Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway · East Wenatchee, Washington 98802-4497 · 509/884-7191 · FAX 509/884-0553 · www.douglaspud.org

Project Review Committee
January 28, 2025

SUBJECT: Douglas County PUD Application for Hydrogen Fueling Station and Fuel Cell Generator with Storage

Dear Members of the Project Review Committee:

Douglas County PUD (PUD) respectfully submits the attached application to the Project Review Committee (PRC) for their authorization to use the Progressive Design-Build (PDB) project delivery method for the PUD's Hydrogen Fueling Facility and Fuel Cell Generator with Storage. The PUD has evaluated multiple alternative delivery approaches and recommends this project as a strong candidate for PDB. It meets the criteria identified in RCW 39.10.300 and RCW 39.19. The reasons why this project is well suited for PDB include:

1. Complexity and Innovation: The PUD is interested in implementing innovative hydrogen facilities that are unique in this region of the country. The lack of existing facilities and lack of technical literature for the sizing of such facilities will necessitate the sharing of risk between the PUD and the PDB team.
2. Equipment: The PUD has already procured the specialized equipment needed for the fueling station and the fuel cell generator. The contractor will need to work closely with both the PUD and the equipment supplier to install the equipment.
3. Collaboration: The PUD would like to collaborate with the contractor during the design and construction phases. The collaboration and PDB process enables the PUD to meet its goals, mitigate risk, and achieve the desired schedule.

Thank you for your consideration, input, and recommendations for our application to use the PDB approach for this critical and innovative project. We look forward to the opportunity to share more about this project at the PRC meeting on February 27, 2025. If you need any additional information before that meeting, please contact our Senior Distribution Systems Engineer, Leonard C. Anderson, P.E., at 509-881-2266.

Sincerely,

Gary R. Ivory
General Manager

State of Washington

PROJECT REVIEW COMMITTEE (PRC)

APPLICATION FOR PROJECT APPROVAL

To Use the Design-Build (DB)
Alternative Contracting Procedure

The PRC will only consider complete applications: Incomplete applications may result in delay of action on your application. Responses to sections 1-7 and 9 should not exceed 20 pages *(font size 11 or larger)*. Provide no more than six sketches, diagrams or drawings under Section 8.

Identification of Applicant

a) Legal name of Public Body (your organization): **Public Utility District No. 1 of Douglas County**
b) Mailing Address: **1151 Valley Mall Parkway, East Wenatchee, WA 98802**
c) Contact Person Name: **Leonard C. Anderson, P.E.** Title: **Senior Distribution Systems Engineer**
d) Phone Number: **509-881-2266** E-mail: **len.anderson@dcpud.org**

1. Brief Description of Proposed Project

a) Name of Project: **Hydrogen Fueling Station and Fuel Cell Generator with Storage**
b) County of Project Location: **Douglas County**
c) Please describe the project in no more than two short paragraphs. *(See Attachment A for an example.)*

Douglas County PUD (PUD) is currently commissioning a 5MW Green hydrogen production facility which will use renewable electric power from the Wells Hydroelectric project to split water into hydrogen. The overall goal is to strengthen the responsible stewardship of this valuable hydroelectric resource and the environment.

This application is for two additions to the green hydrogen production facility which will enhance this stewardship further. First, a fueling infrastructure addition to fill high-pressure trailers which deploy to remote public filling stations for cars and buses, together with a private fueling station for hydrogen-powered PUD vehicles, which will replace gasoline vehicles for utility work. Second, a hydrogen gas to power a fuel-cell generator with gas storage capable of supplying power to the grid. This will test out the safe storage of hydrogen together with significant backup power capability. This project will allow Douglas County PUD to be an innovative leader in Washington State while doing its part to help decarbonize sectors like transportation and power generation.

2. Projected Total Cost for the Project:

A. Project Budget

Costs for Professional Services (A/E, Legal etc.)	$**360,000**
Estimated project construction costs (with construction contingencies at 10%)	$**4,345,000**
Equipment and furnishing costs	$**2,025,000**
Off-site costs	$**0**
Contract administration costs (owner, cm etc.)	$**100,000**
Contingencies (design & owner)	$**262,500**
Other related project costs (permitting, cleaning, and other misc. piping)	$**140,000**
Sales Tax (PUD is tax exempt)	$**0**
Total	$**7,232,500**

B. Funding Status

Please describe the funding status for the whole project. *Note: If funding is not available, please explain how and when funding is anticipated*

Douglas County PUD has been awarded two separate grants through the Washington State Department of Commerce and Washington State Capital Budget to help fund the two scopes of work. The grant money is to be used to construct projects that will support community

decarbonization of transportation types, including commercial motor vehicles, mass transit and aviation alternative fuels and fueling infrastructure.

The grant money is to be used as follows: $2.75M to be used to purchase equipment for the hydrogen fueling distribution component of the project along with construction and installation costs. $1.348M to be used to construct, purchase and install fuel cell equipment to supplement the PUD's energy supply.

Douglas County PUD will self-fund (match) the balance of the cost of the project, $3.135M.

3. Anticipated Project Design and Construction Schedule

Please provide *(See Attachment B for an example schedule.)*:
The anticipated project design and construction schedule, including:

a) Procurement;
b) Hiring consultants if not already hired; and
c) Employing staff or hiring consultants to manage the project if not already employed or hired.

The Owner has pre-procured specialized equipment for the hydrogen fueling station and fuel cell generator.

Schedule:

PDB Procurement Activity	Date
Deadline for PRC Application Submission	January 20, 2025
PRC Meeting	February 27, 2025
Advertise RFP	March 5, 2025
Final Day to Submit Questions	March 26, 2025
Final Day to Respond to Questions	April 2, 2025
RFPs Due	April 16, 2025
Interviews with shortlisted firms	April 23, 2025
DCPUD Recommendation and Notification	May 7, 2025
Contract Negotiations (Pre-Construction)	June 4, 2025
Board Award PDB Contract (Pre-Construction)	June 18, 2025
PDB Notice to Proceed (Pre-Construction)	June 25, 2025
Substantial completion for Hydrogen Fueling Scope	December 31, 2025
Substantial completion for Fuel Cell Scope	June 30, 2026

4. Explain why the DB 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. Please address the following, as appropriate:

- If the construction activities are highly specialized and a DB approach is critical in developing the construction methodology (1) What are these highly specialized activities, and (2) Why is DB critical in the development of them?
- If the project provides opportunity for greater innovation and efficiencies between designer and builder, describe these opportunities for innovation and efficiencies.
- If significant savings in project delivery time would be realized, explain how DB can achieve time savings on this project.

