



*Island Transit*

**ISLAND COUNTY PUBLIC TRANSPORTATION  
BENEFIT AREA**

**INVITATION TO BID #01-21  
MAIN BASE AND CAMANO SATELLITE SOLAR  
INSTALLATION**

**19758 SR 20, COUPEVILLE WA 98239**

**VOLUME 1 OF 2:  
PROJECT REQUIREMENTS AND  
PROJECT MANUAL**

**December, 2021**

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## SECTION 00 00 10

### BIDDER'S CHECKLIST

- Has a bid bond or certified check been enclosed with your bid? Is the amount of the bid guaranty at least 5 percent of the total amount of the bid?
- Has the proposal been properly completed and signed? Do written amounts on the proposal agree with the amounts shown in the figures?
- Have you bid on all items including alternates if applicable?
- Have you acknowledged all addenda in the form of Proposal if applicable?
- Do not submit any of the forms still attached to the Specification. Remove or copy the forms and submit in the sealed envelope as directed.
- Are you and all your subcontractors familiar with the schedule of value requirements including but not limited to the required placement of 5% of the bid for work between substantial completion and final completion?
- Have you reviewed the Bidder's Qualifications and Bidder Responsibility Criteria and understand these obligations if you are selected as the apparent low bidder?

**The following items must be completed and included with within the sealed envelope:**

- **FORM 7.0 VENDOR COMMITMENT & INFORMATION**
- **FORM 7.1 CERTIFICATION REGARDING CONFLICT OF INTEREST**
- **FORM 7.2 BID FORM / PRICE SHEET**

***Bid Form:** The bid price must be shown in the space provided. Show price in both words and figures.*

- **FORM 7.3 REFERENCES & PROJECT EXPERIENCE**
- **FORM 7.4 SUBCONTRACTOR LIST**

***Subcontractor Listing:** Submit all subcontractors, work categories and contract amounts as applicable. If No subcontractors, complete with "N/A" or "Not Applicable"*

- **FORM 7.5 CERTIFICATE OF NON-DISBARMENT AND SUSPENSION**
- **FORM 7.6 CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES**
- **FORM 7.7 BID BOND FORM (OPTIONAL)**

***Bid Bond Security Form:** This form is to be executed by the bidder and the surety company unless bid accompanied by a certified check. The amount of this bond shall not be less than five (5%) percent of the total amount of the bid and may be shown in dollars or on a percentage basis.*

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**The following forms or documentation are to be executed and/or furnished to Island Transit after the contract is awarded:**

- A. **STANDARD FORM OF CONTRACT - 00 20 00 INSTRUCTIONS TO BIDDERS, SECTION 6: SAMPLE FORM OF AGREEMENT:**  
This agreement to be executed by the successful bidder.
- B. **PERFORMANCE BOND - 00 20 00 INSTRUCTIONS TO BIDDERS, SECTION 9: SAMPLE PERFORMANCE BOND:**  
One hundred percent of the Contract Price to be executed by the successful bidder and the surety company. The surety on such bonds shall be a duly authorized surety company satisfactory to the Owner.
- C. **CONTRACTOR'S W-9:** Submit with executed contract.
- D. **SCHEDULE OF VALUES:** (N/A)
- E. **MATERIAL PROCUREMENT AND CONSTRUCTION SCHEDULE**
- F. **RETAINAGE INVESTMENT OPTION:** This agreement to be executed by the successful bidder.
- G. **MANDATORY BIDDER RESPONSIBILITY CHECKLIST and SUBCONTRACTOR RESPONSIBILITY CHECKLIST.**
- H. **CERTIFICATE OF INSURANCE - 00 20 00 INSTRUCTIONS TO BIDDERS, SECTION 4: INSURANCE REQUIREMENTS**
- I. **COVID-19 COMPLIANCE CERTIFICATION - 00 20 00 INSTRUCTIONS TO BIDDERS, SECTION 11: SAMPLE CERTIFICATION**

**END OF DOCUMENT**

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**SECTION 00 20 00**

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## SECTION 1 – INSTRUCTIONS TO BIDDERS, BID EVALUATION, AND CONTRACT AWARD

### 1.1 INTRODUCTION AND BACKGROUND

- A. The Island County Public Transportation Benefit Area Corporation (Island Transit) will be accepting sealed bids from experienced General Contractors to provide construction work for the Main Base and Camano Satellite Solar Installation Project.
- B. **The estimated range for this Project is: \$220,000 – 260,000.**
- C. This Project is currently supported with local funds, however additional funding sources including FTA State, or other sources may be used, and associated contracting requirements apply.
- D. **Procurement Portal**

Free-of-charge access to project bid documents (plans, specifications, addenda, and Bidders List) is provided to Prime Bidders, Subcontractors, and Vendors by going to [www.bxwa.com](http://www.bxwa.com) and clicking on "Posted Projects", "Public Works", and "Island Transit". This online plan room provides Bidders with fully usable online documents with the ability to: download, view, print, order full/partial plan sets from numerous reprographic sources, and a free online digitizer/take-off tool.

