanical Upgrades
- UW, Chiller Replacement Program
- UWMC, Mechanical Upgrades
- UWMC, BB1552 3-Phased Renovation
- UWMC, Office Conversion
- UWMC, Vascular Lab 2-Phased Renovation
- UWMC, BB Tower Power, Emergency Repair
- WA Patrol, Bow Lake Weigh Station HVAC



MICHAEL BARANICK, PE, CEM®
SENIOR ASSOCIATE, ENERGY SERVICES

Mike utilizes his understanding of mechanical systems, energy efficiency measures, sustainable approaches and facility utilization to develop conservation strategies that balance owner considerations. His ability to discern client objectives, collect meaningful data and translate it into measurable outcomes upholds operational and conservation expectations.

INVESTED

20 Years - Industry • 12 Years - Hargis

EDUCATED

Seattle University, Masters Business Administration
Santa Clara University, BS Mechanical Engineering

EXPERIENCED

- City of Bellevue, Energy Code Reviewer
- Pierce Co., CBPS Consulting
- Port of Bellingham, CBPS Consulting
- Bellevue College, CBPS Consulting
- King Co. Metro, Bases Energy Modeling
- Snohomish Co. PUD, Energy Modeling
- ValleyComm 911, Data Center Upgrades
- WA State LCCA Reviewer, 12 Years



JONATHAN BEADE, PE
ASSOCIATE, ELECTRICAL

An ambitious consultant, Jonathan brings forth a knowledge base in power distribution and lighting design. Balancing enterprise standards with project objectives, his experience addresses the programmatic and operational needs. Applying his ability to discern options and uphold stakeholder standards, Jonathan’s engaging project management style and strong desire to promote client objectives through responsive services. His willingness to take on new projects complements his technical skill set as a dedicated and thorough electrical consulting engineer.

INVESTED

19 Years - Industry • 15 Years - Hargis

EDUCATED

Gonzaga University
BS Electrical Engineering & MBA

EXPERIENCED

- WA DOC, CRCC Radio System Power
- WA DSHS, Lakeland Village, Fire Alarm Replacement
- WA DSHS, Echo Glen, Fire Alarm Replacement
- WA Military Dept, Moses Lake Generator Installation
- WA CSTC Administration Fire Alarm Replacement
- WA DCYF, Green Hill School Baker North
- Lewis Co., Juvenile Court and Rehabilitation Center Upgrades
- Yakima Valley Farm Workers, Yakima Clinic Remodel/ Add.



BEN HELMS, PE, RCDD
ASSOCIATE, TELECOM • SECURITY

Ben’s experience serving enterprise clients brings forth an understanding of campus operations, aging infrastructures and the integration of converged technologies to support the deployment of system solutions. His ability to scope large-scale projects and design to target value aids clients in moving complex, communications infrastructure intensive projects forward. Coupled with his approachable demeanor and proactive communication style, he is able to connect with individuals with various technical backgrounds to build consensus and garner buy-in.

INVESTED

15 Years - Industry • 5 Years - Hargis

EDUCATED

Eastern Washington University
BS Electrical Engineering

EXPERIENCED

- WA DOC, Campus Security Upgrades (Multiple)
- WA DOC, TRU Program & Support Bldg Roof Rplcmnt
- WA DOC, WCC Transformers & Switches, Phase 2
- WA DOC, WCC Security Upgrades
- WA DSHS Fire Alarm Replacements
- WA DSHS Network Infrastructure Assessments
- WA DSHS CSTC Patient Door Alarm System
- WA Capitol Campus, Access Control Upgrades
- Mason Co., Community Justice Center Pre-design



TONY LINDGREN, PE, ASSOC. DBIA
PRINCIPAL, ARCHITECT, KMB

Tony primarily manages the architectural predesign team and interfaces with DES and DOC. His proficiency in communications and firm management delivers consistent project success. Projects succeed through Tony’s active listening, proven project approach, and strong facilitation skills. He has a talent for asking the right questions, providing thoughtful solutions, establishing trust, and delivering pre-designs that support operational and technical objectives.

INVESTED

18 Years - Industry • 5 Years - KMB

EDUCATED

Washington State University
BS Civil Engineering

EXPERIENCED

- WA DOC Corrections Training Center Pre-design
- WA DOC, Inpatient Psychiatric Unit Pre-design
- WA DOC, WSP Roof Replacement, Pre-design
- WA DOC, McNeil Island, Training Center Assess. & Reno.
- WA DOC, Work Release Facility Programming
- WA DSHS, Olympic Heritage Behavioral Health Hospital
- WA DSHS, Secure Community Transition Facility
- WA DSHS, Ward C9 Renovations
- WA DSHS, Yakima Valley School Upgrades



GREG COOK, AIA, CCHP
ARCHITECT, KMB

Greg has extensive experience designing criminal justice facilities for state, county, and local agencies. With more than 25 years of experience, Greg has been able to deliver successful projects that range from small renovations to comprehensive master plans. Greg has consulted with the National Commission on Correctional Health Care as a Correctional Health Design Specialist and led their task force to develop design best practices for secure facilities and is a frequent presenter at national conferences.

INVESTED

25 Years - Industry • 3 Years - KMB

EDUCATED

Washington University in St. Louis, Masters Arch.
University of Illinois at Urbana-Champaign BS Civil Eng.

EXPERIENCED

- WA DOC Corrections Training Center Pre-design
- WA DOC, Inpatient Psychiatric Unit Pre-design
- WA DOC, McNeil Island Strategic Master Plan
- WA DSHS, Secure Community Transition Facility
- WA DSHS, Ward C9 Renovations
- WA DSHS/DCYF, Youth Housing Pre-design
- WA DSHS, Olympic Heritage Behavioral Health Hospital



OWEN BOWER, PE, SE
PRINCIPAL, LUND OPSAHL

Owen is committed to promoting collaborative client and team relationships. He responds comprehensively to unique project challenges and excels in balancing code performance, architectural programming, contractor constructability, and budget demands. Owen’s project experience with the WCC, the WCCW, and various other projects with the WA DOC, alongside his years of management experience will ensure the structural team is fully engaged in providing extensive technical expertise and on-time deliverables to support the success of the team.

INVESTED

18 Years - Industry • 10 Years - Lund Opsahl

EDUCATED

University of Cincinnati
Structural Engineering, Masters

EXPERIENCED

- WA DOC, WCCW-MSU Climate Control Pre-design & Improv.
- WA DOC, WCC Building D Construction Support
- WA DOC, WCCW Roof Replacement Review
- WA DOC, WCCW Outdoor Welding Station and Storage
- WA DOC, Clallam Bay Corrections Center HVAC Installation
- WA DOC, WSP Roof & HVAC Rplmnt. Fall Protection Pre-design
- WA DOC, WSP Building 6 Mechanical Upgrades
- WA DOC, Training Center Pre-design
- WA DSHS, Secure Community Transition Facility Pre-design



JON BAYLES
COST ESTIMATING

Jon brings extensive knowledge of the construction industry. His cost planning expertise is applied through various sectors with an emphasis on higher education, healthcare and research facilities. He has worked on projects ranging in scope and size from \$100 thousand to over \$2 billion for private and public sector clients. He has proven abilities in value engineering, evaluating monthly capital expenditure, claims management, preparation of bid documents, and preparation of project final accounts.