The Douglas County PUD considered multiple procurement and delivery methods for this project including traditional Design-Bid-Build, CM/GC, Design-Build, and Progressive-Design-Build (PDB) in selection workshop on December 10, 2024, see Appendix A. Due to the highly specialized requirements and unique approach for this project including pre-procurement of

specialized equipment, expertise in hydrogen safety and code requirements, the limited number of this type of facility, and the need to prepare a well-defined scope of work and plan between the PUD and Contractor, the integrated Progressive-Design-Build approach was selected to achieve the highest chance of success. The PUD is committed to providing the necessary resources internally and augmenting their team with consulting support familiar with the alternative delivery method to achieve their project goals which will include:

- **Douglas County PUD, J-U-B, Ballard Spahr, and PDB Team work collaboratively and transparently throughout the project life cycle.**
- **Deliver a quality and sustainable project that meets the performance requirements and adheres to Washington State's Revised Code of Washington (RCW).**
- **Minimize impacts to the public and stakeholders.**
- **Plan, design, and construct a hydrogen fueling station and fuel cell generating station to be operational by June 30th, 2026.**
- **Maximize project benefits by considering quality, budget, and schedule.**
- **Develop and implement a strategic approach to 3rd party coordination.**
- **Identify and manage risks and opportunities and suggest strategies to eliminate, minimize, or mitigate risk.**

The safe design and construction of a hydrogen fueling and fuel cell generating facility is unique. The design of this project needs to be done knowing the specifications of the equipment that the PUD has already procured. PDB will allow the contractor to work more closely with the PUD and design around the pre-procured equipment. Collaboration between the operations staff, designers, and builders will result in a more effective design. Lastly, the PDB process should help with long-term operability and risk mitigation.

5. Public Benefit

In addition to the above information, please provide information on how use of the DB 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.

By following the proposed one-stage selection process which is in the best interest of the PUD, the selection can be focused on qualifications, experience on projects of similar complexity, and project approach. Additionally, the Design Builder can integrate and encourage small business entities to participate in the work, following the PUD's procurement guidelines. This is a benefit over traditional DBB delivery because the selected team will have the experience, qualifications, and key personnel required for project success.

Using the PDB approach on an unconventional project like this will enable the PUB team and PUD to collaborate on the scope of work, manage risk and opportunities, develop project management and safety plan to implement the project, and reduce the number of change orders. This will reduce the overall project cost. Most of the equipment is already procured so the PDB will allow the PUD to collaborate more closely with the contractor.

6. Public Body Qualifications

Please provide:

- A description of your organization's qualifications to use the DB contracting procedure.

Douglas County PUD began operations in 1945 as a non-profit, locally owned utility distribution system. The PUD manages an extensive network of infrastructure in power, water, and broadband and employs approximately 210 staff to deliver and maintain the operation and reliability of these systems.

The PUD has hired J-U-B ENGINEERS, Inc. (J-U-B), a professional engineering firm that provides a team with proven alternative project delivery experience to assist with the management and administration of the PDB procurement and project. See Appendix A for more detailed qualifications and project descriptions.

- 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. (See Attachment C for an example.)

  See Appendix B for the project organizational chart.

- Staff and consultant short biographies that demonstrate experience with DB contracting and projects (not complete résumés).

  See Appendix B for the staff and consultant short biographies.

- Provide the ***experience and role on previous DB projects*** delivered under RCW 39.10 or equivalent experience for each staff member or consultant in key positions on the proposed project. (*See Attachment D for an example. The applicant shall use the abbreviations as identified in the example in the attachment.)*

  See Appendix B for key team member experience and role on previous alternative delivery projects.

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

  Note: For Design-Build projects, you must have personnel who are independent of the Design-Build team, knowledgeable in the Design-Build process, and able to oversee and administer the contract.

  See Appendix B biographies for relevant information regarding the qualifications of key team members. All team members are (and will be) independent of the PDB team.

- If the project manager is interim until your organization has employed staff or hired a consultant as the project manager indicate whether sufficient funds are available for this purpose and how long it is anticipated the interim project manager will serve.

  Douglas County PUD's project manager is anticipated to actively manage and oversee the project until its completion.

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

  See Appendix B for relevant project experience.

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

  The Douglas County PUD has established Project Management processes and controls. These systems have been key to the PUD's demonstrated ability to successfully manage and deliver public works projects– as demonstrated in Appendix C. Some of the Project Management processes at the PUD include:

  - **Provide dedicated staff to properly oversee and manage the construction efforts of the project and to ensure that the project is completed successfully, on time, and within the project budget.**
  - **Weekly coordination meetings for key staff members and contractor project management team. Contractors and staff are expected to regularly update others on the status of their projects, including a review of the construction schedule**
  - **Weekly task force workshops throughout the design development phase.**
  - **Internal construction management staff capable of handling inspections, documentation, pay requests, and administration on projects of all sizes.**

- **Weekly field reports to document and share detailed information regarding the site conditions, activities performed, and progress of construction efforts. This is also used as a record of what is happening on the project, including issues, delays, or changes.**
- **Strict budgetary controls and approval processes by completing a schedule of values for the project and tracking progress payment requests**
- **Document and provide timely responses to Requests for Information (RFI's).**
- **Issue, document, and track Field Orders issued to address unforeseen conditions or immediate adjustments as needed.**
- **Review Change Orders as necessary to modify the scope of work, schedule, or costs as needed.**

The PUD has also engaged with J-U-B as an Owner Representative on the project. J-U-B's vast experience in managing civil engineering projects combined with their alternative delivery experience makes them a valuable asset to the project team and increases the team's effectiveness in managing this project.

- A brief description of your planned DB procurement process.

  The PDB procurement process will be based on a qualifications based selection approach. We anticipate that we will use a one-stage procurement process.

  We will advertise the RFP and respond to questions before they are due. After the RFP is due J-U-B will provide technical consultation. Qualitative factors such as innovation, design efficiency, schedule, technical factors, meeting the Project Goals and exceeding expectations, and other published criteria will be the primary criteria for selection. The PUD is considering various options, including the utilization of small business entities, in determining the required selection criteria per RCW 39.10 (various sections). The PUD will interview selected firms and select a qualified PDB contractor.

- Verification that your organization has already developed (or provide your plan to develop) specific DB contract terms.
  Douglas County PUD and J-U-B will collaboratively work together to develop their contract requirements in accordance with their policies and rules, State rules, and utilize the DBIA Form 544 contract template modified for PDB projects. J-U-B will work together with the PUD to prepare and tailor the RFP documents to meet the needs of this project.

7. **Owner Readiness** *(to be answered by the Owner)*
   a) What have you done as an Owner to prepare yourself and your staff for this DB project?
      i. How have you communicated with other public owners to understand the organizational alignment and administrative time needed to manage an alternative delivery project?
      A neighboring PUD, Chelan PUD, introduced us to the alternative delivery process through a presentation at Hydrovision in July 2022. The project had been approved by the PRC. They co-presented along with a consultant/member of the CPARB, who pointed out the applicable codes, the possible reduction in risk, and higher accuracy in cost projections of this process. Another PUD, Grant PUD, had previously pointed out that they successfully utilized the alternative design process for a substation construction project.

      ii. What training have you as an Owner and your staff taken?
      The PUD participated in an Alternative Delivery workshop presented by IMCO Construction. IMCO Construction is a fully integrated Construction contractor located in the State of Washington. The workshop included benefits and challenges associated with the different delivery methods involved with construction projects. The workshop also included consultation on the Capital Projects Advisory Review Board (CPARB) application process along with the solicitation process after approval has been granted.

iii. How have you considered the differences in alternative delivery vs Design Bid Build with regards to contract requirements around risk allocation, attitudes towards contract changes, disputes, etc.?

