



Project No. 2024-344:

WSP-IMU South Fire Protection & Smoke Dampers

Wood Harbinger, Inc.
Statement of Qualifications

November 21, 2024

Submitted to

Department of Corrections Washington State Penitentiary

1313 N 13th Ave, Walla Walla, WA 99362



929 108th Ave NE, Suite 1000
Bellevue, WA 98004
425.628.6000
woodharbinger.com

November 21, 2024

Jessica Cahill, Project Manager, Department of Corrections (DOC)
Ryan Grimes, Department of Enterprise Services (DES)

Re: Project No. 2024-344:WSP-IMU South Fire Protection & Smoke Dampers

Dear Jessica, Ryan, and Selection Committee Members:

We understand the importance of your mission to improve public safety by positively changing lives. To support your mission and goals, you need safe, healthy, and secure environments that function effectively and efficiently. And you need a design and engineering partner with the expertise and experience to successfully execute this complex project within your biennium funding requirements while minimizing impacts to incarcerated individuals, staff, volunteers, visitors, and operations.

Our team is structured to bring a unique combination of fire protection, electrical, and mechanical engineering expertise and a depth of resources to support the effective management and implementation of integrated controls systems upgrades. We have extensive experience with planning, pre-design, design, and construction administration for building control system upgrades and modifications, as well as familiarity with DES facilities, processes, standards, and biennium funding requirements. We also bring expertise in Clean Building Performance Standards to ensure compliance in a timely manner.

We are known for our ability to effectively manage complex, phased upgrades in occupied and highly secure facilities with minimal impact to occupants and operations. Our experience includes hundreds of similar projects in the past several years for public agencies, including the Department of Enterprise Services, Department of Social and Health Services, Washington State Public Health Labs, Snohomish County, and University of Washington Medicine.

Our comprehensive experience includes feasibility studies and condition assessments, equipment selection, pre-design, design, bid documents, permitting, construction administration, and project closeout for projects of all sizes. Occupant safety, security, and comfort in a healthy environment are our goals, with all components in the interconnected systems operating in harmony to achieve this through environmentally responsible and cost-conscious solutions.

We look forward to providing the superior engineering and design expertise you need with a highest quality approach and exceptional customer service.

Sincerely,
Wood Harbinger

A handwritten signature in blue ink, appearing to read "N. Baker", is positioned above the typed name.

Nick Baker, PE, CCP, LEED AP | Principal
nbaker@woodharbinger.com | 425.628.6042

We hereby acknowledge receipt of Addendum #01 dated November 14, 2024.



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: Wood Harbinger, Inc.		
Point of Contact Name & Title: Nick Baker, PE, CCP, LEED AP, Principal		
Email: nbaker@woodharbinger.com	Telephone: 425.628.6042	
Address: 929 108th Avenue NE, Suite 1000		
City: Bellevue	State: WA	Zip: 98004



Executive Summary

THE RIGHT EXPERTS TO DELIVER YOUR PROJECT SEAMLESSLY

- » We have assigned a team of talented and knowledgeable fire protection, electrical, and mechanical engineers supported by a robust design staff.
- » Our team's experience includes successful delivery of projects of similar scope and scale for DES and other public agencies.
- » We also bring expertise in Clean Building Performance Standards and are currently working with public and private clients to help them understand, plan, and implement compliance programs.
- » We know how to design and plan for phased construction in occupied, highly secured facilities to minimize impacts to occupants and operations.

DEMONSTRATED RECENT, RELEVANT EXPERIENCE

- » We are known for our ability to deliver complex renovations and infrastructure upgrades on operating campuses while minimizing impact to occupants and maintaining safety and security.
- » Most of our work is for public agencies where careful planning, thorough communication, and expert engineering solutions are key to successful project execution.
- » We understand the inherent challenges of public projects and the importance of financial stewardship, meeting codes and standards, and working within funding cycles.
- » Our long history of on-call and stand-alone work for state, county, and city agencies demonstrates our commitment and ability to deliver this project.

PAST PERFORMANCE THROUGH PROVEN TOOLS & METHODS

- » As an integrated, collaborative team, we will be your partner and advocate throughout the project.
- » Using our proven methods for managing scope, schedule, and budget—while leveraging past lessons learned on similar projects—we will customize our approach and tools to meet the specific needs of your project.
- » Our experience demonstrates how we overcome challenges related to scope, schedule, and budget to create successful projects.
- » We will leverage the full expertise of our team for a well-coordinated, seamless project process and outcome.
- » We are a small business with a deep bench of experts and track record of successfully executing complex engineering solutions for State and public agencies across Washington.



Qualifications of Key Personnel

We are in tune with user needs, from end user occupants to operations and maintenance teams working every day to keep systems running smoothly.

We prioritize communication and comprehensive documentation so clients understand the issues clearly and can make informed choices that achieve their goals and ultimately, create inspiring and healthy user experiences.

The seasoned professionals listed on the organizational chart on the following page will address your project needs. The core members of our team have the experience, capability, and capacity to complete this project.

Nick Baker PE, CCP, LEED AP, is our principal-in-charge and project manager, bringing 19 years of experience in mechanical systems analysis, design, and commissioning for public agencies. He is also a Certified Building Tune-Up Specialist through the City of Seattle. Nick will serve as the primary point of contact and provide corporate oversight and leadership of our team. He will be responsible for contract administration, schedule, quality control, and ensuring staffing resources are available to complete the project. He will also support

mechanical analysis, design, and engineering for the project.

As your day-to-day contact for the project, Nick will lead our work effort to execute deliverables on time and within budget. Nick will provide management and team coordination to maintain communication, schedules, and budgets while also providing technical input and innovative solutions for the project.

Mike Lehner, PE, FPE, is dual-licensed as a fire protection and mechanical engineer, with 30 years of experience and expertise in fire

protection and controls systems engineering and integration. He will lead design and implementation of the new smoke control and HVAC control system.

Peter Lekhakul, PE, LEED AP BD+C, brings 30 years of experience in electrical engineering and life safety/fire alarm systems design, with special expertise in public agency facilities and complex, occupied, and secured environments. Peter will work closely with Mike and Nick to provide fire alarm system analysis, planning, design, and integration to support this controls upgrade project.

