JONES JONES

ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

04 APRIL 2024 ■ STATEMENT OF QUALIFICATIONS ■ SUBMITTED TO SUQUAMISH INDIAN TRIBE

Predesign Services for

Suquamish Tribe Shellfish Hatchery Building

105 South Main Street, Suite 300
Seattle, WA 98104

206.624.5702

jonesandjones.com

TABLE OF CONTENTS

JONES JONES

ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

JONES & JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

105 South Main Street, Suite 300
Seattle, WA 98104
206.624.5702
jonesandjones.com

April 4, 2024

Viviane Barry
Suquamish Indian Tribe of the
Port Madison Reservation
15838 Sandy Hook Road NE
Poulsbo, WA 98370

Submitted to: vbarry@suquamish.nsn.us

Dear Vivian Barry and Selection Committee Members,

Jones & Jones is pleased to submit our proposal to provide Predesign Services for the Suquamish Tribe Shellfish Hatchery. Jones & Jones' 55-year history of serving Native American Tribes, non-profit and government organizations, and communities runs deep, and we will make it our highest priority to work with the Suquamish Indian Tribe to prepare optimal alternatives for the shellfish hatchery campus site plan and to develop functional, efficient, and programmatic design for the new shellfish hatchery. By leveraging our firm's extensive expertise in ecological and sustainable design in support of our community work, we will ensure the project's success and provide high quality land planning and architectural design for the Suquamish Tribe.

Jones & Jones brings the expertise and skills to resolve the many considerations of this project, including a history of working with Pacific Northwest Tribes and experience on wildlife projects, marine and freshwater rescue centers, and other large multidisciplinary projects. As the prime consultant, Jones & Jones will direct our team of consultants and continuously collaborate with hatchery project managers, staff representatives, and tribal leadership throughout the project to ensure your complete satisfaction with our services and product. We will carefully evaluate the existing conditions and infrastructure of the entire project area and lead tribal staff, leadership, and local community through a visioning and programmatic process to generate compelling designs for the proposed building and to provide land use plan recommendations for the overall hatchery campus. Importantly, our building design and site recommendations will fully embody the values and culture of the Suquamish Indian Tribe of the Port Madison Reservation.

A project of this scope and complexity requires the expertise of various consultants and specialists, and we have assembled a team of known firms to address the issues and requirements outline for this project. We are joined in this effort by the following consultants:

- **Ardurra** is our technical expert for hatchery design and operations and design of life support systems, which will include seawater intake and discharge, filtration and recirculation, and flow-through for the new hatchery facility.
- **KPFF Engineers**, which will address drainage and stormwater management, sewer and water utility services, and civil engineering issues related to roads, trails, and parking areas. KPFF's structural engineers will provide concept-level input on the proposed buildings' structural systems.
- **PAE** will offer direction on the new building's mechanical, electrical, plumbing, HVAC, and lighting systems.
- **RC Cost Group** will prepare thorough and accurate construction cost estimates.

Jones & Jones has worked on multiple projects with these subconsultants, and we are all committed to creating places and facilities that are environmentally sustainable, universally accessible, and socially equitable.

We are excited about the opportunity to work with the Suquamish Tribe on this worthy and rewarding project! Please contact us if you have any questions about our proposal or if you would like more information about us and our team.

Sincerely,

JONES & JONES ARCHITECTS AND LANDSCAPE ARCHITECTS

Mario Campos, FAIA, ASLA
Partner
mmcampos@jonesandjones.com / 206.807.8152

JONES JONES

ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

QUALIFICATIONS & EXPERIENCE

Architectural Firm: Jones & Jones

Jones & Jones is a Pacific Northwest-based design firm founded in 1969 to bring an integrated approach to the planning and design of built environments. The firm has grown from its Seattle roots into a nationally recognized practice **renowned for excellence and a profound respect for the natural and cultural heritage of place and people**.

Today, we have a diverse practice that includes award-winning experience in a range of specialties spanning large-scale land management plans, parks, greenways, botanical gardens, zoos, nature reserves, scenic highways, environmental education centers, cultural centers, and museums. We offer comprehensive architecture and landscape architecture services from programming and conceptual design to construction documentation, bidding assistance, and construction observation.

We have a legacy of landmark projects throughout the United States—**projects that capture the power of place, connect people to nature and are the pride of their communities.** We specialize in public projects involving complex issues and the diverse interests of multiple stakeholders, including work for various municipalities, county, state and federal agencies, and tribal governments. We have an established legacy of cultural and scenic landscapes.

JONES & JONES WAS THE FIRST RECIPIENT OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS FIRM OF THE YEAR AWARD, HONORED FOR:

"...establishing new standards of excellence in analysis, creative design, and the practice of landscape architecture. For more than thirty years, its principals and associates have shared their talents and inspiration with students and colleagues. Jones & Jones is known both for the unique culture it has created and its philosophy of embracing that which is challenging and unexplored. Its work and its commitment to future generations have created an enduring legacy."

Ownership

Jones & Jones is 71% minority owned (30% Native American; 35% Mexican; 7% Asian), with 42% women ownership. Jones & Jones is also a Small Business Enterprise in the federal government's System for Award Management (SAM).

MERCER SLOUGH ENVIRONMENTAL EDUCATION CENTER

PROPOSED SUBCONSULTANTS

Ardurra

LIFE SUPPORT SYSTEMS (LSS) DESIGN

Ardurra (formerly PCA Global) is a wet infrastructure firm with unmatched expertise in aquatic water treatment system and wet infrastructure design solutions. Ardurra has worked with clients around the world by providing intelligent design and process management solutions focused primarily within the attractions, research, aquaculture, and industrial processes. Ardurra's team has assisted government and private clients in the design of freshwater aquaculture facilities, including fish hatcheries, spawning and egg collection, and source water conveyance and aeration infrastructure.

Seawater Intake & Discharge Experience

Ardurra's team has experience in the planning and design of new seawater intake and discharge facilities, including flow and water quality classification and data analysis as well as experience related to working through permitting and regulatory issues. Ardurra has experience in a number of different types of facilities, such as supply and injection wells, seafloor pipelines, pier-based pump stations, rainy collectors, and even floating pump stations. Ardurra's seawater treatment design is customized based on water quality criteria for each project site and developing an approach to treat specific water quality constituents of concern, if required.

TARONGA ZOO, SYDNEY, AUSTRALIA

Marine Research, Aquaculture, and Hatchery Experience

Ardurra tailors designs to every aquatic species imaginable for all types of needs and purposes, including quarantine, hospital, aquaculture and animal care facilities. Unlike aquarium LSS design, water treatment design for marine research and aquaculture does not need to focus on underwater viewing requirements (although this can be an issue at times), and instead simply focuses on providing a clean, safe, and healthy environment for the species of concern. The needs and issues vary by project and location. Ardurra has successfully dealt with all types of variables through its 40-year history in the aquatics industry.