The PUD and J-U-B Engineers held an alternative delivery type selection workshop which identified the best delivery method for the proposed project. The matrix process evaluated risk management, project complexity and innovation, delivery schedule, and complexities involving third-party stakeholder coordination. The PUD's bidding requirements specify procedures for contract changes, disputes, etc. The PUD will also work with its legal counsel and consultants to address these issues.

b) How does your organization ensure that knowledge is passed down to your staff and project team?

The PUD will document this process and how we did each step. Additionally, we will bring in others from engineering, purchasing, and management, to shadow at key decision points in the process. At the completion, it is intended to formally analyze what worked, what did not, and provide a list of Lesson's Learned for this process that team members can apply on future alternative delivery projects.

c) How have you familiarized yourself and your staff with DB Best Practices?

The PUD has been observing Chelan and Grant PUDs and their success at this process to learn before using the process ourselves. The PUD has also reviewed online resources around design-build best practices and RCW 39.10. The PUD has also hired J-U-B Engineers as a consultant to assist with its first Application for Project Approval and selection process for hiring its progressive-design-build team. They have been a valuable resource in getting up to speed on this lesser-used RCW process and the details of its correct use.

8. Public Body (your organization) 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: *(See Attachment E. The applicant shall use the abbreviations as identified in the example in the attachment.)*

- 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
- Small-, minority-, women-, and veteran-owned business participation planned and actual utilization

See Appendix C for Douglas County PUD Public Works Construction History matrix.

9. Preliminary Concepts, sketches or plans depicting the project

To assist the PRC with understanding your proposed project, please provide a combination of up to six concepts, drawings, sketches, diagrams, or plan/section documents which best depict your project. In electronic submissions these documents must be provided in a PDF or JPEG format for easy distribution. Some examples are included in attachments E1 thru E6. At a minimum, please try to include the following:

- A overview site plan *(indicating existing structure and new structures)*
- Plan or section views which show existing vs. renovation plans particularly for areas that will remain occupied during construction.

Note: applicant may utilize photos to further depict project issues during their presentation to the PRC

See Appendix D.

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 7, please specify the project, briefly state those findings, and describe how your organization resolved them.

Douglas County PUD has no findings to report.

11. Subcontractor Outreach

Please describe your subcontractor outreach and how the public body will encourage small-, minority-, women-, and veteran-owned business participation.

Initial outreach will occur through the Association of General Contractors (AGC) with language related to small, women, veteran, and minority-owned business participation. Douglas County PUD will prepare a brochure for the project with relevant information that describes the project objectives and timelines.

The PUD will send the Advertisement for RFP to the Office of Minority and Women's Business Enterprises (OMWBE) to be posted and viewed on their website for contracting opportunities to aid in the encouragement of small, woman, and minority-owned businesses to participate in the project.

There will be a requirement in the RFP for proposers to provide a plan for utilizing OMWBE-certified businesses for the project in accordance with RCW 39.19. This will be scored as part of the RFP evaluation. The PDB contract will also require the Design-Builder to track and report utilization of OMWBE-certified businesses and veteran-certified businesses.

CAUTION TO APPLICANTS
The definition of the project is at the applicant's discretion. The entire project, including all components, must meet the criteria of RCW 39.10.300 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 information requested by the PRC. You agree to submit this information in a timely manner and understand that failure to do so may delay action on your application.

The PRC strongly encourages all project team members to read the Design-Build Best Practices Guidelines as developed by CPARB and attend any relevant applicable training. If the PRC approves your request to use the DB contracting procedure, you also agree to provide additional information if requested.

The 2021 Legislature updated RCW 39.10.330(8) stating that Design-Build contracts must require the awarded firm to track and report to the public body and to the office of minority and women's business enterprises (OMWBE) its utilization of the OMWBE certified businesses and veteran certified businesses. By submitting this application, you agree to include these reporting requirements in project contracts.

I have carefully reviewed the information provided and attest that this is a complete, correct and true application.

Signature: 

Name: **Leonard C. Anderson, P.E.** *(public body personnel)*

Title: **Senior Distributions System Engineer**

Date: 1/28/2025

Appendix A

Alternative Delivery Selection Workshop
Meeting Minutes

Meeting Minutes

Subject: Douglas County PUD Alternative Delivery Selection Workshop

PROJECT NAME AND MEETING NO.:	21-24-022; Owner's Advisor for Progressive Design Build
DATE AND TIME:	12/10/24 2:30PM
LOCATION:	Teams: JUB Moscow Office and PUD East Wenatchee Office

ATTENDEES/TEAM:

☒ Michael Lasko, Project Engineer, JUB
☒ Steven Schramm, Project Engineer, JUB
☒ Len Anderson, Distribution Systems Engineer, DCPUD
☒ Patrick Robichaud, Project Designer, JUB
☒ Todd Vibbert, Project Manager, DCPUD
☒ Derek Browning, Purchasing Agent, DCPUD

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1. MEETING GOALS

a. Douglas County PUD to conduct and document a sound and reasonable evaluation in selecting the best alternative delivery procurement method for a hydrogen fueling station and fuel cell generator that complies with Washington State RCW.

2. PROJECT OVERVIEW/PURPOSE

a. Use alternative delivery method to construct a hydrogen fueling station and a fuel cell generator.
b. Goals
   i. Douglas County PUD, J-U-B, and PDB Team works collaboratively and transparently throughout the project life cycle.
   ii. Deliver a quality and sustainable project that meets the performance requirements and adheres to Washington State's Revised Code of Washington (RCW).
   iii. Minimize impacts to the public and stakeholders.
   iv. Plan, design, and construct a $6M or less (total cost), hydrogen refueling station and fuel cell generator to be operational by 2026 using a Progressive-Design-Build approach.
   v. Maximize project benefits considering quality, budget and schedule.
   vi. Develop and implement a strategic approach to 3rd party coordination.
   vii. Identify and manage risks and opportunities and suggest strategies to eliminate, minimize, or mitigate risk.