Our team also includes a dedicated project assistant, **Melissa Evans**, who has been with Wood Harbinger for 22 years. She will work closely with the team to assure fluid progress and absolute attention to detail. She will focus on supporting Paul and Nick to maintain communication workflow between all team members and project stakeholders.

Our team combines design expertise with the intangible human elements of effective infrastructure systems operation.

ORGANIZATIONAL CHART & ESTIMATED PERCENT OF TIME TO BE ASSIGNED TO THE PROJECT

The organization chart below details the key team members assigned to this project, with our interrelationships and reporting hierarchy. Each person's estimated percent of time to be assigned to the project is also listed. Resumes of our team members are included on the following pages.

State of Washington Department of Corrections



Nick Baker PE, CCP, LEED AP
Principal-in-Charge/
Project Manager
50%

Melissa Evans
Project Assistant
25%

Mike Lehner PE, FPE
Fire Protection Engineer/
Controls Expert
60%

Peter Lekhakul PE, LEED AP BD+C
Electrical Engineer/
Fire Alarm Expert
40%

**+ 22 In-House Mechanical
and Electrical Engineers, Designers,
and Technical Support, as needed**



Nick Baker PE, CCP, LEED AP

Principal-in-Charge, Mechanical Engineer

Nick is a motorcycle mechanic by trade, a physicist by education, and a mechanical engineer by license and profession. He has 19 years of experience in mechanical systems engineering, maintenance, repair, and testing. With this varied perspective and a personable, resourceful approach, Nick excels as a leader of teams and projects. His experience includes design, management, systems assessments, controls troubleshooting, and commissioning for a variety of facilities, including education, public agencies, healthcare, offices, labs, and military installations. Nick's responsive service builds strong client and team partnerships.

Education

BS Physics
University of Washington
Seattle, WA, 2009

Registrations & Certifications

Professional Mechanical Engineer:
WA, OR

Certified Commissioning
Professional #265

Certified Building Tune-Up
Specialist

LEED Accredited Professional

US Army Corps of Engineers
Construction Quality Management
for Contractors

- » Sea-Tac International Airport North Satellite Renovation Fire Protection, Port of Seattle, SeaTac, WA
- » Sea-Tac International Airport Smoke Control System Connections, Port of Seattle, SeaTac, WA
- » 120-Rack SAP Expansion, Verizon, Aberdeen, MD
- » P891 Shipyard Electrical Backbone, Substation FG Fire Alarm System, NAVFAC NW, Bremerton, WA
- » Public Safety Building, City of Kirkland, Kirkland, WA
- » Family Justice Center Heating Water Piping Renovation, Thurston County, Olympia, WA
- » Correctional Facility Video Booths, Thurston County, Olympia, WA
- » Denney Juvenile Justice Center, Snohomish County, Everett, WA
- » Olympic Heritage Behavioral Health Treatment Center Study and Tenant Improvements, Washington State Department of Social and Health Services, Tukwila, WA
- » Multiple Building HVAC Replacements, Skagit Valley College, Mt Vernon, WA
- » Library Culinary Arts Commons, Skagit Valley College, Mt Vernon, WA
- » Seattle Center/Climate Pledge Ecodistrict Feasibility Study, Seattle City Light, Seattle, WA
- » Samuelson Communication & Technology Center, Central Washington University, Ellensburg, WA
- » Chinook Student Center Renovation, Washington State University, Pullman, WA
- » Washington Veterans Home Building 9 & 10 Predesign & Mechanical Study, Washington State Department of Enterprise Services, Port Orchard, WA
- » Family Justice Center Piping Renovation, Thurston County, Olympia, WA
- » HVAC System Replacements, Central Kitsap School District, Silverdale, WA
- » Seattle Center Mechanical Engineering On-Call, City of Seattle, Seattle, WA



Mike Lehner PE, FPE

Fire Protection Engineer

With 30 years' experience as a professional engineer and a spectrum of designs ranging from elementary school HVAC systems to the SR-520 floating bridge's fire suppression system to utility piping on the piers at Naval Base Kitsap, Mike delivers lessons learned and creative approaches with an unparalleled level of knowledge and applied expertise. His friendly demeanor combined with his attention to detail make him an excellent engineer and team partner. Mike is both a licensed fire protection engineer and mechanical engineer with focused knowledge of codes, building construction, egress, fire suppression, fire alarm, and site planning considerations.

Education

BS Mechanical Engineering
University of Washington
Seattle, WA, 1998

Registrations & Certifications

Professional Mechanical Engineer
Washington #38714, 2008
Oregon #96999PE, 2021
Maryland #58918

Professional Fire Protection
Engineer
Washington #38714, 2002
Oregon #96999PE, 2021
California #FP1558
Maryland #58918

Professional Affiliations

National Fire Protection
Association (NFPA)

- » Sea-Tac International Airport North Satellite Renovation Fire Protection, Port of Seattle, SeaTac, WA
- » Sea-Tac International Airport Smoke Control System Connections, Port of Seattle, SeaTac, WA
- » 120-Rack SAP Expansion, Verizon, Aberdeen, MD
- » P891 Shipyard Electrical Backbone, Substation FG Fire Alarm System, NAVFAC NW, Bremerton, WA
- » Public Safety Building, City of Kirkland, Kirkland, WA
- » Family Justice Center Heating Water Piping Renovation, Thurston County, Olympia, WA
- » Denney Juvenile Justice Center, Snohomish County, Everett, WA
- » Multiple Building HVAC Replacements, Skagit Valley College, Mt Vernon, WA
- » Library Culinary Arts Commons, Skagit Valley College, Mt Vernon, WA
- » Seattle Center/Climate Pledge Ecodistrict Feasibility Study, Seattle City Light, Seattle, WA
- » Samuelson Communication & Technology Center, Central Washington University, Ellensburg, WA
- » Chinook Student Center Renovation, Washington State University, Pullman, WA
- » Washington Veterans Home Building 9 & 10 Predesign & Mechanical Study, Washington State Department of Enterprise Services, Port Orchard, WA
- » Public Health and Social Services Exterior Fire Sprinkler Replacement, Thurston County, Olympia, WA
- » Medical Office Building, Mason General Hospital, Shelton, WA
- » Central Energy Plant, MultiCare Health System, Tacoma, WA
- » Bainbridge Island Medical Center, Virginia Mason Medical Center, Bainbridge Island, WA



Peter Lekhakul PE, LEED AP BD+C

Electrical Engineer

Peter brings a breadth of electrical systems expertise gained from 30 years in the industry. With a creative, problem-solving approach and an easy-going communication style, Peter adeptly manages projects and teams of various sizes and conducts assessments and designs for power distribution, emergency power, lighting, fire alarm, communication, and low-voltage systems. He has provided master planning, construction and value analysis for complex facilities as well as sustainable designs and LEED documentation on multiple LEED-certified projects.