INVESTED

35 Years - Industry • 14 Years - JMB Consulting Group

EDUCATED

Emory University
BA Economics

EXPERIENCED

- Clark Co., County Jail Reno./Add.
- Deschutes Co., Sheriff’s Office Jail Reno./Add.
- Pierce Co., Jail Remote Court Appearance Reno.
- Lewis Co. Juvenile Justice Center Reno./Add.
- King Co., Jail Jump Barrier
- Multnomah Co., Justice Center Bus Duct Replacement
- Port of Seattle, STIA Main Terminal Low Voltage Rplmnt.

RELEVANT EXPERIENCE

PRE-DESIGN & PLANNING

The uptick in mechanical upgrades reflects the wave in systems reaching their end of life, progressive codes, legislative requirements, and impacts of climate change. As owners approach retrofitting their systems with modern-day technologies, they face the need to balance legacy systems operating in parallel to the new technologies, funding, and migration paths. We are working with owners to surgically upgrade large-scale and campus-wide systems that serve public institutions.

One of the challenges of doing so is the lack of a well-circulated OFM infrastructure pre-design manual – a critical step to securing funding. We experienced this challenge as in approaching Washington Correction Center’s critical campus infrastructure replacement. We authored the pre-design that dislodged the project from 6 years of unsuccessful funding requests and has since earned us the opportunity to serve infrastructure pre-designs and assessments that have led to state funding for other public institutions.

WA STATE DSHS DIVERSION & RECOVERY PROGRAM PRE-DESIGN

An assessment of facilities in eastern and western Washington to serve the agency’s Behavioral Health Programs. The program focuses on individuals with serious mental health and substance illnesses. In working with stakeholders, a \$63 million facility was conceptualized to meet the state’s needs.

WA STATE DSHS/DCYF YOUTH HOUSING PRE-DESIGN

Legislative bills SB6260 and E2SHB 1646 codified an alternate path to rehabilitating and serving offenders 25 years and younger. In 2019, it was forecasted that placing these individuals under the guidance of the Department of Children, Youth, and Families (DCYF) would increase the agency’s population by 125 to 150 people by 2027. As a newly formulated agency, building capacity, location, and population configuration needed

to be addressed in a statewide pre-design. The KMB/Hargis team evaluated 10 sites for viability to serve the program’s needs, with three options evaluated in detail for viability to fulfill DCYF’s mission. Alternate 2: \$23.7M, Alternate 3: \$23M, Alternate 4: \$18.3M
LARRY COVEY, larry.covey@dshs.wa.gov, (360) 628-6662

DESCHUTES COUNTY PUBLIC SAFETY CAMPUS

The 20-year KMB-authored campus master plan addresses diverse populations and critical county and state public safety functions. The team developed a phased plan to align with funding, respond to growth, and mitigate risk. The plan identifies structures that can be repurposed and updated to meet public safety best practices, as well as new construction to meet programmatic and service demands. Hargis contributed to the plan’s development, as well as the first phase: Sheriff’s Office and Adult Jail Expansion. Projected value: \$173.2M, 296,494 sf
LEE RANDALL, Lee.Randall@deschutes.org, (541) 617-4711

CBPS CONSULTING

Many clients throughout Washington are planning for system upgrades based on the 2019 Clean Buildings Act, now known as the Clean Buildings Performance Standard (CBPS). As they evaluate their capital facility plans and system standards and integrate new functions (like cooling), they are engaging our energy services team to help them assess their current operations and develop a plan that aligns their facility master plans with the advancing Washington State Energy Code and CBPS requirements. Applying our approach to developing energy conservation strategies, we have developed CBPS compliance pathways for 200+ buildings representing over 25 million square feet. Identified scopes of work represent modest modifications to \$1M+ investments. RICHARD BEST, rlbest@seattleschools.org, (206) 252-0644

ASSESSMENTS & PRE-DESIGNS

WA Dept of Corrections

- » 4-Campus Fire Alarm Upgrades – **Funded**
- » AHCC Fire Alarm & Security Electronics Master Planning
- » Monroe Corr. Complex, WSRU Perimeter Wall Reno. – **Funded**
- » Prison Capacity Expansion
- » Statewide Corrections Training Center
- » WCC Medium Voltage & Generation System Rplcmnt. – **Funded**
- » WCCW-MSU Climate Control Improvement – **Funded**
- » WSP 500-Bed & Kitchen Expansion – **Funded**
- » WSP 500 Bed Housing & Kitchen Expansion – **Funded**
- » WSP Kitchen Improvements

WA Dept. of Social & Health Services

WSH, Campus Fire Protection Upgrade – **Funded**

WA Capitol Campus

New Child Care Center – **Funded**
John. L. O’Brien Renovation – **Funded**/ Historic OB 2

WA Dept. of Child, Youth & Families

WA Dept. of Social & Health Services

5-Campus Fire Alarm Upgrades – **Funded in phases**

WA Dept of Ecology

Headquarters Data Center Generator – **Funded**

WA SBCTCs Colleges – 7 Projects **Funded**

WA 4-Year HED Universities – 7 Projects **Funded**



TECHNICAL EXPERIENCE

Our experience in scoping and executing projects of this nature accentuate our technical aptitude to delivering solutions that align with stakeholder objectives - whether as the prime or sub-consultant. Demonstrated repeatedly over the past two decades, we have a proven formula for providing value to state's capital investments.

HARGIS PROJECTS

	Prime Consultant	Active/ Occupied Site	Healthcare/ Rehabilitative Program	Access Controlled	Publicly Funded	Phased Funding	Conservation Strategies	Delivery Method
WA DOC Maple Lane Campus Planning	KMB	●	●	●	●			DBB
WA DOC WCCW MSU Climate Control Improvements	Hargis	●	●	●	●		●	DBB
WA DOC MCCCW Boiler Replacement	Hargis	●	●	●	●		●	DBB
WA DOC WCCW Building AA-Emergency Chiller Replacement Project	Hargis	●	●	●	●			JOC
WA DOC Monroe Corrections Center Roof Replacement Project	KMB	●	●	●	●			DBB
WA DCYF Green Hill School, Spruce Living Unit Renovation	KMB	●	●	●	●		●	DBB
WA DCYF Green Hill School, Baker North Remodel & Expansion	KMB	●	●	●	●		●	DBB
WA DCYF Green Hill School, Camera & Telecommunications Infrastructure Upgrades	Hargis	●	●	●	●			DBB
WA DCYF Green Hill School, Electrical Upgrades	Hargis	●	●	●	●			DBB
WA DSHS/DCYF Youth Housing Pre-design	KMB		●	●	●		●	
WA SW DSHS/DCYF Fire Alarm Replacements	Hargis	●	●	●	●			DBB
WA DSHS/ DOC Cascade Cottage Unit Emergency Renovation	KMB	●	●	●	●			DBB
WA DSHS Western State Hospital, Fire Sprinkler Upgrades	Hargis	●	●	●	●			JOC
WA DSHS Western State Hospital, Buildings 9 & 20 Fire Alarm Upgrades	Hargis	●	●	●	●			DBB
WA DSHS Western State Hospital, Unified Communication System Upgrade	Hargis	●	●	●	●			DBB
WA DSHS, Western State Hospital, Bldg 29 New Entry		●	●	●	●			DBB
WA DSHS, Child Study and Treatment Center Upgrades		●	●	●	●			DBB
WSP Fire Training Academy Dormitory Upgrade		●		●	●			DBB
University of Washington, Mechanical Upgrades	Hargis	●			●	●		DB
King County Metro Transit Division, HVAC Upgrades (4 Bases)	Hargis	●			●	●	●	DBB/MCCM
ValleyComm, 911 Data Center Mechanical Upgrades	Hargis	●		●	●	●	●	DBB



