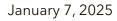


# Department of Social and Health Services (DSHS)

Project No. 2020-403: WSH - New Forensic Hospital: Special Inspections and Testing







Department of Social and Health Services (DSHS), 9601 Steilacoom Blvd. SW, Lakewood, WA 98498



January 7, 2025

Department of Social and Health Services (DSHS) 9601 Steilacoom Blvd. SW, Lakewood, WA 98498

Attn: Aarón Martínez DES Project Manager aaronmartinez@des.wa.gov

#### Re: Project No. 2020-403: WSH-New Forensic Hospital: Special Inspections and Testing

Dear Mr. Martínez and Members of the Selection Committee,

We are pleased to submit our qualifications in response to the Request for Qualifications (RFQ) for Special Inspections and Testing Services for Project No. 2020-403: Western State Hospital New Forensic Hospital. Terracon Consultants, Inc. is excited about the opportunity to contribute to this significant project that will enhance mental health care services in Washington State.

We view this project as a partnership with the Department of Enterprise Services, the Department of Social and Health Services, and all stakeholders involved. Our goal is open communication, trust, and a collaborative environment where all parties work together committed to the success of the Western State Hospital New Forensic Hospital project.

Thank you for considering our qualifications. We look forward to the opportunity to discuss how Terracon can contribute to the success of this important project. Please feel free to contact us if you require any additional information.

Sincerely,

**Terracon Consultants, Inc.** 

hevin Grahan

Kevin Graham Principal in Charge Kevin.Graham@Terracon.com (425) 742-9360

AnIN

Aaron VanderPol Project Manager and Primary Point of Contact Aaron.VanderPol@Terracon.com (503) 888-8653

#### Statement of Integrity

Terracon Consultants, Inc. attests that all personnel included in this proposal are current employees of Terracon or of our partner firm AAR Testing and Inspections, Inc. and that the relevant project experience was performed by the individuals as stated, while our firms were under contract on the listed projects. If any further verification is requested, please contact Tina Stokesberry (Administrative Manager) at Tina. Stokesberry@terracon.com.

#### Acknowledgement of Addenda

Terracon acknowledges the following addenda: Addendum 1, 12/09/2024 Addendum 2, 12/20/2024 Addendum 3, 12/31/2024



# **Consultant Selection Form**





### 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: Terracon Consultants, Inc.					
Point of Contact Name & Title: Kevin Graham, Operations Manager					
Email: kevin.graham@terracon.com	Telephone: 253-573-9939				
Address: 10029 S Tacoma Way, Ste E2					
City: Tacoma	State	: WA	Zip: 98499-4686		



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01	Executive Summary
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# **Executive Summary**



# Project Understanding

Western State Hospital has been a cornerstone of mental health care in our community since 1871. The construction of the new 350-bed Forensic Hospital represents a critical step in addressing the mental health needs of Washington State, reducing patient backlogs, and improving therapeutic environments. We recognize the project's goals and we are committed to supporting these objectives through our specialized inspection and testing services.

## Terracon's Resources

Established in 1965, Terracon is a 100% employee-owned engineering consultancy specializing in comprehensive materials testing and special inspection services. Our commitment to quality service and client satisfaction has made us one of the Puget Sound region's largest and most reputable construction quality assurance service providers.

Terracon brings extensive experience in similar projects, including recent work on large-scale healthcare facilities. Terracon's local bench of resources is deep, with over 50 WABO-certified special inspectors and two fully accredited and certified laboratories. We are well-equipped to handle the diverse inspection needs of this project, ensuring compliance with all relevant standards and specifications.

## Commitment to Your Project Goals

To reach your project goals, you can count on Terracon for:



## **Comprehensive Expertise.**

Our team includes certified inspectors and professional engineers with extensive experience in all aspects of special inspections and testing, ensuring that we can handle the full scope of work required for this project.

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### Proven Quality Assurance.

We have time-tested processes that include weekly meetings, detailed inspection logs, standardized work procedures, and daily reports. This ensures that all inspections are thorough, and any issues are promptly addressed.



## Terracon's Tools and Proximity.

Our existing fully certified Tacoma laboratory location will be crucial in providing all time-dependent lab results needed to maintain project schedule. Within just 5 miles from project site, our lab exceeds all the benefits of an on-site laboratory without adding any costs or space impacts to the project scope.



## Flexibility and Availability.

We understand the importance of maintaining the project schedule and we will proactively manage financial challenges and provide timely project delivery. We are prepared to perform off-hours and weekend inspections as needed to keep the project on schedule.



## Proactive Approach & Communication.

We commit to open and timely communication with all stakeholders, fostering a collaborative environment that helps ensure the project's success and allows us to identify and mitigate any financial challenges throughout the course of the project.



## Commitment to Sustainability.

We are dedicated to supporting the project's goals of achieving LEED Gold certification and Net Zero Energy, contributing to a sustainable and energy-efficient facility. Our experience in testing reduced and non-portland cement concrete and our laboratories' recycling programs contributes towards this goal.