Education

BS Electrical Engineering
Seattle University
Seattle, WA, 1995

Registrations & Certifications

Professional Electrical Engineer
Washington #39959, 2004

LEED Accredited Professional
Building Design + Construction
#0000041533

Professional Affiliations

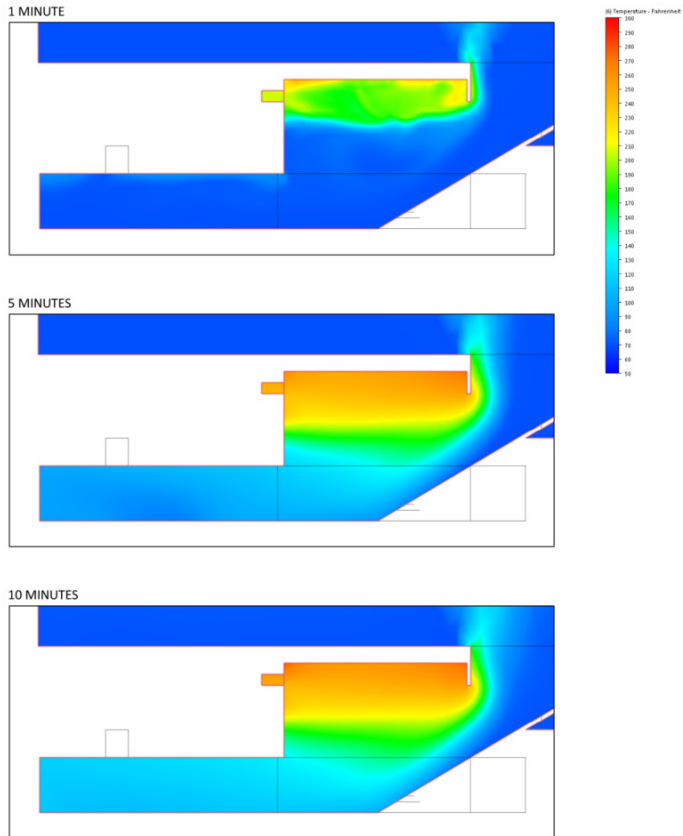
Pacific Coast Congress of
Harbormasters and Port
Commissioners (PCC)

- » Sea-Tac International Airport North Satellite Renovation Fire Protection, Port of Seattle, SeaTac, WA
- » 120-Rack SAP Expansion, Verizon, Aberdeen, MD
- » P891 Shipyard Electrical Backbone, Substation FG Fire Alarm System, NAVFAC NW, Bremerton, WA
- » Public Safety Building, City of Kirkland, Kirkland, WA
- » Family Justice Center Heating Water Piping Renovation, Thurston County, Olympia, WA
- » Correctional Facility Video Booths, Thurston County, Olympia, WA
- » Denney Juvenile Justice Center, Snohomish County, Everett, WA
- » Olympic Heritage Behavioral Health Treatment Center Study and Tenant Improvements, Washington State Department of Social and Health Services, Tukwila, WA
- » Multiple Building HVAC Replacements, Skagit Valley College, Mt Vernon, WA
- » Library Culinary Arts Commons, Skagit Valley College, Mt Vernon, WA
- » Seattle Center/Climate Pledge Ecodistrict Feasibility Study, Seattle City Light, Seattle, WA
- » Samuelson Communication & Technology Center, Central Washington University, Ellensburg, WA
- » Chinook Student Center Renovation, Washington State University, Pullman, WA
- » HVAC System Replacements, Central Kitsap School District, Silverdale, WA
- » West Hills STEM Academy HVAC Replacement, Bremerton School District, Bremerton, WA
- » Multiple Building HVAC Replacements, Skagit Valley College, Mt Vernon, WA
- » Western State Hospital Building 17 Ward C9 Remodel, Washington State Department of Social and Health Services, Lakewood, WA
- » Fircrest School Transformer Replacement, Department of Social and Health Services, Shoreline, WA

Relevant Experience

The matrix below summarizes our most recent, relevant experience. Details for several projects are highlighted on the following pages.