DALHOUSIE UNIVERSITY AQUATRON LABORATORY, HALIFAX, NOVA SCOTIA

Example projects:

- Willow Creek FW Hatchery, Mojave County, AZ
- Eagle Creek Hatchery, OR
- Coral Care Facility, Apollo Beach, Florida
- UCSD Scripps Institute of Oceanography, La Jolla, CA
- NOAA Pacific Regional Center, Honolulu, HI
- Lost River Brood Station, Mackay, ID
- Clear Springs Foods Buhl Farms Hatch House Expansion, Buhl, ID
- Mote Aquaculture Park, Sarasota, FL
- Dalhousie University Aquatron Laboratory, Halifax, Nova Scotia

PROPOSED SUBCONSULTANTS

KPFF

CIVIL AND STRUCTURAL ENGINEERING

Founded in Seattle in 1960, KPFF Consulting Engineers is one of the largest and most established engineering firms on the West Coast, specializing in civil and structural engineering. The firm has two decades of experience working with multiple Tribal Nations across the Pacific Northwest, including the Suquamish, Tulalip, Chehalis, Muckleshoot, Puyallup, and Quinault Tribes. KPFF's civil and structural engineers have worked on cultural and community centers, tribal buildings, casinos and resorts, roadways, and parking projects in collaboration with local Tribal Councils. Their project experience, combined with personal relationships with Tribal Nations, gives insight into the economics, environmental stewardship, and exceptional design considerations that these projects require.

KPFF has worked with Jones & Jones on multiple projects, including the Oregon Zoo Education Center, Vancouver Land Bridge, and Terry Pettus Park.


Chehalis Elders Center

PAE

MECHANICAL ENGINEERING

Founded in 1967, PAE is a firm of more than 360 employees providing an array of services in mechanical and electrical engineering, building analysis, commissioning and technology system design. With offices in Portland, Eugene, Seattle, Spokane, and San Francisco, PAE serves public and private sector clients throughout the western United States and beyond. The built environments PAE designs and engineers for aquariums, museums, research, and manufacturing facilities require careful attention to unique environmental requirements, including the mitigation of corrosive saltwater environments. Marrying sustainability with stringent environmental controls, PAE has designed systems for several buildings that meet the client's program and high-performance expectations. PAE's tribal experience ranges from Washington to California and locally includes Muckleshoot Indian Tribe Community Center and Snoqualmie Tribal Center Renovations.


Seattle Aquarium Ocean Pavilion

RC Cost Group

COST ESTIMATING

RC Cost Group Inc. is a full-service cost estimating firm based in the Pacific Northwest providing construction cost planning and management services to owners, architects, engineers and institutions with offices in Bainbridge Island, Tacoma, and Spokane. The firm consistently demonstrates a track record of staying within pre-determined budgets, which means they are constantly problem-solving and working to find ways to reduce cost and maintain projects on budget, with a successful outcome when projects bid.

TEAM ORGANIZATION

Jones & Jones has worked with our project partners on other projects in the past. Each firm brings expertise in the specific disciplines required for the Suquamish Shellfish Hatchery project. Together, we form an integrated team that will communicate efficiently, both internally and with Suquamish representatives. Mario Campos, Principal-in-Charge/Project Manager, will foster team collaboration to gain input from each area of expertise and arrive at a hatchery concept that is unified and cohesive and achieves the project goals.

Team Organization

CLIENT

SUQUAMISH INDIAN TRIBE OF THE PORT MADISON RESERVATION

PRIME CONSULTANT

JONES & JONES ARCHITECTS AND LANDSCAPE ARCHITECTS

Project Management · Programming · Site Assessment and Planning · Preliminary Architectural Design · Client Meetings & Coordination

Mario Campos, FAIA, ASLA Principal-in-Charge/Project Manager	**Johnpaul Jones, FAIA** Cultural Architect

Bruce Arnold, AIA Project Architect	**Charlie Scott, ASLA** Landscape Architecture/Site Planning	**Tanner Sment** Architectural Designer

PROJECT PARTNERS/SUBCONSULTANTS

ARDURRA
Hatchery Design/Operations, Life Support Systems (LSS)

Chris Eccles, PE LSS Design Lead	**Lexi Hardin** LSS Design Support

KPFF
Civil and Structural Engineering

Kyle Carrick, PE Civil Engineer	**Jim Swenson, PE, SE** Structural Engineer

PAE
Mechanical, Electrical, Plumbing Engineering

Allan Montpellier, PE, LEED AP Mechanical Principal-in-Charge	**Justin Stenkamp, PE,** LEED AP Mechanical Design Lead

RC COST GROUP
Cost Estimating

Andy Cluness
Cost Estimator

Mario Campos, FAIA, ASLA

Principal

PROJECT ROLE: Principal-in-Charge/ Project Manager

JONES JONES

Mario Campos, architect and partner of Jones & Jones, has directed the planning and design of large multi-disciplinary projects focusing on the integration of landscape architecture, architecture, urban design, and planning to promote community development and environmental conservation. His approach to planning and design emerges from strong regional, cultural, and traditional sources, closely rooted to the land, the environment, and the community.

Through broadly inclusive and participatory design processes, combined with pragmatism, Mario weaves cultural and environmental values to achieve an authentic sense of place, and to empower communities to express their identity and heritage through design.

RELEVANT EXPERIENCE

PAWS Wildlife Center – Animal Hospital and Aquatics Facility, Rescue and Rehabilitation Campus; *Snohomish, Washington*

Intellectual House at the University of Washington; *Seattle, Washington*

Mercer Slough Environmental Education Center; *Bellevue, Washington*

BARN Artisan Center; *Bainbridge Island; Washington*

Skokomish Tribe Facilities Master Plan; *Skokomish, Washington*

Oregon State University Cultural Centers Master Plan and Implementation: Native American Cultural Center, Cesar Chavez Center; *Corvallis, Oregon*

EDUCATION

Master of Arts in Urban Design; *Oxford Polytechnic, Oxford, England*

Bachelor of Architecture; *Universidad Iberoamericana, Mexico City, Mexico*

REGISTRATION

Architect: México D.F., Washington

Johnpaul Jones, FAIA

Principal

PROJECT ROLE: Cultural Architect

JONES JONES

Johnpaul Jones is an architect and founding partner of Jones & Jones. His design philosophy emerged from his Choctaw-Cherokee ancestors, which connects his work to the natural, animal, spirit, and human worlds. Johnpaul's designs have won widespread acclaim for their reverence for the earth, paying deep respect to regional Indigenous architectural traditions and native landscapes, and heightening understanding of Indigenous People and their diverse Native cultures. Johnpaul has led the design of numerous projects with tribes spanning the North American continent, culminating in his 12-year engagement as lead design consultant for the Smithsonian's National Museum of the American Indian on the Mall in Washington, D.C.

RELEVANT EXPERIENCE

Intellectual House at the University of Washington; *Seattle, Washington*

Chief Seattle Club Mixed-Use Housing Development; *Seattle, Washington*

Land Use Study for the Tolowa Dee-ni' Nation; *Smith River, California*

Seattle Indian Health Board Clinic; *Seattle Washington*

Tolowa Dee-Ni' Dvn Cultural Center Concept; *Smith River, California*

EDUCATION

Bachelor of Architecture; *University of Oregon, Eugene, Oregon*

REGISTRATION

Architect: Washington, California, Oregon, Idaho, Hawaii, Arizona, New Mexico, Colorado

Nationally Certified Architect—NCARB #026256

Bruce Arnold, AIA

Project Manager • Architect

PROJECT ROLE: Project Architect

JONES JONES

Bruce Arnold brings a diverse background as designer, project manager, and project architect on several large, multi-disciplinary projects. He has led teams for major museum and cultural center projects, and his work provides a forum for discourse among the constituent elements of a community: individuals, culture, and our shared environment.