# Qualifications of Key Personnel



# Unmatched Expertise for the Western State Hospital Project

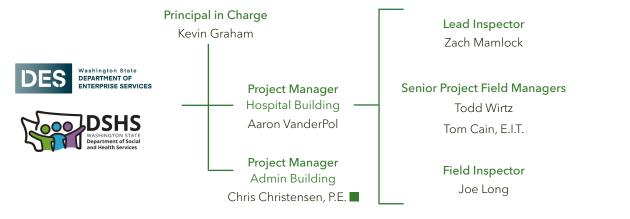
We will use our proven and efficient processes and deep bench of over 50 full-time WABO-certified special inspectors and testing experts to serve your project. Terracon's proposed key personnel bring a wealth of knowledge from an array of experience, setting us up to be valuable contributors on the WSH Project. Additionally, we are familiar with and have existing relationships with the project team, including working with Clark Construction on projects such as the Seattle Convention Center. Our team has successfully met WABO requirements for various projects, ensuring compliance and quality standards are consistently upheld. The certified technicians are experienced with meeting the requirements of the International Building Code as incorporated in the Revised Code of Washington in accordance with the approved plans and specifications. With our team, DSHS/DES gets quicker results, cost-effectiveness, and innovative solutions to challenges.

## **Meet our Team**

**Zach Mamlock** and Joe Long are the full-time boots on the ground and are responsible for meeting all special inspection demands. They are first supported by Todd Wirtz and Tom Cain who will use their vast knowledge and experience to help address any issues that arise. They, in turn, are supported by the project managers who review all field and lab reports, ensuring any deficiencies are documented/resolved and budgets are tracked as the project progresses. Chris Christensen, P.E. with AAR Testing and Inspections, Inc. will serve as Project Manager for the Hospital's administrative building and Terracon's Aaron VanderPol for the Hospital building. Finally, Kevin Graham, as Principal in Charge, will make sure that the work performed on the project meets and exceeds DSHS/ DES expectations and Terracon standards for quality and cost-effectiveness. Relevant professional experiences and how each team member brings value to the project are shown on the following pages.

## **Organizational Chart**

The organization chart below illustrates how our proposed lead and field inspectors are supported by the Terracon team.



AAR Testing and Inspections, Inc.

## Available Certified Staff \*

CONCRETE		STE	STEEL			
43	ACI Grade 1	17	17 ICC Structural Steel		Asp	
22	WABO Batch/Placement	16	WABO Structural Steel	15	Soil	
23	ICC Concrete	9 AWS / ICWI		9	NIC	
25	WABO Reinforced Concrete	7	Ultrasonic Level II	6	WA	
12	ICC Prestressed Concrete	10 Magnetic Particle Level I/II			Frar	
16	WABO Prestressed Concrete	6 Penetrant Level I/II		7	WSI	
				9	Soil	
SHOTCRETE		FIRE	12	WA		
19	WABO Shotcrete	13	13 ICC Fireproofing		Pro	
STRUCTURAL MASONRY		15	WABO Fireproofing	38	WA	
12	ICC Structural Masonry	4 WABO Fire-resistant Penetrations		* Charts di		
18	WABO Structural Masonry				Tacoma an each certific	

MISC	<b>).</b>
19	Asphalt Testing
15	Soils Compaction
9	NICET Certificate
6	WABO Cold-formed Steel Framing
7	WSDOT WAQTC
9	Soil Bearing Capacity
12	WABO Lateral Wood
36	Proprietary Anchors Class
38	WABO Post-installed Anchors

Charts display the count of Terracon's Tacoma and Lynnwood personnel holding each certification

**Project Time** 

Commitment

25%

## Resumes of Key Personnel



## Kevin Graham

## **Principal in Charge**

Kevin has over 29 years of experience in materials testing and special inspection and is the current Operations Manager of Terracon's Lynnwood office. He has managed numerous large-scale, complex projects, performing duties such as project management, project staffing, on-site inspections, materials testing, budget management, and report preparation. He has also developed and taught soil and asphalt testing curricula for our inspectors.

Education: Coursework in: Lateral Wood, Soils and Foundation, Prestressed and Concrete, Shotcrete, Masonry, and Reinforced Concrete; FAA Asphalt Superpave Seminar, Baltimore, MD

**Registrations/Certifications: WABO** Certified Technical Director; **WABO**-certified Inspector: Reinforced Concrete, Prestressed Concrete, Shotcrete, Structural Masonry, Lateral Framing, Post-Installed Anchors; **ICC**-certified Inspector: Reinforced Concrete, Prestressed Concrete, Structural Masonry; **ACI**-certified Level I Concrete Field Inspector; **NICET-certified Level II** Construction (Soils); Nuclear Gauge Certification; Troxler-certified for Nuclear Densometer; **NICET Level I** – Concrete; **NICET Level II** – Asphalt; **CGMP** Training Module I Good Practices in Documentation, Module 2 – Qualification and Validation for US FDA Projects and WAQTC certifications

### Project Experience Expedia HQ - Seattle, WA

Seattle Children's Hospital North Clinic -Everett, WA Lincoln Square Expansion - Bellevue,WA Overlake Hospital - Bellevue, WA Microsoft Campus Refresh -Redmond, WA



## Aaron VanderPol

## **Project Manager, Primary Point of Contact**

Aaron holds multiple WABO certifications including WABO Technical Director and WABO Supervising Laboratory Technician and has over 20 years of construction and inspection experience. As Project Manager, he will review all inspection reports and laboratory results, verify test procedures and inspections are completed on time to meet project demands, address any issues, and maintain accurate on time communication with the project stakeholders. Aaron is best suited for this role due to his extensive experience managing large construction projects and his in-depth knowledge of post tensioned construction (NWCEL instructor for Post Tensioned Concrete Inspection).