PROJECT	RELEVANT FEATURES										
	CORRECTIONAL ENVIRONMENT	HIGHLY SECURED ENVIRONMENT	HVAC RETROFITTING	FIRE PROTECTION AND/OR SMOKE DAMPERS	ELCCA, ENERGY MODELING, AND SUSTAINABLE	OCCUPIED FACILITY	MULTI-PHASED CONSTRUCTION	STATE OF WASHINGTON BUDGET PROCESS	PLANNING	LIFE-CYCLE COST ANALYSIS	SUSTAINABLE DESIGN
Sea-Tac International Airport North Satellite Renovation Fire Protection Port of Seattle, SeaTac, WA		✓	✓	✓		✓	✓				
Sea-Tac International Airport Smoke Control System Connections Port of Seattle, SeaTac, WA		✓	✓	✓		✓					
120-Rack SAP Expansion Verizon, Aberdeen, MD		✓	✓	✓		✓					
P891 Shipyard Electrical Backbone, Substation FG Fire Alarm System NAVFAC NW, Bremerton, WA		✓		✓				✓			
Public Safety Building City of Kirkland, Kirkland, WA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Family Justice Center Heating Water Piping Renovation Thurston County, Olympia, WA	✓	✓	✓			✓	✓				
Correctional Facility Video Booths Thurston County, Olympia, WA	✓	✓				✓	✓				
Denney Juvenile Justice Center Snohomish County, Everett, WA	✓	✓	✓		✓	✓	✓				✓
Olympic Heritage Behavioral Health Treatment Center Study and Tenant Improvements Washington State DSHS, Tukwila, WA		✓	✓	✓		✓	✓	✓	✓		
Multiple Building HVAC Replacements Skagit Valley College, Mt Vernon, WA			✓	✓	✓	✓	✓	✓	✓	✓	✓
Library Culinary Arts Commons Skagit Valley College, Mt Vernon, WA				✓	✓		✓	✓	✓	✓	✓
Seattle Center/Climate Pledge Ecodistrict Feasibility Study Seattle City Light, Seattle, WA			✓		✓	✓	✓		✓	✓	✓
Samuelson Communication & Technology Center Central Washington University, Ellensburg, WA				✓	✓	✓	✓	✓	✓	✓	✓
Chinook Student Center Renovation Washington State University, Pullman, WA				✓	✓	✓	✓	✓	✓	✓	✓
Washington Veterans Home Building 9 & 10 Predesign & Mechanical Study DES, Port Orchard, WA		✓	✓		✓	✓	✓	✓	✓	✓	✓



SCENARIO A: TEMPERATURE AT SECTION A1

Sea-Tac International Airport North Satellite Renovation Fire Protection

SEATAC, WA

This project adds more than 200,000 SF to the terminal, adds eight new gates, and doubles the dining and retail space.

We provided fire protection engineering for this significant expansion and modernization project in the 45-year old terminal. We designed wet- and dry-pipe sprinkler systems, window deluge fire sprinklers, standpipe systems, and a fire pump.

This project includes atrium spaces with very high ceilings and challenging smoke-control requirements. Our team performed several computational fluid dynamics (CFD) simulations to help the Port of Seattle Fire Department determine what level of exhaust was needed in the space to assure that egress pathways are clear in the event of a fire. CFD modeling helped us design this space so that if there is a fire in the terminal, people can get out in the safest way possible.

Owner

Port of Seattle

Completed

2021

Delivery Method

Design-build

Original Budget

\$587M (total construction)

Actual Cost

\$587M (total construction)

Reference

Daniel Tauber, RA
 Project Manager/Senior Architect
 AECOM
 daniel.tauber@aecom.com
 206.438.2700

Relevant Features

- » Fire protection engineering
- » Smoke control in large open atriums, corridors, and small rooms
- » Phased project in an occupied building
- » Work in secured areas, badging required
- » 24/7 operation and occupancy

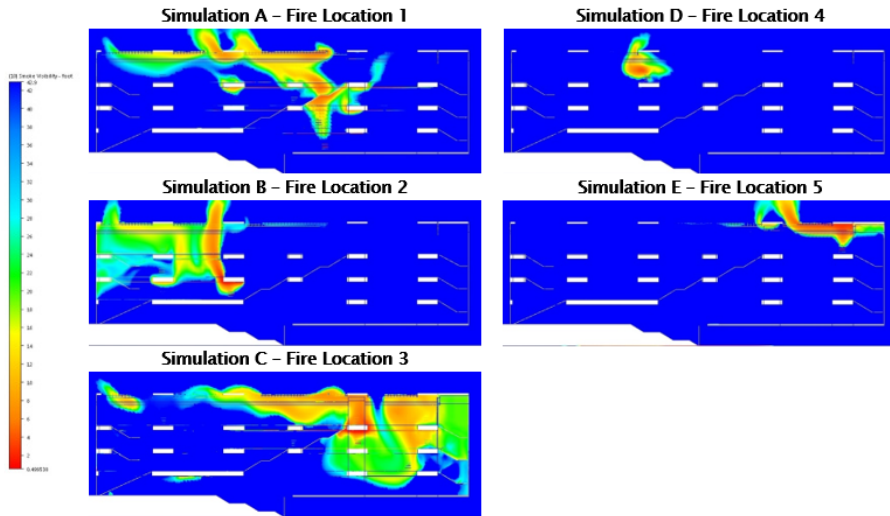


Figure 5. Elevation views of Simulation A-E showing smoke visibility.

Sea-Tac International Airport Smoke Control System Connections

SEATAC, WA

Wood Harbinger provided mechanical engineering services for the Central Terminal Expansion project completed in 2000, which included a smoke control system serving the 70-foot high atrium and dining and retail areas.

In the past five years, we have supported numerous projects as the smoke control system expert, providing design review of connections into the original system we designed to ensure compatibility, and integration for optimal operations.

Projects include tenant improvements for Salty’s Restaurant and the Amex Lounge.

Because of our unmatched expertise with the Port’s smoke control systems, we were also engaged by the Port to support the design-build North Main Terminal Renovation (NMTR), which include systems in the FSA areas, including detainment areas.

Owner

Port of Seattle

Completed

Original Central Terminal: 2000
 Salty’s Restaurant: 2019
 AMEX Lounge: 2021
 NMTR: 2024

Delivery Method

Design review

Original Budget (fees)

Salty’s Restaurant: \$16,910
 AMEX Lounge: \$8,340
 NMTR: \$321,089

Actual Cost

Salty’s Restaurant: \$15,698
 AMEX Lounge: \$4,641
 NMTR: \$321,089

References

Salty’s TI: Kathy Glynn
 Concessions international, LLC
 kglynn@cintl.com
 404.614.6876

AMEX Lounge: Sid Scarboro
 Perkins & Will
 sidney.scarboro@perkinswill.com
 206.381.6031

NMTR: Ken Miller
 HOK
 ken.miller@hok.com
 206.493.1774

Relevancy

- » Fire protection engineering
- » Smoke control system subject matter expertise
- » Phased projects in an occupied building
- » Work in secured areas, badging required
- » 24/7 operation and occupancy



Fire alarm control panel

120-Rack SAP Expansion

ABERDEEN, MD

We provided MEP and fire protection engineering for an existing building renovation. This facility operates 24/7, and work was completed without interruption to other building and data systems within the facility.