3. MEETING NOTES

a. Questions to be Answered
   i. PRC Application/Process?
   ii. Bonds/Contract?

b. PUD has no alternative delivery experience. Douglas County PUD has hired J-U-B and Lane Powell to increase their alternative delivery experience.

c. Design Builder
   i. Owner shifts all risk to design build team.
   ii. Owner has less control on overall quality of project.
   iii. DB team meets minimum performance requirements set by Owner.

d. Construction Manager and General Contractor (CMGC)
   i. Qualifications based selection process.
   ii. Contractor provides more detailed cost estimates at key milestones during the design development process.
   iii. Contractor can provide innovative ideas that may be incorporated into the PS&E package.

e. Progressive Design Build (PDB)
   i. Qualifications based selection process.
   ii. Similar process to CMGC.
   iii. PDB typically used when scope of work needs additional development between Owner and PDB team.
   iv. One contract between Owner and PDB team.

f. Supplier - OneH2
   i. PUD committed to OneH2
   ii. Providing fueling equipment.
      1. Buffer tanks, gas modules, trailer storage and other items
   iii. $1.9M cost of equipment.
   iv. $2.75M awarded by WA Department of Commerce.
      1. Commerce should be integrated with project/process.
      2. Need to follow Commerce requirements.
   v. No BABA in grant.

g. Recommend using J-U-B contract documents with DBIA form.
   i. Michael to look at DBIA contact template.

h. Len says it is difficult to get contractors with real experience in hydrogen.

i. Goal to have fueling station online by **September 2025**
   i. Grant ends at end of Q4 2025.

j. Utility support needed:
   i. Water is PUD.
   ii. No sewer-septic.

iii. Communications is PUD Fiber.
iv. Electricity is PUD.

k. Agree to develop RFP concurrently with PRC application.
l. Create one page summary for contractors.
m. Project controls/estimator it is important to have a good person in this role.
n. Organization Chart: Most people in meeting will be on the organization chart.
o. It is recommend to have the General Manager on team.

ALTERNATIVE DELIVERY SELECTION MATRIX

Selection Factors	Weighting (%)	DBB Rating	DBB Points	DB Rating	DB Points	CMGC Rating	CMGC Points	PDB Rating	PDB Points
Project Complexity and Innovation	25%	1.5	0.375	2.5	0.625	3.5	0.875	4.5	1.125
Delivery Schedule	30%	1	0.3	1.5	0.45	4	1.2	4	1.2
Minority and Women Business Contracting Opportunities	5%	4.5	0.225	4.5	0.225	4.5	0.225	4.5	0.225
Complexity of Third-Party/Stakeholder Coordination/Impacts	10%	4	0.4	4	0.4	4	0.4	4	0.4
Risk Management	30%	1.5	0.45	2.5	0.75	4	1.2	4	1.2
Score (Total)	**100%**		**1.75**		**2.45**		**3.9**		**4.15**

Selection process chooses Progressive-Design-Build (PDB).

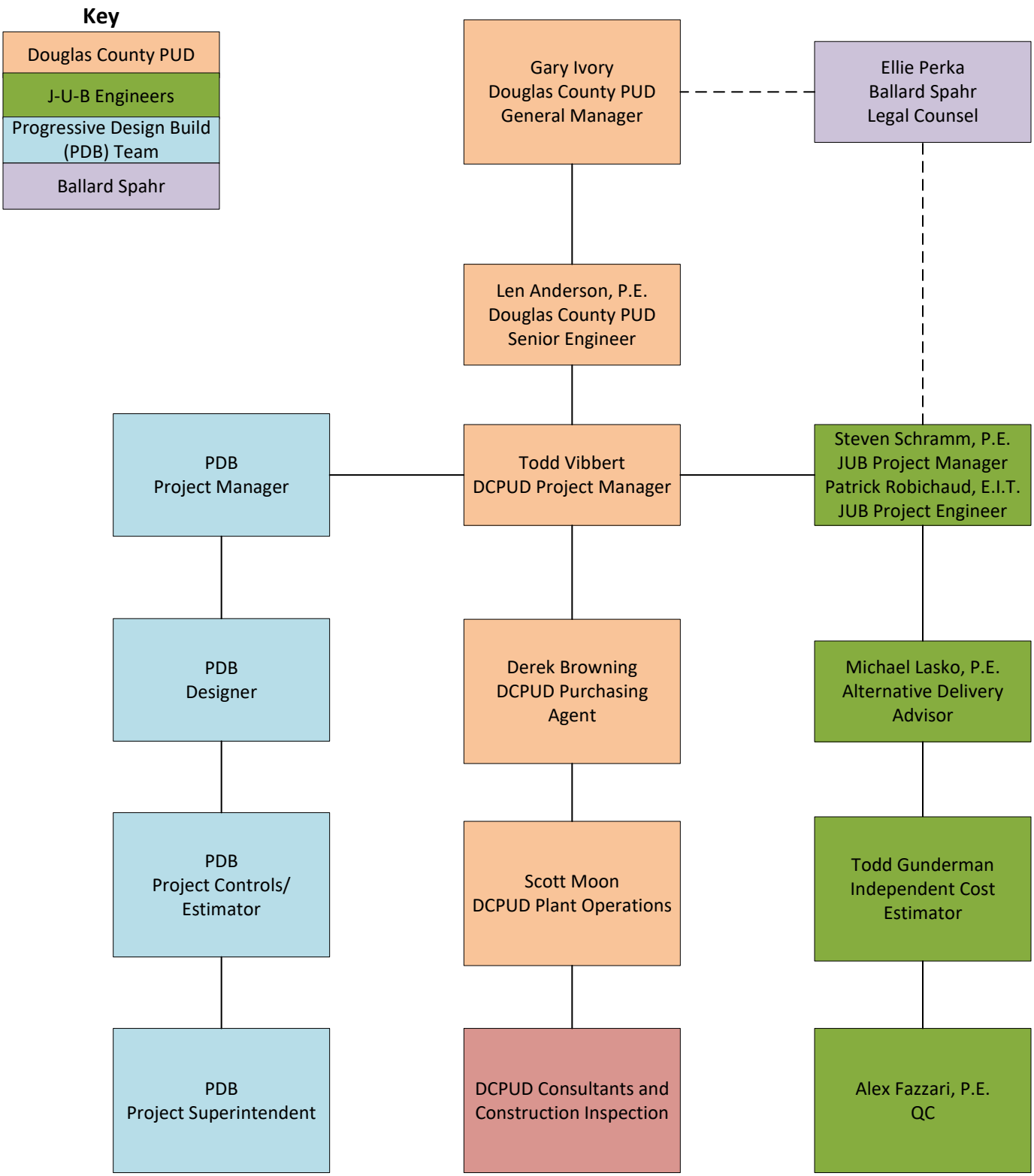
4. ACTION ITEMS

a. Steven – Update schedule with the goal of shortening the duration to award. Coordinate with Lane Powell.
b. Patrick – Update PRC presentation. Put together a formal ask list.
c. Michael – Update DBIA contract template.
d. PUD – Reach out to Commerce if the end date can be changed without impacting the award.
e. Lane Powell – Will coordinate with PUD's attorney to ensure alignment.