It is recommended that Bidders "Register" in order to receive automatic e-mail notification of future addenda and to place themselves on the "Self-Registered Bidders List". Bidders that do not register will not be automatically notified of addenda and will need to periodically check the on-line plan room for addenda issued on this project. Contact Builders Exchange of Washington at (425) 258-1303 should you require assistance with access or registration.

The content available through [bxwa.com](http://bxwa.com) is our property or the property of our licensors and is protected by copyright and other intellectual property laws. Access to project documents is intended for use by bidders (general contractors/prime bidders, subcontractors and suppliers), agency personnel and agency's consultants, as well as for personal, noncommercial, use by the public. You may display or print the content available for these uses only. "Harvesting" (downloading, copying, and transmitting ) of any project information and/or project documents for purposes of reselling and/or redistributing information by any other party is not allowed by BXWA.

- E. Additional procurement information for award, protest procedures, and small business program is provided on our web page at [www.islandtransit.org/procurement](http://www.islandtransit.org/procurement).

### 1.2 PROJECT DESCRIPTION

The Project consists of furnishing all labor, materials and other incidentals for installation of Solar Photovoltaic systems tied to the utility grid at two separate project sites.

Construction requires working around 24/7 operational transit facilities. Close coordination is required with Island Transit and designated Owner's Representative for all portions of the Work to ensure continuous fleet maintenance operations, minimal disruption to transit operations, and provide access to and use of the worksite.

Expected construction time is 3 months from Notice to Proceed (1) defined below to Substantial Completion.

### 1.3 PROCUREMENT SCHEDULE



Following is the procurement schedule from issuance of the ITB through contract performance beginning. All times are stated in Pacific Local Time. Dates preceded by an asterisk are estimated. Island Transit will notify Bidders of any schedule changes by Addendum per Section 1.13.

<b>Event Name</b>	<b>Date / Time</b>
Invitation To Bid Published	December 14, 2021
Pre-Bid Meeting & Site Visit Location: <b>19758 SR 20, Coupeville, WA 98239</b> (See Section 1.14 for more details)	January 5, 2022 at 10:00 am
Final Questions/Clarifications Deadline	January 7, 2022 at 3:00 pm
Final Addenda Issued (if needed)	January 12, 2022
<b>Bid Due Date &amp; Virtual Public Bid Opening</b>	<b>January 14, 2022 at 2:00 pm</b>
Intent to Award Notice by	*January 21, 2022
Bid Protest Deadline	*January 30, 2022
Board of Directors Award (Final Award Notice sent to all Bidders)	*February 4, 2022
Contract Finalization	*February 11, 2022
Notice To Proceed (Phase 1)	*February 14, 2022
Substantial Completion by	*June 14, 2022
Final (Physical) Completion (within 30 days of Substantial Completion)	*July 14, 2022
Final Acceptance by	*August 14, 2022

**\*NOTE:** Dates preceded by an asterisk are estimated and are intended for information purposes only.

**1.4 SCOPE OF SERVICES**

- A. Contractor shall successfully complete the Work set forth in the Contract Documents as a member of a project team with Island Transit, the A&E Design Team, and other project consultants, as required. Contractor shall be skilled in construction methods, materials and techniques, managing sub-contractors, sequencing of work, developing critical path and network schedules, construction management software, labor conditions, project coordinating, documenting and communicating the activities of the construction process to all members of the project team.
  