Education: NWCEL Coursework in: Concrete, Post-tension Concrete, Shotcrete, Structural Steel; WAQTC IDT and DDT classes; Microbiology Coursework, Washington State University; PTI Institute Level I/II Field Inspector Seminar

**Registrations/Certifications: ICC** Master of Special Inspections Certificate No. 5307348; **WABO**-certified Inspector in: Reinforced Concrete, Prestressed Concrete, Structural Steel and Bolting, Structural Welding, Shotcrete, Proprietary Anchors, Spray Applied Fireproofing, Structural Masonry; **NICET Level III** (Concrete; Asphalt); **WABO Technical Director and Supervising Laboratory Technician**; **ACI**-certified Level I Concrete Field Inspector; **ACI**-certified Strength Testing Technician and Aggregate Testing Technician

### **Project Experience**

#### Microsoft Campus Refresh -Redmond, WA

Project manager, oversaw up to (8) inspectors at a time and performed hundreds of inspections during the construction of ten different buildings (including four post-tension structures) over four years on the project

### OHSU Center for Health and Healing -Portland, OR

Lead inspector, 9-story post tension hospital project

**Nexus Tower - Seattle, WA** Lead inspector, 40-story post tension residential tower project

Kinects Tower - Seattle, WA Lead inspector, 40-story post tension residential tower project

bils and Foundation, Prestress Baltimore, MD 30-certified Inspector: Reinfo

Project Time Commitment

25%



## Chris Christansen, P.E.

## Project Time 25% Commitment

## Project Manager - Admin Building

Chris Christensen is a Project Manager at **AAR Testing and Inspection, Inc.** with 30 years of experience in the construction testing and inspection industry. He has held the positions of Project Manager, Technical Director, Field Supervisor, Laboratory Supervisor, Materials Engineer, Project Quality Manager, Geotechnical Engineer, and Special Inspector. His diverse career trajectory has allowed him to become well-versed in the field of materials testing and inspection. Chris is comfortable with overseeing all types of laboratory testing including asphalt and concrete mix designs. Additionally, he has spent a significant amount of time in the field performing structural inspections and understands quality management in

construction. His current responsibilities at AAR include managing the quality programs on design build projects, engaging in business development activities, and leading technical oversight of transportation projects. Chris has demonstrated success in working with public agencies throughout Washington State including the Port of Seattle, various Cities, and WSDOT.

### Education: Civil Engineering, University of Alaska Anchorage

**Registrations/Certifications: Licensed Professional Engineer**: Alaska PE, 12294, Nevada PE, 2257, Utah PE, 51987, Washington PE, 51987; WABO Certified Technical Director; **WABO** Certified Laboratory Supervisor; **WABO** Certified Field Supervisor; **WABO** Licensed Special Inspector in: Reinforced Concrete, Prestressed Concrete, Shotcrete, Structural Masonry, Structural Steel and Bolting, Structural Welding, Sprayed-Applied Fire Resistive Materials, Proprietary Anchors, Fire-Resistant Penetrations and Joints; **ICC** Special Inspector in: Soils, Prestressed Concrete, Structural Steel and Bolting, Spray Applied Fire Proofing, Structural Steel & Welding, Structural Masonry, Reinforced Concrete, Structural Welding Special; **ACI** Certified: Concrete Field Grade I

### **Project Experience**

### **Confidential Project**

Project Manager/Lead Special Inspector for a large-scale forensic investigation on over 100 structures with mass timber.

### Goose Creek Correctional Center

Inspection Project Manager / Field Supervisor on construction of new prison facility on 150-acre site. This Design-Build project consisted of five separate structures that have a combined cumulative square footage of approximately 450,000 SF.

#### Alaska Psychiatric Institute Replacement Hospital

Special Inspector on new 120,000 SF, 76-bed replacement hospital. This Design-Build project utilized numerous construction techniques including concrete tilt-up panels, braced frame, and moment frame construction.

**Project Time** 

Commitment

25%



## Todd Wirtz

## Senior Project Field Manager

Todd has over 40 years of inspection and management experience working on some of the most complex projects in the Pacific Northwest. He holds WABO licenses for all inspection disciplines and is a WABO certified field supervisor overseeing technical practices for our Lynnwood office. Todd will use his years of extensive experience in hospital project inspections as a valuable resource for the Western State Hospital team. His responsibilities include on-site inspections, project management, and supervision of inspection staff.

Education: B.A. Business Administration - Edmonds Community College; Washington Construction Technology, Seattle Central Community College

**Registrations/Certifications: WABO** Certified Inspector in: Reinforced Concrete, Prestressed Concrete, Structural Steel/Welding, Spray Applied Fireproofing, Shotcrete, Structural Masonry, Structural Wood Framing, Cold-Formed Steel Framing, Post-Installed Anchors; **WABO** Certified Field Supervisor for all disciplines; **ACI** Certified Level I Concrete Field Inspector; **AWS** Certified Welding Inspector; **ASNT Level II** Certified in: Magnetic Particle Testing

### **Project Experience**

Seattle Cancer Care Alliance Expansion -Seattle, WA Senior Field Manager on the multi-story

Senior Field Manager on the multi-story post tension hospital project

Swedish Hospital - Everett, WA Senior Project Field Manager for largescale hospital project

UW Heath and Sciences Education Building - Seattle, WA Seattle Children's Hospital North Clinic -Everett, WA

Expedia HQ - Seattle, WA

**Project Time** 

Commitment

25%



## Tom Cain, E.I.T.

## Senior Project Field Manager

Tom has 30 years of inspection and management experience and has worked on numerous public projects. Holding WABO licenses for all inspection disciplines, Tom has extensive reinforced concrete experience and is known for his field expertise and strong relationships with clients, engineers, and contractors. His responsibilities include field inspections, project management, staff supervision, and report writing.

