



2/1/2008

Letter of Transmittal

To: **Bob Dixon, Deputy Asst Director**  
General Administration,  
Engineering & Architectural Svs  
PO Box 41012  
Olympia, WA 98504-1012

Subject **RSN Application**

The following items are being sent:

- Herewith  Final
- Under separate Cover  Preliminary

<u>Quantity</u>	<u>Description</u>
1	<b>RSN Application for Project Approval (to use Design-Build Alternative Contracting Procedure)</b>

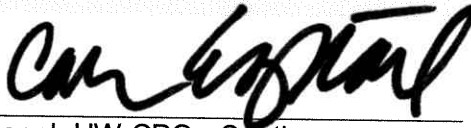
These Items Are Being Sent:

- Returned  Approved
- Complete & Return  Not approved, resubmit
- For your general information/file  Approved as noted
- For approval/review**  Bldg. Permit applied for
- For your review/comment  For your signature(s)

REMARKS:

**Please see attached application for the RSN Program at the UW. Per the CPARB/PRC directions this is the hard copy version and the electronic file is also being transmitted today, February 1, 2008.**

Copy: File, Pete Barletto, Mike Purdy

Sent by:   
Carmen Espanol, UW CPO - South

# State of Washington

Capital Projects Advisory Review Board (CPARB)  
Project Review Committee (PRC)

## **Application for Project Approval**

*To use the Design-Build (D-B)  
Alternative Contracting Procedure*

### **Submitted on behalf of the Regional Scale Nodes (RSN) Program at the University of Washington**

**Submitted by:**

Regional Scale Nodes Provost Office  
and the Capital Projects Office  
University of Washington

**Date:**

February 1, 2008

State of Washington  
Capital Projects Advisory Review Board (CPARB)  
Project Review Committee (PRC)

**APPLICATION FOR PROJECT APPROVAL**

**1. Identification of Applicant**

University of Washington  
Address: University Facilities Bldg., Box 352205 Seattle, WA 98195-2205  
Contact Person: Mike Purdy  
Title: Contracts Manager, Capital Projects Office  
Phone Number: 206.221.4235 E-mail: mpurdy@u.washington.edu

**2. Brief Description of Proposed Project**

The Ocean Observatories Initiative (OOI) Program will construct an interactive, globally distributed, integrated network of instrumented ocean observing sites to enable transformational, complex, interdisciplinary ocean science. The OOI is an outgrowth of scientific planning efforts by the national and international ocean research communities over the past decade and is motivated in part by rapidly expanding development of computational, robotic, communications, and sensor capabilities. The OOI is funded by the National Science Foundation (NSF) through the Major Research Equipment and Facilities Construction (MREFC) account.

The Regional Scale Nodes (RSN) network is the proposed Northeast Pacific component of the OOI that will build a networked, undersea sensor grid to collect and disseminate ocean and seafloor data in a multi-disciplinary effort over the next several decades. This RSN component will provide unprecedented power and bandwidth to remote parts of the ocean enabling the ocean science community to study on the coastal, regional and global scales.

The project subject to this application is referred to here as the **RSN Cable Project**. The RSN Cable Project calls for the design and construction of approximately 1200 kilometers of telecom grade submarine cable in four segments, originating in two shore landing stations and terminating in five distinct primary nodes on the sea floor. This cable represents the primary infrastructure element of the National Science Foundation (NSF) Regional Scale Nodes (RSN) program.

The two shore landing stations are existing facilities currently in use for the termination of commercial telecom cable systems on the coast of Oregon. The primary nodes serve as hub points for science instrumentation from which electrical power and communications bandwidth is accessed. The node locations have been selected based on years of study to determine the most science benefit.

**3. Projected Total Cost for the Project:**

**A. Project Budget**

Costs for Professional Services (A/E, Legal etc.)	\$
Estimated project construction costs:	\$158.6m
Equipment and furnishing costs	\$
Off-site costs	\$
Contract administration costs (owner, cm etc)	\$15.4m
Other related project costs (briefly describe)	\$
<b>Total (with sales tax &amp; contingency)</b>	<b>\$174m</b>

## **B. Funding Status**

Please describe the funding status for the whole project.

The project has successfully completed its review by the National Science Foundation, and is awaiting approval at the May 2008 meeting of the National Science Board. Upon approval by the NSB, funding is expected to be released in July 2008.

### **4. Anticipated Project Design and Construction Schedule**

Please provide:

The anticipated project design and construction schedule, including (1) procurement; (2) hiring consultants if not already hired; and (3) employing staff or hiring consultants to manage the project if not already employed or hired.

- A conceptual design was required for review by NSF and an independent panel in December 2007. The review was positive.
- An RFQ would be issued at the end of March, 2008.
- Following an evaluation of the RFQ responses, an RFP would be issued to the shortlisted firms in May, 2008 with responses due by 1 July.
- Evaluation of proposals would take place through July and August.
- Designation of the selected design-builder would occur about 1 September
- Final negotiations and contract approvals to be complete about 1 November 2008.
- Cable installation is to be complete in 2011.

The University of Washington has hired two professionals, Pete Barletto and Michael Kelly, who have extensive experience in the submarine cable industry. Their experience spans the planning, procurement, implementation and on-going operations and maintenance aspects of commercial telecom cable systems and networks. Pete and Michael have been on staff since May 2007 and have been involved in the project development to date. Their experience is further described in the sections below.

Outside consultants will be used sparingly for specific functions such as reliability analysis of proposed designs and may be employed by NSF prior to final contract approval.

### **5. Why the D-B Contracting Procedure is Appropriate for this Project**

The University recognizes that this project will be out of the ordinary, in terms of proposed Alternative Public Works projects considered by the Project Review Committee. As the originator of much of the science to be exploited by the Ocean Observatories Initiative, the University has been selected by the National Science Foundation to implement the Regional Scale Nodes Component. With the exception of the RSN Cable, the University has the means outside of the public works arena to develop and procure the various scientific instruments, terminal nodes and instrumentation that make up the complete RSN network. However, the RSN Cable installation represents the design and construction of a fixed asset, to which the other network components and instrumentation are connected. Therefore, the University has determined that the RSN Cable installation is a public work, to be procured in accordance with RCW 39.10. For reasons cited below, the University has selected design-build as the appropriate delivery method for the RSN Cable.

The RSN Cable Project involves very specialized technologies such as the submarine cable, fiber design, and long haul (non-repeated) transmission components coupled with high electrical power delivery and distribution. In addition, the installation of these components on the sea floor is highly specialized, requiring specially designed vessels, tools and expertise. There are also unique aspects to this project that set it apart from normal commercial telecom cables. For example, terminating

transmission and power to nodes on the sea floor (as opposed to shore landing to shore landing) is unique.

Because of the highly specialized technical expertise required for projects of this type and the multiple designs, means and methods that might be effectively employed, the design-build methodology is typically used in this industry. Firms with the expertise to qualify to undertake this work are well-familiar with the design-build process and would expect that this methodology will be employed for this project.

## 6. Public Benefit

In addition to the above information, please provide information on how use of the GC/CM or D-B contracting procedure will serve the public interest. For example, your description must address, but is not limited to:

- How this contracting method provides a substantial fiscal benefit; or
- How the use of the traditional method of awarding contracts in a lump sum (the "design-bid-build method") is not practical for meeting desired quality standards or delivery schedules.