Bruce believes that by engaging people in experiential, place-based design, new ways of thinking about the world around us can emerge, promoting greater awareness of how our actions affect the environment and how the environment affects us. These interactions between a people and their place form the bedrock of culture and make beautiful, meaningful places possible.

RELEVANT EXPERIENCE

Intellectual House at the University of Washington; *Seattle, Washington*

Santa Ynez Band of Chumash Indians Cultural Center; *Santa Ynez, California*

Tolowa Dee-ni' Nation Dee-ni'-dvn Cultural Center Concept; *Smith River, California*

Confederated Tribes of the Umatilla Indian Reservation Master Facility Plan; *Pendleton, Oregon*

EDUCATION

Master of Architecture, University of Pennsylvania; *Philadelphia, Pennsylvania*

Bachelor of Science in Architecture; *University of Virginia, Charlottesville, Virginia*

REGISTRATION

Architect: Washington, Pennsylvania

Nationally Certified Architect (NCARB)

Charlie Scott, ASLA

Project Manager • Landscape Architect

PROJECT ROLE: Project Manager

JONES JONES

Charlie Scott is a registered landscape architect with more than 40 years of experience in complex planning and design projects, including parks and recreational facilities, botanical gardens, wildlife design, transportation facilities, corporate and university campuses, and learning centers and museums. He has been involved in all phases of project development, from master planning through construction administration. He has managed multi-faceted projects requiring the involvement of various public agencies and community-based organizations and the coordination of diversified teams of consultants and environmental specialists.

Charlie specializes in working with community members and stakeholders by engaging them through Visioning events, design charrettes, and interactive workshops. He applies strong ecological values to all of his work.

RELEVANT EXPERIENCE

Tolowa Dee-ni' Nation Land Use Study; *Smith River, California*

McCormick Village Park; *Port Orchard, Washington*

Preston Mill Historical Park; *Preston, Washington*

Mercer Slough Nature Park; *Bellevue, Washington*

Sitka Waterfront Plan & Seawalk Promenade; *Sitka, Alaska*

Midway Atoll Comprehensive Master Plan; *Northwestern Hawaiian Islands*

No Name Mountain/Granite Creek Area Land Use Master Plan; *Sitka, Alaska*

EDUCATION

Bachelor of Landscape Architecture; *Ball State University, Muncie, Indiana*

Bachelor of Science Environmental Design; *Ball State University, Muncie, Indiana*

REGISTRATION

Landscape Architect: Indiana and Washington

Tanner Sment
Designer

PROJECT ROLE: Architectural Designer

JONES JONES

Tanner Sment has practiced as a designer in the architectural field since 2017. Finding passion in historic preservation and adaptive re-use, he has worked on several prominent buildings in the Northwest and Midwest. Tanner uses his professional training in 3-dimensional modeling and graphic design software to produce versatile documents for clients and contractors. Through his work, he has been sensitized to biomedical and biological life support systems, master planning green space design, and sustainable eco-revelatory building design.

RELEVANT EXPERIENCE

Chief Seattle Club Mixed-Use Housing Development; *Seattle, Washington*

Chief Seattle Monterey Hotel; *Seattle, Washington*

PAWS Wildlife Center – Animal Hospital and Aquatics Facility; *Snohomish, Washington*

Toronto Zoo Conservation Campus – River Otter Facility and Enclosure; *Toronto, Ontario*

Bio Pharmaceutical Technology Center – QA/QC Clean Laboratories; *Fitchburg, Wisconsin*

Alan Turing Center - Cell Manufacturing and Clean Laboratories; *Fitchburg, Wisconsin*

Promega Corporation Kornberg R&D Center; *Fitchburg, Wisconsin*

EDUCATION

Bachelor of Architecture, University of Wisconsin; *Milwaukee, Wisconsin*

Andy Cluness
Managing Partner

PROJECT ROLE: Cost Estimator

RC COST GROUP

Andy Cluness is the managing partner of RC Cost Group. He brings 26 years of extensive knowledge of the construction management industry and for the last 23 years has been based in the Pacific Northwest.

Andy has extensive experience working on projects in this sector and projects of a similar size and scope. He is an industry expert in budget preparation, cost estimating, bid evaluation, project controls and GCCM estimate analysis and reconciliation. Andy has developed an instinct for discerning and interpreting the main cost and risk drivers from a program and building configuration early in conceptual design, providing pragmatic guidance with architectural sensitivity throughout the design process. Andy is a resident of Poulsbo, Washington.

RELEVANT EXPERIENCE

Makah Early Childhood Education Center; *Neah Bay, Washington*

Puyallup Tribal Housing 2 Bedroom Duplexes; *Puyallup, Washington*

The Confederated Tribes of Colville Reservation; *Coulee Dam Masterplan Development, Coulee Dam, Washington*

Port Gamble S'Klallam Tribe Administration and Courthouse Remodel; *Port Gamble, Washington*

Port Gamble S'Klallam Tribe Integrated Health Facility; *Port Gamble, Washington*

Port Gamble S'Klallam Tribe Elders Residences and Community Gathering; *Port Gamble, Washington*

University of Washington Burke Museum; *Seattle, Washington*

University of Washington Intellectual House; *Seattle, Washington**

Northwest Native Canoe Center Carving House; *Seattle, Washington**

EDUCATION

Bachelor of Science (Hons) Quantity Surveying; *Leeds Metropolitan University, Leeds UK*

*Projects with Jones & Jones

Chris Eccles, PE

Aquatics Practice Leader

PROJECT ROLE: Hatchery Design/ Operations, LSS Design Lead

ARDURRA

As Aquatics Practice Leader, Chris Eccles manages pursuits, design, and project execution for Ardurra's projects. He has 20 years of engineering experience. Throughout his career, Chris has been involved in a large variety of technically challenging aquatics projects. Chris' involvement has varied from practice leader, design engineer, engineer of record, project manager and quality control reviews on these projects. Projects include traditional aquatics water treatment, existing facility reviews and evaluations, sludge drying, discharge and satisfaction of discharge regulatory requirements, water treatment for seawater supply, raw water intake and pumping facilities, and pipeline design with pipes ranging in size from six inches to three meters in diameter.