- B. Reference Documents accompanying this ITB are provided for informational purposes in order to assist Bidders in preparing their bids. These Reference Documents do not represent requirements binding on the Contractor. Island Transit makes no representation or warranty as to the accuracy, adequacy, applicability, or completeness of the Reference Documents. Except to the extent set forth to the contrary in the Contract, reliance upon the Reference Documents shall be at the Contractor's risk and Island Transit will have no liability or obligation as a result of the inaccuracy, inadequacy, inapplicability, or incompleteness of the Reference Documents regardless of the contents thereof. Reference Documents are included in the Technical Specifications Appendices as follows:
  - 1. Appendix A   N/A

- C. **Construction Management Software:** Island Transit's Construction Management Team (CMT) may provide a Document Control System (DCS) for this Project. Contractor may also use a web-based system throughout the Project for submittal and tracking of all documents including, but not limited to, Requests For Information (RFIs), Change Order Requests (CORs), Submittals, and general project correspondence. Contractor shall become familiar with DCS prior to the Pre-Construction Meeting. Island Transit will not be responsible for any costs that the Contractor may incur in using this system to incorporate the DCS forms and tools into its own project management processes.

## 1.5 **BID SUBMISSION AND SELECTION PROCESS**

- A. Island Transit will award a contract to the responsive and responsible Bidder with the lowest bid. Bidders shall complete and include ALL required documents per Section 1.9 as one (1) single bound, 8.5" x 11" ORIGINAL hardcopy in an envelope labeled **ITB #01-21**, and submit this bid packet by the date and time specified in Section 1.3 to:

**ISLAND TRANSIT**  
**Island Transit Admin. Building**  
**Attn: Meghan Heppner**  
**19758 SR 20, Coupeville, WA 98239**

- B. The time of receipt at Island Transit is the time and date stamped on the bid envelope or other documentary evidence of receipt maintained by Island Transit. Bidder accepts all risk of late delivery. **Late bids will not be accepted.**
- C. **Bid Deposit:** All bids shall be accompanied by a bid deposit as either a certified check, cashier's check, or Bid Bond in an amount equal to five percent (5%) of the Total Lump Sum Bid Price. Cash will not be acceptable for a bid deposit. Should the successful Bidder fail to enter into a contract and furnish the required performance and payment bonds, the bid deposit shall be forfeited. Bid Bond must be made on the form provided in Section 7.

## 1.6 **RESPONSIBILITY CRITERIA OF THE CONTRACTOR FIRM**

Before award of a public works contract, Bidder must successfully meet certain Washington State criteria pursuant to the Revised Code of Washington (RCW) 39.04.350(1). Failure to meet any required responsibility criteria within the time and manner specified, or to respond to a request by Island Transit for additional information in order to demonstrate Bidder's compliance with the criteria, may be just cause for rejection of the Bid and Island Transit determining the Bidder as non-responsible. Determinations of non-responsibility will be handled in accordance with Part 1.7 below.

## 1.7 **WASHINGTON STATE BIDDER RESPONSIBILITY CRITERIA**

To meet the responsibility criteria for this bid and to be considered a responsible bidder and qualified to be awarded a public works project contract, Bidders must meet Washington State requirements. At the time of bid submittal, a Bidder must:

1. Have a current certificate of registration as a contractor in compliance with Chapter [18.27 RCW](#);
2. Have a current Washington State Unified Business Identifier (UBI) number;
3. If applicable, have Industrial Insurance (Worker's Compensation) coverage for the Bidder's employees working in Washington, as required in [Title 51 RCW](#); an Employment Security Department number, as required in [Title 50 RCW](#); and a State Excise Tax registration number, as required in [Title 82 RCW](#).
4. Not be disqualified from bidding on any public works contract under [RCW 39.06.010](#) or [39.12.055\(3\)](#).
5. Within the three-year period immediately preceding the date of the solicitation, not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries,

or through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, as defined in RCW [49.48.082](#), any provision of Chapter [49.46](#), [49.48](#), or [49.52](#) RCW.

6. Have received training on the requirements related to public works and prevailing wage under Chapter [39.04.350](#) and Chapter [39.12](#) RCW. The training must be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three (3) or more public works projects and have had a valid business license in Washington State for three (3) or more years are exempt from this subsection.
7. Bidder shall submit a signed statement in accordance with chapter [5.50 RCW](#) verifying under penalty of perjury compliance with these responsible bidder criteria requirements – See Mandatory Form 7.0 Vendor Commitment and Information.

## 1.8 **SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA**

Bidders shall submit supplemental project-specific responsibility criteria as required in this section with bids. Submitted documentation shall be clear and specific, such that Island Transit can determine whether the Bidder meets or doesn't meet the supplemental project-specific responsibility criteria.

**In addition to Washington State requirements and as allowed in RCW 39.04, a responsible Bidder shall meet the following supplemental project-specific criteria:**

### A. QUALIFICATIONS OF THE CONTRACTOR FIRM

Criterion: Island Transit will accept bids only from qualified Contractors who have the ability to meet the specifications of this project and have a high probability of successfully completing it on time.