The design-build method will provide a substantial fiscal benefit to the public, because it is the only method in which firms in this specialized industry would participate. The unique technical challenges associated with this project make it impractical to separate the design and construction responsibilities. Firms in this industry derive their competitive positions from the ability to design systems that take full advantage of their particular capabilities, means and methods. Attempting to separate the design effort from the construction effort would drive away the firms with the technical capacity to compete for and execute this project. The inherent risks in this work demand that a single entity have responsibility, control and liability for the entire delivery process. It is difficult to conceive of a way to deliver this project through a design-bid-build process.

## 7. Public Body Qualifications

Please provide:

- A description of your organization's qualifications to use the GC/CM or D-B contracting procedure.

The RSN Cable Project will be managed by the RSN Project Office (RSNPO), augmented by key members of the UW Capital Projects Office (CPO). RSNPO staff members bring vast technical, scientific, procurement, operations and maintenance experience to the management of this project. CPO staff will provide their expertise in the application of RCW 39.10 requirements associated with design-build in the State of Washington.

Key members of the UW project team that make UW qualified to undertake this design-build project are:

- **Pete Barletto, Jr., Director and Chief Operating Officer.** Pete brings three decades of experience in all aspects of planning, design, delivery, and operations of submarine cable systems.
- **Michael Kelly, Assistant Director and Fiscal Manager.** Michael has been involved in the planning and construction of more than 68,000 kilometers of undersea cable systems.
- **Eric Smith, Director Capital Projects.** Eric led the successful development and delivery of the University's Ben Hall Interdisciplinary Research Facility, which utilized the RCW 39.10 design-build delivery methodology.

These three project team members, supported by RSNPO and CPO staff, provide the necessary blend of experience in the undersea cable industry and Washington state alternative public works processes.

- Please see Attachment 1 for the RSNPO organization chart.
  - Please see Attachment 2 for the CPO organization chart. Details of the CPO organization can be viewed on the CPO website at [http://www.cpo.washington.edu/html/About\\_OrgChart.htm](http://www.cpo.washington.edu/html/About_OrgChart.htm)
- Following are short biographies of the key members of the RSNPO and CPO.

**John Delaney • Principal Investigator**

John Delaney is a Professor of Oceanography at the University of Washington. A marine geologist, his research focuses on the deep-sea volcanic activity of the Juan de Fuca Ridge in the northeast Pacific Ocean. He joined the University of Washington's School of Oceanography faculty in 1977, winning the Teaching Award in 1980 and the Distinguished Research Award in 1991. He was a visiting scientist at the Lunar and Planetary Institute and Johnson Space Center from 1977 to 1980. He helped initiate and became the first Chairman of the RIDGE program in 1987. He has served as chief scientist on more than forty oceanographic research cruises, many of which have included the Deep Submergence Vehicle Alvin and the Remotely Operated Vehicle Jason. In September 2005, Delaney co-led the VISIONS '05 research cruise, which successfully broadcast the first-ever live high-definition video imagery from the seafloor. The general public was able to view these live broadcasts from the Juan de Fuca Ridge via cable TV on the Research Channel and over the web. Other activities and honors include being named a Fellow of the American Geophysical Union in 1995; co-leading the development and launch of the REVEL professional-development program that takes science teachers to sea; and serving on the NASA committee planning missions to the moons of Jupiter, and on the NSF Advisory Committee for Environmental Research and Education. After receiving his bachelor's degree in geology from Lehigh University in 1964, he received his master's in geology from the University of Virginia while concurrently working as a Mineral Exploration Geologist in Charlottesville. In 1977 he earned his Ph.D. in geology at the University of Arizona.

**Pete Barletto • Director and COO**

Pete Barletto joined the Regional Scale Nodes program in May 2007 after many years in the submarine cable segment of the telecommunications industry. While working for Tyco Telecommunications, Barletto was responsible for the planning, implementation and operation of a global network consisting of ten submarine cable segments, and thirty points of presence in twelve countries. Most recently, he was Vice President of Network Strategic Planning for VSNL and was responsible for Operations and Maintenance planning, worldwide real estate management, collocation service implementation, and strategic studies.

**Michael Kelly • Assistant Director and Fiscal Manager**

Mike Kelly is responsible for RSN Budget Management and EVMS. Mike joined the RSN program in May 2007. He has a broad spectrum of experience in the telecommunications industry, including having planned, constructed and operated high-capacity global networks. In his most recent position as Senior Director-Network Strategy for VSNL International, he developed and implemented global strategies maximizing the reach and quality of undersea cable networks. Previously, Kelly was a key member of the operations management team during the planning and construction of the more than 68,000 km of undersea cable comprising the Tyco Global Network. Kelly is also a licensed Master Mariner, and has commanded several cable ships.

**Gary Harkins • Chief Engineer**

Gary Harkins leads the RSN engineering team. He is the Department Head for the Applied Physics Laboratory's Electronic Systems Department, where he manages a team of hardware and software engineers whose expertise includes the design and development of state-of-the-art data collection and data processing systems. The department's engineers are fully experienced in the handling and field testing of their systems on various U.S. Navy vessels and test ranges. Harkins joined the Laboratory in 1966 and currently works primarily in the development of new programs such as the RSN.

**Mike Harrington • System Engineer**

Mike Harrington has been a Senior Design Engineer in the Applied Physics Laboratory at the University of Washington since 2006. Prior to his recent appointment as RSN System Engineer, he worked as Senior Electrical Engineer for the RSN, managing the secondary infrastructure design. Harrington is in his second stint with APL/UW, having worked as an Electrical Engineer from 1992-96. From 1996-2006, he was Senior Design Engineer at InterSense, a company specializing in precision motion tracking technology. Harrington received his master's degree from UW and bachelor's degree from Virginia Tech.

**Bruce Howe • Project Scientist**

Bruce Howe is a Principal Oceanographer at the UW Applied Physics Laboratory with joint appointments in the School of Oceanography and Electrical Engineering. Much of his career has been spent developing measurement systems for fluid dynamics in the laboratory, atmosphere, ionosphere, and oceans. He has been involved in the regional cabled observatory planning from the first NOPP proposal in 1998 to the present: science working groups, engineering design, lead organizer for the first UW and first national workshop. He has participated on OOI advisory committees (Engineering, STAC/Global). He is PI on two directly relevant NSF funded projects: the development of the power system for cabled seafloor observatories and the ALOHA/MARS mooring sensor network with vertical profiler. As part of the Acoustic Thermometry of Ocean Climate projects to measure basin-scale heat content, Howe was the project representative or Chief Scientist on the 13 related cruises, with responsibility for testing (using R/P Flip), surveys, cable laying, and deploying the 6-ton source packages in deep water. Howe received bachelor's and master's degrees from Stanford University and Ph.D. from the Scripps Institution of Oceanography.

**Deborah Kelley • Project Scientist**

Deborah Kelley has been Associate Professor in the School of Oceanography at the University of Washington since 2001. She is a long-time active contributor to the planning and development of the scientific programs and experiments associated with the OOI. Kelley is a marine geologist studying how submarine volcanoes and rock alteration processes support life in the absence of sunlight. Field areas include the Endeavour Segment of the Juan de Fuca Ridge, the accretionary margin off Vancouver Island, and the Lost City hydrothermal field at 30°N on the Mid-Atlantic Ridge. She is a Professor of Oceanography and leads an active research and instrument development group at the University of Washington. Kelley received her Ph.D. from Dalhousie University and master's and bachelor's degrees from UW.