RELEVANT EXPERIENCE

Sea World Abu Dhabi; *United Arab Emirates*
NOAA Manchester; *Manchester, Washington*
Dalhousie University Aquatron Laboratory; *Halifax, Nova Scotia, Canada*
Aurora Algae Seawater Intake and Treatment System; *Karratha, Western Australia, Australia*
Mote Aquarium; *Sarasota, Florida*
Business Bay Seawater Intake; *Dubai, United Arab Emirates*
Vancouver Aquarium; *Vancouver, British Columbia, Canada*

EDUCATION

Bachelor of Science, Civil Engineering; *San Diego State University*

REGISTRATION

Professional Engineer: Washington, California, Colorado, Connecticut, Florida, Texas

Lexi Hardin

Associate Engineer

PROJECT ROLE: Hatchery Design/ Operations, LSS Design Support

ARDURRA

Lexi Hardin is responsible for a variety of life support system designs through schematic representations, details, plans, and calculations. Ranging from aquariums, theme parks and zoos, Lexi has developed an adequate understanding for the importance of sustainability within a life support system. She brings experience in planning, study, design, and construction support for our LSS projects

RELEVANT EXPERIENCE

Aquarium of the Pacific; *Long Beach, California*
NOAA Manchester; *Manchester, Washington*
The New Doha Zoo; *Qatar, Doha*
Miami Science Museum; *Miami, Florida*
Vancouver Aquarium; *Vancouver, British Columbia, Canada*
Polar Ocean World; *Shanghai, China*
Ripley's Entertainment; *Myrtle Beach, South Carolina*
Franklin Park Zoo; *Boston Massachusetts*
Minnesota Zoo; *Apple Valley, Minnesota*

EDUCATION

Bachelor of Science, Civil Engineering; *San Diego State University*

Jim Swenson, PE, SE

Associate, Structural Engineer

PROJECT ROLE: Structural Project Manager

kpff

Jim has 35 years of experience in engineering, project management, and structural design and analysis of structures including feasibility and renovation projects. He has designed a variety of civic facilities, waterfront projects, and government facilities. He has been the structural project manager on several projects involving tribal communities. Having worked on a wide variety of renovations and new building systems over the course of his career, Jim is adept at understanding existing structures and evaluating options for new construction.

RELEVANT EXPERIENCE

Coeur d'Alene Tribe, Coeur d'Alene Tribal Resort and Casino Expansion; *Worley, Idaho*

Muckleshoot Indian Tribe, Muckleshoot Family Resource Center; *Auburn, Washington*

Muckleshoot Indian Tribe, Muckleshoot River Lodge; *Auburn, Washington*

East Jefferson Fire Rescue, East Jefferson Fire Rescue; *Chimacum, Washington*

Port of Seattle, Shilshole Bay Marina Redevelopment; *Seattle, Washington*

EDUCATION

Bachelor of Science, Engineering Science; *Pacific Lutheran University, Tacoma, Washington*

Bachelor of Science, Structural Engineering; *Washington University in St. Louis, St. Louis, Missouri*

REGISTRATION

Professional Engineer: Washington

Structural Engineer: Washington

Kyle Carrick, PE

Associate, Civil Engineer

PROJECT ROLE: Civil Project Manager

kpff

Kyle has 18 years of civil engineering experience and his excellent communication skills and energetic nature are evident to all team members. He has a broad range of experience including master plans, feasibility studies, building and site expansions, federal site studies and investigations, utility infrastructure improvements, residential/commercial/industrial site developments, and local agency construction administration. Kyle has worked with the Puyallup, Tulalip, Colville, Squaxin Island, Port Gamble S'Klallam, and Chehalis Tribes on a variety of projects.

RELEVANT EXPERIENCE

The Puyallup Tribe of Indians, Puyallup Tribe of Indians Fisheries Site Development Feasibility Study; *Tacoma, Washington*

The Puyallup Tribe of Indians, Emerald Queen Casino, Garage, and Hotel (Phases II, III, IV); *Tacoma, Washington*

Tulalip Tribes, Tulalip Administration Building Parking Lot Expansion; *Tulalip, Washington*

Tulalip Tribes, Tulalip Early Learning Academy Building and Parking Lot Expansion; *Puyallup, Washington*

The Chehalis Tribe, Chehalis Elder Center; *Oakville, Washington*

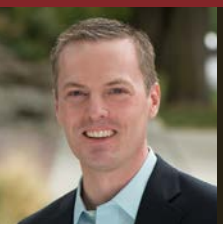
Squaxin Island Tribe, Little Creek Casino Administration Building; *Shelton, Washington*

EDUCATION

Bachelor of Science, Civil Engineering; *Calvin College, Grand Rapids, Michigan*

REGISTRATION

Professional Engineer: Washington



Allan Montpellier, PE, LEED AP

Senior Principal, Chief Innovation Officer PROJECT ROLE: Mechanical Principal-in-Charge

Allan is a mechanical engineer and Principal at PAE with 30 years of experience and a passion for high-performance buildings that promote human comfort and productivity. He has worked on numerous Net Zero Water & Energy projects, as well as a variety of projects that are pursuing Living Building, and Passive House certifications. He focuses on developing integrated systems through innovative alternatives that lean heavily on simple and durable design strategies.

RELEVANT EXPERIENCE

National Oceanic & Atmospheric Administration, Northwest Fisheries Science Center; *Manchester, Washington*

Seattle Aquarium, Seattle Aquarium Renovation and Expansion; *Seattle, Washington*

Seattle Aquarium, Seattle Aquarium Ocean Pavilion; *Seattle, Washington*

Point Defiance Zoo & Aquarium, North Pacific Aquarium; *Tacoma, Washington*

Kansas City Zoo & Aquarium, Peer Review; *Kansas City, Missouri*

Woodland Park Zoo, Gorilla Building ; *Seattle, Washington*

EDUCATION

Bachelor of Science; *Mechanical Engineering, University of Alberta, AB, Canada*

REGISTRATION

Professional Engineer: Washington, Oregon, California, Idaho, Massachusetts, Arizona, Alaska, Utah, Iowa

Justin Stenkamp, PE, LEED AP

Associate Principal PROJECT ROLE: Mechanical Design Lead

Justin brings over 20 years of operation, maintenance, and mechanical design experience to the project. Justin has a wide range of expertise from mechanical design to energy modeling to managing large complex projects. He has a deep understanding of owner and stakeholder needs across multiple project types, including housing, government, museum, and higher education. Passionate about reducing the energy and water use of the built environment, he has contributed to more than a dozen LEED rated or registered projects, as well as four Living Buildings, and several Net Zero Energy and Water projects.

RELEVANT EXPERIENCE

National Oceanic & Atmospheric Administration, Northwest Fisheries Science Center; *Manchester, Washington*

Seattle Aquarium, Seattle Aquarium Renovation and Expansion; *Seattle, Washington*

Seattle Aquarium, Seattle Aquarium Ocean Pavilion; *Seattle, Washington*

Point Defiance Zoo & Aquarium, North Pacific Aquarium; *Tacoma, Washington*

Woodland Park Zoo, Gorilla Building ; *Seattle, Washington*

EDUCATION

Bachelor of Science; *Mechanical Engineering, Portland State University, Portland, Oregon*

REGISTRATION

Professional Engineer: Washington, Oregon

SIMILAR PROJECT EXPERIENCE

JONES JONES

PAWS Wildlife Center – Hospital and Aquatics Facility, Rescue and Rehabilitation Campus

SNOHOMISH COUNTY, WASHINGTON | PAWS

Jones & Jones created a program, conducted site feasibility studies, and designed a state-of-the-art wildlife rehabilitation center that is opening April 2024 in Snohomish County.