Appendix B

Public Body Qualifications

Appendix B – Project Organization Chart



Key Team Member Experience with Alternative Delivery Projects								
						Role during project phases		
Name	Experience	Organization(s)	Relevant Projects (most current in last 10 yrs)	Approximate Construction Cost	Project Delivery Method	Procurement	Design	Construction
Michael Lasko, P.E., J-U-B	36 years consulting engineering experience providing Owner's Representative Services, Project and Design Manager for Traditional and Alternative Delivery Projects	J-U-B (9 years) CH2M (20 years) Parsons Brinkerhoff (2 years) Others (5 years)	1. Kennewick WWTP Ph 2 2. UDOT 5600S 3. Nampa ID Purdam Trunk Extension 4. Kaysville 200N 5. Spanish Fork, UT WRF Plant Upgrade 6. Post Falls, ID WTP Outfall and Reuse Line 7. UDOT I-15 Southbound Highway Improvement Early Industry Engagement 8. UDOT Timpanogos Highway Improvement 9. Umatilla City Entry Monument	1. $37M 2. $360M 3. $40M 4. $14M 5. $180M 6. $3.5M 7. $160M 8. $165M 9. $1.6M	1. PDB 2. PDB 3. CMGC 4. CMGC 5. CMGC 6. CMGC 7. Early Industry Engagement 8. DB 9. PDB	1. Procurement Lead 2. None 3. Procurement oversight review 4. Procurement Lead 5. Procurement Oversight 6. Procurement Lead 7. None 8. None 9. RFP Development	1. Design Oversight 2. Prog Mgmt/Design Oversight/Risk Mgr 3. Design Development Oversight 4. Design Development Oversight 5. Design Development Oversight 6. Design Development Oversight 7. Prog Mgmt/Design Oversight 8. Design Mgr 9. Design Oversight	1. Post Design Phase Services 2. Prog Mgmt Oversight 3. Not Started 4. Not Started 5. N/A 6. N/A 7. Post Design Phase Services 8. Post Design Phase Services 9. Construction Support
Steven Schramm, P.E., J-U-B	10 years consulting engineering experience. 3 years heavy/civil construction experience.	J-U-B (10 years) Kiewit (3 years)	1. Lewiston, ID Reservoir Evaluations and Upgrades 2. Lewiston, ID Water Treatment Plant Retrofit 3. Lamb Weston Project Alpha	1. $2M 2. $28M 3. $415M	1. Progressive Design Build 2. Progressive Design Build 3. Design Build	1. Owner's Advisor – Developed Procurement Documents	3. Design Subconsultant – Well Design	2. Owner's Advisor – Construction Administration 3. Design Subconsultant – Well Construction Administration
Gary Ivory, General Manager DCPUD	28 years of management and accounting experience. 8 years as DCPUD's General Manager	DCPUD (28 years) State of Washington (3 years)	1. Refurbishment of Wells Dam 2. Hydrogen Production Facility 3. Fiber Optic Network	1. $225M 2. $52.4M 3. $45M	1. Design Bid Build 2. Design Bid Build 3. Design Bid Build and Owner Build	1. Assist with project delivery and contracting 2. Project scope oversight 3. Project development oversight	1. Assist with project delivery and contracting 2. Project scope oversight 3. Project development oversight	1. Assist with project delivery and contracting 2. Project scope oversight 3. Project development oversight

Key Team Member Experience with Alternative Delivery Projects								
						Role during project phases		
Name	Experience	Organization(s)	Relevant Projects (most current in last 10 yrs)	Approximate Construction Cost	Project Delivery Method	Procurement	Design	Construction
Leonard C. 'Len' Anderson, P.E. Senior Distribution Systems Engineer DCPUD	24 years Substation Design and Construction, and Distribution Systems Engineering. 10 years Naval Nuclear Propulsion Engineer. 10 years Electronics/Missile Technician	US Navy, Submarine Service (21 years), KB Alloys (1.5 years), Douglas County PUD (24 years)	1. Rapids Switchyard Auto-Xfmr Addition (Pwr Distribution and Pwr Switching Substation) 2. Transformer Replacement Orondo Substation (Sub Transmission Substation) 3. Veedol Substation (Pwr Distribution Substation) 4. Lincoln Rock Substation (Pwr Distribution and Switching Substation)	1. $4M 2. $2.5M 3. $8M 4. $20M	1. Design Bid Build 2. Design, In-House Construct 3. Design Bid Build 4. Design Bid Build	1. Procurement of Major Equipment and Contract Documents 2. Procurement and Contract Documents 3. Procurement of Major Equipment and Contract Documents 4. Assisted with Procurement of Major Equipment	1. Initial Overall Design and oversight of Consultant Detailed Design 2. Full Design with Consultant QA 3. Oversight of Consultant Design 4. Initial Overall Design, Electrical Studies, QA	1. Permitting, Project Manager 2. Project Manager 3. Project Manager 4. Permitting
Derek Browning, Purchasing Agent DCPUD	8 years purchasing and contracting, 5 years accounting, 19 years commercial lending	DCPUD (13 years); commercial lending (19 years)	All Public Works related contracts for DCPUD		Design Bid Build	Procurement and Contract Documents		
Todd Vibbert, Project Manager DCPUD	17 years project management and public contracting experience	DCPUD (17 years) Stemilt Growers, Inc. (3 years)	1. Hydrogen Production and Fueling Facility Construction 2. Hydrogen and Switchyard Utility Installations 3. EV Charging and Hydrogen Refueling Station	1. $52.4M 2. $4.4M 3. $2.5M	1. Design Bid Build 2. Design Bid Build 3. Design Bid Build	1. Developed Bid and Procurement Documents with Assistance from Consultants	1. Oversight of Consultant Design 2. Oversight of Consultant Design 3. Design Manager	1. Project Manager 2. Project Manager 3. Project Manager

Key Team Member Experience with Alternative Delivery Projects								
						Role during project phases		
Name	Experience	Organization(s)	Relevant Projects (most current in last 10 yrs)	Approximate Construction Cost	Project Delivery Method	Procurement	Design	Construction
Scott Moon, Hydrogen O&M Specialist DCPUD	22 years Electrolytic/PEM Hydrogen Production Operation and Maintenance	DCPUD (1.5 years) Airgas/Air Liquide (21 years)	DCPUD Hydrogen Production Facility. Replace Electrolytic H2 Plant with PEM Plant.	$5M	Design Bid Build		Design Input	Contractor Oversight and Site Safety
Ellie Perka, Partner, Ballard Spahr	Almost 20 years of experience, exclusively in construction law and alternative delivery. Author of the "Washington Construction Law Deskbook", Chapter 9, Alternative Delivery Methods	Ballard Spahr/Lane Powell (current) Ahlers Cressman & Sleight (previous)	1. Kennewick WWTP Ph 2 2. Kaysville 200N 3. Umatilla City Entry Monument 4. Nampa ID Purdam Trunk Extension 5. The Port of Seattle / IAF Project 6. WSDOT / SR 520 Floating Bridge 7. WSCC Expansion Project	1. $37M 2. $14M 3. $1.6M 4. $40M 5. $1B + 6. $476M 7. $2B	1. PDB 2. CMGC 3. PDB 4. CMGC 5. PDB 6. DB 7. GCCM	Legal Advisor	Legal Advisor	Legal Advisor

