

City of Bellingham

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

APPLICATION FOR PROJECT APPROVAL
TO USE THE
GENERAL CONTRACTOR/CONSTRUCTION MANAGER (GC/CM)
ALTERNATIVE CONTRACTING PROCEDURE

Submitted By:
City of Bellingham

Project:
Post Point Wastewater Treatment Plant Improvements
EU - 145

Submitted:
July 1, 2010

June 30, 2010

Mr. Bob Dixon, Deputy Assistant Director
General Administration
Engineering & Architectural Services
P.O. Box 41012
Olympia, WA 98504-1012

RE: City of Bellingham Application for Project Approval to the Project Review Committee of the Capital Projects Advisory Board

Dear Mr. Dixon:

Attached is the City of Bellingham's application to the Project Review Committee of the Capital Projects Advisory Board. This application is for the Post Point Wastewater Treatment Plant Improvements.

If you would like any additional information or if there are any questions please call me at (360) 778-7900.

Sincerely,

Rory Routh, P.E.
City Engineer

Enc.
Application to the Project Review Committee of the Capital Projects Advisory Review Board and Attachments A-F
Project Snapshot

1. Identification of Applicant

- (a) Legal name of Public Body: City of Bellingham
- (b) Address: 210 Lottie Street, Bellingham, WA 98225
- (c) Contact Person Name: Rory Routhe, P.E.
- (d) Title: City Engineer
- (e) Phone Number: (360) 778-7900
Fax: (360) 778-7901
Email: rrouthe@cob.org

2. Brief Description of Proposed Project

Please describe project in no more than two short paragraphs.

The proposed project will upgrade the Post Point Wastewater Treatment Plant (WWTP) in order to maintain compliance with WA state NPDES permit requirements. Proposed improvements include expanding the core secondary process, increasing the plant's Biological Oxygen Demand (BOD) treatment capacity, and augmenting the primary treatment process via a chemically enhanced settling process. Modifications to the primary treatment system may include construction of a chemical dosing system including piping, control, and tankage.

The project will include upgrades to existing primary effluent and Return Activated Sludge (RAS) pump stations, piping, and flow splitting structures. A new concrete anaerobic selector basin and additional concrete aeration basins and associated piping and mechanical facilities (up to double existing aeration basin volume) will be added to the secondary treatment system. A fourth concrete secondary clarifier is also proposed. To support the expanded secondary treatment facility, a new blower building to provide oxygen to the biological process, retrofits to the existing aeration basins for conversion to air, and modifications and improvements to existing electrical and control systems are included. To complete this work, extensive modifications to existing facilities and integration of new structures within the existing site boundaries will be required, all while maintaining plant operation. Detailed sequencing is imperative to address operational needs, neighborhood impacts, and sensitive environmental areas surrounding the site while ensuring permit compliance and the safety of staff and the public.

3. Projected Total Cost for the Project

A. Project Budget

Costs for Professional Services	\$7,000,000
Estimated project construction costs	\$28,800,000
Equipment and furnishing costs	\$7,200,000
Off-site costs	\$1,000,000
Contract administration costs	\$3,000,000
Other related project costs (Environmental Mitigation)	\$200,000
Total (with sales tax & contingency)	\$47,200,000

B. Funding Status

In 2006, the City hired the Financial firm FCS Group to do a utility rate study. This study included the long term need to fund a plant expansion. Based on the study, the City Council approved an annual rate increase of around 6.5% per year from 2007 to 2012. Due to the downturn in the economy, and the direction from City Council to look at other alternatives, the City had FCSG update the rate study in February 2010. The Study confirmed that the rates could still support a 6-year capital program of \$73 Million, including \$51 Million for the plant expansion. In addition to the annual rate increases, the City will retire the debt on the previous plant expansion in 2011. This leaves the utility debt free with the ability to apply the previous debt service of \$2M to the new debt service for a bond. The City intends to issue a revenue bond in 2011 to cover the construction costs of the project. It also will issue a bond in 2014, if needed, for this project along with other projects programmed for construction. Through the 2008, 2009 and 2010 budgets the City has fully funded the design of this project through undesignated reserves.