**Richard K. Chapman • Associate Vice President, Capital Projects Office**

Mr. Chapman has responsible charge of the UW Capital Projects Office, which provides programming, predesign, cost estimating, design and construction services for building alterations, additions, new construction and ground improvements for University campuses and remote field research stations. Projects range in size from a few thousand dollars to over \$300 million and have numbered over 250 in each of his last five years. Mr. Chapman's organization has over 125 employees who are responsible for the Owner's management of these projects. Some of Mr. Chapman's first initiatives after joining CPO were to improve safety, create a project control organization, improve cost estimating, centralize contracting, and raise the overall level of project management capabilities. Mr. Chapman received his Bachelor of Science degree in electrical engineering in 1974 from the California State Polytechnic University. He has over 30 years of U.S. and international experience, both offshore and onshore, in managing all operational aspects of industrial, commercial, remediation and higher education projects. He has managed projects which have ranged in value from under 1 million to over 4 billion dollars.

**Eric Smith • Director South Group, Capital Projects Office**

Eric is a Project Director with the University of Washington's Capital Projects Office, where he is responsible for delivering a wide range of facilities and infrastructure projects. Prior to joining the University of Washington in 2002, Eric spent six years as an executive with a large general contracting company, where he managed regional business development and large public construction projects. Eric's first career was as an officer in the U.S. Navy Civil Engineer Corps, during which he served in numerous command and staff positions in the facilities and construction field. Eric is a registered professional civil engineer in the State of California and is a LEED Accredited Professional. He holds a Bachelor's degree in Ocean Engineering from the United States Naval Academy and a Masters degree in Construction Management from the University of California at Berkeley. He is a member of the Design Build Institute of America and currently sits on the board of directors of the Northwest Construction Consumer Council.

**Mike Purdy • Contracts Manager, Capital Projects Office**

Mike Purdy has more than 28 years of experience as a manager in public contracting and procurement in Washington State. He is currently the Contracts Manager for the University of Washington's Capital Projects Office and is responsible for managing design and construction contracts for more than \$1 billion worth of projects at the University. Before joining the UW in 2005, he spent five years at the Seattle Housing Authority where he served as Contracting and Procurement Manager, overseeing all of the contracting and purchasing (construction, design consultants, other consultants, goods, supplies, and services) for the largest residential landlord in the state. Prior to that he worked for the City of Seattle for more than 21 years, where he administered the city's construction and consultant contracts as the city's Contracting Manager. He has a bachelor's degree in business and public administration and an MBA, both from the University of Puget Sound, and a master of divinity degree from Fuller Theological Seminary.

- Experience and role on previous D-B Projects

Pete Barletto and Michael Kelly have significant experience in the procurement and construction of commercial undersea cable systems for various companies, all using the D-B method. Their experience ranges back to the first transoceanic fiber optic cables. Below is a partial list of some recent projects:

<b>System</b>	<b>Length</b>
VSNL Intra-Asia	5,700km
Tyco Pacific	22,000km
Tyco Atlantic	13,000km
Tyco Northern Europe	560km
Tyco Western Europe	3,600km

Eric Smith led the development team that delivered the Ben Hall Interdisciplinary Research Facility using the RCW 39.10 design-build method. In this role, Eric oversaw the creation and implementation of the University's design-build process; including selection procedures, scoring criteria, contract development, negotiations, and design and construction execution.

- The qualifications of existing or planned for project manager and consultants.
  - Please see above.
- The qualifications of an interim project manager until your organization has employed staff or hired a consultant as the project manager.
  - Not applicable.
- A brief summary of the construction experience of your organization's project management team that is relevant to the project.
  - Please see above.
- A description of the controls your organization will have in place to ensure that the project is adequately managed.

The RSNPO will oversee day-to-day activities of the project and keep the schedule and budget on target. Project Scientists are included in the RSNPO to work with the engineering teams to ensure that science requirements are met by the system designs.

The CPO will develop and oversee the procurement process to ensure compliance with the requirements of RCW 39.10. CPO will also provide cost and schedule control support, accounting and administrative services, change management and project communications support through its standard project management infrastructure.

To ensure proper project governance, the University president has appointed an Executive Advisory Committee to oversee the procurement, design, construction and transition to operations. Co-chaired by the Vice President for UW Technology (formerly Computing and Communications) and the Director of the School of Oceanography, the Committee includes top executives from the Office of the President, the Capital Projects Office, the Attorney General's Office, and the Provost's Office, as well as deans and senior faculty from the Colleges of Engineering and Ocean and Fishery Sciences. The Committee meets bimonthly to review the project status and issues.

- Description of the planned D-B procurement process.
  - Attachment 3 provides an overview of the design-build procurement process as required by RCW 39.10. The project team is currently working to tailor this to the unique needs of the RSN Cable Project.
- Verification that the UW has developed D-B contract terms.

The University's design-build contract was initially developed for use on the Design Build portion of the overall DBOM agreement on the Ben Hall project. The contract is based on the model contract from the Design Build Institute of America. It is modified to include the Washington State General Conditions and other provisions necessary to comply with the current version of RCW 39.10 and other UW requirements. It is available on the UW CPO website at [www.cpo.washington.edu](http://www.cpo.washington.edu).

**8. Public Body (your organization) Construction History:**

- Please see Attachment 4.

**9. Preliminary Concepts, sketches or plans depicting the project**

- Please see the figures at Attachments 5 through 9.

**10. Resolution of Audit Findings On Previous Public Works Projects**

**Resolution of Audit Findings on Previous Public Works Projects**

**State Audit findings**

**Competitive Bid Law/Prevailing Wages**

*Tacoma Parking Garage Project:*

Eight of twenty-seven subcontractors did not file the Intent to Pay Prevailing Wages statements with the Department of Labor & Industry prior to the first payment of \$316,609 being released by the University to the contractor as required by RCW 39.12.040.

*Emergency Power Expansion Phase II:*

One of five subcontractors did not file the Intent to Pay Prevailing Wages statements with the Department of Labor & Industry prior to the first payment of \$55,898 being released by the University to the contractor as required by RCW 39.12.040.

**Capital Project Office Response to SAO Audit**

UW Tacoma Parking Garage and the Emergency Power Expansion Phase II projects received audit findings for not complying with RCW 39.12.40, Competitive Bid Law/Prevailing Wages. As a result the policies and procedures have been reviewed for approving and disbursing payments for pay requests and have modified existing procedures as follow:

*Resolution Modified Procedure:*

Prior to commencement of work, the Associate Construction Manager (ACM) discusses billing requirements including intent to pay prevailing wages with the GC and obtains acknowledgement of understanding from the GC. The ACM receives a draft pay request for actual work and material expenses. The ACM in conjunction with the project consultant reviews monthly documents of activity and as-built drawings and modifies the payment as deemed necessary. The ACM verifies and validates "certification and list of subcontractors" and the GC's detail billing information and enters such information into the database. Adjustments are made where necessary, and the Contractor submits a final draft pay request along with documentation pertaining to sub-contractor payments and contract purchases of goods and services to the Capital Projects Contracts Office. The Contracts Office reviews the pay request for the Associate Construction Manager's signature and adherence to the schedule of values, including verification that a signed "Certification and List of Subcontractors" form from the GC is included.