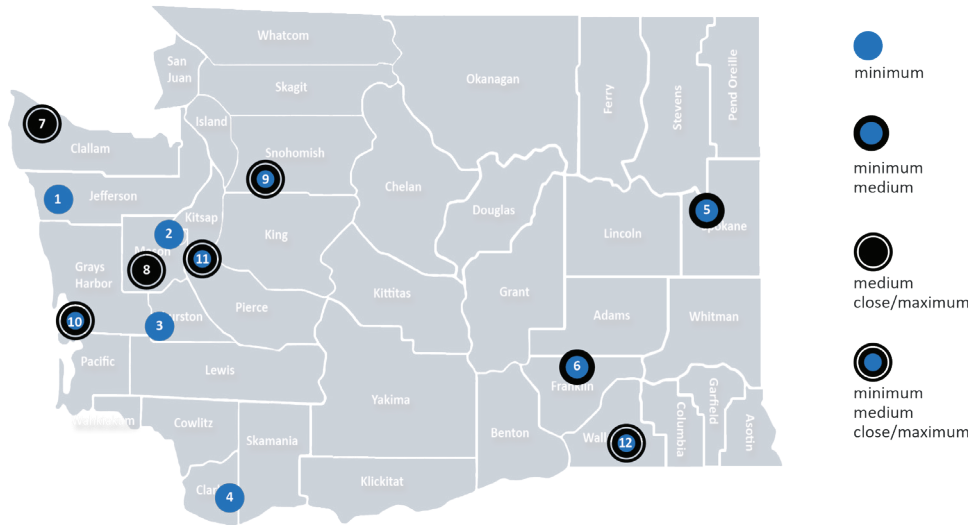
Hargis



KMB



WA STATE DEPARTMENT OF CORRECTIONS



- | | | |
|---|---|--|
| <p>1 OLYMPIC CORRECTIONS CENTER
minimum</p> <p>2 MISSION CREEK CORRECTIONS CENTER FOR WOMEN
minimum</p> <p>3 CEDAR CREEK CORRECTIONS CENTER
minimum</p> <p>4 LARCH CORRECTIONS CENTER
minimum</p> | <p>5 AIRWAY HEIGHTS CORRECTIONS CENTER
minimum, minimum mI3, medium</p> <p>6 COYOTE RIDGE CORRECTIONS CENTER
minimum, medium, long-term medium</p> <p>7 CLALLAM BAY CORRECTIONS CENTER
medium, close, maximum</p> <p>8 WASHINGTON CORRECTIONS CENTER
medium, close, maximum</p> | <p>9 MONROE CORRECTIONAL COMPLEX
minimum, medium, close, maximum</p> <p>10 STAFFORD CREEK CORRECTIONS CENTER
minimum, medium, maximum</p> <p>11 WASHINGTON CORRECTIONS CENTER FOR WOMEN
minimum, medium, close</p> <p>12 WASHINGTON STATE PENITENTIARY
minimum, medium, close, maximum</p> |
|---|---|--|

Through our 20+ years serving the agency’s capital projects, we are acutely aware of the role these three campuses serve in the DOC’s operations. The 1.3+ million square foot Monroe Complex comprises four discreet campuses with historic (1907) and current-day facilities across 50+ buildings. It the largest campus DOC campus in Washington that serves male offenders. Washington Corrections Center, built in 1964, is a medium security campus with a mixed population. Over the years, it has been evaluated to serve as the agency’s reception center for offender intake. The Washington Corrections Center for Women is one of two campuses that serves this minimum and medium security population. Planning for the HVAC upgrades in these facilities will need to take into account the hardened, occupied environment, as well as the supporting infrastructure critical to introducing new mechanical functions.

We have gained an understanding of the systems serving these specific campuses through past projects:

WASHINGTON CORRECTIONS CENTER FOR WOMEN

Building AA-Emergency Chiller Replacement Project - System failure of the air-cooled chiller serving the healthcare building led to an emergency project to condition the critical space. The team was contacted after hours on a weeknight and responded the next day on-site to assess the situation. The team recommended and helped facilitate the integration of a temporary chiller to keep the space operational, while a permanent solution was implemented. BUDGET: \$236,573 // ACTUAL: \$299,514

Climate Control Improvements - Development of cooling options to address discomfort in the housing units. DX condensing coils were installed in the air handling units with condensing units located on the roof in a dedicated fashion to meet the logistics, cost and schedule requirements of the project. BUDGET: \$1,168,600 // ACTUAL: \$1,176,991

MISSION CREEK CORRECTIONS CENTER FOR WOMEN

Boiler Replacement - An assessment to replace a fossil fuel, end-of-life unit with a clean-fuel source and evaluate the viability to instill redundancy into the system. The assessment included the electrical system to determine the capacity to support an all-electric system. Progressing with the replacement, two new condensing LPG-fired boilers are being introduced to the site, along with supporting system upgrades. BUDGET: \$382,000 // ACTUAL: \$540,655 (due to additional scope added in construction) JESSICA CAHILL jessica.cahill@doc1.wa.gov, (564) 669-3838 (cell)

WA STATE DEPARTMENT OF CORRECTIONS



WASHINGTON CORRECTIONS CENTER (WCC)

Domestic Water Treatment Replacement – Replaced 21-year-old Hypochlorite system with new 12 pounds per day system including the electrolyzer, rectifier, water softener, brine tank, storage tank, brine pumps, and associated piping. Services were aligned to meet a 141-day design-construction schedule and JOC delivery method. BUDGET: \$285,000

Building C & D Generator – Initiated as a pre-design to replace the existing emergency generator serving Buildings C & D, with a new generator and transfer switch(es), two options were presented to (1) incorporate a new generator and associated power distribution to meet code-required life safety requirements only, including the addition of the HVAC systems serving the four isolation rooms, or (2) a new generator and associated power distribution to support the entire Building D in the event of a power outage. Coordinating with three concurrent projects in the infirmary (Building D) the team commenced with the option that met the immediate needs of the program and code required upgrades. JOC-delivered BUDGET: \$267,000