4. Anticipated Project Design and Construction Schedule

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.

The City of Bellingham retained Carollo Engineers in December 2008 to draft the Post Point Wastewater Treatment Plant Facilities Plan which will bring the project design to 30% by October 2010. The proposed plan includes selecting a GC/CM in November 2010 to complete design and construction documents by the end of 2011. See Attachment A.

Key project milestones are as follows:

Select GC/CM	
Ad for GC/CM	September 2010
Award GC/CM Contract	November 2010

Post Point WWTP Improvements	
Start Design	December 2008
Complete 30% Design Documents	September 2010
Complete Construction Documents	November 2011
Negotiate MACC	January 2012
Begin Construction	March 2012
Complete Construction	April 2014

5. Why the GC/CM Contracting Procedure is Appropriate for this Project

Please provide a detailed explanation of why use of the contracting procedure is appropriate for the proposed project.

Following changes in the WAC that allowed more municipalities to engage in GC/CM contract administration for large projects, the City of Bellingham reviewed this approach alongside D-B-B and D-B approaches for project delivery. Based on input from consultants and other municipalities, it was determined that the GC/CM approach was worth additional consideration as an alternate approach for the Post Point improvements.

Key factors in the selection of the GC/CM process include the ability to obtain early contractor input on project design and implementation that is not found in the D-B-B process, and the opportunities for ongoing operations involvement that is not found in the D-B method. The GC/CM approach also provides for a systematic integration of project construction and existing plant operation.

Please address the following, as appropriate:

- **If implementation of the project involves complex scheduling, phasing, or coordination, what are the complexities?**

The proposed plant improvements currently call for a single construction phase that must be built during continual plant operation. As the design is refined it is expected that a phased approach to the improvements will be considered. The benefits of GC/CM involvement in design of the plant improvements will be identifying impacts of a phased construction approach in the overall design.

Involvement of a GC/CM will also avoid many issues involved with project construction while the plant continues to operate normally and additionally as new facilities are put online. Keeping a tight schedule for construction of the improvements is also important for future permit compliance. GC/CM involvement will support a thorough design and streamlined project construction.

- **If the project involves construction at an existing facility that must continue to operate during construction, what are the operational impacts on occupants that must be addressed? (Please identify functions within the existing facility which require relocation during construction and how construction sequencing will affect them. As part of your response you may refer to the drawings or sketches that you provide under Question 9.)**

The Post Point WWTP provides wastewater treatment for residents of the City of Bellingham and adjacent residential areas in Whatcom County along with industrial, institutional, and commercial customers. The City also has a service agreement with Lake Whatcom Water and Sewer District to provide conveyance and treatment for all flows from their district. The facility operates 24 hours a day, 365 days a year and must comply with the City's Washington State NPDES discharge permit.

During construction, the GC/CM and subcontractors will need to work in close collaboration with the facility operators to ensure continual operation throughout construction and commissioning.

Any shutdown of plant processes (primary and secondary influent, oxygen delivery, and others) must be brief and controlled and may require re-routing of flows during construction. Detailed scheduling and coordination will be imperative to ensure functionality and safety. Early GC/CM involvement in the project, and discussions with operations staff, will allow comprehensive planning for shutdowns and information sharing on plant function.

- **If involvement of the GC/CM is critical during the design phase, why is this involvement critical?**

The Post Point WWTP improvements project is a complex integration of increased capacity construction alongside an existing, functional system. The involvement of a GC/CM will provide crucial input into the sequencing of project integration. Design input regarding the physical limitations of the existing site and management of flow re-routing plans and connections to the existing facilities will provide for balanced approaches that reflect industry standards. This type of input is not found in a typical D-B-B approach.

This project requires GC/CM participation during the design phase in order to minimize construction related operational problems. The primary wastewater stream and other secondary process streams will need to be diverted throughout construction. Involvement of a GC/CM allows for a more intimate understanding of the facility operation by the contractor and consequently minimizes operating disruptions.

The equipment required for wastewater treatment projects is highly specialized and can often require significant lead times for fabrication and delivery. To ensure that the construction stays on-schedule, the design team, Project Engineer, and Consultant will

need to determine equipment requirements along with the GC/CM during the preconstruction services period. Input by GC/CM will ensure that the desired equipment and installation specifications can ultimately be met.