### Caution to Applicants

The definition of the project is at the applicant's discretion. The entire project, including all components, must meet the criteria to be approved.

### Signature of Authorized Representative

In submitting this application, you, as the authorized representative of your organization, understand that: (1) the PRC may request additional information about your organization, its construction history, and the proposed project; and (2) your organization is required to submit the information requested by the PRC. You agree to submit this information in a timely manner and understand that failure to do so shall render your application incomplete.

Should the PRC approve your request to use the GC/CM or D-B contracting procedure, you also understand that: (1) your organization is required to participate in brief, state-sponsored surveys at the beginning and the end of your approved project; and (2) the data collected in these surveys will be used in a study by the state to evaluate the effectiveness of the GC/CM or D-B process. You also agree that your organization will complete these surveys within the time required by CPARB.

Signature: 

Name: (please print) Richard K. Chapman

Title: Associate Vice President, Capital Projects Office

Date: 31 JAN 2008

University of Washington President  
Mark Emmert

Co-Chairs Executive Advisory Committee  
Ron Johnson, VP for UW Computing and Communications  
Russ McDuff, Director, UW School of Oceanography

Project Director/Principal Investigator  
John Delaney

Project Director & COO  
Pete Barletto

Editor/Writer  
Nancy Penrose

Visualizations  
Mark Stoermer

Project Scientist  
Deborah Kelley  
Bruce Howe

Two Junior Scientists  
Science Technician  
Two Undergraduates

Chief Engineer  
Gary Harkins

Asst. Director  
Finance & EVMS  
Mike Kelly

Office Manager  
Beabe Akpojobwo

Marine Ops Manager  
Marine Maintenance  
Manager

RSN  
Environmental  
Health & Safety

Principal  
Mechanical  
Engineer  
Marvin Strenge

Principal  
Electrical  
Engineer  
Bob Johnson  
Russ Light

Senior  
Electrical  
Engineer  
Bill Jump

Senior Ocean  
Engineer  
Tim McGinnis

Document  
Manager  
Eric Strenge

Senior Software  
Engineer  
Clark Bodyfelt

Administrative  
Services  
Craig Bathgate

Network  
Engineer

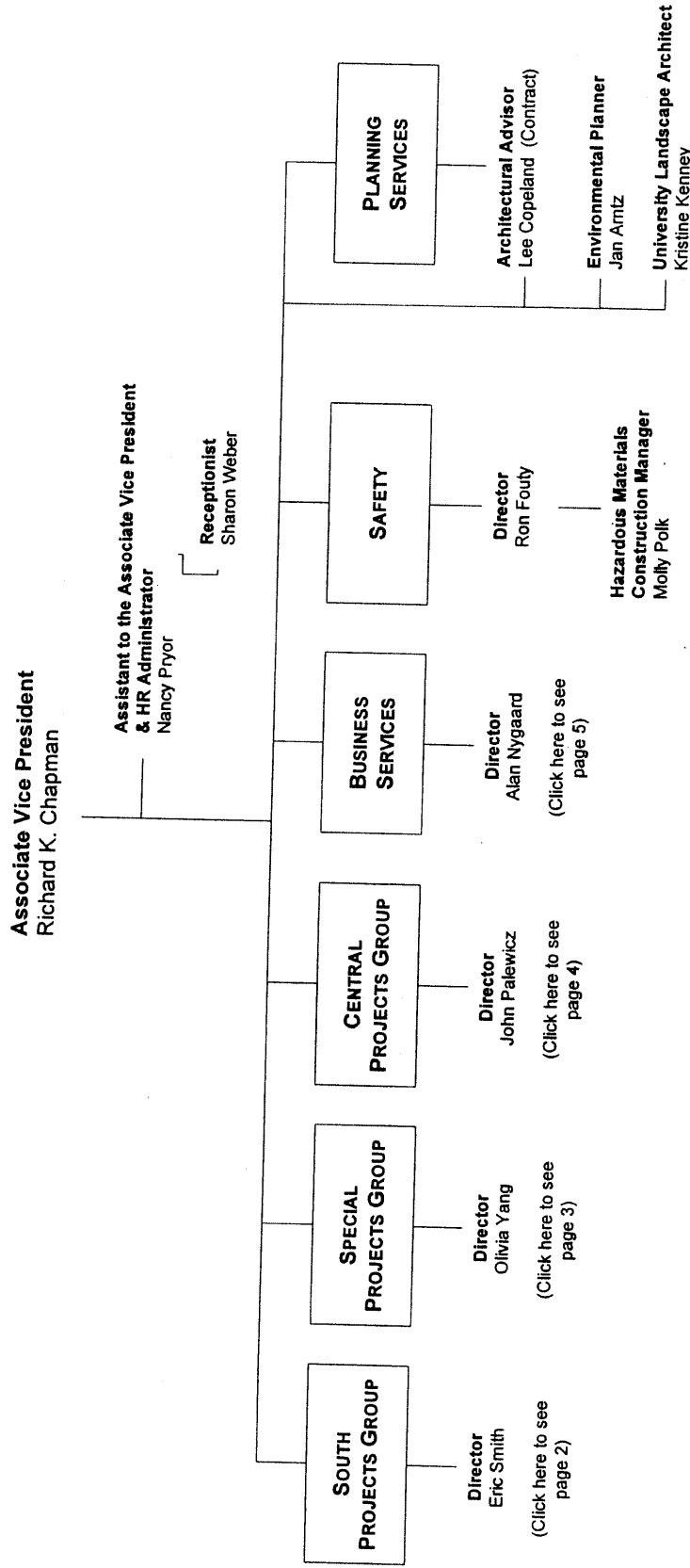
Systems  
Engineer  
Mike  
Harrington

Filled Positions

Growth Positions

# CAPITAL PROJECTS OFFICE Management

## Attachment 2



Capital Projects Office	
UW FTE	114
Contract FTE	6
Vacancies	<u>6</u>
Total	126

# Attachment 3 RCW 39.10.330 – Design-build contract award process:

## RFQ – COMPETITIVE PROCESS

- Advertisement: Publish notice of RFQ in legal newspaper.
- Content of RFQ:
  - Describe project: General description of project with sufficient information so proposers can submit qualifications.
  - Why use design-build: Reasons for using design-build.
  - Qualifications needed: Description of qualifications to be required of proposers.
  - Evaluation and Selection Process: Description of selection process to be used in evaluating qualifications and finalists' proposals, including evaluation factors and weighting of factors.
    - RFQ:
      - Cost or price-related factors may not be used in the RFQ phase.
    - Evaluation Factors:
      - Technical qualifications, such as specialized experience and technical competence
      - Capability to perform
      - Past performance of the proposers' team, including the A/E and construction members
      - Other appropriate factors.
    - RFP:
      - Evaluation factors from RFQ:
        - Technical qualifications, such as specialized experience and technical competence
        - Capability to perform
        - Past performance of the proposers' team, including the A/E and construction members
        - Other appropriate factors.
      - Additional evaluation factors:
        - Technical approach design concept
          - Alternative evaluation factor: If public body determines that all finalists will be capable of producing a design that adequately meets project requirements, the public body may award the contract to the firm that submits the responsive proposal with the lowest price.
        - Proposal price
        - Ability of professional personnel
        - Past performance on similar projects
        - Ability to meet time and budget requirements
        - Ability to provide a performance and payment bond

- Recent, current, and projected workloads of firm
- Location of firm.
- Contract to be used: The form of the contract to be awarded.
- Honorarium: The amount to be paid to finalists submitting responsive proposals [elsewhere: best and final proposals] and who are not awarded a design-build contract.
  - Sufficient amount to generate meaningful competition among potential proposers.
  - Public body to consider the level of effort required to meet the selection criteria.
- Schedule: The schedule for the procurement process and the project.
- Other: Other information relevant to the project.

