HYDRO SUPPORT FACILITIES
BOARD OF COMMISSIONERS BRIEFING
March 19, 2018
Randy Cook - TCF Architecture
Update on Planning, Design, and Permitting for the Rock Island and Rocky Reach Support Facilities

Jim Dugan - Parametrix
Review “GC/CM” Construction Delivery Method for the upcoming work at Rock Island and Rocky Reach.

Board Action
Discussion and questions only
Core Goals

“Shaping our utility to do the best, for the most, for the longest”

Productivity
Maximize efficiency potential at all operational levels

Service Levels
Optimize level of service delivery and customer experience

Financial Value
Produce lowest long term spending

Cost Predictability
Create financial stability with predictable cost forecasting

Safety
Enhance public and employee safety
“Shaping our utility to do the best, for the most, for the longest”
## Project Schedules

### Rock Island

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020 – 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Complete Underground Utilities, fire protection and stormwater systems.</td>
<td>Construction of all new and remodeled Rock Island support buildings on Chelan Side.</td>
<td>Power House 2 Rehab contractor arrives January, 2020</td>
</tr>
<tr>
<td></td>
<td>Complete Heated Storage Building Construction.</td>
<td>Final Chelan side Site Finishing Work</td>
<td>Support Facilities Contractor exits Chelan Side Dec, 2019</td>
</tr>
</tbody>
</table>

### Rocky Reach

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initiate Predesign Programming for Rocky Reach Support Facilities</td>
<td>Complete all Planning, Design and Permitting for Rocky Reach Support Facilities.</td>
<td>Phase 1 Construction</td>
<td>Phase 2 Construction</td>
</tr>
<tr>
<td></td>
<td>Initiate early Site Utilities investigations</td>
<td></td>
<td>Final Phasing Approach to be determined</td>
<td></td>
</tr>
</tbody>
</table>

“Shaping our utility to do the best, for the most, for the longest”
## Cost Analysis

### Rock Island

<table>
<thead>
<tr>
<th>Current Estimate Range (Predesign Phase)</th>
<th>Projected Cost Savings Compared to Status Quo Alternative</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>$38.7 - $39.5 Million</td>
<td>$3.7 Million</td>
<td>Prepare detailed cost estimate at 30% Design Phase (May, 2018)</td>
</tr>
</tbody>
</table>

### Rocky Reach

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<tr>
<th>Current Estimate Range (Predesign Phase)</th>
<th>Projected Cost Savings Compared to Status Quo Alternative</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40 – 41.5 Million</td>
<td>$1.36 Million</td>
<td>Prepare detailed cost estimate at 30% Design Phase (Early 2019)</td>
</tr>
</tbody>
</table>
General Contractor/Construction Manager
“GC/CM”

Alternative Project Delivery
RCW 39.10

Jim Dugan
Parametrix
Why?

• Market Conditions - Cost
  • Market saturation in the $30 M to $50 M range = Fewer contractors
  • $13B in school bonds 2011-2018
  • Unprecedented cost increases in the bid market
  • Rapid material costs escalation (steel, drywall, concrete, glass)

• Project Coordination
  • Critical facilities remaining operational during construction
  • Impacts to Hydro generation projects
• APD is authorized by the Revised Codes of Washington (RCW) 39.10
• Developed for just these kinds of conditions
• Use of GC/CM requires approval
  • Capital Project Advisory Review Board (CPARB)
  • Project Review Committee (PRC)
• Provides tools in the tool belt ...(DB, PDB, GC/CM)
  • Team approach (owner, general contractor (GC), design team)
  • GC selected on qualifications
• Integration and collaboration fundamental to execution
“Shaping our utility to do the best, for the most, for the longest”

**DBB Pro’s:**
- Familiar method
- Design control
- 100% competitively bid
- Accepted by the public

**DBB Con’s:**
- Owner warrants the design
- Lowest bid does not equal lowest cost
- Adversarial relationship with contractor
- Cost estimates done by an engineer not the contractor
- Not a collaborative method
- Risks mostly borne by the Owner
GC/CM Pro’s:
• Designer and contractor selected on qualifications
• Early contractor involvement in design
• Iterative cost control process until occupancy
• “Dial In” scope and costs to budget
• Off ramp to DBB if needed
• Greater collaboration on subcontractor qualification, monitoring and control
• All work competitively bid

GC/CM Con’s:
• Owner warrants the design
• Three contracts with owner
• Lack of single point of contact for design and construction
• Owner to GC/CM contract is performance based
General Contractor/Construction Manager (GC/CM)

- Additional Benefits
  - “Partner” Versus “Contractor”
  - Contractor Warrants Design at Final Pricing
  - Mitigates Market Risk to Price Increases
  - Most efficient use of PUD resources (PCS, EPM, Legal, Permitting)
  - Scheduling control; project completion certainty
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC/CM Application</td>
<td>February 20</td>
</tr>
<tr>
<td>PRC Presentation</td>
<td>March 22</td>
</tr>
<tr>
<td>Request for Proposal (RFP)</td>
<td>April 12</td>
</tr>
<tr>
<td>GC/CM Interviews</td>
<td>April 26</td>
</tr>
<tr>
<td>Request for Final Price (RFFP)</td>
<td>May 11</td>
</tr>
<tr>
<td>Early Assistance Services</td>
<td>May 16</td>
</tr>
<tr>
<td>Pre-Con Work Plan</td>
<td>May 24</td>
</tr>
<tr>
<td>Board Approval of Selected GC/CM</td>
<td>June 5</td>
</tr>
<tr>
<td>GC/CM Contract Executed</td>
<td>June 11</td>
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</tbody>
</table>
Questions