Medium Voltage Project – An emergency replacement of electrical equipment serving five housing units initiated a broader scope of work. Addressing the immediate needs, the team worked with Washington State L&I as the

AHJ to develop a systematic plan to address the medium voltage switches, medium voltage cable and medium voltage transformer failures. This led to a Hargis-authored pre-design that identified \$15.4 million in critical power infrastructure upgrades as a single or multi-biennium project to align with an unpredictable funding cycle. The project received funding over two biennia, which we led as the prime consultant. P1 BUDGET: \$2.6M // Bids <9% of the cost opinion. P2 BUDGET: \$12.4M // Bids <1% of the cost opinion YOUNG KIM, ytkim@doc1.wa.gov, (360) 725-8344

MONROE CORRECTIONAL COMPLEX

SOU – one of the last major campus expansions was the 106,000 sf special offender unit addition, comprising of holding cells, a dental/medical clinic, recreation space, and dining spaces. [Ron Eliason's personal experience]

IT Building Renovation /Special Offender Unit Shift Office

IT building improvements included data center cooling systems, new toilet rooms, and improvements to the HVAC system layout serving the existing office spaces. BID: \$755,000

TRU Program & Support Bldg. Roof Replacement

As part of the roof replacement program, we replaced 14 heating and ventilation HVAC systems from the original 1982 construction with packaged rooftop heat pumps

to provide cooling in the shops, education spaces and classrooms, gym, and offices. High efficiency energy recovery units were also integrated into the Industries areas to improve ventilation and replacement of 14 rooftop exhaust fans. New DDC controls were provided for all new HVAC systems. Electrical upgrades were included to support the additional of mechanical cooling. BUDGET: \$7,270,000 // ACTUAL: IN CONSTRUCTION

Campus Primary Power Service – Replacement of overhead power system and support structures that served 3 of the 5 close-custody correctional units (WSRU, SOU, IMG/SEG), administrative (IT building) and support buildings (Recycle Building) under a seamless, well-coordinated single 5-hour shutdown. BUDGET: \$281,250 NANETTE GRAHAM, nsgraham@doc1.wa.gov, (360) 725-8337

MONROE CORRECTIONS CENTER, WSR, TWIN RIVERS UNIT, WCC & WCCW FIRE DETECTION & ALARM SYSTEM REPLACEMENTS

The review of an emergency repair at the Washington State Reformatory led to upgrades at five additional campuses based on the pre-design we developed for a complex-wide phased upgrade. WCCW BUDGET: \$1,759,700 // ACTUAL: \$1,722,300 NANETTE GRAHAM, nsgraham@doc1.wa.gov (360) 725-8337

REHABILITATION & CORRECTIONAL FACILITIES

Complementing our agency experience is the added perspective of serving other state agencies and local municipalities. Consistently working together to address aging facilities, we hone our technical and creative skills to address complex projects.

WA DCYF GREEN HILL

Baker North – The vacant 7,800 sf North Cottage was recently remodeled and expanded by 500 sf to serve individuals 21-25 years of age. The mental health unit housed in the south wing's occupied status added to the complexity of the \$4.3 million project. The team surgically planned and programmed system upgrades to integrate the HVAC, plumbing, electrical, lighting, life-safety, and security systems into the building and campus architecture without triggering major code changes. BUDGET: \$4.38M // ACTUAL: \$3.78M

Spruce Living Unit – As an occupied living facility with systems at the end of their useful life, the full building systems renovation optimized existing components as much as possible to align with the \$6 million budget for the partial living quarters' renovation. BUDGET: \$6M // In Design

Electrical Systems Upgrade – The project required significant coordination with the campus owner and tenant of the 9-classroom school. The building's electrical distribution equipment had reached the end of its useful life; branch circuit breakers had started to fail, and the existing equipment grounding electrode system had started to deteriorate. New distribution equipment and equipment ground connections needed to be installed. Six panel boards and associated feeders were replaced to increase the number of electric circuits to accommodate both the existing loads and provide flexibility for future technology implementation. BUDGET: \$124,110 // BID: \$97,241
TRENT PHILLIPS, trent.phillips@dcyf.wa.gov, (360) 764-0177

WA DSHS WESTERN STATE HOSPITAL

Fire Sprinkler – An analysis of the 1970's to 1990's constructed campus fire protection system was conducted to identify deficiencies and develop recommendations for upgrades. The analysis focused on incomplete systems in three buildings [6, 10, 16], and head-ends in another ten buildings [9, 17, 18, 19, 20, 21, 26, 27, 28, and 29] for possible replacement. Two water towers and distribution pumps serve the fire protection system that move water from the campus-owned wells to the towers to create a gravity-fed system. BUDGET: \$1,020,623 // ACTUAL: \$1,040,640

Anti-Ligature Standardization – From the sprinkler project, another initiative emerged: to assess exposed components in unsupervised settings for high-risk ligature and develop a standard. Spaces in buildings 18-20 and 28 and 29 were reviewed, with a second review for all potential components, which is currently underway. BUDGET: P2 \$2.3M // ACTUAL P1: \$1.1M, P2 in process
ADRIAN HINOJOS, adrian.hinojos@dshs.wa.gov, (564) 200-2456

WA DOC/ DSHS MAPLE LANE, CASCADE COTTAGE UNIT EMERGENCY RENOVATION

Collaborating with the two agencies to reprogram the minimum-security facilities within the dormant Maple Lane campus, the team commenced with a fast-track \$3.5M renovation to integrate private consultation, review, and temporary housing for detainees. The team coordinated equipment replacement, ductwork additions, fire suppression and plumbing revisions. PENNY KOAL (retired)

CLARK COUNTY JAIL REMODEL

Constructed in 1984, many of the detention and administration centers are outdated and overcrowded. The county engaged the KMB/Hargis team to address the programmatic needs of the adult and juvenile populations while infusing it with modern-day technologies and flexibility for future growth and reconfiguration. COST OPINION: \$18.55M // in-design. MICHELLE SCHUSTER
Michelle.Schuster@clark.wa.gov, (564) 397-4118



ADDITIONAL PROJECTS

- » WSH & CSTC Campus Network Infrastructure Assessment & Upgrades
- » WSH Bldgs 9 & 20 Fire Alarm Upgrades
- » WSH Bldg 10 Renovations
- » WSH Campus Generator Study & Upgrade
- » WSH Fire Sprinkler Upgrade
- » WSH Laundry Building Electrical Panel Replacement
- » WSH Unified Communications System Upgrade



CAMPUS/ENTERPRISE SYSTEM UPGRADES

Our project management and technical acumen have served other Washington agencies operating 24/7 facilities.

UNIVERSITY OF WASHINGTON, MECHANICAL UPGRADES

As the on-call consultant, we addressed various system deficiencies across multiple buildings under a phased upgrade program that encompassed pumps, chillers, and energy efficiency goals to varying degrees. Bid alternate were identified early and designed to accommodate a budget range, as funding wasn't secured until 90% of the design was complete.