**Education:** B.S. Civil Engineering, University of Washington; NWCEL Coursework in Wood Framing, Post-Installed Anchors

**Registrations/Certifications: WABO** Certified Inspector in: Reinforced Concrete, Prestressed Concrete, Structural Steel/Welding, Spray Applied Fireproofing, Fire-Resistant Penetration, Shotcrete, Structural Masonry, Post-Installed Anchors, Cold Formed Steel Framing, Lateral Wood; ICC Certified Inspector in: Reinforced Concrete, Prestressed Concrete, Structural Steel/Welding, Spray Applied Fireproofing, Structural Masonry; **ACI Certified Level I** Concrete Field Inspector; **ASNT Level II** Certified in: Magnetic Particle Testing; Troxler Certified for Nuclear Densometer; **E.I.T.** 

### **Project Experience**

Expedia Headquarters - Seattle, WA

Broadway Block Phase II and III - Everett, StorQuest Self Storage - Seattle, WA WA



## Lead Inspector

Zach Mamlock

Zach has 8 years in the inspection and materials testing industry. He will be responsible for performing inspections and sampling materials, report preparation, documenting and solving any issues that arise, and communication with the project team. Zach will use his experience in inspecting, placing, and stressing post tension decks to meet project demands. Zach is adept at using Terracon tools to verify post tension decks are ready for placement and to distribute stressing reports to stakeholders in real time.

Education: B.S. Geology, Washington State University

**Registrations/Certifications: WABO**-Certified Inspector In: Placement, Reinforced Concrete, Prestressed Concrete, Post-Installed Anchors, Shotcrete; ICC Certified Inspector In: Concrete Placement/Batch Plant, Proprietary Anchors; ACI Concrete Field Testing Technician Grade I; ACI Concrete Strength Testing Technician

### **Project Experience**

Seattle Cancer Care Alliance Expansion -Seattle, WA Lead inspector on the multi-story post tension hospital project UW Health Sciences Education Building -Seattle, WA Inspector of this 4 story university building project **701 Dexter Office Tower - Seattle, WA** Lead inspector on this multi-story post tension residential tower

Expedia HQ - Seattle, WA

Commitment

**Project Time** 

100%

**Project Time** 

Commitment

100%



## Joe Long

Welding Inspector

Joe has over 20 years of construction experience, including 8 years of inspection and testing. He has an extensive background in wood and steel fabrication, nondestructive testing, complex steel structure inspection, and project management. He is responsible for welding and concrete inspections, report preparation and communication with the project team. Joe has inspected many complex structural elements during his inspection career and will use that knowledge on this project.

Education: ATA Degree in Welding, Centralia College

**Registrations/Certifications: WABO** Certified Inspector in: Structural Steel and Bolting, Structural Steel Welding, Post-Installed Anchors; **ICC** Certified Inspector in: Structural Steel and Bolting; **AWS** Certified Welding Inspector; **Ultrasonic Level II**; Magnetic Particle Level III; **ACI** Field Testing Technician

### **Project Experience**

Swedish Medical Center North Tower -Seattle, WA Welding inspector

Microsoft Campus Refresh - Redmond, WA Concrete, fireproofing, and welding inspector Washington 1000 Building - Seattle, WA Welding inspector

**2&U - Seattle, WA** Welding and concrete inspector Port of Seattle International Arrivals Facility (IAF) - SeaTac, WA Welding inspector



# **Relevant Experience**



# **Relevant Experience**

As employee-owners, we are consultants and partners who protect our clients' investments. With local experience ranging from large-scale projects (such as the Seattle Convention Center with Clark Construction) to medical facilities, retail locations, warehouses, and infrastructure projects, our team has proven expertise to meet the needs of the Western States Hospital Project. Terracon has successfully completed multiple similar projects, demonstrating our ability to meet both stringent quality standards and demanding project timelines. Our past performance proves our capability to manage scope, schedule, and budget effectively, ensuring that we deliver value to our clients.

## **Relevant Project Examples**

## Seattle Cancer Care Alliance Expansion

Seattle, WA | October 2020 – December 2022

The Seattle Cancer Care Alliance (SCCA) Expansion project–also known as Fred Hutchinson Cancer Center South Lake Union Clinic Building 2–is a six-story 150,000 square feet clinical building with a 50,000 square feet automated parking garage composed of post tension decks, high-strength concrete columns, and shear walls with a structural steel roof. Due to working on hospital grounds, noise control and safety were priorities for this project. By supplying an on-site lab, we were able to routinely start stressing the post-tension decks at 3:00 am while the medical campus was quiet, helping keep the project on schedule. On-time results and a dedicated Terracon team played a significant part in the success of this essential facility project.

The Seattle Cancer Care Alliance Expansionwas located on the Fred Hutch campus which was still operating as construction was underway. Extra care and effort go into these jobs to make sure the project is safe, quiet, and respectful to those undergoing treatment at the same location. Furthermore, Seattle Cancer Care Alliance featured new state-of-the-art equipment (MRI machines, CT machines, etc.), as will Western State Hospital. The structural designs required to support such advances in medical technology provide the contractor with newer and complex challenges to overcome.