We provided MEP and fire protection engineering for an existing building renovation. Our work included replacement of the existing pre-action sprinkler system throughout the data hall. We explored use of nitrogen corrosion protection for the pre-action system, and included pre-action smoke detection. Fire protection also included integration of new fire alarm devices to existing fire alarm control panels.

Owner

Verizon

Completed

July 2022

Delivery Method

Design-bid-build

Original Budget

\$78,690 (fee)

Actual Cost

\$115,000 (fee; owner-initiated scope changes)

Reference

Jeff Yirak
Principal, Director of Special
Project Engineering, McKinstry
509.590.1227
jeffy@mckinstry.com

Relevancy:

- » Fire protection engineering
- » Fire alarm systems engineering
- » Work in a mission critical facility
- » 24/7 operation and occupancy



Examples of installed equipment

P891 Shipyard Electrical Backbone, Substation FG Fire Alarm System

BREMERTON, WA

Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) experienced 56 unscheduled utility outages between FY10 and FY13; 64.5 percent were related to the electrical utility/distribution system. Our fire protection engineers provided a study, concept design, and final design to increase resiliency, redundancy, reliability, and capacity at the 45-year-old Substation FG, the primary source of electrical power to PSNS & IMF and the heart of the electrical distribution system.

Our scope of work included a robust fire alarm system serving the new substation, including new addressable initiating and notification devices, pull stations, heat/smoke detectors, carbon monoxide and duct smoke detectors, control modules, flow switch, tamper switches, horn/strobes, strobes, and bells. Class B fire alarm initiating device circuits, signaling line, and notification circuits were installed and routed in conduits. Smoke detectors will be provided above each fire alarm panel in all areas where new initiating and notification devices will be provided according to code.

Owner

Naval Facilities Engineering Command (NAVFAC) Northwest

Completed

July 2024 (design completed)

Delivery Method

Design-Bid-Build

Original Budget

\$2.69M (design fee)

Actual Cost

\$2.69M (design fee)

Reference

Elise Hanson, PE
WSP, Federal Programs
elise.hanson@wsp.com
206.431.2318

Relevancy

- » Fire alarm systems engineering
- » Phased project on an occupied campus
- » Work in secured areas, badging required
- » Work in a mission critical facility

Past Performance

Managing Scope, Schedule, and Budget

Our philosophy is to be collaborative and proactive project partners. As prime consultant, we act as your advocate and promote a comprehensive, successful result for the end-users.

SCOPE

Identify Project Objectives, Analyze and Assess

Project Scope: We start all projects by establishing clear expectations with our client and team. We will lead a kick-off meeting with stakeholders, end-users, and facilities staff to validate the project scope and discuss system conditions, as well as current and future facility requirements.

This project will replace the fire alarm and smoke control system with a new system that will be the parent controller to the existing HVAC energy monitoring control system (EMCS). We will begin where the smoke control study report left off by designing a UL-listed smoke control and fire alarm system that will operate as the parent system and control the EMCS as the “slave” controller. As part of this system change, we will design manual overrides to control the smoke control system from each of the control rooms.

The resulting fire alarm system will be modern, reliable, and inexpensive to operate while improving life safety for staff and residents and increasing energy savings. The new fire alarm and smoke control system will meet DOC’s and DES’ long-term commitment to environmental stewardship and long lifecycle for the system.

SCHEDULE

Identify Challenges, Risks, and Opportunities and

Evaluate Existing Conditions: We develop and maintain a flexible and adaptable project approach and schedule, making sure that our work plan is well coordinated with owner’s and operation’s schedules. We have developed a baseline schedule to review with the team during the project kickoff meeting. This schedule will be maintained throughout the design process and changes will be captured and discussed with the entire project team at regular coordination meetings.

This project will require an in-depth schedule to manage the phasing required to complete this project. With the challenge for DOC to empty one MOD of 22 beds at a time for construction, this project will have a minimum of nine phases to work through all nine MODs. We use MS Project for developing preliminary construction schedules that can be transitioned to the construction team as the project moves into the construction phase. We will also utilize our internal deliverable tracking tool to coordinate deliverable dates, scope, and documents.

We have provided a preliminary deliverable tracker and design schedule for your project, based on contract execution and NTP on January 6, 2025. Our schedule includes a one-week DOC review period for each deliverable.

BUDGET

Project Planning: We organize and manage a project approach and schedule that minimizes costs, impacts, and downtime. We identify key milestones, critical path tasks, and risks.

Our design will include early ROM cost estimates and ongoing cost estimates at each deliverable to ensure the design is progressing towards a cost-effective and achievable bid package.

It was asked during the site visit if magnetic door holds could be added to the project. Early in design, we will include items like magnetic door holds in our ROM cost estimate that could be included, if funds are available.

We understand this project has a defined MACC of \$2.5M that our design must stay within. Our cost estimating methods have proven extremely accurate over the years, and we routinely identify specific bid options (for items such as magnetic door holds) to be included or excluded depending on the bidding climate and budget constraints. We look for every creative opportunity to maximize budgets and project value to include as many priority options as possible.

Preliminary Deliverable Tracker and Design Schedule

Project Deliverables

Project Number: Enter WH Project Number
 Project Name: IMU Fire Alarm and Smoke Controls
 Project Manager: Nick Baker

Deliverable	30% (Schematic Design)	50% (Design Development)	90% (Permit)Contract Documents	Final Contract Documents	Record Documents
QC Date:	1/28/2025	2/25/2025	3/25/2025	4/21/2025	
Delivery Date:	1/30/2025	2/27/2025	3/27/2025	4/23/2025	Unknown
Delivery Time:	3pm	3pm	3pm	3pm	3pm
Deliver To:	Jessica Cahill	Jessica Cahill	Jessica Cahill	Jessica Cahill	Jessica Cahill
Drawings:					
Date on Drawings:	30-Jan	27-Feb	27-Mar	24-Apr	Unknown
PDF*	X	X	Yes	X	X
Half Size Hard Copy					
Full Size Hard Copy	X	X	X	X	X
Drawing List	8 Sheets	12 sheets	12 sheets	12 sheets	12 sheets
Specifications:	No				
Date on Specs:		27-Feb	27-Mar	24-Apr	Unknown
Specification Index	X				
Outline Specs		X			
Specifications			X		
PDF		X	X	X	
Conformed Specs					
Basis of Design (BOD)	X	X	X	X	
Catalog Cuts			X		
Calculations			X		
LEED Forms					
Cost Estimate	X	X	X	X	
CAD Files					X
Things to Do List					
Reports **					
DELIVERY METHOD	Email	Email	Email	Email	Email

* PDF Drawings should be full size unless noted otherwise.