BUDGET: \$796,000 // ACTUAL: \$846,700

YANNICK MATHEWS, ymathews@uw.edu, (206) 221-8988

KING COUNTY METRO, BASE SYSTEM UPGRADES

Modeled after Hargis' successful North Base replacement effort, the Atlantic, South and East bases, as well as the South Facilities, received HVAC upgrades. We led the project scoping, planning and integration with current capital improvements to poise the remaining four facilities, totaling 294,800 sf, for continued operations as the agency addresses increased demands and aging infrastructure.

BUDGET: \$6,629,340 // ACTUAL: \$7,744,452

Utilizing the ESCO contracting mechanism, the owner onboarded a mechanical contractor to complete the system installation just prior to COVID. With the heightened awareness of indoor air quality (IAQ) and increased fan energy demand to improve IAQ, we worked closely with the stakeholders and contractor to modify the enterprise standard, uphold the project objectives and deploy the project over three phases.

BUDGET: \$33,000,000 / ESCO guaranteed

BRIAN BERARD, bberard@kingcounty.gov, (206) 263-4160

PAST PERFORMANCE

PROJECT APPROACH

In serving projects throughout the state's operating enterprise, we have developed effective strategies for engaging stakeholders (security, historical preservation, etc.), influencers (AHJ, utility, emergency responders) and contributors (technical peers, consultants) to realize projects' intent. Our knowledge of campus operations, established relationships, open channels of communication, and ability to identify risks and mitigation strategies with options for implementation.

We engage these different groups early to identify critical courses to realize the agency's intent of the pre-design. We collect non-technical components of the project that will influence the project's success. Lines of communication are established, with roles, responsibilities, and critical milestones articulated. With this information, we develop a systematic plan for assessing existing conditions and pathways to realizing stakeholders' objectives.

TAKING INVENTORY

We evaluate the existing systems compared to the end goal and identify methods to create minimal impacts on the existing infrastructure. When the existing infrastructure will be affected, we develop a phasing schedule around the systems and the occupants to minimize the need for temporary services.

DEVELOPING OPTIONS AND A PLAN

Reporting our assessment findings and presenting the options as a cost/benefit analysis, the team works closely with the stakeholder group to develop a project approach, considering the operational status, code compliance, and other concurrent projects at each campus. The resulting plan, cost model, schedule, and associated recommendations are based upon the documented need, with the stakeholder's specific input, and reflective of their prioritized values and criteria.

Contingencies, risks, and mitigation strategies are identified and tracked as part of the project plan, which blends the qualitative and quantitative information to provide a mechanism for the DOC to plan for future capital improvements and capital budget requests.

DESIGN TOWARDS TARGET VALUE & TOTAL COST OF OWNERSHIP (TCO)

Developing a balanced solution has many elements to consider. As we approach a system upgrade, we work with stakeholders to balance immediate project needs with long-term plans for flexibility, scalability and reliability as their campus master plans are implemented. We prioritize recommendations based upon:

Influencing Factors (prioritized)

- » Code Deficiencies & CBPS
- » Programming Requirements
- » Capacity or Performance
- » Operational Costs
- » Scalability
- » Future Phasing Opportunities
- » Maintenance & Operations Capabilities/ Availability
- » Campus Master Plans

System Upgrades Considerations:

- » Risk Tolerance
- » Life-Safety System Technologies
 - » Information Technology System
 - » End Device Condition & Life Expectancy
- » Infrastructure Condition and Capacity
- » Legacy System Life Cycles
 - » Communications/ Control Spaces Quality and Reliability of Power
 - » Evolution of System Integration

UTILIZED TIME-TESTED QUALITY CONTROL PROTOCOLS

With the benchmarks for project success tracked, documented, and integrated into the QA/QC process, the team has the information needed to produce quality deliverables. Backed by an engaged leadership team invested in a positive project outcome, the team is supported throughout the project with formal reviews to evaluate system concepts, type and direction, and viability for adoption.

As part of the evaluation, there may be opportunities to enhance return on investment through phasing, grants, and rebates. There may also be system enhancements or options to address other deficiencies in adjacent systems or spaces. These enhancements are noted as options rather than barriers to moving the project forward.

PROJECT PLAN DEVELOPMENT CONSIDERATIONS

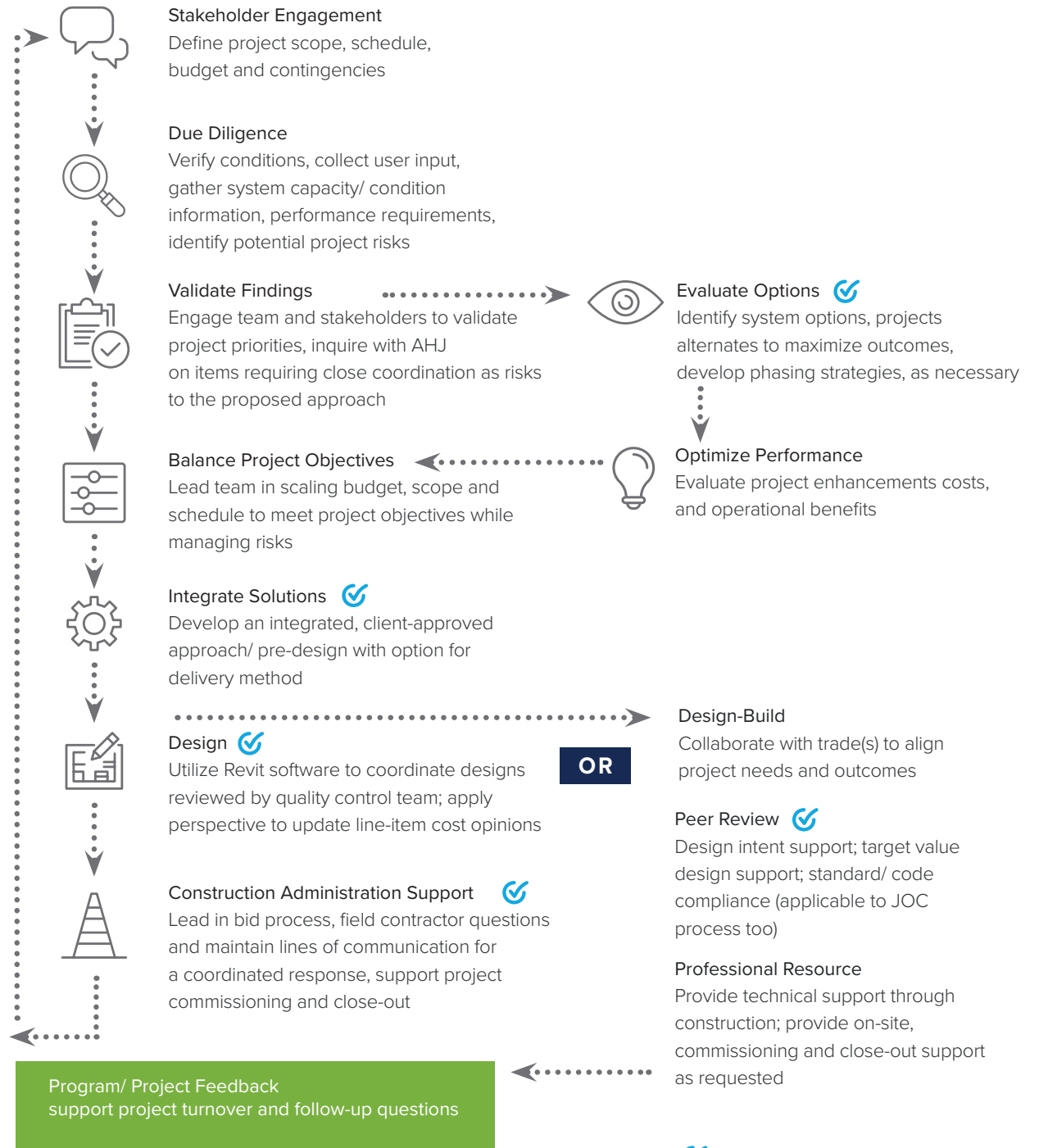
- » Conditions of the existing building energy management systems and supporting network, raceway, wiring and devices
- » Physical constraints
- » Interconnections with other building systems (e.g. energy management, fire doors, fire/smoke dampers, nurse call systems, etc.)
- » Occupancy types and associated programmatic requirements