**The designing and installing Contractor shall have installed similar type photovoltaic systems for a minimum of 5-years as a principal business, not just occasionally.**

### B. COMPLETION OF SIMILAR PROJECTS

1. Criterion: Island Transit will accept bids only from qualified Contractors who have successfully completed similarly sized or scoped projects. In evaluating whether the projects were "successfully completed," Island Transit may check references for the project and may evaluate a project reference's assessment of the Bidder's performance, including but not limited to the following areas:
  - Quality Control;
  - Safety Record;
  - Timeliness of Performance;
  - Compliance with Contract Documents;
  - Management of Submittals Process, Change Orders, and Close-Out.
2. Bid Submittal Documentation – Form 7.3: The Bidder shall submit a list of a minimum of two (2) projects of similar size and scope to this project for analysis by Island Transit. Information provided about each project shall include the following:
  - Owner's Name and contact information for the Owner's Representative (include phone numbers and e-mail addresses);
  - Final contract amount;
  - Project completion date.

See additional requirements for contractor experience under **26 31 00 SOLAR PHOTOVOLTAIC UTILITY GRID-TIED SYSTEMS.**

## 1.9 **SUBCONTRACTOR RESPONSIBILITY REQUIREMENTS**

Per [RCW 39.06.020](#), contractors and subcontractors of every tier must verify responsibility criteria for each contractor they directly hire at the time of contract execution. In addition to verifying the Bidder Responsibility

Criteria mandated by Chapter [39.04.350\(1\)](#), contractors must also verify that a subcontractor possesses an electrical contractor license, if required by Chapter [19.28](#) RCW, or an elevator contractor license, if required by Chapter [70.87](#) RCW. These verification requirements and responsibility criteria must be included in every public works contract regardless of tier. Contractor shall certify that these verifications are complete prior to contract execution and, upon request of Island Transit, shall promptly provide documentation demonstrating that the subcontractor meets the subcontractor responsibility criteria.

#### **1.10 SUMMARY OF BID SUBMITTAL REQUIREMENTS**

Bids must be made only on the below listed forms included in Section 7 and assembled in sequential order as follows:

FORM 7.0	Vendor Commitment and Information
FORM 7.1	Certificate Regarding Conflict of Interest
FORM 7.2	Bid Form: Price Sheet
FORM 7.3	References and Project Experience
FORM 7.4	Subcontractor List per <a href="#">RCW 39.30.060</a>
FORM 7.5	Certificate of Non-disbarment and Suspension
FORM 7.6	Certification of Compliance with Wage Payment Statutes
FORM 7.7	Bid Bond Form (Optional, see requirements)

#### **1.11 BID PRICE, EFFECTIVE DATE AND SIGNATURES**

- A. Bid Price shall include everything necessary for the successful prosecution and completion of the Contract Work, including but not limited to, furnishing all labor (prevailing wages apply) and services, materials, equipment, supplies, tools, plant and other facilities, all management, supervision, insurance, licenses, permits, fees (incl. Trip/Truck Fees), inspections, and all other incidental costs necessary to complete the Work described in the Contract Documents. No additional payment will be made for incidental costs not included in bid prices.
- B. All bids shall be a firm bid effective for a minimum period of sixty (60) Calendar Days from the Bid Due Date.
- C. Island Transit reserves the right to request extensions for bid effectiveness. In the event of a discrepancy between the unit price and the extended amount for a bid item, the unit price shall govern.
- D. Island Transit will pay State and local sales tax on each progress payment to Contractor for transmittal by Contractor to the Washington State Department of Revenue, as applicable. Contractor will pay retail sales tax on all consumables used during the performance of the Work and on all items which are not incorporated into the final Work. Applicable tax is to be a separate line item on Bid Form 7.2 attached herein for inclusion in the Total Bid Price.
- E. Bidders who have questions regarding the applicable taxes should contact the Washington State Department of Revenue. No increase will be made in the amount to be paid by Island Transit under this Contract because of any misunderstanding by, or lack of knowledge of, the Contractor as to liability for, or the amount of, any taxes for which Contractor is liable or responsible by law under this Contract.
- F. Bids must be signed by the Bidder, or the Bidder's authorized representative, and include a physical address. If the Bid is made by an individual, the name, signature, and post office address must be provided. If made by a partnership or joint venture, the name and post office address of the partnership or joint venture and the signature of at least one of the general partners or authorized joint venture partners must be provided. If made by a corporation, the name of the state under the laws of which the corporation is chartered, the name

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and post office address of the corporation and the title of the person signing on behalf of the corporation must be shown.