Appendix C

Douglas County PUD Public Works Construction History Matrix

Hydrogen Fueling and Fuel Cell Generator Facility – Washington State CPARB PRC Application

Douglas County PUD Public Works Construction History Matrix

Project Name	Project Description	Contracting Method	Notice to Proceed	Working Dates Proposed	Actual Completion Date	Planned Budget Amount	Actual Budget Amount	Reason for Budget and Schedule Overruns	Project Status
22-13-D-BID, Hydrogen Production and Fueling Facility	Construction of green hydrogen production and fueling facility, including 5-MW PEM cell electrolyze, rectifier, purification system, piping, filling, and auxiliary systems.	Design Bid Build	12/20/2022	12/20/2022 – 7/31/2023	In Progress	$48,438,667.05	$52,418,960.05	Permitting delays, piping specification changes, material delays, equipment delivery and commissioning delays	95% Complete
22-57, Spillway and Spillway Gate Maintenance at the Wells Hydroelectric Project	Replacement and rehabilitation of spillway gate mechanical components, embedded steel and repair of damaged concrete sections at the Wells Hydroelectric Project.	Design Bid Build	11/29/2022	11/29/2022 – 4/30/2026	In Progress	$7,140,648	$8,810,162	Modify scope of work to address unforeseen repairs and time delays	50% Complete
06-41-W, Generator Rebuild and Unit Refurbishment for the Wells Hydroelectric Project	Refurbish the 10 generating units at the Wells Hydroelectric Project	Design Bid Build	6/4/2007	6/4/2007 – 12/31/2024	In Progress	$151,100,00	$225,495,899	Modify scope of work to address unforeseen repairs and time delays	90% Complete
23-46-D-BID, East Wenatchee Headquarters DC Fast Charge and Hydrogen Fueling Station	Construction of a DC fast EV charging station and hydrogen refueling station capable of 700 and 350 bar offtakes	Design Bid Build	3/27/2024	3/06/2024 – 8/15/2024	10/15/2024	$1,326,495	$1,465,033	Stormwater revisions during construction, Contractor provided mechanical and electrical drawings did not match the equipment provided	Complete
20-02-D and 22-06-D-BID, Reconductor and Rebuild Rocky Reach to Chelan Falls 115kV Transmission Line	Reconductor and replace poles on 29 miles of 115 kV transmission line between Rocky Reach and Chelan Falls	Design Bid Build	4/7/2020	04/07/2020– 09/10/2024 Done in Phases.	8/28/2024	$14,349,335.73	$14,561,022.15		Complete
21-30-D-BID and 22-04-D-BID, Construct Rapids to Columbia 230kV Transmission Line	Construct 13 miles of 230 kV transmission line between Rapids Switchyard and Columbia Switchyard	Design Bid Build	4/21/2022	04/21/2022 – 11/30/2023	2/9/2024	$16,336,144.23	$16,740,010.54	Delays in material delivery and delays in transmission outage scheduling.	Complete
22-62-D-BID, Construct the Douglas to Urban Industrial 230kV Transmission Tie (W.O. 110137)	Construct about 2 miles of 230 kV line for the tie into Douglas to Rapids Transmission Line	Design Bid Build	3/3/2023	03/03/2023 – 10/31/2023	12/11/2023	$15,000,000	$14,277,711	Material delays	Complete

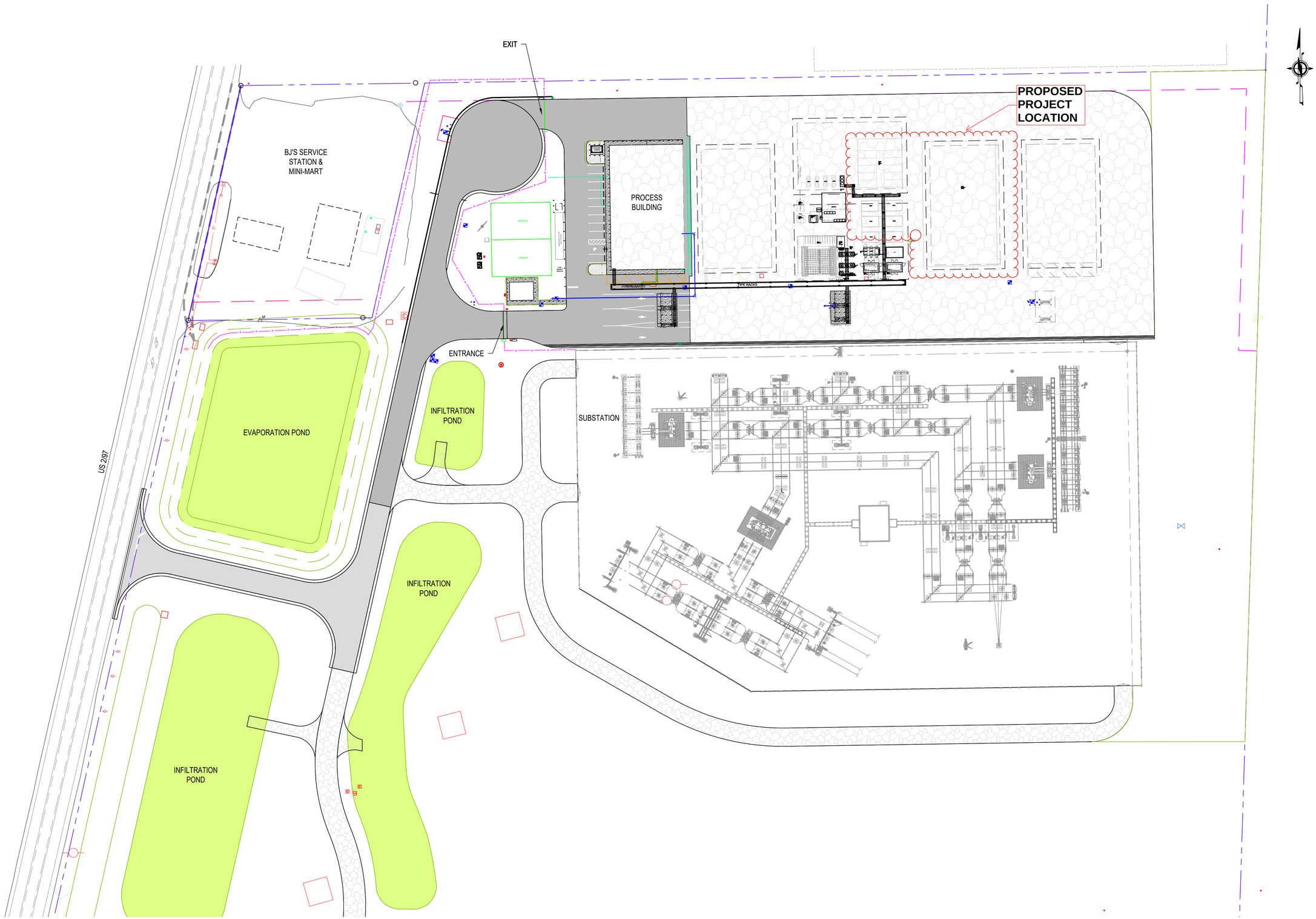
Hydrogen Fueling and Fuel Cell Generator Facility – Washington State CPARB PRC Application