COST & SCHEDULE CONTROL

We manage and evaluate costs and schedules at two levels: the consulting team and the project. Managing the consulting team is the primary focus of the program manager. In developing the project scope, the program manager is intimately involved with assessing the parameters in which the client is working, level of effort expected, engaging a qualified project manager to lead the project and monitoring the activities associated with completing the scope of work. The program manager reviews the fee allocation by discipline versus actual utilization. This micro and macro review aids in assessing project progress against the scope of work, reporting DBI-utilization metrics and maintaining project continuity through contract management.

At a project level, the program and project manager work in tandem to develop the projected budget and proposed schedule. Our project budgets are developed with line-item cost opinions based upon installation costs for projects of like scope and geographic location and verified by our cost estimator. We compare this against current cost trends within the marketplace based upon data collected from our in-house library of recent projects' cost opinions and schedules of values that are updated almost daily. We also reference the annually published RS Means for first costs, and White Stone for repair and replacement costs values.

This is paired with our schedule management approach that emphasizes timely responses and clear articulation of accountability to keep projects on-time. We share this information in our project scoping and meeting minute updates. The project schedule includes tasks, responsible parties, due dates and completion dates that are defined in advance with clear definition of the expected interaction with project stakeholders in language appropriate to the technical level of the responsible party.



SUCCESSFUL ENDEAVORS

Components that will make this project successful rest in technical aptitude and operational awareness. Our team has demonstrated the ability to deliver on both.

**WA DOC
WCCW MSU Climate Control**

This pre-design resembles many of the attributes of a project we recently completed at Washington Corrections Center for Women. We were engaged to develop an approach to add cooling to the MSU housing unit to address occupant discomfort. We developed options that accommodated continued occupancy during construction, with supporting cost opinions and schedules. The adopted approach entailed complete sequence of operation adjustments to convert multi-zone air handling units to a high efficiency variable air volume system with cooling coils integrated into the air handling units. DX condensing coils were installed in the air handling units with condensing units located on the roof in a dedicated fashion to meet the logistics, cost and schedule requirements of the project.

Hargis' performance during [KCNB] project was very good. Technical knowledge of the state-of-the-art, most efficient and cost effective building systems that Hargis' design team provided to the project team, resulted in one of the most energy efficient bus facilities that Metro operates. The consultant was responsive, proactive, practical and professional and we have no hesitation to work with Hargis and their team in the future if the opportunity arises.

Ron Moattar, Project Manager
King County Metro Transit

**King County Metro
North Base (KCNB) HVAC & Electrical Upgrade**

KCNB shares the occupant comfort concerns of this program with the expectation of establishing agency standards. As the first in the series of multiple buildings, multiple campuses, the team needed to develop a plan to align with five overriding objectives: integrate a new technology to the enterprise (VRF), align with LEED® silver design standards as a minimum, identify and secure grant/energy rebates, maintain operations, and improve occupant comfort. The last was the most heavily weighted outcome of the project.

The team delivered a phased approach that delivered on all five benchmarks. Going above the client's energy conservation goals, the team introduced additional conservation measures that elevated the project to one of the most energy-efficient buildings in Metro's operations while maintaining the project budget and schedule.

Improved system energy efficiency

- » Extensive sub-metering system to enable monitoring of all power and loads in the facility;
- » Dual core heat recovery units with condensing boilers to serve the HRUs in the industrial space; heat exchanger to recover waste heat from the water-cooled air compressors serving the shop which reduced the domestic hot water demand by approximately 70%

Maximizing project outcomes

- » Coordinated controls with the contractor through detailed shop drawings and sequence of operations that enabled the pricing to be negotiated prior to bidding
- » Secured LEED **Gold New Construction** certification for a system-driven remodel project
- » 13 points for Energy & Atmosphere Credit 2 saving 33% over ASHRAE 90.1

Maximizing buying power

- » Secured \$285,000 in energy grants and rebates

Our performance on this project earned us the opportunity to serve the remaining four bases.

**King County Water & Land Resources Division
Environmental Laboratory Fume Hood Replacement**

Earmarked as an energy conservation project, like the GHS Campus HVAC program, this project required extensive planning and coordination to maintain operations of the 24/7 critical facility.

The team commenced with an evaluation of the HVAC systems that serve 32 laboratory fume hoods. We provided an equipment condition assessment to determine which had aged beyond its service life. The result of the assessment was the replacement of 15 of the lab fume hoods, 6 lab air handling units, and 32 lab exhaust fans.

Once the scope of work was defined, we developed three replacement alternatives and performed extensive energy analyses and life cycle costs to settle on the best solution from an energy use and capital cost standpoint. The work was completed over four phases, resulting in over 30% fan energy savings.

Delivered during a time of escalation and a lack of qualified contractors resulted in a 4-month delay. We mitigated this through extensive swing space planning and contacting our network of qualified contractors to make them aware of the project. *The quality of deliverables and planning efforts kept the project on time and within 2% of the \$4.2M budget.*

Space/ Alternates	Heating Source	EUI	Annual Costs (\$)				First Cost (\$)	Life Cycle Cost (\$)
			Energy	GHG Emissions	Maint.			
Office (E)	Gas	72.4	9,832	2,273				
Alt 1	Elec.	40.6	9,988	277	14,741	652,069	1,514,369	
Alt 2	Elec.	32.1	7,787	244	13,375	1,032,177	1,713,092	
Alt 3	Elec.	43.3	10,687	288	13,876	826,524	1,608,801	
Storage (E)	Gas	20.4	2,665	292				
Alt 1	Gas	18.8	2,627	231	4,120	250,737	476,041	
Alt 2	Elec.	18.2	3,318	51	4,120	235,184	470,144	

^ EXAMPLE PRESENTING OPTIONS PER PROJECT GOALS
systems descriptions included in full presentation

**University of Washington
Chiller Replacement Program**

Similar to this program, the UW chiller replacement program addressed system deficiencies across multiple buildings. Some of the buildings required continued operations to support the laboratories that have low tolerances for temperature variances.