The new purpose-built facility is on a 25-acre site and will provide health care, rehabilitation, and temporary housing for as many as 5,000 local wild animals each year, including raptors, seals, bears, bobcats, coyotes, songbirds, corvids, aquatic birds, small mammals, and raccoons. Sustainable design advances PAWS' mission and educates the public about bird-friendly glass to help prevent bird collision, and demonstrates water conservation by recirculating and treating the water in animal pools in a closed loop system. These self-disinfecting, re-circulating pools and integrated LSS provide the fresh water make-up demands for a pinniped (seal) and aquatic bird rehabilitation facility.

JONES JONES

University of Washington Intellectual House

SEATTLE, WASHINGTON | UNIVERSITY OF WASHINGTON

Acknowledging the longhouse style traditions of the Coast Salish First Peoples, this center provides a learning and gathering space for Native American students, faculty, staff, and regional Native communities on the campus of the University of Washington.

The Intellectual House is a place that encourages tribes in Washington State and the Pacific Northwest to visit and actively participate in expanding Native American educational opportunities and achievements on campus. It is also a welcoming educational environment for diverse communities to come together to share their knowledge and their cultures with one another.

Opened in April 2015, the facility promotes the value of diversity and respect for Indigenous cultures, increasing the visibility of Native people on campus and enhancing retention of Native students, faculty and staff.

JONES JONES

Mercer Slough Environmental Education Center

BELLEVUE, WASHINGTON | CITY OF BELLEVUE PARKS & RECREATION AND PACIFIC SCIENCE CENTER

The Environmental Education Center is the gateway to the Mercer Slough, a 320-acre wetland park at the heart of the City of Bellevue.

Sited with minimal disturbance to the landscape, the Center has two classroom buildings, a multipurpose building, a visitors center and two wetlabs. Located on a sloping site, the buildings are elevated into the tree canopy, as much as 30 feet above ground. Here, children of all ages and backgrounds will get a hands-on experience of the wetland environment and the forest that protects it.

JONES JONES

BARN Artisan Center

BAINBRIDGE ISLAND, WASHINGTON | BAINBRIDGE ISLAND ARTISAN RESOURCE NETWORK

Jones & Jones provided master site planning and architectural design for a new community artisan center on Bainbridge Island, Washington.

Bainbridge Island has long valued artistic and practical skills. Bainbridge Island Artisans Resource Network (BARN) is a non-profit formed to build and operate as a hub for the artisan community, where people of mixed ages and skill levels share and learn from one another. The BARN Artisan Center incorporates community work spaces, workshops, and classes for fiber arts, woodworking, metalworking, jewelry-making, electronic arts and other artisan crafts, as well as gallery and community event space.

ARDURRA

NOAA Manchester Research Station Campus Addition

MANCHESTER, WASHINGTON | NOAA

Ardurra is currently working on the design for the NOAA Manchester Research Station Campus Addition.

The facility will include a freshwater hatchery and a saltwater hatchery, both with recirculated aquaculture systems (RAS). Planned seawater flows through the hatcheries will allow researchers to study the impacts of ocean acidification and other environmental impacts on marine life. The design incorporates flexibility for tank location, which impacts the routing of supply and discharge piping to the tanks. Water temperature flexibility within the hatchery spaces is a prerequisite, resulting in innovative ways to maintain multiple water temperatures on a common RAS.

Ardurra's scope of work includes the design of the seawater RAS and flow through systems, coordination with the rest of the design team with regard to seawater requirements related to the architectural, structural, mechanical, electrical, and plumbing designs for the facility.

ARDURRA

NOAA Pacific Regional Center

PEARL HARBOR, HONOLULU, HAWAII | NOAA

The Pacific Regional Center in Hawaii is a $240-million facility that consolidates various NOAA offices and research activities spread across Honolulu on the historic Ford Island in Pearl Harbor.

Ardurra designed 13 aquatic life support systems (LSS) for 100,000 gallons of marine animal tanks. These tanks house endangered Hawaiian monk seals and green turtles, over-fished bigeye tuna, and depleted coral species. Ardurra provided operational training in the classroom and in the field on LSS volume and turnover calculations, equipment operation and capability, log-keeping, basic design principles, maintenance, and emergency procedures. Ardurra also provided an O&M manual with photos of all equipment and valves and a step-by-step description of operational and maintenance procedures.

Prior to design, Ardurra prepared a seawater study of LSS options for the animal tanks. The study benchmarked the Center against other coastal aquariums; compared open, semi-open and closed design approaches; and evaluated seawater source and discharge alternatives.

kpff

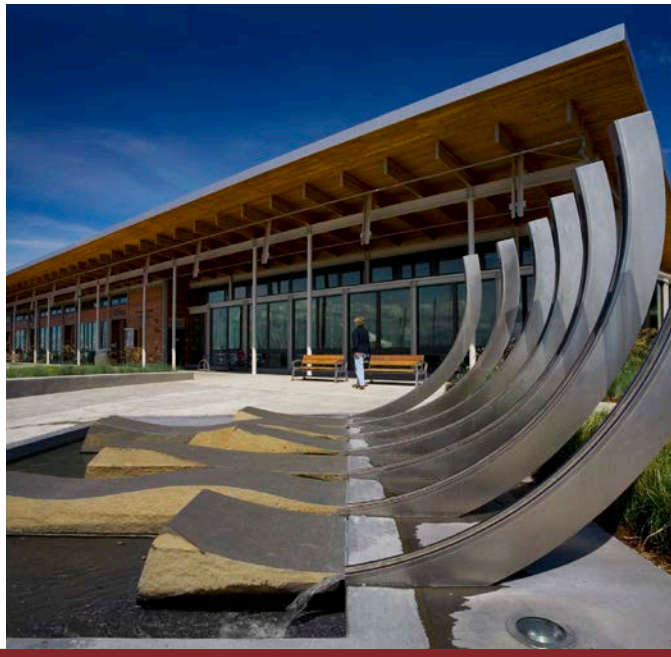
Shilshole Bay Marina

SEATTLE, WASHINGTON | PORT OF SEATTLE

KPFF provided civil and structural engineering for the redevelopment of the Shilshole Bay Marina.

The redevelopment involved design of a new 12,500-SF marina building, maintenance facilities, and public restrooms. The marina building houses marina administrative offices and retail spaces for businesses serving the tenants of the marina and local sailing community. The building features exposed heavy timber construction.

KPFF also designed the landside site improvements, including a fountain, benches, esplanade guardrails, and other pedestrian amenities. The Shilshole Fountain creates a dynamic place where people can enjoy the waterfront from the water or land. It includes a set of built-up stainless-steel ribs that evoke a boat hull or whale skeleton. Water running up through and then down the face of the ribs makes the fountain a fun, interactive place for children to play on warm Seattle summer days.



kpff

Coeur d'Alene Tribal Resort and Casino Expansion

WORLEY, IDAHO | COEUR D'ALENE TRIBE

KPFF provided civil and structural engineering services for the expansion of the existing casino resort that meets LEED Gold certification.