Douglas County PUD Public Works Construction History Matrix

22-54-W-BID, Fire Protection System Upgrades and Miscellaneous Piping at the Wells Hydroelectric Project	Replace the original CO2 fire suppression systems at the Wells Hydroelectric Project with Nitrogen Vortex Systems.	Design Bid Build	12/13/2022	12/13/2022 – 7/17/2023	11/21/2023	$4,821,090	$5,028,800	Addition of piping for improved drainage, additional demolition of existing infrastructure	Complete
21-49-D-BID, Construct Urban Industrial Substation	Construct a 230/115 x 13.2 kV substation with 4 power transformers, breaker and a half design	Design Bid Build	12/2/2021	12/02/2021 – 9/15/2022	4/21/2023	$20,000,000	$21,661,830	Additional work added to the contract and increases in material costs.	Complete
19-09-W, Replacement 14.4KV Main Generator Breakers for the Wells Hydroelectric Project	Replace the original generator air circuit breakers with new SF6 circuit breakers. The original breakers have reached their end of life expectancy and spare parts are difficult to obtain.	Design Bid Build	5/30/2019	5/30/2019 – 4/30/2021	5/31/2022	$3,713,520	$5,112,265	Addition of a spare breaker and spare parts and generation outage delays	Complete
17-01-W, Upgrade the 300T Gantry Crane at the Wells Hydroelectric Project	Upgrade the 300 ton gantry crane at the Wells Hydroelectric Project to 350 ton	Design Bid Build	11/9/2017	11/9/2017 – 5/9/2020	9/30/2020	$7,416,384	$8,168,513	Additional unforeseen repairs necessary to the drive gear boxes and load cells, fabricate and install structural support access for operator crane cab	Complete

Appendix D

Preliminary Plans



SITE OVERVIEW PLAN

1" =50'

RH2

DOUGLAS COUNTY PUD
HYDROGEN PRODUCTION AND FUELING FACILITY

SITE OVERVIEW PLAN

JOB NO.: 218-191
CLIENT: DCP
FILENAME: BFF5-P-OVERVIEW.DWG
SAVE DATE: Dec 20, 2022
PLOT DATE: Dec 21, 2022
ENGINEER: CRY
REVIEWED: ERH

REVISIONS

NO.	DATE	DESCRIPTION	BY	REVIEW
1	1/4/2023	ISSUED FOR CONSTRUCTION	DEP	ERH

SCALE: SHOWN

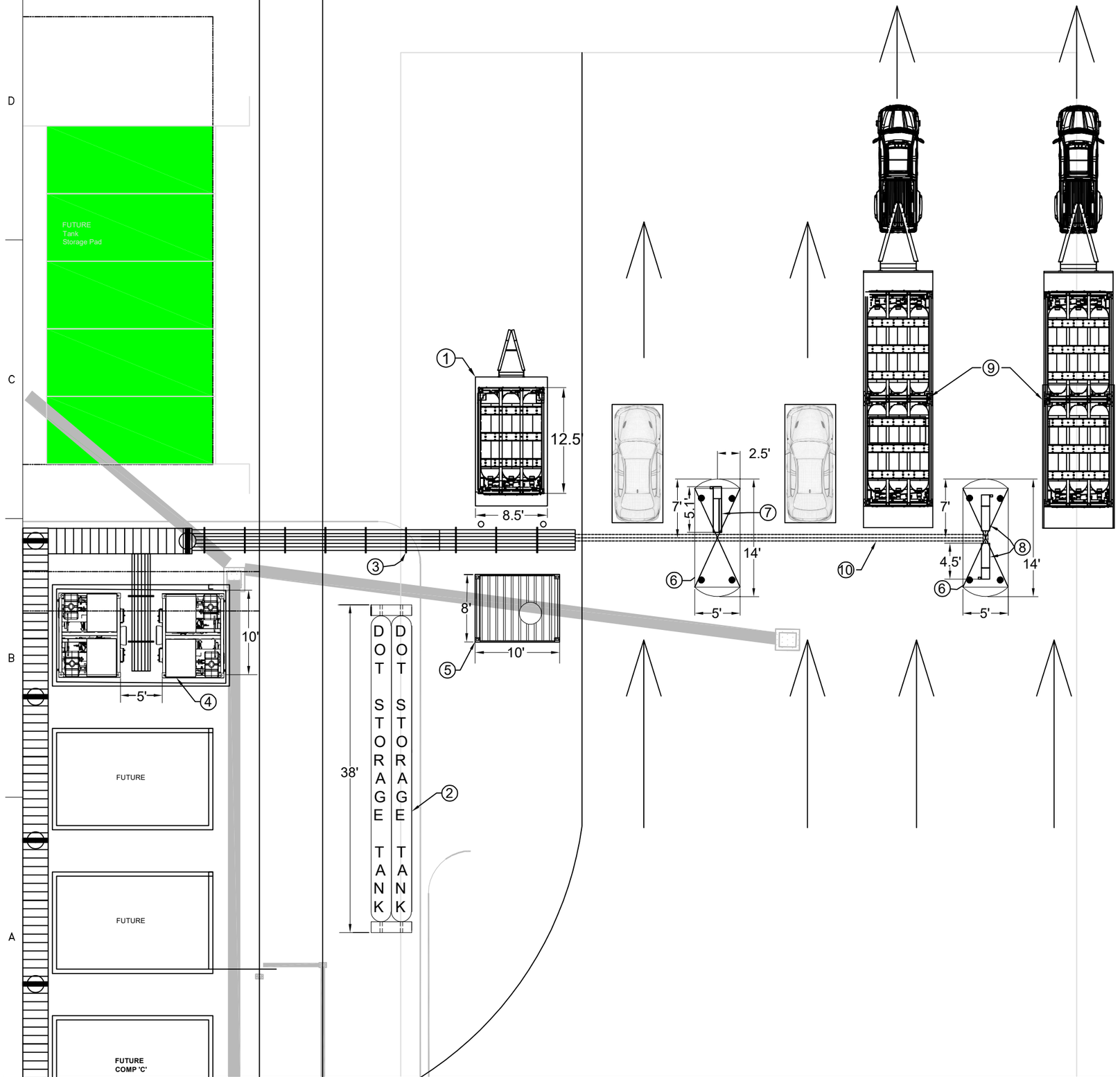
0" 1" 2"

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: OV01

SHEET NO.: 1 6

GENERAL ARRANGEMENT DIAGRAM



OVERALL DESIGN INTENT:

THIS GENERAL ARRANGEMENT DIAGRAM OF DCPUD - PRODUCTION SITE REPRESENT THE LAYOUT OF EQUIPMENT AND THEIR LOCATIONS ON THE SITE. APART FROM THAT IT ALSO ILLUSTRATE THE PIPING ROUTE THROUGH GENTRY POST AND TRENCH.