** Please provide a list of all required reports separately

In each cell, fill out the approximate page count, followed by the quantity of sets required. If PDF only indicate 1(PDF), if > 1, this is the number of CDs required. Add any applicable notes regarding binding, etc. or any other special instructions.

MANAGING RISK

Our approach to risk management begins at the start of the project when we establish clear expectations, gather project data and team input, and perform thorough field investigations. We seek to identify and mitigate risks as early as possible, before they impact the project’s scope, schedule, or budget. For your project, we have identified

the following potential risks and strategies to proactively mitigate those risks. As part of our project kickoff meeting, we will review and identify additional potential risks to the projects and develop mitigation strategies to minimize impacts.

POTENTIAL ISSUE	POTENTIAL RISK	MITIGATION STRATEGIES
Supply chain delays	Schedule delays	Early in design, we will identify long-lead items and timelines and research possible alternatives to minimize schedule delays.
Construction phasing	Schedule delays and increased cost	Early and thorough phase planning during design will lead to successful construction phasing.
HVAC equipment failures due to reuse (option 2 from report was funded, which excluded HVAC replacement)	Schedule delays and increased cost	We will perform early evaluation of HVAC equipment and coordinate with O&M staff to best maintain equipment to avoid failures.

Scheduling Tools and Methods

We understand that project schedules must be met, and our ability and commitment to meet established project schedules has been proven repeatedly. We use MS Project to create detailed project schedules, identifying the specific tasks, milestones, interdependencies, and critical paths that must be met to successfully complete a project. By using MS Project, we can build a skeleton construction schedule that can be handed over to the construction team to carry forward to construction through project completion.

We control the schedule by closely tracking key elements such as start and finish dates for design submittals, review meetings, bidding, and construction phases. We monitor and update the schedule at completion of each phase and continuously communicate the schedule to the team, anticipating and discussing any potential challenges or risks.

We have the staffing flexibility to meet the project schedule provided, whether it becomes delayed or is accelerated. Our team can draw from our extensive engineering staff for knowledge-based support on specialized systems and additional personnel when needed.

We also understand the imperative of keeping mission-critical infrastructure operational during construction in sensitive environments. Staff and occupant safety considerations are critical in establishing the scope and schedule for projects like yours. We maintain constant adaptability in our approach and schedule and coordinate our efforts with facilities staff and care providers.

As multidisciplinary design and engineering firm, we understand the multiple perspectives that must be harmoniously integrated. We emphasize early, upfront planning and work closely with facilities, security, operations, and IT staff, listening to their needs and bridging the gaps between these groups to make sure all are on the same page and comfortable with how our work proceeds in pursuit of their mutually important goals.

Careful Phasing to Avoid Disruptions: Construction phasing for this project is critical to success with the limitation of working in one MOD at a time due to the strain of losing access to 22 beds for each MOD. We will work with DOC to develop a detailed, effective, and efficient phasing plan to provide to the construction team.



Creating Success

We have a deep understanding of what it takes to achieve efficient, effective, and appropriate designs that enable maximum benefit to facility owners, operators, and end-users while enabling continued operations.

We engage in coordinated and continuous communication throughout the design process. This is the cornerstone of our proactive approach and enables us to minimize ambiguity, change orders, and project delays.

We design systems that satisfy capacity needs, address code deficiencies, and are constructible and within budget. Our up-front communication and thorough field investigation allow us to learn the root causes of existing issues and provide comprehensive solutions. We identify and mitigate potential issues before they affect operation.

We deliver coordinated and comprehensive design submittals for review and comment. All projects, regardless of size or complexity, undergo a quality control check for constructability, code-compliance, and alignment with facility standards, safety plans, and needs. We provide detailed construction cost estimates at agreed upon intervals, identify value engineering opportunities, and communicate issues early to keep the project moving, and provide staffing flexibility to support the project any schedule delays or acceleration.

Team continuity is a key element of project success; our key personnel involved during design provide construction administration. Our construction phase involvement can include pre-bid meetings and walkthroughs with potential contractors, bid review consultation, preconstruction meetings with the successful bidder, attending onsite construction progress meetings, processing contractor requests for information and substitution requests, construction submittal reviews, compliance verification of project document and site reports, review of contractor payments, and developing a punch list.

We provide support during the transition from construction to occupancy, helping prepare facility staff for long-term success. In addition to a detailed closeout report and project record drawings, we support provision of accessible resources and training materials, such as a systems manual, to help maintain optimized system performance; such support tools are particularly beneficial with high performance buildings or complex infrastructure facilities.



SUCCESS STORY

The City of Kirkland annexed several neighborhoods in 2011 and the population surged. The City's police department expanded in personnel, but not in space, and things got tight in their 15,000 SF area of the City Hall building. When space opened up in an unused wholesale warehouse, the city purchased the building.

With the help of a collaborative design team, including our mechanical, plumbing, and fire protection engineers, the warehouse was renovated into the new Kirkland Public Safety Building. This 102,000-SF essential facility integrates all law enforcement and justice system services under one roof. The project achieved LEED Silver certification.

Our design included demand control ventilation technology, air economizer control technology, and an advanced direct digital control (DDC) system that we utilized to its full potential to accommodate the varying programming needs and operating schedules throughout this multiuse facility. The police station and jail areas required continuous operation while the courts and lab spaces operated on a more normal business hours schedule. The jail systems also could not overlap with the other occupant areas.