As critical as the project was for the university's marquee R&D programs, funding was not secured at the time of design. We factored this in with bid alternates to keep the project moving forward. The 24-month schedule was maintained, and bids were within 10% of the cost estimate during a time of cost escalation.

The technical scope included:

Warren Magnuson Health Sciences Center - 22-ton chiller replacement and associated DX cooling coil in the adjacent 100% OA air handling unit serving the laboratory.

Physics Astronomy Lab - 52-ton chiller replacement and associated chilled water pumps and controls. Equipment selection was focused on increased reliability and redundancy.

Marine Sciences Building - decommission a 90-ton cooling tower in the penthouse, as well as to investigate the need for additional equipment. Condenser water pumps and piping were demolished, fan coil unit replaced, and the water cooled condensing unit was replaced with an air cooled unit.

North Physics Lab - system loads and flow requirements assessed for the chiller that was replaced and provided a VFD for the chilled water pump

SCENARIOS FOR COMPARISON		Less than Bare	Bare Bones	Evap / Energy	Energy/Elec	All In
Provide New UPS Room		YES	YES	YES	YES	YES
(E) 80KW UPS and 100KW UPS		NO	NO	YES	NO	NO
Replace (E) 80KW UPS with (2) 100 KW UPS		NO	NO	NO	YES	YES
Modify (E) AHU's and Add New AHU's, DX (M1)		HALF	YES	NO	NO	NO
Modify (E) AHU's and Add New AHU's, Evap Cooling (M2)		NO	NO	YES	YES	NO
Replace (E) AHU's with (2) Custom Units (M3)		NO	NO	NO	NO	YES
Added Electrical Improvements		NO	NO	NO	NO	YES

CONSTRUCTION COSTS		Base Cost Opinion	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Architectural							
Server Room, Vapor Barrier, Containment, Misc	\$	24,195	\$ 24,195	\$ 24,195	\$ 24,195	\$ 24,195	\$ 24,195
UPS/Battery Room, New 453 SF Room	\$	41,861	\$ 41,861	\$ 41,861	\$ 41,861	\$ 41,861	\$ 41,861
Structural							
Expand Platform to North (All M Options Same)	\$	105,550	\$ 105,550	\$ 105,550	\$ 105,550	\$ 105,550	\$ 105,550
Mechanical							
UPS Room HVAC Equipment and Exhaust	\$	11,270	\$ 11,270	\$ 11,270	\$ 11,270	\$ 11,270	\$ 11,270
Replace Existing Condensing Units for (E) AHU's HVAC Upgrade Options	\$	18,113	\$ 18,113	\$ 18,113	\$ 18,113	\$ 18,113	\$ 18,113
M1, Modify existing AHU's, Add DX cooling	\$	599,910	\$ 464,910	\$ 599,910			
M2, Modify existing AHU's, Evap Cooling	\$	620,955			\$ 620,955	\$ 620,955	
M3, Remove existing, 2 new custom units	\$	783,698					\$ 783,698
Electrical							
General Conditions and Temp Power	\$	41,113	\$ 41,113	\$ 41,113	\$ 41,113	\$ 41,113	\$ 41,113
Main Feeder and Distribution	\$	36,407	\$ 36,407	\$ 36,407	\$ 36,407	\$ 36,407	\$ 36,407
Server Rack Distribution (A/B Feeds)	\$	50,753	\$ 50,753	\$ 50,753	\$ 50,753	\$ 50,753	\$ 50,753
Demo EPO System	\$	6,325	\$ 6,325	\$ 6,325	\$ 6,325	\$ 6,325	\$ 6,325
UPS/Battery Room Upgrades							
E1, Both New 100KW UPS w/ Bypass	\$	322,575		\$ 322,575	\$ 322,575	\$ 322,575	\$ 322,575
E2, (E) 80KW UPS and New 100KW UPS	\$	(187,220)	\$ 30,000	\$ (187,220)	\$ (187,220)		

**ValleyComm
911 Data Center Upgrades**

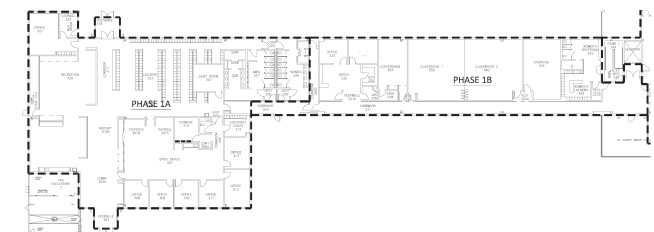
We are applying our three generations of 911 call center experience to guide the system selection and upgrades to ValleyComm. Borrowing from our fire station (Gen 1) and city hall (Gen 2) experience, we have helped stakeholders navigate the resiliency, redundancy, repair/ replace proximity sourcing and occupant considerations as they evolve their operating systems.

Hargis studied eight options to improve the data center HVAC performance, reliability, and redundancy. Leading the adopted system upgrades in the active data center with no shutdowns or impacts to the operations, the team worked closely with the contractor to sequence work and stage materials. Change orders due to errors and omissions were 0.5% while adding \$157,000 in additional project enhancements.

Our performance on this project earned us the invitation to assess and upgrade the HVAC system that serves the rest of the building, as well as a site lighting upgrade and maintenance contract. The assessment was completed in 2018 with the upgrade to be completed in 2024.

**WA DCYF Green Hill School
Living Unit Renovations**

KMB's leadership with the renovations of North Baker and Spruce exemplify their aptitude for working in occupied secure campuses where occupants are in a more at-risk group. It is of critical importance to maintain the highest levels of safety and security, minimize all disruptions to staff and residents, particularly residents who thrive with consistency. KMB worked with user groups to fully understand operations and potential impacts in an effort to avoid disruptions. KMB conveyed this information to the contractor to ensure a full understanding of requirements for safety and security of equipment and tools, site, egress, life safety, systems operations, reinforced with clear and early communication with users regarding expectations and requirements.



^ EXAMPLE: PHASING STRATEGY

LIFE CYCLE COST ANALYSIS

As system complexity continues to evolve and buildings are expected to operate 50+ years, identifying the best system has become ever more important. In response, Hargis has developed an approach that qualifies and quantifies system selection decisions that aligns with Washington State OFM's Life Cycle Cost Analysis (ELCCA) while meeting code, legislative and project objectives.

The process of developing an ELCCA starts before major system decisions are made. Its accuracy is dependent upon full team participation, including the building owner (capital and maintenance personnel), project architect, and engineering disciplines to charette the preferred system types to study. Building owner buy-in is critical to ensure the studied system types align with sustainability goals, proficiency of maintenance staff, and budget limitations.