**Todd Wirtz** and **Zach Mamlock** teamed up as Project Manager and Lead Inspector for the duration of this project, available late nights and early mornings to meet the schedule demands of building a new hospital on an active hospital complex. The project team included ZGF, GLY, KPFF, and Seattle Cancer Care Alliance.

### **KEY RELEVANT ATTRIBUTES**

- Under budget at completion
- Full-time well-experienced resident inspector to meet the contractor's schedule and needs
- Safety and schedule considerations for construction on an active hospital campus



DELIVERY METHOD Design-Bid-Build

ORIGINAL BUDGET/ACTUAL COST \$347,434 / \$324,469

### REFERENCES

GLY Construction | Jeff Angehrn, Sr. Construction Project Engineer Jeff.Angehrn@gly.com

KPFF | Max Halverson, Structural Engineer Max.Halverson@kpff.com

## **Nexus Condos Tower**

### Seattle, WA | March 2017 - October 2019

The award-winning Nexus Condos is a 40-story residential tower with 4 levels of underground parking in Seattle, WA. The complex tower is constructed of post tension concrete decks with high strength concrete columns and shear walls. The construction schedule required time dependent post tension deck inspections and rapid submission of stressing reports to allow the table formwork system to be moved up for the next level. We used a combination of Terracon's proprietary system, CMELMS, and MS Teams to deliver information to the engineer of record in nearly real-time, eliminating delays and helping keep the project on its demanding schedule.

**Aaron VanderPol** was the Project Manager and Lead Inspector on this project and was on-site as part of the project team from placement of the mat footing through tower top out. **Zach Mamlock** performed multiple batch plant inspections of high strength concrete for the project and assisted with post tension deck placements and stressing.

### **KEY RELEVANT ATTRIBUTES**

- Rapid report turnaround to meet schedule demands
- Special attention to safety in the limited construction space in an active, urban setting
- Post tension testing



DELIVERY METHOD Design-Bid-Build

### ORIGINAL BUDGET/ACTUAL COST \$446,802 / \$470,008

Budget changes: added scope for Ff/Fl testing, design change at roof level

### REFERENCE

Skanska | Mark Mershon, Superintendent Mark.Mershon@Skanska.com

## **Overlake Hospital FutureCare East Tower Replacement**

## Bellevue, WA | May 2018 – January 2022

Project FutureCare was Overlake Medical Center's six-year, \$250M campus renewal project. The cornerstone of this project, a new 240,000 square-foot tower, opened in February 2021. The basement of the existing East Tower remained in place and was capped with a structural barrier to support the new five-story tower. Thick steel sleeves protect utilities serving the entire campus and allowed the new tower to be constructed on top, meeting the project goal of uninterrupted care during the campus renewal. Terracon conducted a host of inspections, including reinforced concrete, shotcrete, proprietary anchors, high-strength concrete, batch plant, fireproofing, firestopping, grout, masonry, ultrasonic testing, and structural steel fabrication and erection. Effective communication with the project team throughout the process, and not only identifying issues but actively participating in the problem-resolution, helped keep the project on schedule and under budget.

### **KEY RELEVANT ATTRIBUTES**

- Under budget at completion
- Healthcare project, working on an active hospital campus
- Urban site, with minimal room for maneuverability. Navigated complex and demanding coordination.
- LEED Silver Certification



DELIVERY METHOD Design-Bid-Build

ORIGINAL BUDGET/ACTUAL COST \$447,622/ \$429,534

### REFERENCE

GLY Construction Brian Sandall, Superintendent Brian.Sandall@gly.com

# City of Lynnwood Community Justice Center Testing and Inspection Services

Lynnwood, WA | December 2021 - July 2024

The Lynnwood Community Justice Center includes a police department, state-of-the-art misdemeanor jailing facility, and the Municipal Court. This new facility strives to provide a safe and supportive environment for justice-involved community members to break the cycle of recidivism. The existing jail was demolished, and the available site area was used to build a more efficient new jail and 3-story Police Department tower, totaling to about 150,000 square feet. Site restriction required the use of a structured stormwater detention facility integral to the parking structure. Terracon was able to meet project demands by using our deep bench of certified inspectors to meet requests for multiple different inspection scopes on the steel, reinforced concrete, and masonry structure.

**Todd Wirtz** was the Project Manager for the Justice Center project and coordinated inspection requests handled by more than (25) different inspectors, including **Tom Cain**, over the duration of the secure facility project. Terracon proved that we have the resources to meet both full-time and intermittent project demands while maintaining budget constraints and report processing requirements.

### **KEY RELEVANT ATTRIBUTES**

- Secure facility
- Renovation to meet community's safety and mental health needs



DELIVERY METHOD Design-Bid-Build

ORIGINAL BUDGET/ACTUAL COST \$187,282 / \$188,566

### REFERENCE

City of Lynnwood Chuck Steichen, Project Manager Csteichen@lynnwoodwa.gov

## **Expedia Headquarters**

## Seattle, WA | May 2017 - October 2020

The 41 acre site includes over 1.1 million square feet of space comprised of 630,000 square feet of office and lab space; 100,000 square feet of basement; a 55,000 square foot central utility plant; and a 330,000 square foot parking garage. The project included the renovation of approximately 600,000 square feet of existing buildings and new construction of office space of approximately 150,000 square feet and a new parking garage. Post tension testing on the Expedia HQ project was meticulously conducted to ensure structural integrity and compliance with engineering standards. The sustainability conscious project is Salmon-Safe and SITES certified and achieved LEED v4 Gold certification from the USGBC.