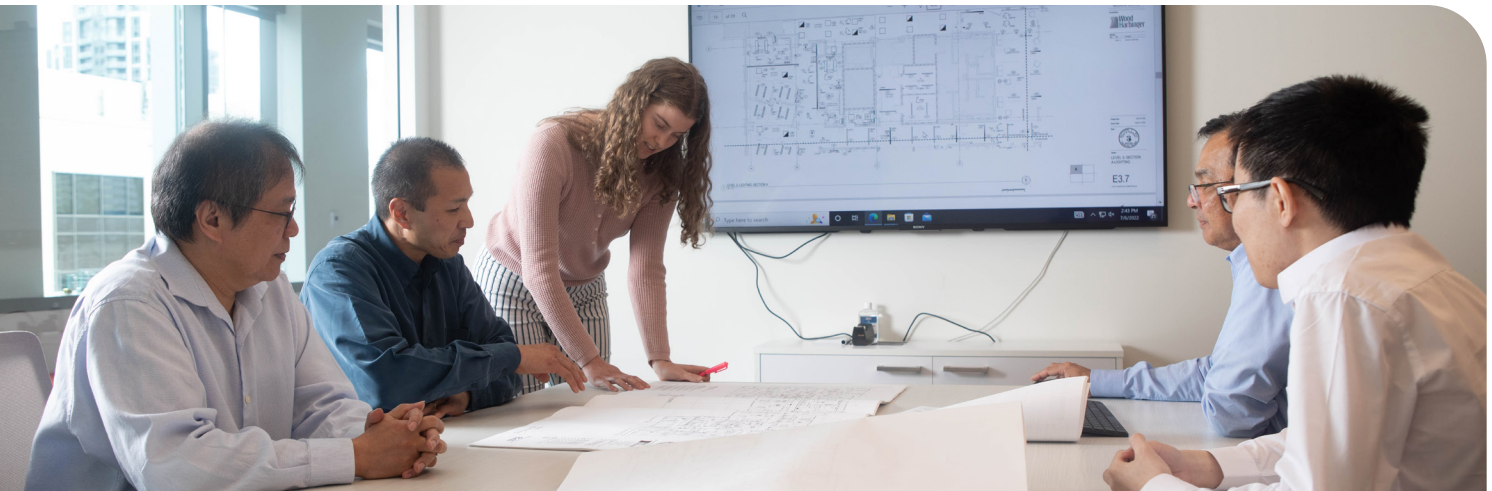
The temperature control system consists of a stand-alone, microprocessor-based DDC system. Electric actuators are used for valve and damper control.

The system is networked and has a central computer as the operator interface point located in the building. That computer has a modem to permit remote monitoring of the system by facility maintenance.

Jail Area: Security was the main priority in the jail area. The area was completely isolated from the rest of the building. The jail was also the only area in the building that required the smoke control evacuation system. The HVAC system was completely separate, with distribution provided from a mezzanine platform. We utilized burglar bars in the ductwork, combined with security diffuser grilles, so inmates could not tamper with the ductwork. Penal-specific plumbing fixtures were also specified.

Firing Range: The firing range required a variety of considerations unique to the space, including noise control, bullet ricochet, and the spread of gun powder through the air systems. The range is within the building which is situated in a populated area. We designed a low velocity airflow system with additional duct lining for sound attenuation. We used a constant air volume make-up air unit consisting of a supply fan, gas-fired heating section, filters, dehumidification, and inlet plenum. A separate exhaust fan is used to assure that the air velocity across the firing range can be maintained at 75 feet per minute. Unlike the other air handling systems in the building, this system does not recirculate to help control the spread of gun powder. Working closely with a specialty police facility consultant, we arranged locations for the fire sprinklers where they still met NFPA code but weren't in danger of being hit by ricocheting bullets. We also strategically located and provided protection for the diffusers so inlets wouldn't be damaged. The police facility also required a compressed air system for their gun cleaning stations.

Data Center: The new facility included a dedicated 900 SF data center to serve the City of Kirkland's data needs. We designed the HVAC system as a stand-alone system with redundant equipment. It operates continuously and is capable of utilizing outside economizer cooling for energy savings. It is designed to accommodate future growth in the City's data storage needs. The space is protected by a clean agent (FM-200) fire suppression system in lieu of wet sprinkler heads.



Diverse Business Inclusion Strategies

Wood Harbinger is a self-certified State of Washington Small Business and Small Business Enterprise (SBE) in accordance with the US Small Business Administration size standard for our NAICS code, 541330 Engineering Services. Our leadership team includes 40 percent women and minorities, and women and minorities make up 30 percent of our staff.

We commit to a genuine effort to achieve any diverse subcontracting goals set for this contract and will work with DOC to develop a comprehensive outreach strategy. Should the scope of work require additional outside resources, we will prioritize diverse and disadvantaged business participation including MWBE, Veteran-Owned, and Washington Small Business.

Diverse Business Inclusion Plan

As a small business, we understand and value the development of disadvantaged businesses in our industry. Established in 2010, our formal diversity, equity, and inclusion plan—managed by our firm’s top leadership—is based on a proactive approach to building relationships that foster diverse and disadvantaged businesses.

We take an active role in nurturing previous teaming relationships, networking at pre-bid conferences and via attendee lists, reviewing and searching through certified business resources such as state, county, and city registries, and the Small Business Administration. We also identify contacts through minority and small business trade associations, through business development organizations, and by attending small business conferences and trade fairs.

To further diverse and disadvantaged business development, we make introductions to owners and clients, co-author articles and white papers, and partner on speaking opportunities at industry events. This supports diverse and disadvantaged firms in gaining exposure and developing credibility within the industry, enabling them to build additional recognition on their own.

As a small business, we also understand the challenges of cash flow and the importance of prompt payment. It is for this reason that we work closely with our diverse and disadvantaged partners to ensure payment terms are agreeable and lines of communication are open to address any issues, no matter how sensitive.

HIRING PRACTICES

We know the importance of encouraging diversity in the AEC industry workforce for today and tomorrow, and we actively recruit diverse and qualified employees and subconsultants from all segments of society. We encourage a culture of collaboration in an inclusive workplace that values and derives strength from the uniqueness of each person. We do not tolerate any manifestations of discrimination based on race, color, religion, gender, sex, national origin, age, disability, or genetics.