SOURCE INFORMATION:

1. EQUIPMENT LIST, VIA EMAIL, SUBJECT "REQUESTING EQUIPMENT LIST FOR DCPUD" DATED ON 12/26/2023, BY JORDAN MCCARTY
2. INCOMING H2 GAS SUPPLY EQUIPMENT AND PRESSURE RATING, VIA EMAIL, SUBJECT "PROCESS FLOW DIAGRAM-QUESTION-PRODUCTION SITE", DATE 1/05/2024, BY TODD VIBBERT & LEN ANDERSON FROM DCPUD-PRODUCTION SITE
3. THE LOCATION OF EQUIPMENTS ARE DESCRIBE BY LEN ANDERSON ON EMAIL, SUBJECT "PROPOSED PRODUCTION SITE REVISION" DATED ON 12/11/2023 BY LEN ANDERSON.

HYDROGEN FUELING STATION KEY NOTE:

1. 930 BAR STORAGE TRAILER
2. DOT STORAGE TANKS
3. GANTRY POST
4. COMPRESSION SYSTEM C200 1&2
5. CHILLER SYSTEM
6. 6" CONCRETE FILLED STEEL PIPE BOLLARD
7. 350/700 BAR OFFTAKE DISPENSER
8. GAS INTERFACE MODULE A & B
9. 930 BAR CARRIER TRAILER(320KG)
10. PIPE TRENCH

REV NO.	DATE	DRAWN BY	DESCRIPTION	CHECK.	APPR.
R1	03-22-2024	JD	INITIAL DRAFT		

REVISIONS

ONE H2™

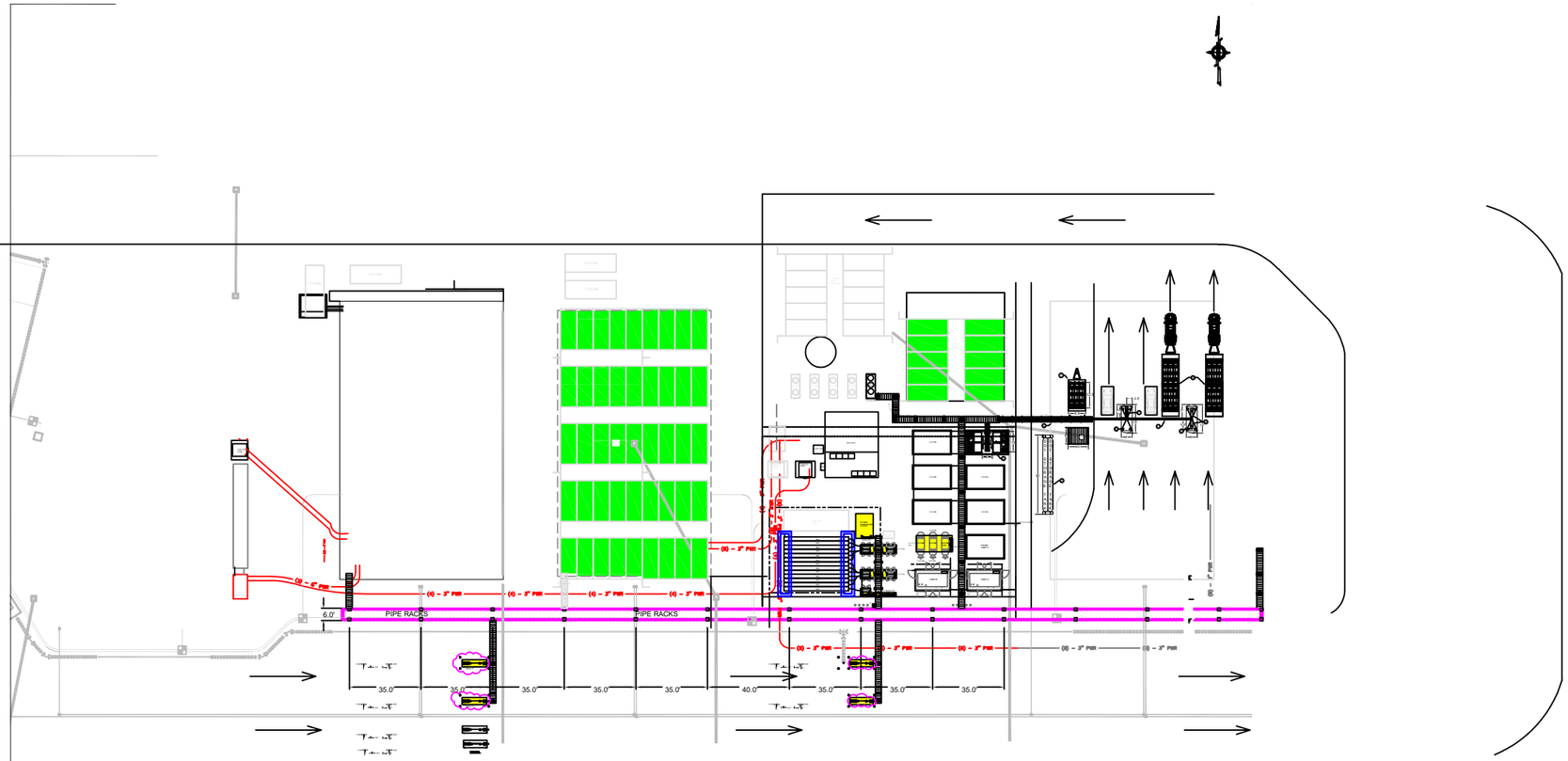
DCPUD - PRODUCTION SITE LAYOUT

1 OF 2	1151 VALLEY MALL PKWY, EAST WENATCHEE, WA, 98802.

DOC. NAME: GENERAL ARRANGEMENT DIAGRAM

DOC. REF. #: FA-Z001-329-SLD-001

GENERAL ARRANGEMENT DIAGRAM



SITE OVERVIEW PLAN
1" = 20'

OVERALL DESIGN INTENT:

THIS GENERAL ARRANGEMENT DIAGRAM OF DCPUD - PRODUCTION SITE REPRESENT THE LAYOUT OF EQUIPMENT AND THEIR LOCATIONS ON THE SITE. APART FROM THAT IT ALSO ILLUSTRATE THE PIPING ROUTE THROUGH GENTRY POST AND TRENCH.

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REV NO.	DATE	DRAWN BY	DESCRIPTION	CHECK.	APPR.
R1	03-22-2024	JD	INITIAL DRAFT		

REVISIONS

ONE H2™

DCPUD - PRODUCTION SITE LAYOUT

2 OF 2	1151 VALLEY MALL PKWY, EAST WENATCHEE, WA, 98802.

DOC. NAME: GENERAL ARRANGEMENT DIAGRAM

DOC. REF. #: FA-Z001-329-SLD-001