### EVALUATE RFQs

- Committee: Establish evaluation committee
- Evaluate based on criteria: Evaluate responses to the RFQ based on factors, weighting, and process in RFQ
- Maximum number of finalists: Select no more than 5 finalists to submit proposals

### ISSUE RFP TO FINALISTS

- Content of RFP:
  - Describe project: Description of the project including programmatic, performance, and technical requirements and specifications
  - Describe functional issues: Functional and operational elements
  - Square Footage: Minimum and maximum net and gross areas of any building
  - Drawings: Preliminary engineering and architectural drawings (at discretion of public body)
  - Budget: Target budget for design-build portion of the project

### EVALUATE RFPs

- Committee: Establish evaluation committee
- Evaluation procedure: Select evaluation procedure from two options below.

*Must identify in the RFQ which procedure will be used.*

- Option A:

- Evaluation: Evaluate proposals based on factors, weighting, and process identified in the RFQ
- Best and Final Proposals: May request best and final proposals from finalists
- Negotiation: Negotiate with firm with highest scored proposal
  - If unable to successfully negotiate, may suspend or terminate negotiations and negotiate with next highest scored firm.
- Option B:
  - Award based on lowest price: If public body determines that all finalists will be capable of producing a design that adequately meets project requirements, the public body may award the contract to the firm that submits the responsive proposal with the lowest price.

Attachment 4 - (Question #8)

Demonstrated success in Managing Public Works Projects Involving All types of Contracting Procedures

Project Name	Project Description	Method	Contracting		Actual Start	Actual Finish	Actual Substantial Completion	Planned Budget	Actual Budget	Reason for Budget or Schedule overrun
			Planned Start	Planned Finish						
Architecture Hall	Renovation of a 2 story - 48,000 SF Office Building - historic	GC/CM	Jul-03	Aug-07	Jul-03	Jul-07	Jul-07	\$ 24.8 M	\$ 24.8 M	
Guggenheim Hall	Renovation of a 4 story - 56,000 SF Office Building - historic	GC/CM	Nov-03	Jul-07	Nov-03	Aug-07	Aug-07	\$ 28.3 M	\$ 30.3 M	Cost Increase -higher than expected market conditions in Seattle. State funding was reduced from budget request.
William H. Foeger Building	New 265,000 SF Reasearch & Teaching Facility	GC/CM	Dec-00	Dec-05	Dec-00	Jun-06	Jun-06	\$ 150.0 M	\$ 147.3 M	Schedule delay due to scope changes from additional donor contributions, labor shortages and market conditions.
Benjamin Hall Research Building	New 115,000 SF Core & Shell Research Building	D-B-O-M	Dec-02	Oct-05	Dec-02	Mar-06	Mar-06	\$ 29.9 M	\$ 29.9 M	Schedule delay due to a realignment of focus from core & shell to tenant improvements.
Johnson Hall	Renovation of 122,000 SF of instruction & research facilities	GC/CM	Jun-02	Sep-05	Jul-02	Oct-05	Oct-05	\$ 55.3 M	\$ 52.8 M	
UWMC Cardiac Procedures Area & Emergency Medicine Services	2nd Floor expansion adding 22,000 SF to Cardiac Procedures area & Emergency Medicine Services	D-B-B	Jun-02	Nov-05	Jun-02	Oct-05	Oct-05	\$ 7.2 M	\$ 7.0 M	
UWMC Regional Heart Center	3rd Floor development of 45,400 SF for location of Regional Heart Center Clinics and lobby upgrade	D-B-B	Apr-03	Apr-06	Apr-03	May-06	May-06	\$ 9.8 M	\$ 10.0 M	Cost increase - change orders for unforeseen site conditions and unexpected code issues.
UW Tacoma Campus Garage	New 306 space campus garage	D-B-B	Jun-03	Dec-05	Jun-03	Jan-06	Jan-06	\$ 7.5 M	\$ 7.5 M	
UW Tacoma Campus Phase 2B	Renovation of 5 historic buildings - 138,000 SF	GCCM	Mar-98	Oct-03	Mar-98	Dec-03	Dec-03	\$ 44.3 M	\$ 44.3 M	Added scope of work for Tenant Improvement
Biochemistry J-Wing Renovation	Renovation of 30,700 SF of research space	D-B-B	Feb-01	Apr-06	Feb-01	Apr-06	Apr-06	\$ 8.5 M	\$ 8.1 M	
IMA Expansion Sports Program	Renovation of 40,000 SF of the Intramural Activities Building	GCCM	Jul-99	Jun-03	Jul-99	Nov-03	Nov-03	\$ 43.3 M	\$ 42.3 M	Schedule delay due to scope changes.

Attachment 4 - (Question #8)

Demonstrated success in Managing Public Works Projects Involving All types of Contracting Procedures

Contracting Method Planned Start Planned Finish Substantial Completion Actual Start Actual Finish Substantial Completion Reason for Budget or Schedule overrun

Project Name	Project Description	Method	Planned Start	Planned Finish	Substantial Completion	Actual Start	Actual Finish	Substantial Completion	Planned Budget	Actual Budget	Reason for Budget or Schedule overrun
Merrill Hall Replacement Project	Replacement of a 2 story - 17,000 sf applied research & teaching facility extensively fire damaged	D-B-B	Sep-01	Sep-04	Pre-Design	Sep-01	Nov-04	Completion	\$ 7.0 M	\$ 8.3 M	Budget increased to include scope change/transfer of cost for fire damage cleanup & partial smoke sealing of structure.
Paul G. Allen Center for Computer Science & Engineering	Added 160,000 SF for computer research, teaching labs and offices	GCCM	Jan-99	Jun-03	Pre-Design	Jan-99	Aug-03	Completion	\$ 70.0 M	\$ 64.4 M	Added scope of work due to below budget.
Terry Hall Improvements	Renovation of 22,000 SF for a market style food court & storage	D-B-B	Jan-02	Sep-04	Pre-Design	Jan-02	Sep-04	Completion	\$ 8.0 M	\$ 8.2 M	cost increase due to scope changes
Conibear Shellhouse Renovation & Addition	Renovation and expansion from 28,000 SF to 46,000 SF for the Department of Intercollegiate Athletics	GCCM	Jan-01	Feb-05	Pre-Design	Jan-01	Mar-05	Completion	\$ 16.7 M	\$ 15.6 M	
Electrical Power System Expansion Phase 1	Expansion of existing emergency generating system	D-B-B	Jun-00	May-03	Pre-Design	May-00	Jul-03	Completion	\$ 11.9 M	\$ 11.9 M	
UWMC Surgery Pavilion	New 160,000 SF facility for short stay services & treatment areas	GCCM	Feb-00	Jul-03	Pre-Design	Feb-00	Sep-03	Completion	\$ 89.7 M	\$ 89.3 M	
William H. Gates Hall, UW School of Law	New 196,000 SF Law School including Law Library, mock courtrooms and offices	GCCM	May-96	Sep-03	Pre-Design	May-96	Jul-03	Completion	\$ 81.5 M	\$ 82.1 M	
McMahon Dining Hall Remodel	Renovation of 30,000 SF for a market style food court	D-B-B	Sep-99	Oct-02	Pre-Design	Nov-99	Aug-02	Completion	\$ 9.2 M	\$ 9.0 M	