MENTORING OPPORTUNITIES AND PROGRAM

We actively participate in the ACE Mentor Program of America, which is designed to teach students in grades 9 through 12 about architecture, construction, and engineering (ACE). This mentoring program encourages disadvantaged, women, and minority youth to pursue design and construction careers.

PARTICIPATION STRATEGIES

We have developed strong, long-lasting relationships with diverse and disadvantaged firms throughout the Pacific Northwest and across a wide range of disciplines. Our goal is to provide our clients with the best possible team for a successful project. We often team with disadvantaged firms as subconsultants, whether or not our client has a formal participation goal, because we feel that they are the best fit for our team and can provide the best service for our client.

When assigning tasks to our team or seeking additional team members as a result of contract or team changes, we will prioritize diverse and disadvantaged firms by leveraging our proposed team members, current relationships and our extensive network of diverse and disadvantaged firms beyond our proposed team, and any recommendations made by the owner. If we determine that an assigned project can best be served by adding resources to our team, in addition to prioritizing diverse and disadvantaged firms, we will work with you to ensure that any new team members have the required technical qualifications and capacity and are properly prequalified and onboarded for a seamless transition and successful delivery of assigned scope.

PAST PERFORMANCE

Although most of our work is as a subconsultant to other consultants and contractors, since 2019, we have subcontracted more than \$300,000 to certified diverse businesses, including the following firms:

- » Buffalo Design, Inc. (Certified State of Washington WBE #W2F0012974)
- » CG Engineering (Small Business)
- » Lightwire, Inc. (Certified State of Washington WBE #W2F0021197)
- » Nexus Building Consultants (Small Business)
- » PIKA Corporation (Small Business)
- » SHJ Electric Co., Inc. (Certified Federal SBE #S000024534)
- » Spec-X Global (Service Disabled Veteran-Owned Small Business)

When we are the prime consultant for an opportunity, our leadership meets to strategize about potential subconsultant opportunities. We review the scope and identify all supporting services required to accomplish the work, breaking down the requirements into smaller tasks or quantities when feasible to maximize diverse business participation. The following projects are examples of diverse business participation on projects for which we were the prime consultant.

PROJECT	WMBE GOAL	WMBE RESULTS
University of Washington Kane Hall Fire Protection	10%	15%
US Department of Veterans Affairs American Lake Electrical Infrastructure Upgrade Tasks 1 and 2	5%	6%
US Navy Naval Base Kitsap Puget Sound Naval Shipyard Industrial Skills Center Phase I	5%	4%
Harborview Medical Center Maleng and NJB Remodel	10%	10%
UW Medical Center NWH A-Wing Levels 4 and 5 Renovation	10%	10%

Federal SF 330 Forms

Part II—General Qualifications

2a. FIRM (OR BRANCH OFFICE) NAME

Wood Harbinger, Inc.

2b. STREET

929 108th Avenue NE, Suite 1000

2c. CITY

Bellevue

2d. STATE

WA

2e. ZIP CODE

98004

6a. POINT OF CONTACT NAME AND TITLE

Sean Bollen, PE, LEED AP, President/CEO

6b. TELEPHONE NUMBER

425.628.6051

6c. E-MAIL ADDRESS

sbollen@woodharbinger.com

8a. FORMER FIRM NAME(S)

N/A

8b. YEAR ESTABLISHED

N/A

1. SOLICITATION OR PROJECT NUMBER

2024-344

3. ESTABLISHED

1967

4. UNIQUE ENTITY ID

RYC7NYGNVLW7

5. OWNERSHIP

a. TYPE

Corporation

b. SMALL BUSINESS STATUS

SBE

7. NAME OF FIRM (IF BRANCH)

N/A

8c. UNIQUE ENTITY IDENTIFIER

N/A

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
		(1) FIRM	(2) BRANCH			
02	Administrative	5		A06	Airports; Terminals and Hangars; Freight Handling	2
08	CADD Technician	1		A09	Anti-Terrorism/Force Protection	7
21	Electrical Engineer	15		A12	Automation; Controls; Instrumentation	3
25	Fire Protection Engineer	1		C12	Communications Systems	3
42	Mechanical Engineer	7		D04	Design-Build	5
	Commissioning Provider	2		E02	Educational Facilities; Classrooms	5
TOTAL		31		E03	Electrical Studies and Design	5
				F03	Fire Protection	3
				H01	Harbors; Jetties; Piers; Ship Terminal Facilities	4
				H04	Heating; Ventilating; Air Conditioning	5
				H09	Hospitals and Medical Facilities	5
				I01	Industrial Buildings; Manufacturing Plants	2
				L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields)	1
				P07	Plumbing and Piping Design	4
				P12	Power Generation, Transmission, Distribution	6
				R04	Recreation Facilities (Parks; Marinas; etc.)	2
				S02	Security Systems; Intruder and Smoke Detection	3
				S11	Sustainable Design	4
				U03	Utilities (Gas and Steam)	1
				V01	Value Analysis; Life Cycle Costing	2



11. Annual Average Professional Services Revenues of Firm for Last 3 Years

a. FEDERAL WORK	7
b. NON-FEDERAL WORK	6
c. TOTAL WORK	7

Professional Services Revenue Index Number

- | | |
|-------------------------------------|-----------------------------|
| 1. LESS THAN \$100,000 | 6. \$2M TO LESS THAN \$5M |
| 2. \$100,000 TO LESS THAN \$250,000 | 7. \$5M TO LESS THAN \$10M |
| 3. \$250,000 TO LESS THAN \$500,000 | 8. \$10M TO LESS THAN \$25M |
| 4. \$500,000 TO LESS THAN \$1M | 9. \$25M TO LESS THAN \$50M |
| 5. \$1M TO LESS THAN \$2M | 10. \$50M OR GREATER |

12. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.

a. SIGNATURE

Sean Bollen

c. DATE

November 21, 2024

b. NAME AND TITLE

Sean Bollen, PE, LEED AP, President/CEO



929 108th Ave NE, Suite 1000
Bellevue, WA 98004
425.628.6000
woodharbinger.com