**Kevin Graham** managed the project from start to finish across the multiple changes in both scope and design and the logistical challenges of the COVID pandemic. **Zach Mamlock** was onsite for most of two years performing multiple inspections and managing the on-site lab as needed to meet project demands.

The project involved significant changes in scope by the owner, including the addition of a building to the campus. The high-performing on-site Terracon team was retained by the owner for the full duration of construction.

### **KEY RELEVANT ATTRIBUTES**

- On-site Inspector
- Sustainability goals achieved
- Post tension testing



DELIVERY METHOD Design-Bid-Build

ORIGINAL BUDGET/ACTUAL COST \$779,240 / \$1,145,589

The project involved significant changes in scope by owner.

### REFERENCE

Seneca Group James McReynolds, Owners Rep jamesm@senecagroup.com

## Swedish Medical Center North Tower Expansion

Everett, WA | April 2023 - present

The new North Tower Medical Building will be 12 stories of structural steel utilizing special moment frames for seismic resistance. The special moment frames will contain hundreds of demand-critical welds, which must conform to the AWS D1.8 Seismic Welding Code. A key advantage for the project team is that Terracon's Principal in Charge on the project, Michael Mayes P.E., is a Welding Engineer and was recently the Chair of the AWS D1.8 Seismic Welding Code Committee. Mike will review all welding procedures, audit fabrication shops and attend all preconstruction meetings. This will provide a high level of confidence to the City of Seattle, Swedish Medical Center, and the design team that this demand critical welding is properly inspected and tested.

This project highlights Terracon's in-depth subject matter expertise in a variety of different inspection scopes, demand critical welding in this case. We have subject matter experts as a resource to call on and we can combine this with our experience to head off issues before they even come up.

**Todd Wirtz** serves as Senior Project Manager for this robust project, where he showcases his invaluable expertise as a certified field supervisor. Working alongside Todd, **Joe Long** serves as a welding inspector for the project. **Kevin Graham** is the Authorized Project Reviewer for Terracon's team.

#### **KEY RELEVANT ATTRIBUTES**

- Medical center expansion
- Utilization of SMEs to bring added value to project
- Site constraints on an active medical campus



DELIVERY METHOD Design-Bid-Build

ORIGINAL BUDGET/ACTUAL COST \$1,140,350 / ongoing

### REFERENCE

Providence Health and Services Micah Dolen, Project Manager Micah.Dolen@swedish.org

Todd and his team have provided excellent inspection services. I have the utmost trust in Todd and he represents our interests very well."

> David Wachob, Providence Health and Services

As always, your team did a great job on this project. They were very proactive in keeping us informed of situations in the field and contacted us to clarify drawings and run any questions they had by us as needed."

> Brian MacRae, Coughlin Porter Lundeen



# Past Performance



Special inspections are about reducing uncertainty, maximizing quality, and confirming the requirements of the plans and specifications are met during construction. While special inspection and materials testing fees represent a small fraction of construction costs, the value provided can reduce project costs by preserving the schedule and identifying material or construction defects early in the construction process. We proactively address issues through innovative contributions to problem-resolution.

## Project Approach

Terracon will rely on its high-quality staff and extensive project experience to meet the needs of the WSH Project.

Approach to Achieving and Maintaining Scope, Schedule, and Budget



In our work on both medical and high-security facilities, we swiftly address unexpected challenges and scope changes. Our project manager will establish early relationships with the DES/DSHS representatives, design professionals, and the general contractor to do our part to ensure project success. The Terracon team will discuss staffing requirements, project schedules, potential risks, and possible strategies to proactively mitigate risks on the project with the DES/DSHS representatives and the Clark Construction team. We will maintain transparency and open lines of communication with all stakeholders. Our project managers and field personnel develop cost-effective solutions, aiming to resolve issues in the field for faster results.

## **Project Considerations, Solutions, & Benefits**

Below outlines our evaluation of project considerations and the key solutions and benefits that Terracon brings to the Western State Hospital Project.

CHALLENGES	SOLUTIONS & BENEFITS
PROJECT COMMUNICATION	At the project set-up, the project manager (PM) will establish lines of communication for the project. Inspectors utilize the mobile Device Magic (DM) system on-site to complete all field reports and communicate these results to stakeholders. With our proprietary PT stressing logs and MS Teams, we can provide post tension stressing results to the team in real time. The DM system will allow for seamless integration of our field and laboratory reports into the Procore system.
PROJECT REQUIREMENTS	Our proposed project manager and lead inspector are both WABO-certified for pre-stressed concrete and ACI-certified strength testing technicians. That combined with the proximity of our Tacoma lab will provide the project with on demand lab testing capability. We understand the requirement for accurate and timely post tension deck inspections and will work with the team to make sure that decks are placed and stressed on schedule, helping keep the project on budget.
PROJECT REPORTS	Device Magic is integrated with Terracon's Construction Materials Engineering Laboratory Management System (CMELMS™) to automate the report submission process. Reports are submitted on-site and instantly available for review by the project managers. These systems are designed to rapidly distribute field and lab reports and will be instrumental in meeting submission requirements.
PROJECT NON- CONFORMANCES	When an inspector finds a non-conformance, they will immediately contact the contractor to notify them of the issue and then work to help resolve the non-conformance by either inspecting the re-work or documenting that the issue is resolved by the appropriate additional direction (RFI, ASI, etc.). If the non-conformance cannot be resolved at that time, the inspector will document the exact non-conformance issue, note the contacts involved, and record any proposed solutions in the daily report. The DES/DSHS representative, contractor, EOR, and AHJ will be notified. When the non-conformance is submitted, Device Magic automatically notifies the project manager, who will follow up with the DES/DSHS representatives and update the project deficiency log.