The two phases included 330,000 SF of new, renovated, and preliminary design. Phase I included the design of 200,000 SF of new and renovated space, including a new 100-room hotel, two restaurants, a spa, and a 500-foot-long Skycatcher arcade featuring exposed heavy timber and steel construction.

Infrastructure and utility improvements included 15 acres of parking, new roads, highway improvements, campus-wide utility improvements, a new lift station, force main and wastewater treatment plant, and a wetland bridge crossing with wetland restoration and extension. Sustainable site strategies included greywater and stormwater reuse, green roofs, permeable pavement, bioswales, use of native species, groundwater recharge, natural drainage, and managing stormwater runoff at the source.

PAE

Seattle Aquarium Ocean Pavilion

SEATTLE, WASHINGTON | SEATTLE AQUARIUM

PAE provided mechanical and electrical concept phase design consulting.

The goals of the project revolve around the integration of building systems to allow for better energy sharing with the Life Support Systems and improved overall environmental performance. PAE analyzed the potential to generate power on-site through solar panels on the roof and facades. Due to the high exhaust air requirements for the Life Support System rooms and other exhibit support spaces, in combination with the need for occupant ventilation, there will be a DOAS air handling unit on site to meet the exhaust and ventilation needs. The system will include a high efficiency heat wheel for heat and moisture recovery. Other energy saving system options include radiant floors and ceilings, chilled sails and air source heat pump technology. Pursuing LEED Gold, Pursuing All Electric Building, Pursuing Living Building Petal Certification.

PAE

National Oceanic & Atmospheric Administration Northwest Fisheries Sciences Center

MANCHESTER | DEPARTMENT OF COMMERCE NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION

PAE provided mechanical, electrical, and plumbing engineering and architectural lighting design for this new 15,100 sq. ft. energy-efficient facility in Manchester.

The facility includes modern a laboratory for data collection and research. The facility program includes a recirculation aquatic system, wet and dry labs, storage, office spaces, and hatcheries. This project is pursuing LEED Silver.

JONES JONES

ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

CONCEPT DESIGN SERVICES FOR PORT MADISON SUQUAMISH HATCHERY

Proposed Scope of Services

This project involves three interrelated major component Goals:

Goal 1. A complete space program, adjacency requirements, sustainability goals, and technical program for the building, including hatchery operations, research laboratories, seawater intake/outflow and processing, offices and storage, office space for governmental departments.

Goal 2. Facilitate a site selection process to identify the preferred project site for the hatchery operations building and microalgae greenhouse with life support systems (LSS), which include seawater intake and discharge, filtration and recirculation, and flow-through for hatcheries; administrative spaces; research laboratories; and parking.

Goal 3. A preliminary architectural and site design with associated engineering analyses (including civil, septic, structural, and MEP systems), a cost estimate, and a life cost analysis.

As an integrated architectural and landscape architectural firm, Jones & Jones will take the lead role and apply an integrated, holistic approach to the project's site planning, architectural, and engineering design components. Site planning decisions will affect the buildings' design, and the buildings' siting and design will influence the overall site configuration and infrastructure. Moreover, the site and building must relate to the larger community, the Port Madison setting, and the Tribe's culture. Jones & Jones' planning and design approach will therefore address multiple issues and considerations, including community and stakeholder preferences, to produce an updated Hatchery Campus Plan and culturally resonant building designs, all informed by previous plans and studies, existing conditions, and current requirements and needs.

While working closely with Tribal leadership, hatchery leadership and the Department of Community Development (DCD), Jones & Jones will design a signature building that complements significant elements that exist on the selected sites. The signature building will reflect Suquamish culture and cultural expression though contemporary Suquamish architectural language while prioritizing the function of the shellfish hatchery facility within a realistic project budget.

Recognizing that certain tasks will run concurrently while some will be sequential, the Jones & Jones team proposes the following scope of services and tasks for the site planning and building conceptual design project components.

Goal 1 – Project Definition and Space Program

1. PROJECT START-UP

a. Meet with hatchery project manager and staff and Suquamish Tribe representatives to confirm project goals, objectives, schedule, work plan, communication protocols, team member responsibilities, information sharing process, and deliverables.

b. Develop Community Engagement Plan with input from hatchery project manager.

c. Identify critical items and issues affecting project progress and execution.

2. DATA COLLECTION, EXISTING CONDITIONS ASSESSMENT, AND SITE ANALYSIS

a. Collect available mapping, surveys, and plans of project site showing road system, existing buildings and land use, utilities, critical areas, wetlands, and vegetation.

b. Collect and review relevant plans, studies, and documents for project area.

c. Using above material and information, conduct thorough site analysis and assessment of project areas and selected sites for the new building components and site program elements. Analysis of all existing conditions, including site access/circulation/parking, utility systems and infrastructure, land use, building layout/access/use, drainage, vegetation cover, activity/gathering areas, views and visual quality, easements and setbacks, and boundaries.

d. Identify regulatory requirements and major constraints and limitations posed by existing conditions. Identify opportunities, advantages, and assets.

e. Document and diagram existing conditions findings and review with program manager and Tribal staff to identify data gaps and to confirm site and area analysis accuracy and completeness.

3. INITIAL WORKSHOP MEETING WITH TRIBAL LEADERSHIP & HATCHERY REPRESENTATIVES

a. Working with hatchery project manager and hatchery staff, schedule and prepare for meeting with project stakeholders, including preparation of meeting materials.

b. Conduct a meeting with project stakeholders to discuss campus existing conditions, opportunities and constraints, issues and considerations, suggestions and ideas, and overall options for the hatchery building conceptual design project components.

c. Document guidance and input and review documentation with hatchery project manager and staff to confirm meeting outcome.

4. PROGRAM DEVELOPMENT

a. Identify general needs and requirements for the new building. The hatchery operation building and microalgae greenhouse with LSS includes seawater intake and discharge, filtration and recirculation, and flow-through for hatcheries, with parking, administrative spaces, and research laboratories. The program is anticipated to include, per Goal 1:

- Hatchery operations to support both commercial and non-commercial shellfish programs for multiple shellfish species (geoduck, manila clams, and Pacific oysters) and additional capacity to work with other species on a smaller scale for research and restoration purposes, approximately ~10,000 ft2
- Research laboratories, seawater intake/outflow and processing, offices, storage, maintenance shop and other support spaces accessory to the Hatchery, approximately ~5,000 ft2
- Greenhouse for cultivating microalgae as feed for shellfish species, approximately ~5,000 ft2

- Office space for other governmental departments to be considered. The Tribe would like design options for:
  1. A single-story structure serving solely as a hatchery
  2. A multi-story structure with the hatchery on the ground floor and office space on upper floor(s) with: capacity for 45+ personnel, meeting rooms/venues of various capacities, kitchen, lobby, outdoor space facing water, parking capacity for 80+ vehicles

b. Conduct programming workshops with hatchery project managers and Tribal leadership to determine specific criteria for the new buildings, including spatial requirements, function and use, access, relationship and proximity to other facilities, energy consumption and mechanical systems, security, build quality, cultural expression, desired architectural character, and budget constraints.

c. Conduct programming sessions with staff to determine needs and requirements for selected sites, including access, circulation and parking, potential uses and activities, utility systems and service, outdoor greenspace and gathering areas, and natural and sensitive areas protection.

d. Prepare draft program documents for the new building options and site planning for hatchery campus.

e. Review draft program documents with hatchery staff representatives and project stakeholders; revise programmatic criteria per staff comments and suggestions.