To narrow the system options, the team populates a decision-making tool (abbreviated example on page 16) based upon building owner priorities. This tool helps stakeholders understand the return on investment (ROI) associated with owning, operating, and maintaining the studied systems. The tool helps inform the ELCCA, cost opinions, maintenance schedules, and net-present value (NPV) calculations.

Cost opinions are a joint effort between JMB Consulting the team to calculate cost opinions and develop maintenance schedules, using RS Means and past project bid results to ensure system costs align with the current market conditions and geographical locations. The information is entered into the OFM's Life Cycling Modeling Tool (LCCT) which calculates the first/maintenance/energy/replacement costs, in addition to the NPV, EUI, and GHG emissions of each alternate studied.

Should an energy model be requested, we utilize IES-VE, an industry-leading software capable of simulating complex mechanical systems and controls required by current codes. The software simulates energy performance with future weather forecasts to better understand the impacts of climate change on occupant comfort. An additional layer of analysis compares the predicted energy performance against the EUI targets of the Clean Buildings Performance Standard (CBPS). Referencing the CBPS ensures the selected system will meet current and future policy requirements.

INCLUSION STRATEGIES

As the prime consultant on several on-call and full-scale projects, we have worked with stakeholders to identify qualified firms and key individuals to fulfill the technical merits of projects and the establishment's contracting goals.

Based upon the 220+ system-driven upgrade projects since 2011 that we have led as the prime consultant, 22.58% of the contractual fees have been paid to sub-consultants on average. With each of these projects, we have worked with stakeholders and the consulting community to identify opportunities to engage qualified professionals that align with the technical and contractual goals of the entity.

To identify and engage these individuals, we draw from the relationships we've developed over the last seven decades and those who have performed favorably for the client. For this first phase, we have engaged JMB Consulting, an SBE well-versed in cost-estimating system-driven projects. As the project progresses, we anticipate additional opportunities for DBE firms, including tradespersons, commissioning, testing/ balancing and ancillary services (printing, food services, etc.) to realize the full project scope.

Goals

- 10% | Minority Owned Business certified by the Washington State Office of Minority and Women Business Enterprises
- 6% | Women Owned Business certified by the Washington State Office of Minority and Women Business Enterprises
- 5% | Veteran Owned Business certified by the Washington State Dept. of Veterans Affairs
- 5% | Washington Small Businesses
Achieved with JMB's & Lund Opsahl's involvement

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)
2024-342

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME Hargis Engineers			3. YEAR ESTABLISHED 1955	4. DUNS NUMBER 087594370
2b. STREET 1201 Third Avenue, Suite 600			5. OWNERSHIP a. TYPE Corporation b. SMALL BUSINESS STATUS	
2c. CITY Seattle	2d. STATE WA	2e. ZIP CODE 98101		
6a. POINT OF CONTACT NAME AND TITLE Ron Eliason, Principal, Mechanical			7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER 206.448.3376	6c. E-MAIL ADDRESS ron.eliason@hargis.biz			
8a. FORMER FIRM NAMES(S) (If any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER 0

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			
02	Administrative	20		008/A11	Auditorium/Theatre	3
13	Communications Engineer	24		010B01	Barracks; Dorms	2
21	Electrical Engineer	15		014/C06	Churches; Chapels	1
42	Mechanical Engineer	16		017/C10	Commercial Bldg	6
				018/C12	Communications Systems	6
				019/C13	Computer Facilities	6
				027/D07	Dining Halls; Clubs; Rest.	1
				029/E02	Educational Facilities	7
				035/E07	Energy Conservation	2
				030/F02	Field Houses; Gyms; Stadiums	2
				050/H11	Housing (multifamily)	4
				058/L01	Laboratories/Med Facilities	5
				060/L04	Libraries; Museums	2
				072/O01	Office Bldg; Indus. Park	3
63	Other Employees: Mechanical Designer	27		087/S12	Swimming Pools	2
64	Other Employees: Electrical Designer	33		045/H06	High-rise; Air-rights Bldgs	4
65	Other Employees: Telecom Designer	63		112/V01	Value Analysis; LCCA	3
66	Other Employees: Commissioning Agent	18				
Total		201				


11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 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 September 4, 2024
c. NAME AND TITLE Ron Eliason, Principal	

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

2024-342

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)


2a. FIRM (OR BRANCH OFFICE) NAME Lund Opsahl LLC			3. YEAR ESTABLISHED 2012	4. DUNS NUMBER 078435236
2b. STREET 1215 Fourth Avenue, Suite 1200			5. OWNERSHIP	
2c. CITY Seattle	2d. STATE WA	2e. ZIP CODE 98161	a. TYPE Limited Liability Company	
6a. POINT OF CONTACT NAME AND TITLE Owen Bower, PE, SE Principal			b. SMALL BUSINESS STATUS SBE D2F0023366, NAICS 541330	
6b. TELEPHONE NUMBER 206.402.5156	6c. E-MAIL ADDRESS obower@lundopsahl.com			
8a. FORMER FIRM NAME(S) (If any) Lund Wright Opsahl LLC, Lund Structural Engineering LLC, Lund & Everton LLC, PAO Structural Engineering LLC, Peter A Opsahl Structural Engineering Inc			8b YR. ESTABLISHED 1997	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			
57	Structural Engineer	25		A06	Airports, Terminals & Hangars	4
08	CADD Technician	7		A08	Animal Facilities	1
02	Mktg / Administrative Support	4		A11	Auditoriums & Theaters	2
				C05	Child Care / Development Facilities	1
				C06	Churches; Chapels	1
				C10	Commercial Building (low-rise)	2
				C11	Community Facilities	3
				D07	Dining Halls; Clubs; Restaurants	1
				E02	Educational Facilities; Classrooms	2
				F02	Field Houses; Gyms; Stadiums	1
				G01	Garages; Vehicle Maintenance	1
				H08	Historical Preservation	1
				H09	Hospitals & Medical Facilities	2
				H10	Hotels; Motels	1
				H11	Housing	2
				I01	Industrial Buildings; Manufacturing Pl	2
				L01	Laboratories; Medical Research Fac.	1
				L04	Libraries	1
				O01	Office Buildings	4
				P06	Planning (Site, Installation, & Project)	2
				P08	Prisons & Correctional Facilities	1
				R04	Recreation Facilities	1
				R06	Rehabilitation (Buildings, Structures)	3
				R08	Research Facilities	1
				S03	Seismic Designs & Studies	4
				S09	Structural Design; Special Structures	1
				S11	Sustainable Design	3
	Total	31				

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	3	1. Less than \$100,000	6. \$2 million to less than \$5 million	7. \$5 million to less than \$10 million	8. \$10 million to less than \$25 million
b. Non-Federal Work	6	2. \$100,000 to less than \$250,000	9. \$25 million to less than \$50 million	10. \$50 million or greater	
c. Total Work	7	3. \$250,000 to less than \$500,000			
		4. \$500,000 to less than \$1 million			
		5. \$1 million to less than \$2 million			

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE 8/23/2024
c. NAME AND TITLE Owen Bower, PE,SE Principal	

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STANDARD FORM 330