## **Our Commitment to Quality**

We are committed to providing quality services for the DES/ DSHS with experienced technical and professional staff through our comprehensive Corporate Quality Program. As required by our internal quality review process, every project is assigned a well-experienced, senior professional to provide guidance and technical review for the project team. In this manner, we will be able to deliver consistent, high-quality construction inspection and materials testing services to the DES/DSHS.

To qualify as a Terracon **Authorized Project Reviewer** (APR), an individual must have a minimum of 10 years of experience in their area of expertise and in consulting work. The APR program requires qualified applicants to take an in-house project management course that can last up to eight months. The program is a time-intensive and thorough process that produces excellent and well-vetted project reviewers.

## Minimizing errors through a welldesigned quality program helps us consistently meet agreed-upon budgets and schedules.

Quality oversight includes the selection, vetting, approval, and ongoing evaluation of qualified Authorized Project Reviewers who have the responsibility to oversee the quality of every project. Project managers and Authorized Project Reviewers, together with the necessary project management and technical expertise, collaborate to achieve quality objectives at critical project junctures. For the WSH Project, **Kevin Graham** will serve in this role and collaborate with the project manager on quality and technical objectives for the duration of the project. The APR is engaged at the proposal stage and remains on the project through execution and closeout.

## The Project Manager and APR collaborate throughout the project to make **proactive decisions** together.

### APR's Role & Responsibilities for the WSH Project

The APR plays a leading role in our quality program, highlighted by the following four primary areas of project responsibility:

- Quality Oversight: The APR reviews the proposal and is involved at the kick-off meeting, and at major milestones, stages, and critical junctures providing direction and insight to guide the project to its successful completion.
- Coaching: The APR coaches and advises the project manager on various aspects of the project emphasizing quality, risk, on-time delivery, budget, scope of work, and other client expectations.
- Risk Management: The APR guides the project team to properly assess project-specific risk.
- Safety Awareness: The APR raises awareness at the project level by communicating with the team to focus attention on their own personal safety and on the safety of all project team members.

## Examples of Successfully Maintaining Budgets



For the Seattle Cancer Care Alliance (Fred Hutch) Expansion project, Terracon supplied an onsite lab that allowed our team to facilitate early morning post-tension stressing within the active hospital campus. This process maintained the project schedule and budget through impressive turnaround time and quality results.



At the Nexus Tower, Aaron VanderPol provided both reinforced concrete and welding inspections, eliminating the need to dispatch multiple inspectors. This resulted in cost efficiency for the project (within 4% of the original proposed budget).



Due to the intermittent inspection schedule on the Lynnwood Community Justice Center rennovation, full-time staffing was determined not costefficient. Our deep bench of certified staff, proficient project management and communication, and responsive dispatch system allowed us to meet all project inspection requests on-budget.

# Tools & Methods for Efficient, Effective Scheduling

## **Availability & Responsiveness**

You can count on us for the resources to support the scheduling needs of the project. Our fully accredited laboratory is less than 5 miles of the Western State Hospital, providing significant benefits to help achieve your project goals - from sustainability to schedule and budget efficiency. This close proximity gives you the benefits of an on-site laboratory without the added logistics and cost to consider. The team's local offices maintain full-time laboratory staff, and our laboratory manager monitors and coordinates all tests to meet testing schedules. If preferred, we are also prepared to set up on-site laboratory services. Our quality laboratory resources, proximity, depth of certified inspectors, and proactive approach prepare us to successfully meet the needs of the Western State Hospital Project.

## Our fully accredited laboratory is located just 4.2 miles from Western State Hospital

The DES/DSHS can count on Terracon for availability and responsiveness for completing the scope of work. **Terracon has an unmatched 50+ WABO-certified special inspectors across the Pacific Northwest.** With our comprehensive roster of highly certified inspectors, we will meet the projects's anticipated staffing needs. Additionally, leveraging our multi-certified special inspectors provides cost-savings and consistent on-site communication for the DES/DSHS. A Terracon partnership is of significant value through not only our trained and certified construction inspectors, but also professionals who are deeply committed to safety. We are committed to serving our clients efficiently, and never at the expense of our value on safety for all stakeholders. Our thoughtful, proactive project management and deep bench of experts

enables us to properly schedule and staff your project while staying on budget and upholding safety protocols.

## **Reporting Systems**

Terracon is committed to meeting the requirement to have reports uploaded to the **Procore** system, a platform our team is proficient in using. We utilize our digital reporting tool, **Device Magic**, to meet the reporting needs of the project. Device Magic offers our field staff an enhanced field data collection experience. Field staff can enter test results, create diagrams showing test locations, and upload completed reports using their cell phones or iPads.

Device Magic is fully integrated with Terracon's **Construction Materials Engineering Laboratory Management System** (CMELMS™), which is also integrated seamlessly with Procore, allowing our field inspectors to quickly and easily submit daily field reports and project photos and complete laboratory testing reports from the field. Device Magic also functions as an automatic notification for any non-conforming inspections. Inspectors can directly notify lab staff of any early testing requirements and contact information for the testing results.