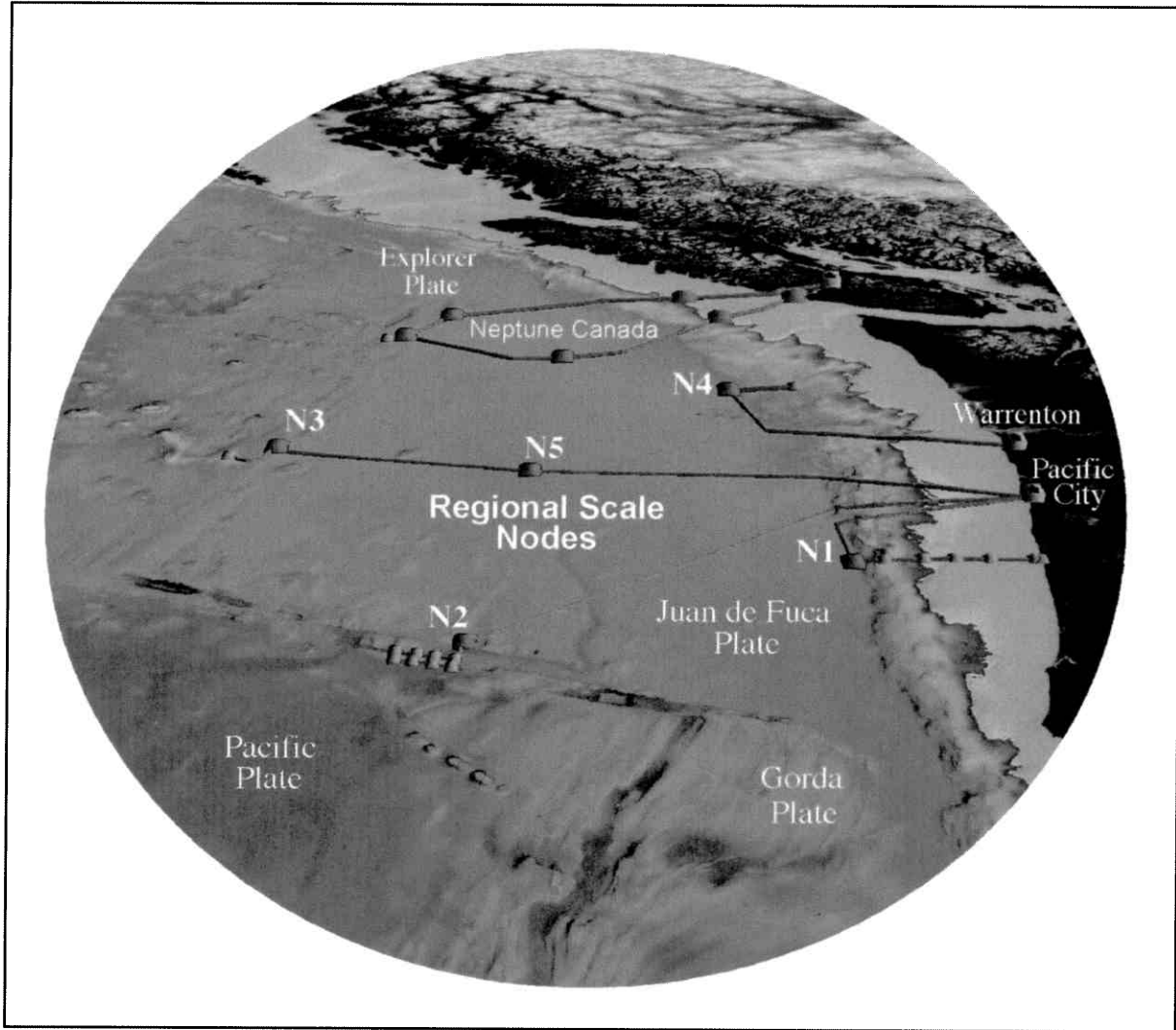
Attachment 4 - (Question #8)

Demonstrated success in Managing Public Works Projects Involving All types of Contracting Procedures

Contracting Method    Project Description    Planned Start    Planned Finish Substantial Completion    Actual Start    Actual Finish Substantial Completion    Planned Budget    Actual Budget    Reason for Budget or Schedule overrun