### **1.12 QUESTIONS/CLARIFICATIONS AND COMMUNICATIONS**

A. Questions and requests for clarifications or interpretations concerning this solicitation shall be submitted in writing, no later than the date and time specified in Section 1.3, by using the “Questions” tab after logging into Island Transit’s e-Procurement Portal mentioned in Section 1.1(D) above.

B. **Island Transit Point of Contact:**

**Meghan Heppner, Procurement Officer**  
**E-mail: heppner@islandtransit.org**

Communications concerning this solicitation with any Island Transit agent, consultant, or representative other than with the above stated Point of Contact, or communications made through other means and methods other than stated herein, are prohibited and may be cause for disqualification.

### **1.13 ADDENDA**

A. Oral explanations or instructions given prior to Contract Award shall not be binding. Island Transit’s official response to pre-bid communications concerning any changes to the solicitation documents shall be made by a written Addendum sent to all prospective Bidders through the e-Procurement Portal. Registered Bidders at BXWA will automatically receive an e-mail notification.

B. Only Addenda issued by Island Transit modifies the solicitation document. No other oral or written communication modifies the solicitation document. Any questions/clarifications that do not modify the Bid Documents may be answered using the “Questions” tab.

C. No Addenda will be issued for any request or inquiry submitted after the deadline for receiving final questions/clarification requests unless Island Transit, at its sole discretion, deems additional information is necessary for bid submittal, or if the lack of information would be prejudicial to other prospective Bidders. All Addenda become part of the Contract Documents.

D. It is the Bidder’s responsibility to ensure they have received and understand any and all Addenda issued.

### **1.14 PRE-BID MEETING AND SITE VISIT**

A. A non-mandatory Pre-Bid Meeting and Site Visit is scheduled at the time and place specified in Section 1.3. Island Transit highly recommends attendance in order to facilitate questions regarding the Project. All entities intending to submit a bid as a prime General Contractor should have an employee of the company attend and identify themselves and the company on the Pre-Bid Sign-In Sheet.

B. **COVID-19 and Other Safety Requirements:**

1. Attendees must use the main lobby entrance for the Island Transit Administration Building at **19758 SR 20, Coupeville, WA 98239**. Island Transit representatives and/or signs will guide attendees to parking. We recommend that you remain in your vehicles until it is time to meet at the building front entrance. Island Transit staff will direct individuals to the health/safety check station inside where each attendee will be asked a series of health related questions and have their temperature taken. Attendees must ensure to keep a distance of at least 6 FT apart at all times. The site visit will commence immediately after the project briefing that will also be held outside.

2. Attendees are responsible for supplying their own PPE (Personal Protective Equipment) and shall comply with CDC guidelines <https://www.cdc.gov/coronavirus/2019-ncov/index.html> and information provided by the Island County Health District. Hi-Vis safety vests must be worn by all personnel entering/crossing

the bus yard. Masks must be worn for the duration of this event and shall cover both nose and mouth at all times. Attendees without PPE will be denied entry. Further instructions regarding the site walkthrough will be provided at this meeting.

- C. In order to expedite the meeting, questions regarding the Bid Documents or other inquiries should be submitted in writing per Section 1.12 no later than three (3) Business Days prior to the Pre-Bid Meeting to give staff sufficient time to research and prepare answers. No statements made during the Pre-Bid shall serve to amend or modify this solicitation unless they are subsequently issued as written Addenda. Bidders are responsible to provide this information to their prospective subcontractors.

#### **1.15 EXAMINATION OF BID DOCUMENTS**

Submitting a Bid shall constitute an acknowledgement upon which Island Transit may rely that the Bidder thoroughly read, examined, and understands the Bid Documents in their entirety, including the inspection of any work sites identified in the solicitation, and all applicable statutes, regulations, ordinances, and resolutions addressing or relating to the goods and services to be provided hereunder. The failure or neglect of a Bidder to receive or examine such documents, work sites, statutes, regulations, ordinances, or resolutions shall in no way relieve the Bidder from any obligations with respect to its Bid or to any contract awarded pursuant to this solicitation. No claim for additional compensation will be allowed which is based upon a misunderstanding or lack of knowledge thereof.