In addition, Bellingham City Council had directed staff to evaluate phasing of the improvements. The ability to define true costs and impacts will be useful when determining a possible phasing schedule.

- **If the project encompasses a complex or technical work environment, what is this environment?**

The Post Point WWTP comprises multiple process streams and treatment facilities in a number of buildings connected via multiple piping and electrical arrays. Temperature and chemical imbalances can have a significant impact on the facility performance and must be monitored. Seasonal weather changes and behavioral patterns can result in substantial variations on the influent. The plant is a permitted Combined Sewer Overflow (CSO) with flows varying from 12-72 million gallons per day.

Early involvement of the GC/CM in the design phase will help minimize disruptions to crucial operations, may reduce modifications during the construction phase and reduce overall project schedule and cost.

- **If the project requires specialized work on a building that has historical significance, why is the building of historical significance and what is the specialized work that must be done?**

No buildings of historical significance will be impacted by 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 City can select the most qualified regional contractor at the best value for the project rather than take the lowest cost for the desired services. This helps to avoid selecting low and unrealistic bids that have been noted in today’s construction market. Recent changes to RCW 39.10 also extend the benefits of GC/CM to the subcontractor level by establishing a selection process for mechanical and/or electrical subcontractors, providing additional fiscal benefits for the GC/CM contracting method.

Repeat work is an exceptionally strong motivator for a GC/CM contractor and helps foster an environment where the City's concerns are considered a high priority and resolved without formal disputes. Experienced GC/CM contractors understand that their ability to get the next project will be greatly enhanced by the City's judgment of their performance.

The Post Point WWTP improvements are a complex and technical project requiring early interaction with the design team to ensure successful completion. During design, the GC/CM can provide detailed input on construction issues that enhance long-term operations. The GC/CM collaborates with the City and the designer during the design phase to select materials, system, and design details that take advantage of market conditions and facilitates constructability. The GC/CM will also allow for earlier procurement of long lead-time equipment, instead of waiting for construction documents to be completed and submittals approved. The City can work with the GC/CM to incorporate public concerns into specifications for subcontractor's performance. Issues such as noise, odors, parking for workers and truck routes can be addressed as the project moves through design and into construction.

The GC/CM involvement during design reduces construction problems and leads to more efficient management of the construction process. The GC/CM adds price certainty by preparing a series of estimates as the design progresses to corroborate the estimates of the design engineer. Selection of the GC/CM will also include value engineering experience to identify additional cost savings activities.

The GC/CM process enables price competition on all construction subcontracts. Typically 80+ percent of the project will be bid, which takes advantage of the competitive pricing in the marketplace. The GC/CM will likely generate a broader response from subcontractor bidders by utilizing local contracts and relationships in the subcontractor community to encourage competition.

7. Public Body Qualifications

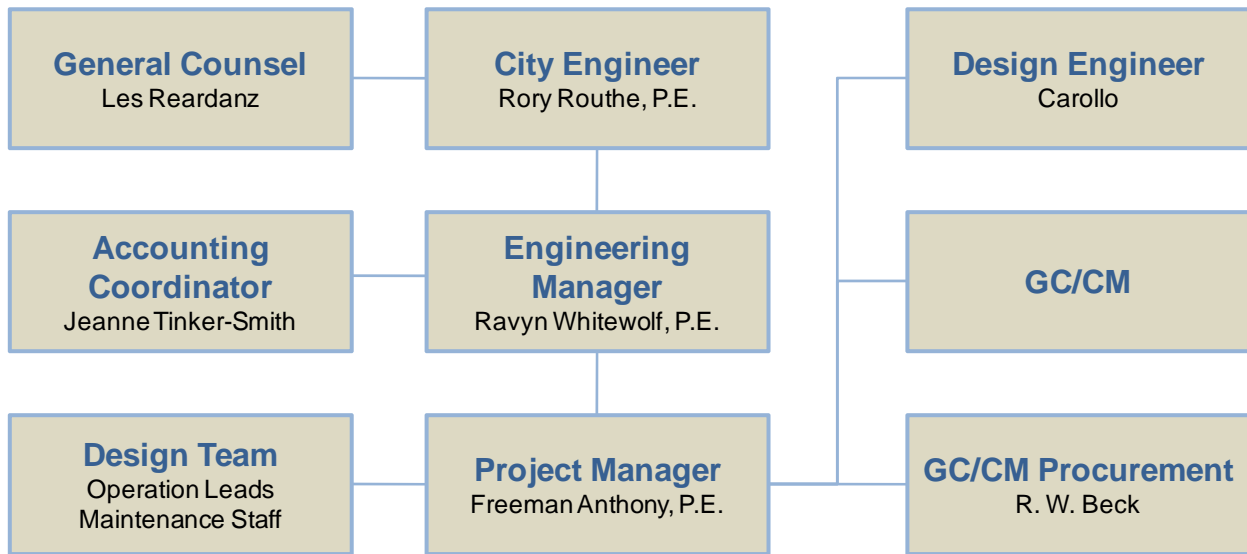
Please provide:

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

The City of Bellingham has been conducting and managing major construction projects for many years using in-house resources. The Public Works department has several licensed engineers with facilities construction experience. The City has successfully completed training for GC/CM project management and the Project Manager has had experience with alternate delivery methods. City of Bellingham staff are actively meeting with experienced entities to further develop an understanding of how to manage the GC/CM process to the benefit of the City. For the Post Point Improvements project, the City of Bellingham has retained RW Beck to provide GC/CM procurement services. See Attachment B.

- **A Project organizational chart, showing all existing or planned staff and consultant roles. Note: The organizational chart must show the level of involvement and main responsibilities anticipated for each position throughout the project (for example, full-time project manager). If acronyms are used, a key should be provided.**

The City of Bellingham Public Works Department has assembled the following integrated team to manage the GCCM delivery of the project including developing the RFP, retaining a GC/CM, negotiating the MACC, construction management, budget monitoring, contingencies, and financial administration through the completion of this project.



- **Staff and consultant short biographies (not complete résumés).**

Rory Routhe, P.E. – City Engineer

Role: General project oversight and liaison with City elected officials

Relevant Experience: Rory Routhe has over 20 years of progressive experience in engineering design, construction, management, and policy direction on public works projects. He has over 16 years of experience at the City of Bellingham including 8 years as the City Engineer. He has been involved with a variety of projects including street widening, signals, water and sewer pump stations, storage tanks, stormwater treatment, water and wastewater treatment plant improvements, conveyance systems, and comprehensive plans. Previously he was involved with the Hyperion treatment plant project in Los Angeles in the early 1990's. He is a registered professional engineer in Washington and California.

Ravyn Whitewolf P.E. – Project Manger

Role: Oversee the administration of the project

Relevant Experience: Ravyn Whitewolf has over 15 years experience in the design, construction, and administration of both public and private infrastructure projects. Her work has included both new construction and retrofits of stormwater, water, wastewater facilities

and transportation projects. The Depot Market Square project won APWA award for Structures - over \$2M category at the state level. She has developed RFPs, project scopes, bidding and construction documents as well as administering projects through close-out. While working for Whatcom County, in addition to the design and construction of capital projects, her work included right-of-way acquisition and grant administration for many multi-million dollar projects.

Les Reardanz – General Counsel

Role: Provide legal advice to the design and construction management team

Relevant Experience: Les Reardanz has been an attorney for 20 years and has provided public bidding and contracting advice to the City of Bellingham since 1998. He also has experience in federal contracting as a military reserve attorney.

Freeman Anthony, P.E. – Project Manger

Role: Manage the design and construction of the project

Relevant Experience: Freeman Anthony has over 10 years experience in the design, construction, and administration of both public and private infrastructure projects. His work has included both new construction and retrofits of water and wastewater treatment plant projects in Utah, Washington and New Zealand. He has developed RFPs, project scopes, bidding and construction documents as well as administering projects through close-out. While working for MWH in New Zealand he also administered alternate delivery contracts for water and wastewater infrastructure and plant projects for municipal entities. He has overseen multiple projects at the Post Point Wastewater Treatment Plant and has substantial knowledge of the site and surrounding area.