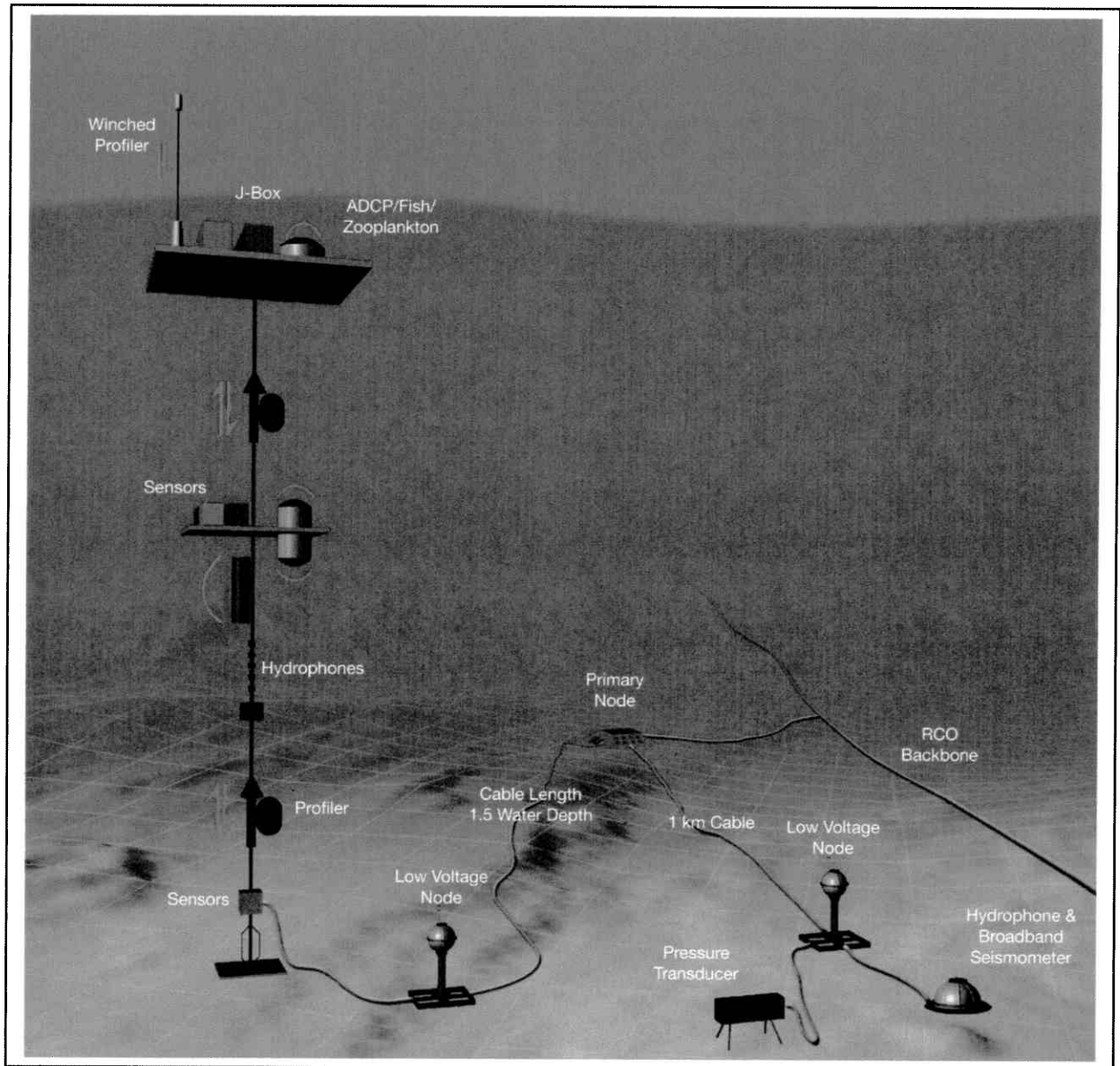
Project Name	Project Description	Contracting Method	Planned Start	Planned Finish Substantial Completion	Actual Start	Actual Finish Substantial Completion	Planned Budget	Actual Budget	Reason for Budget or Schedule overrun
Suzzallo Library Renovation	Library seismic and life safety renovation	GCCM	Jul-93	Aug-02	Dec-93	Aug-02	\$ 47.4 M	\$ 47.3 M	
UW Tacoma Campus Phase 2A	Renovation and construction of new building for a total of 84,000 sf for multiple use	D-B-B	Mar-98	Sep-02	Mar-98	Dec-01	\$ 39.9 M	\$ 39.9 M	
UWMC Pacific Tower Renovation	Renovation of 70,000 SF for Inpatient & clinical facilities including Mech/Elec infrastructure	GCCM	Jan-98	Oct-01	Jan-98	Oct-01	\$ 35.0 M	\$ 34.2 M	
Husky Den Remodel	Renovation of Student Union Building (HUB) for a Market Place Food Court	D-B-B	Sep-00	Jan-02	Sep-00	Jan-02	\$ 9.5 M	\$ 10.2 M	Cost increase due to scope changes and changed signage provider to meet schedule
ICA HEC Edmundson Pavilion Renovation	Renovation of 270,000 SF to provide a premier venue for basketball, volleyball & gymnastics.	GCCM	Jan-94	Nov-00	Jan-94	Dec-00	\$ 44.5 M	\$ 44.5 M	Cost increase due to scope changes and changed signage provider to meet schedule

Attachment 5

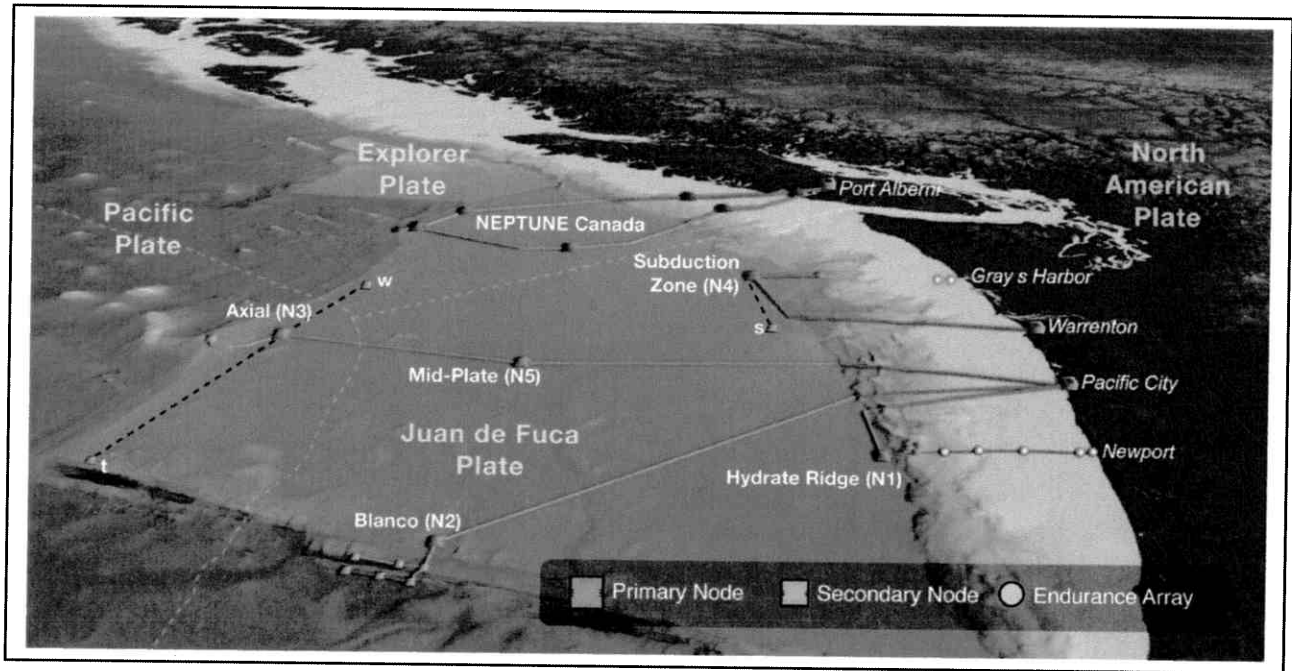


## Attachment 6a – Water-Column Mooring

A water-column mooring of the type that will be connected to the Regional Scale Nodes cabled ocean observatory. The mooring will include an instrument called a vertical profiler that will sample the entire length of the mooring cable by crawling up and down continuously. The result is a detailed picture of water conditions and currents at all depths. As the profiler crawls, sensors measure water temperature, salinity, depth, oxygen levels, and backscatter and fluorescence - two measures that can indicate how much microscopic life is in the water.