#### **1.16 COST OF BIDS**

Island Transit is not liable in any way for any costs incurred by Bidders in replying to this solicitation.

#### **1.17 MODIFICATION OR WITHDRAWAL OF BIDS**

- A. At any time before the deadline specified for submitting bids, a Bidder may request to modify or withdraw its Bid. Such request must be made in writing by a person authorized to submit bids on behalf of the company. All bid modifications shall be made in writing, executed and submitted in the same form and manner as the original Bid. No oral, telephonic, facsimile, e-mail, or telegraphic bids or modifications will be accepted.
- B. **Claim of Error:** A Bidder claiming error in its Bid must submit supporting evidence, including cost breakdown sheets, within 24 hours of Bid Opening and provide any other supporting documentation requested by Island Transit. In the event Bidder demonstrates an error in the Bid to Island Transit's satisfaction, Island Transit may allow the Bidder to withdraw its Bid.

#### **1.18 ERRORS AND ADMINISTRATIVE CORRECTIONS**

Island Transit will not be responsible for any errors in bids and reserves the right to allow corrections or amendments to be made that are due to minor administrative errors or irregularities, such as errors in typing, transposition, or similar administrative errors.

#### **1.19 POSTPONEMENT OR CANCELLATION OF BIDS**

Island Transit reserves the right to cancel the solicitation or change the date and time for submitting bids.

#### **1.20 COLLUSION**

- A. If Island Transit determines that collusion has occurred among Bidders, none of the Bids of the participants in such collusion will be considered. Island Transit's determination shall be final.
- B. If it is discovered post-award that the successful Bidder, as Contractor, colluded with any other party or parties in presenting a bid or bids, then the Contract shall be null and void and Contractor and its sureties shall be liable to Island Transit for all loss or damage which Island Transit may suffer thereby. Island Transit may solicit for a new contract for Work called for in this Contract and the terminated Contractor shall be fully responsible for all costs to Island Transit for rebidding the project, including any increase in the Contract

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Amount, and all costs, expenses, or other damages arising out of termination of the Contract. A terminated Contractor is prohibited from submitting a bid for any resolicited work, and may be debarred by Island Transit in participating in any future contracting opportunities.

### **1.21 REJECTION OF BIDS**

- A. Island Transit reserves the right to reject any or all bids for any reason including, but not limited to, a bid which: is incomplete, obscure, irregular, or lacking necessary detail and specificity; has any qualification, omissions, additions, limitations, or provisions attached to the Bid; is from a Bidder who (in the sole judgment of Island Transit) is determined to be non-responsible or lacks the qualifications necessary to perform the Work; is from a Bidder who fails to complete and submit any Supplemental Bidder qualifications within the time specified by Island Transit; or is from a Bidder who is not registered or licensed at the time of the Bid Due Date as required by State law.
- B. In consideration for Island Transit's review and evaluation of its Bid, the Bidder waives and releases any claims against Island Transit arising from any rejection of any or all Bids, including any claim for costs incurred by Bidders in the preparation and presentation of Bids submitted in response to this solicitation.

### **1.22 BID OPENING AND EVALUATION**

- A. **If the Governor's guidelines still require PPE by the Bid Due Date and public Bid Opening, then all Bidders submitting a bid must comply with the requirements set forth in Section 1.14(B)(2).**
- B. Immediately after the deadline specified for submitting bids, Island Transit shall open all accepted bids, read aloud and record only the name of each Bidder and the Total Bid Price. The apparent low bidder will be announced after all Bids have been opened and recorded. The reading does not determine award, Bidder responsibility, or bid responsiveness. The record of bids opened, Bid Tabulation, will be available for viewing by those Bidders present and will be posted on the e-Procurement Portal. This document is not an award notice or a list of final bid results. Bidder attendance at the Bid Opening is not required.
- C. **Tie Bids:** In the case of a tie where there are equal bids among the lowest Bidders, each Bidder involved in the tie will either be entered into a drawing to establish their position for award in ascending order from first (lowest bidder) to last (2nd lowest bidder), or a coin flip will determine the winning bid.
- C. As soon as practicable after Bid Opening, full reviews for accuracy, content, and Bidder responsibility will be conducted therefore, the apparent low bidder at the time of Bid Opening may not necessarily be recommended for contract award if they are determined to be non-responsible or the Bid is disqualified as non-responsive. Island Transit reserves the right to request additional information from Bidders to further determine responsibility or to clarify items in a Bid.
- D. In the event a Bidder refuses to provide requested additional qualifications information, make available a complete itemization of its Bid and clearly define all phases of its Work, attend a bid evaluation conference, or provide required documents, the Bid may be determined to be non-responsive and rejected.