Goal 2 – Site Selection

5. SITE SELECTION FACILITATION AND SITE PLAN DEVELOPMENT

a. Develop two (2) alternative land use plans for the hatchery, addressing potential building areas, road and parking layout, open areas, and pedestrian circulation.

b. Conduct engineering analysis of each of the above alternatives, evaluating grading, stormwater management, sewer and water service, and constructability.

c. Evaluate initial siting and layout options for the new building options, per Goal 2:

- The Tribe has identified two potential sites located on tribal trust property on Sandy Hook Road, Poulsbo, Washington (Kitsap County parcel number 322602-2-005-2007). Replace the Old Tribal Center building, potentially utilizing existing foundation or a new structure on undeveloped land occupying the south end of the same property.
- The Jones & Jones design team will perform a preliminary site assessment that compares the two sites in terms of development potential, environmental impact, relative site development costs, historical and cultural value, and other factors that will allow the Tribe to determine which site to move forward with.
- The Jones & Jones team will develop a scope of work for investigations necessary for the subsequent phase of predesign, such as topographic survey, geotechnical report, environmental site assessment, wetland assessments, hazardous materials survey, and archaeological assessment.

Potential upland site (Site 2) looking east

Old Tribal Center, potential shoreline project site (Site 1).

d. Prepare diagrams, exhibits, and material depicting 5.a. through 5.c. above, and review material with Tribal Leadership, document comments; organize and post material to online public opinion survey to obtain community input on campus plan alternatives and options.

e. Per Tribal Leadership and community input, select "preferred" site plan and building(s) options.

f. Prepare revised and refined site plan (described by diagrams, exhibits, written narrative) for singular (1) option; review with Tribal staff; revise and finalize Plan per staff comments.

Goal 3 – Preliminary Architectural Design

6. CONCEPTUAL ARCHITECTURAL DESIGN

a. As informed by Tasks 2 through 4 above and concurrent with initial site planning tasks, develop two (2) conceptual designs for the new building and selected site, per Goal 3:

- Site analysis drawings that indicate building footprint and its relationship to adjacent facilities and site features
- Preliminary building design drawings that indicate the nature and purpose of each space, occupancy numbers, and basic configuration of the building including square footage, number of floors, and significant features
- Preliminary civil engineering design indicating vehicular and pedestrian access; stormwater collection and mitigation; ROM grading calculations; site utility access including required septic system components, domestic water supply, and electrical power availability
- Preliminary analysis of required shoring, foundation, and major structural system types, including potential re-use of components of existing structure(s) if deemed advantageous
- Preliminary hatchery process engineering drawings indicating major components, adjacencies, required connections and relationships between components, component size and clearance areas
- Cost estimate for site development costs, building construction costs, and process equipment costs. Assist the Tribe with development of complete project budget
- Life cost analysis

b. Conduct engineering analysis of each alternative to determine grading, stormwater, water/sewer service requirements. Conduct structural engineering analysis and mechanical/electrical/plumbing (MEP) engineering analysis for each alternative building design.

c. Develop architectural character sketches of each new building option.

d. Prepare estimate of probable construction costs for each alternative building design.

e. Review alternative building designs with hatchery project managers, and with Tribal Leadership if necessary; select "preferred" conceptual design for each building based input.

f. Advance and refine the preferred conceptual building designs; confirm site conditions and requirements (6.b.) and engineering analysis (6.c.); refine architectural character sketches and diagrams for each proposed new building.

g. Develop estimate of probable construction costs (with 5-year cost escalation) to determine construction budgets for each building; develop project implementation plan and schedule for each building.

h. Review 6.g. and 6.h. material with hatchery project managers and Tribal leadership.

i. Revise and finalize conceptual architectural design for singular (1) option for the new building based on comments.

Ardurra Project Approach – LSS

Goal 1 – Document Space Program

a. Seawater Intake and Discharge
    1. Determine seawater intake flow rate and discharge flow rate based on hatchery volume information provided by the Owner.
    2. Develop treatment approach for intake and discharge. Coordinate space requirements for both with Jones & Jones.
    3. Establish elevation relationship requirements on the seawater supply and discharge infrastructure so that it can be accounted for in the document space program.
b. Work with Jones & Jones to confirm the overall hatchery space requirements of the following:
    1. Shellfish hatchery
    2. Greenhouse
    3. Intake and discharge facilities

Goal 2 – Site Selection

a. Site Visit
    1. Ardurra proposes a site visit during the site selection phase of the project. The site visit will be used to review the two proposed site alternatives to determine the advantages and disadvantages of both in regard to locating the seawater intake and discharge facilities.
    2. A brief report will be provided after the site visit to summarize the findings.
b. Develop a water quality sampling approach, to be carried out as part of a different phase of the project.
c. Work with project civil engineer to determine the feasibility and options for seawater intake and discharge. It is assumed that permitting and agency coordination will be completed by the project civil engineer with coordination on capacity requirements provided by Ardurra.
d. Work with the project civil engineer to determine hatchery discharge requirements to confirm discharge approach developed during Goal 1.

Goal 3 – Preliminary Design

a. Develop preliminary electrical loads for the seawater process design for coordination with the project electrical engineer.
b. Document the intake and discharge treatment system proposed processes through the development of a process flow diagram for each.
c. Develop the seawater distribution and collection process in the two hatchery spaces. It is currently assumed that the hatcheries would be operated in a flow through process and that a recirculated aquaculture system (RAS) would not be required for either. Should RAS engineering be required due to available water quality requirements or discharge restrictions, this will be identified with more detailed design to be provided in later phases of the project.
d. Assist Jones and Jones with the development of the seawater portions of the cost estimate.

KPFF Approach – Civil

It will be important to understand not just the functionality required by the Tribe for this project to be successful, but also what the project means culturally and how it will impact outward perceptions of the Tribe. KPFF will accomplish this by taking a collaborative approach with team members and the Tribe and without preconceptions for what the project should be.

The civil engineering effort will be focused on practical solutions to support the Tribe's current and future programming needs. Priorities will include preservation of existing vegetation to the extent feasible and using stormwater systems that mimic natural drainage patterns, which provide water quality treatment and inviting spaces with cost-effective systems. Communication and collaboration with the entire team, including all client stakeholders, will be crucial to creating and evaluating options that align with the Tribe's values and project objectives.

Goal 1

a. Review available information related to topography, parcel boundaries, site utilities and other civil site development infrastructure.

b. Prepare a civil narrative, including opportunities and constraints of the existing site.

c. Attend design team meetings, as necessary.

Goal 2

a. Prepare four site plan alternative sketches.

b. Attend design team meetings, as necessary.

c. Review construction cost estimate prepared by others for consistency with civil design.

d. Perform site visit to review information gathered in Goal 1 relative to site plan alternatives developed in Goal 2.

e. Provide recommendations for additional consultants and documents needed for Goal 3.