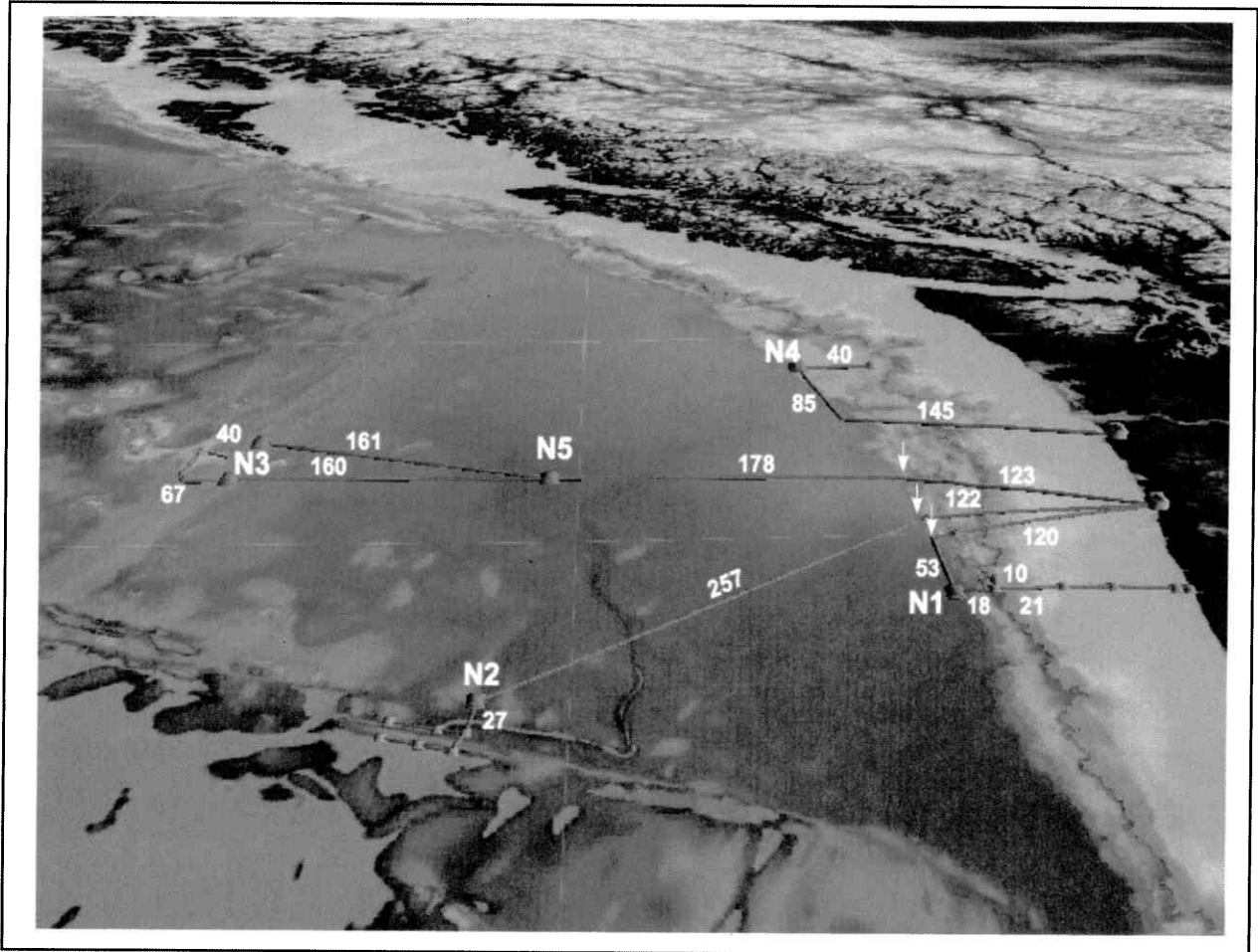


Attachment 6b - Node Perspective Part



**Attachment 7**

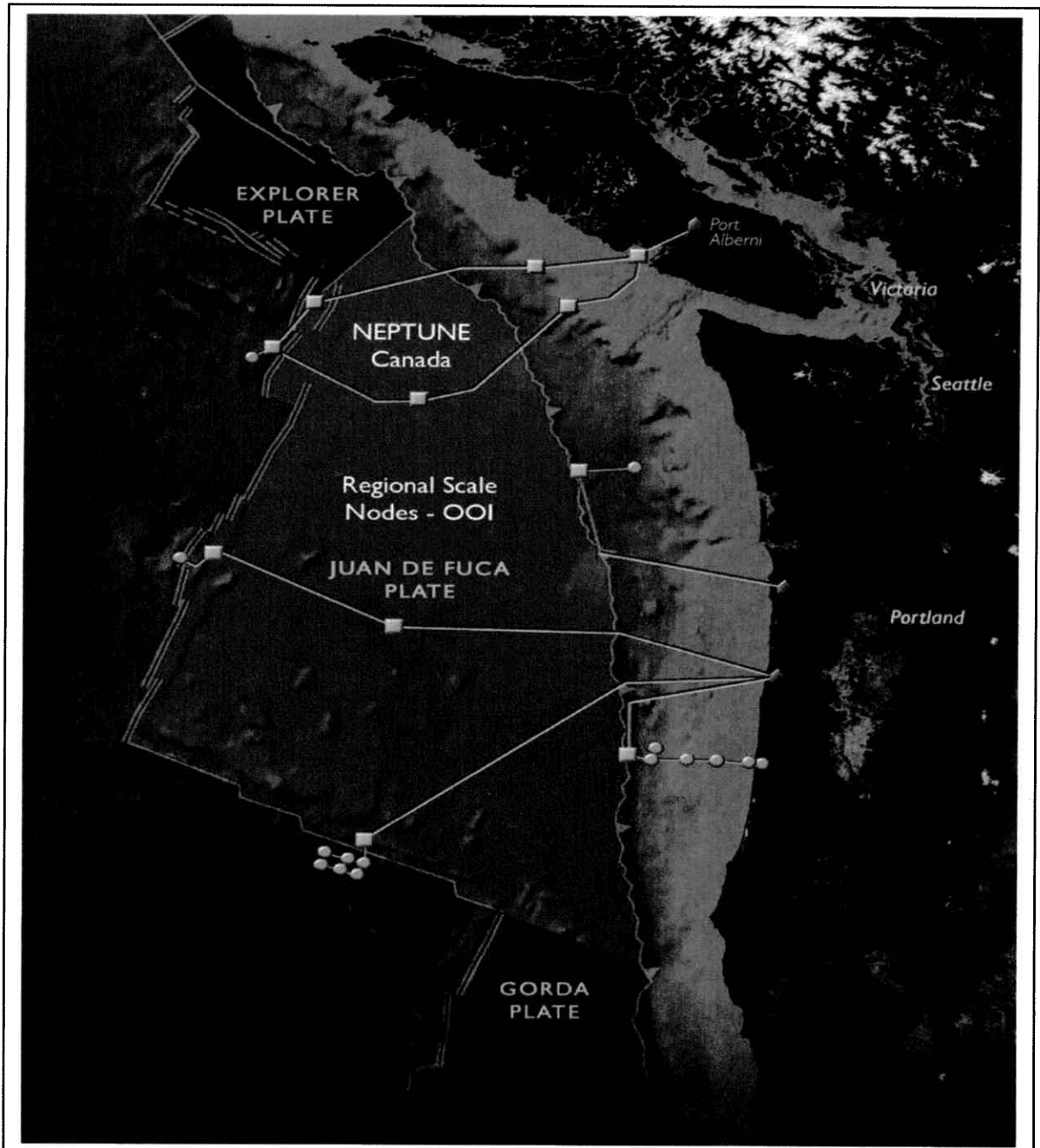
Geographical perspective of the Regional Scale Nodes with cable lengths noted.



**Attachment 8**

**CABLE SYSTEM MAP**

The Regional Scale Nodes component of the National Science Foundation's Ocean Observatories Initiative—and the complementary NEPTUNE Canada program—will be associated with the Juan de Fuca tectonic plate, one of a dozen or so major plates that make up the surface of the earth. Fiber-optic cables will run from shore landings to experimental sites (orange dots) located in areas of highest scientific interest. The observatories will operate 24/7/365 and will provide unprecedented remote access to the ocean, the seafloor, and the subseafloor.



Attachment 9 - Schematic representation of the Regional Scale Nodes.