### **1.23 SINGLE BID PROCEDURE**

If a single responsive and responsible bid is received, Island Transit reserves the right to request an extension of the bid acceptance period up to an additional 60 days, or conduct a price or cost analysis, as applicable. Bidder shall assist in such analysis by promptly providing all cost or pricing data, supporting documentation, and explanations requested by Island Transit. By conducting such analysis, Island Transit shall not be obligated to accept the single bid and further reserves the right to reject the Bid or any portion thereof.

### **1.24 CONTRACT AWARD**

Contract Award, if any, will be made as a Firm-Fixed Price contract by the Island Transit Board of Directors to the lowest responsive and responsible Bidder. Island Transit's contract obligations begin only after contract

execution. Contract award will be made based upon the actual work to be performed, including or excluding any options.

### **1.25 INSURANCE REQUIREMENTS**

The successful Bidder shall provide evidence of insurance from insurer(s) satisfactory to Island Transit certifying to the coverages of insurance set forth in **Section 4, Insurance Requirements**. Such evidence of insurance shall be submitted within 10 Calendar Days of receipt of a written request from Island Transit. Failure to submit satisfactory evidence of insurance may result in award termination.

### **1.26 CONTRACT EXECUTION**

- A. The successful Bidder will be sent instructions and a contract to sign and return per the instructions. Upon execution by Island Transit's Executive Director, or designee, the Contract becomes effective. Following Island Transit's receipt of any additional required documentation or submittals from the Bidder, a Notice To Proceed may be issued, if appropriate. Any work performed by Bidder prior to contract execution is strictly at the Bidder's risk.
- B. Should the successful Bidder fail to execute the Contract within the time requested, Island Transit reserves the right to terminate the award and negotiate a satisfactory agreement with the next lowest responsive and responsible Bidder. The Bidder failing to execute the Contract may be deemed non-responsible and may be removed from Island Transit's vendor bid list for receiving any future contracting opportunity notices.

### **1.27 NOTICE TO PROCEED (NTP)**

- A. Upon Island Transit's receipt of any additional required documentation or submittals from Contractor, the Contracting Officer shall issue a Notice To Proceed (NTP), as appropriate. Contract Time is based on a phased NTP process which allows the Contractor time to prepare, submit, and gain approval of the required submittals prior to mobilizing. NTPs will be issued in two phases:
  1. **NTP1:** To be issued upon completion of the contract award document process (i.e. contract execution, Contract Bonds, Certificate of Insurance). NTP1 authorizes the Contractor to perform activities such as work planning, scheduling, Submittals, engineering, procurement of materials, products and equipment and similar preparatory and administrative activities. Island Transit expects this preparation phase to be completed within 10 - 20 working days. Contractor shall:
    - a) Prepare and submit the required work plans identified in the Contract Documents;
    - b) Prepare and submit other Submittals required prior to start of construction activities as indicated in the Contract Documents.
  2. **NTP2:** To be issued when the required activities of NTP1 are determined by the Island Transit Representative to be complete. NTP2 authorizes the Contractor to:
    - a) Mobilize and take possession of the Worksite as defined in the Contract Documents; and
    - b) Proceed with expeditious prosecution of the construction Work.

### **1.28 PUBLIC DISCLOSURE OF BIDS**

Bids submitted under this solicitation shall be considered public documents and, with exceptions, will be provided under public disclosure laws ([RCW 42.56](#), et seq.). If a Bidder considers portions of its Bid to be protected under the law, Bidder shall clearly identify and mark such portions as "CONFIDENTIAL" or "PROPRIETARY" and submit such portions in a sealed envelope separate from the rest of the Bid. It is not usually reasonable or legally defensible to mark an entire bid as "Confidential" or "Proprietary". Marking the entire bid as such will not be honored and the bid may be rejected as non-responsive. If a request is made for disclosure of such portion, Island Transit will notify the Bidder of the request and allow the Bidder five (5) days to take whatever action it deems necessary to protect its interests. If the Bidder fails or neglects to take such action within said period, Island Transit will release the requested portions of the Bid deemed subject to disclosure. By submitting a Bid,



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the Bidder consents to the procedure outlined in this paragraph and shall have no claim against Island Transit on account of actions taken under such procedure or its determination whether information is exempt under public disclosure laws.