Goal 3

a. Provide the following schematic-level civil drawings: Civil Cover Sheet, Paving Plan, Storm Drainage and Grading Plan, Utilities Plan

b. Attend design team meetings, as necessary.

c. Review construction cost estimate prepared by others for consistency with civil design.

KPFF Approach – Structural

The challenge for structural engineering will be to develop a design that provides the cost-effective functional efficiency required while looking for opportunities to explore and express the Tribal culture. Which systems are best suited for this will depend on the dialogue with Jones & Jones and the decisions around how to configure the required programming in a single- or two-story building.

Goal 1

a. Visit the potential building sites and walk the existing tribal building and adjacent seawall.

b. Write up a condition assessment for the existing tribal building and seawall based on visual observations and any existing documentation available. No calculations or formal ASCE-41 type process are anticipated.

c. Review and comment on potential structural systems associated with early massing and programming studies.

Goal 2

d. Possibly visit the site again based on outcomes from Goal 1. This may occur after some of the schematic development occurs.

e. Review and comment on any structural implications associated with the two different sites.

f. Provide a narrative of anticipated structural systems associated with the two different schemes at each of the two possible sites (four options total).

g. Provide recommendations for potential additional studies or exploration that would be beneficial to perform prior to commencing with Goal 3.

Goal 3

a. Provide schematic-level design associated with the chosen option from Goal 2. The product will be a combination of markups regarding structural systems on provided architectural plans in a PDF format, and a narrative describing the expected structural systems. The intent is that this is a partial schematic design process scope, not a complete schematic design.

PAE Approach – Mechanical

Goal 1

Identifying the sustainability goals most in alignment with the Tribe's vision and mission is an important foundational element for this project. PAE will discuss and document where the Tribe's environmental sustainability interests and passions are regarding air, water, energy, and carbon. The team will present the various third party certification options, including Living Building Certification, Net Zero Energy, Net Zero Carbon, LEED, and others, to see which one best matches the Tribe's commitment to environmental sustainability. True long-term sustainability requires a balance between environmental and economic sustainability.

The building's mechanical systems are an important component in supporting the Suquamish Tribe's building program and sustainability goals. The mechanical systems will provide the following for the facility:

- Heating and cooling as needed for the shellfish Life Support Systems (LSS).
- Heating, cooling, and ventilation for the building.
- Dehumidification for the hatchery spaces.
- Durable systems able to survive in a corrosive saltwater environment.
- Maximize energy recovery/transfer and achieve energy efficiency targets.

In the predesign phase, PAE will provide the team with preliminary mechanical system concepts that meet these requirements to support rough order magnitude pricing and provide preliminary space requirements for the programming effort.

Goal 2? (you show PAE for goal 2 in the fees)

RC Cost Group Approach – Cost Estimating

Goal 3

The cost estimate will be based on the measurement of quantities from drawings and provided information and priced in accordance with these drawings, specifications and descriptions of the work. All sections will be estimated in detail based upon the information available. We anticipate the estimate will require separate estimates for each of the project's components. The estimates will be presented in elemental format or that determined by the project team.

PROPOSED FEE

The Jones & Jones team offers the following estimated fees for Goals 1 through 3 as described in the Proposed Scope of Services:

Goal 1 ..... $ 53,880.00

Goal 2 ..... $ 61,025.00

Goal 3 ..... $ 74,770.00

TOTAL FEE ..... $ 189,675.00

Fee Breakdown by Firm/Discipline

JONES & JONES: PROGRAMMING, ARCHITECTURE, SITE PLANNING, AND DESIGN

Goal 1 ..... $ 18,500.00

Goal 2 ..... $ 21,700.00

Goal 3 ..... $ 28,800.00

Jones & Jones Total ..... $ 69,000.00

ARDURRA: LIFE SUPPORT SYSTEMS DESIGN

Goal 1 ..... $ 8,000.00

Goal 2 ..... $ 13,000.00

Goal 3 ..... $ 12,500.00

Ardurra Total ..... $ 33,500.00

KPFF: CIVIL ENGINEERING

Goal 1 ..... $ 8,200.00

Goal 2 ..... $ 15,500.00

Goal 3 ..... $ 23,200.00

KPFF Civil Total ..... $ 46,900.00

KPFF: STRUCTURAL ENGINEERING

Goal 1 ..... $ 4,180.00

Goal 2 ..... $ 5,825.00

Goal 3 ..... $ 4,530.00

KPFF Structural Total ..... $ 14,435.00

PAE: MECHANICAL ENGINEERING

Goal 1 ..... $ 15,000.00

Goal 2 ..... $ 5,000.00

Goal 3 ..... $ 0

PAE Total ..... $ 20,000.00

RC COST GROUP: COST ESTIMATING

Goal 1 ..... $ 0

Goal 2 ..... $ 0

Goal 3 ..... $ 5,740.00

RC Cost Group Total ..... $ 5,740.00

PROPOSED SCHEDULE

Goal 1: (4 weeks)

1. PROJECT START-UP

a. Meet with hatchery project manager and staff, Suquamish Tribe Representatives
b. Develop Community Engagement Plan
c. Identify critical items and issues

2. DATA COLLECTION, EXISTING CONDITIONS ASSESSMENT & SITE ANALYSIS

a. Collect available mapping, surveys, and plans
b. Collect and review relevant studies
c. Conduct site analysis and assessment of project areas
d. Identify regulatory requirements, and opportunities/ constraints
e. Document and diagram existing conditions and review with staff

3. INITIAL WORKSHOP MEETING WITH TRIBAL LEADERSHIP

a. Schedule and prepare for meeting with Tribal Leadership
b. Conduct meeting with Leadership to discuss new building workshop
c. Document Leadership's guidance and input

4. PROGRAM DEVELOPMENT

a. Identify general needs for new building and overall campus
b. Conduct programming workshops for new building
c. Conduct programming sessions for campus areas and subareas
d. Prepare draft programs for new buildings and campus infrastructure
e. Review program with Tribal staff and revise as required

Goal 2: (6 weeks)

5. SITE PLAN

a. Develop two alternative land use plans for hatchery building(s) and site program areas
b. Conduct engineering analysis of above land use plans
c. Evaluate land use plans options with Tribal leadership
d. Evaluate both site alternatives
e. Review diagrams for 5a-5c with project manager and Tribal leadership
f. Prepare revised, singular site plan for hatchery campus

Goal 3: (7 weeks)

6. CONCEPTUAL ARCHITECTURAL DESIGN

a. Develop conceptual designs for new building based on selected alternative
b. Refine evaluate of site conditions and larger context
c. Conduct engineering analysis of preferred concept alternative
d. Develop architectural character sketches
e. Prepare construction cost estimates for selected concept
f. Review and refine preferred building design with Tribal staff and leadership
g. Refine preferred conceptual building designs and engineering analysis
h. Develop cost estimate and life cost analysis for new building
i. Review material with Tribal staff
j. Prepare revised, singular conceptual architectural design for new building

– END OF PROPOSAL –

Thank you for your consideration