Jeanne Tinker-Smith, PW Project Accounting Coordinator

Role: Contract administration and fiscal contract oversight

Relevant Experience: Jeanne Tinker-Smith has worked for the City of Bellingham for over 16 years with financial responsibility for PW contracting, budgets, grants, state compliance and year-end capital reporting.

RW Beck – GC/CM Procurement Services

Role: Provide GC/CM procurement services for the project

Key Staff

Robert Bingham, P.E. – Consultant

Role: Provide advice throughout the project; develop contracts and procedures for the procurement, preconstruction, construction, and closeout phases of the project.

Relevant Experience: Mr. Bingham has provided planning and engineering services for municipal utilities, particularly in the area of facility development using alternative project delivery approaches, many of which were in the state of Washington. Alternative delivery projects on which he has served as project manager and/or lead advisor include City of Everett WPCF Phase A Expansion (GC/CM), City of Tacoma Central Treatment Plant Expansion (DB), City of Seattle Tolt River Treatment Plant (DBO), Cedar River Treatment Plant (DBO), and City of Wilsonville Oregon Wastewater Treatment Plant (DBO). He

additionally served as an oversight consultant on the King County Brightwater Project (GC/CM, DB, and DBB). He has implemented alternative delivery on more than 15 projects with a capital value in excess of \$1.5 billion.

Art Griffith, P.E. – Project Manager

Role: Manage R. W. Beck’s consulting services throughout the project, supported by experienced project team.

Relevant Experience: Project manager for utility engineering, management consulting, and financial consulting projects for over 15 years. Mr. Griffith has been the project manager for the City of Everett’s assessment of delivery alternatives for this WPCF Phase C Expansion. Additional alternative delivery projects on which he has served as Project Manager include: Tacoma Public Utilities delivery method assessment, Brightwater Treatment System oversight consultant (a portion of the Brightwater Treatment System is procured via GC/CM contracting), and the Regional Water Treatment Plant Authority (Colorado) management program and delivery assessment. As part of his consulting services, Mr. Griffith regularly presents management, policy, capital project procurement, and financial information to elected officials.

Carollo Engineers - Design Consultant

Role: Provide consulting services for project design and construction

Key Staff

Brian Matson, P.E. – Consultant Team Project Manger

Role: Manage Consultant Team delivery of design and coordination with GC/CM throughout the project

Relevant Experience: Brian Matson has over 16 years experience in the planning, design, construction, and administration of water and wastewater projects for public sector clients. His work has included both new construction and retrofits of wastewater treatment facilities in Idaho, Oregon, and Washington. Brian has a significant understanding of the operational requirements and capacity limitations at the Post Point WWTP, and led the development of the City of Bellingham’s Comprehensive Sewer Plan, adopted in June 2009. He is also managing the ongoing Post Point WWTP Facilities Plan and preliminary design project. Prior to his work in Bellingham, Brian served as Assistant Project Manager (Design Phase) and Project Manager (Construction Phase) for a \$96-million expansion of the Willow Lake Water Pollution Control Facility in Salem, Oregon. This alternate delivery (CM/GC) project included upgrade/expansion of facilities at a plant treating over 100 mgd. Brian assisted the city during the CM/GC procurement process, and worked closely with the CM/GC team as the design advanced from 30% to completion. As the design progressed, several early work packages were delivered to speed construction of certain project elements and mitigate risk. During construction, Brian met bi-weekly with City of Salem and CM/GC staff, helping to resolve construction issues and negotiate contingency authorizations within the Guaranteed Maximum Price (GMP). The Willow Lake project is now substantially complete, and was finished on-time and below budget.

Jim Hagstrom, P.E. – Consultant Team Partner-in-Charge

Role: Quality Management of Consultant Team delivery of design and coordination with GC/CM throughout the project

Relevant Experience: Jim Hagstrom managed a \$20 million upgrade to the City of Lake Forest, Illinois Water Treatment Plant using GC/CM delivery. In this project, the contractor involvement led to a special slab design which improved the constructability and reduced the risk of schedule delays.