Terracon will utilize our proprietary stressing results through Microsoft Teams for real-time data to stakeholders. This allows ease of access and transparency of information, eliminating schedule delays that may arrise if relying on other forms of communication. Terracon's staff and project stakeholders alike will have the ability to view and interpret results, providing valuable real-time project insight.

The use of these proven reporting tools on the WSH Project will allow us to **communicate test results quickly, efficiently, and accurately.**  Actual screen shots from Device Magic on a cell phone or tablet as seen by our technicians at the point of test







This enhanced data collection experience reduces the chance of missing areas that require testing, is more efficient thereby cutting down report preparation time and costs, and results in faster turnaround of reports to the team.



# Diverse Business Inclusion Strategies



## Care runs deep at Terracon

Terracon understands a successful project incorporates experienced and effective leadership, a proven and adaptable approach, and minority and women-owned business enterprise (M/WBE) team members whom we know and trust.

To perform well, our goal is to create a collaborative team to deliver a successful project while leaving a positive and lasting impact on our communities and partners.

# Over the past three years, Terracon's regional offices have **partnered with local diverse businesses on more than \$1.2 million of work.**

Terracon takes great pride in our efforts to promote diverse business participation whenever possible. We are committed to meeting and exceeding contract requirements as well as to the collaboration and development of our partner firms.

Terracon believes a healthy industry requires a diverse and equitable playing field. While our large, resource-rich firm provides true value to our clients, our partnerships can provide so much more. Our relationships with minority- and womenowned business enterprises, businesses owned by Service-Disabled Veterans, as well as emerging small businesses benefit everybody.

Terracon's approach to diverse business participation is straightforward:

- Partner with experienced firms within the local community.
- Integrate partners on our team in meaningful roles.
- Provide mentorship, as needed, to our diverse business partners.

## Diverse Business Inclusion for Your Project Goals

We are glad to acknowledge your diverse business inclusion project goals. With your goals in mind, Terracon's team has proactively sought opportunities for diverse business participation on this project by partnering with AAR Testing and Inspection, Inc.



AAR Testing and Inspection, Inc. (AAR) has continuously provided construction quality assurance, quality control, special inspection and materials testing services throughout Washington State since 1989. AAR is certified

by the State of Washington as a Minority Owned Disadvantage Business Enterprise (DBE), Minority Business Enterprise (MBE), and a Small Business Enterprise (SBE). Their Lacey, WA laboratory is accredited by American Association of Highway Transportation Officials (AASHTO).



# SF330 Part II



## ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*) 2020-403

		<b>PA</b> (If a firm has branch			QUALIFIC each specific			r.)		
2a. FIRM (or Branch Office) NAME Terracon Consultants, Inc.				,	,		3. YEAR ESTABLISHED 4. UNIQUE ENTITY IDENTIF 2016 MG15GZJ9BES5			
2b. STREET							5.	OWNERSHIP		
10029 S	Tacoma Way	Ste E2				a. TYPE				
2c. CITY				2d. STA			Corporation			
Tacoma				WA	98499-4	1686	b. SMALL BUSINESS STATUS			
							N/A			
		tions Manager					7. NAME OF FIRM (If Block 2a is a Branch Office)			
	IONE NUMBER	-	E-MAIL ADDRESS			Terracon Consultants, Inc. (Est. 1965, DUNS No. 613569961)				
253-573-	9939		vin.graham@terracon.com			YEAR ESTABLISHED 8c. UNIQUE ENTITY IDENTIFIE				
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05	Archaeologi	st	59	0	A06	Airpo	rts		8	
06	Architect		22	0	A10	Asbe	stos Abatement		10	
07	Biologist		88	0	B02	Bridg	es		8	
08	CADD Tech	nician	32	0	D01/D02	Dams	/Dikes/Levees		7	
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12/27/55	Soils Engine	Soils Engineer		0	E07	Rene	wable Energy/Co	onservation	10	
15	Construction	n Inspector	178	30	E09/E13		EPA/Env Testing		10	
23	Environmen	tal Engineer	269	0	E12/H03	Environmental Remediation/HTRW			8	
24	Environmen	tal Scientist/NEPA	501	0	H07	Highways/Streets/Parking			10	
29	GIS Speciali	ist	31	0	H09	Medical Facilities			8	
30	Geologist		321	0	H10	Hospitality			8	
36	Industrial Hy	/gienist	34	0	H11	Multi-Family Housing			9	
39	Landscape /		8	0	I01/W01	Industrial Manufacturing/Warehouse			10	
40	Constructior Engineer	n Materials/Pavement	412	0	P12	Powe	Power Gen. Transmission Distribution			
51		pational Health Engr.	13	0	R03	Railroad/Rapid Transit 7				
58	Technician/A	Analyst (Testing Lab)	2181	3	R12	Roofi			4	
	Driller		348	0	S03		nic Designs and S		4	
	Engineering		164	0	S05				10	
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	Geophysicis		54	0	S11		inable Design		7	
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Jeffr	ey A. D	avis						3/20/2024		

c. NAME AND TITLE

Jeff Davis, FSAME National Director, Federal Services

STANDARD FORM 330 (REV 7/2021)



Nationwide

Facilities
Environmental
Geotechnical
Materials

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