- **Provide the experience and role on previous GC/CM or D-B projects for each staff member or consultant in key positions on the proposed project.**

Refer to Attachment B for additional team experience on alternative delivery projects.

- The qualifications of existing or planned for project manager and consultants.

The project manager, Freeman Anthony, worked as a consultant in New Zealand from 2004 to 2006 and provided infrastructure project design and management services for both public and private entities. He has overseen multiple bidding processes for many projects that included assessment using the weighted attribute method in selection of contractors. This process included an assessment of the contractor's project background, construction history, and staff for consideration prior to award of bid.

- **The qualifications of an interim project manager until your organization has employed staff or hired a consultant as the project manager. Also indicate whether sufficient funds are available for this purpose and how long it is anticipated the interim project manager will serve. Note: This information is required only if your organization has yet to select a project manager at the time of application.**

Not applicable. A project manager has been selected.

- **A brief summary of the construction experience of your organization's project management team that is relevant to the project.**

Please see Attachment C

- **A description of the controls your organization will have in place to ensure that the project is adequately managed.**

Please see Attachment D

- **A brief description of your planned GC/CM or D-B procurement process.**

The City's GC/CM selection process will be based on key governmental steps, input from consultants and internal staff, as well as guidelines in RCW 39.10, and advice from other organizations and public agencies. The selection process will include initial proposals focused on bidder qualifications, interviews of qualified firms, and then final proposals for percent fee and specified general conditions work. The firm with the highest total score from the scoring of Proposal, Interview, and Final Proposal, will be selected to provide Preconstruction Services and MACC negotiations. In the event of a tie, the firm with lowest bid will be selected.

Below is a list of key steps:

Week	Description
Week 1	Submit Application for Project Approval to PRC (July 1)
Week 4	Public PRC meeting (July 22)
Week 6	Receive Project approval from PRC (August 5)
Week 7-10	City Council work session and direction
Week 11	First publication of RFP in Seattle Daily Journal of Commerce
Week 12	Second publication of RFP in Seattle Daily Journal of Commerce
Week 12	Project informational meeting
Week 14	Proposal submittal deadline from interested GC/CM firms
Week 14	Selection Committee meets to evaluate and score proposals, and select most qualified firms. Contact references.
Week 15	Distribution of Request for Final Proposal (RFFP) to most qualified firms
Week 16	Final Proposal submittal deadline
Week 17	Interviews conducted with most qualified firms; selection of firm with highest total score
Week 17	Notification of successful and unsuccessful firms
Week 18	Preconstruction Work Plan due
Week 19	Submit recommendation for award of GC/CM contract for Preconstruction Services
Week 20	Bellingham City Council approves contract
Week 20	Issue notice to proceed to GC/CM, Agreement for Preconstruction Services executed, MACC negotiations begin

- **Verification that your organization has already developed (or provide your plan to develop) specific GC/CM or D-B contract terms.**

Between August and November, the City will review their proposed GC/CM contract terms and conditions, and modify as necessary to reflect the requirements of RCW 39.10, as well as specifics of the Post Point Improvements project. The City will work internally with our attorney, in-house staff, and consultants, to produce language that addresses the requirements specific to the GC/CM alternate procurement method, including the State's General Conditions and Bellingham Municipal Code.

8. Public Body Construction History

Provide a matrix summary of your organization's construction activity for the past six years outlining project data in content and format per the attached sample provided:

- **Project Number, Name, and Description**
- **Contracting method used**
- **Planned start and finish dates**
- **Actual start and finish dates**
- **Planned and actual budget amounts**
- **Reasons for budget or schedule overruns**

Please see Attachment E

9. Preliminary Concepts, sketches or plans depicting the project

Please see Attachment F

10. Resolution of Audit Findings on Previous Public Works Projects

If your organization had audit findings on any project identified in your response to Question 8, please specify the project, briefly state those findings, and describe how your organization resolved them.

There are no audits for projects identified in Question 8.

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

Name (please print) _____

Title: _____

Date: _____

Attachment A – Project Schedule

Attachment B – Additional Team Experience

**Attachment C – City of Bellingham Relevant Construction
Experience**

Attachment D – Project Management Controls

Attachment E – Construction History

Attachment F – Site Plan