### **1.29 PROTEST PROCEDURES**

Bidders have the right to protest a solicitation or award of a contract issued by Island Transit pursuant to the procedures posted on Island Transit's web page at: [www.islandtransit.org/procurement](http://www.islandtransit.org/procurement).

### **1.30 CONFLICTS OF INTEREST – CURRENT AND FORMER EMPLOYEES**

Island Transit seeks to eliminate and avoid actual or perceived conflicts of interest and unethical conduct by current and former Island Transit employees in transactions with Island Transit. Consistent with this policy, no current or former Island Transit employee may contract with, influence, advocate, advise, or consult with a third party about an Island Transit transaction, or assist with the preparation of bids submitted to Island Transit while employed by Island Transit, or within one (1) year after leaving Island Transit's employment, if he/she was substantially involved in determining the work to be done or process to be followed while an Island Transit employee.

### **1.31 DISADVANTAGED & SMALL BUSINESS ENTERPRISE (DBE/SBE) PARTICIPATION**

A. Definitions and information regarding Small Business Enterprises (SBE) currently certified with the State of Washington is available at:

Office of Minority and Women's Business Enterprises (OMWBE)  
PO Box 41160  
Olympia, WA 98504-1160

Main: (360) 664-9750; Toll Free: (866) 208-1064; Fax: (360) 586-7079; TTY: (800) 833-6384

or visit their website at [www.omwbe.wa.gov](http://www.omwbe.wa.gov)

B. Island Transit has adopted a race and gender neutral policy to support and encourage DBE/SBE participation. The Policy is available at [www.islandtransit.org/procurement](http://www.islandtransit.org/procurement).

C. A contract goal has not been established for this procurement. No preference will be provided in the evaluation of bids and no minimum level of DBE/SBE participation shall be required as condition for receiving an award and bids. Bids will not be rejected or considered non-responsive on that basis.

D. Contractor may be required to report DBE/SBE participation throughout the period of performance.

#### **E. Affirmative Efforts to Solicit DBE/SBE Participation**

Contractors are encouraged to:

1. Advertise opportunities for subcontractors or suppliers in a manner reasonably designed to provide DBE/SBEs capable of performing the work with timely notice of such opportunities. All advertisements should include a provision encouraging participation by DBE/SBE firms and may be done through general advertisements (e.g. internet, newspapers, journals, etc.) or by soliciting bids directly from DBE/SBEs.
2. Utilize the services of available community-based organizations, contractor groups, local small business assistance offices and organizations that provide assistance in the recruitment and placement of DBE/SBEs and other small businesses, such as the Office of Minority and Women's Business Enterprises.
3. Establish delivery schedules, where requirements of the Contract allow, that encourage participation by DBE/SBEs.

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F. **Required DBE / SBE Contract Clauses**

Pursuant to Island Transit's DBE / SBE Policy, the following clauses will apply to the Contractor and it shall be Contractor's responsibility to flow down these clauses to all subcontractors, irrespective of their tier of performance:

1. **Contract Assurance.** The following clause is incorporated in every contract and subcontract:

***Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract.***

2. **Prompt Payment & Retainage.** The following clause is incorporated in every contract:

***When payment is received by a Contractor or Subcontractor for work performed, Contractor or Subcontractor shall pay to any Subcontractor, no later than ten (10) days after the receipt of payment, amounts allowed the Subcontractor on account of the Work performed by the Subcontractor, to the extent of each Subcontractor's interest therein. This requirement shall flow down from the Contractor to all lower tier Subcontractors.***

G. **DBE / SBE Participation Reports and Related Items**

As part of routine Contract Administration, Contractor may be requested to submit compliance documentation in a manner required by Island Transit. This may include, but is not limited to: subcontractor lists with work description and contact amounts, providing affidavits of amounts paid, and copies of subcontract agreements demonstrating compliance to the contract provision flow-down requirements mentioned above.

--END SECTION 1--

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## **SECTION 2 – GENERAL CONTRACTUAL TERMS AND CONDITIONS**

### **2.1 GENERAL CONDITIONS**

These General Conditions define and delineate the responsibilities and rights of the Parties to this Contract.

### **2.2 ISLAND TRANSIT**

- A. Island Transit, as Owner, shall designate the "Island Transit Representative" or "Owners Representative" who shall be responsible for coordination of communications between the Parties and shall act as a central point of contact for Island Transit. Island Transit shall issue all instructions to the Contractor through the Owner's Representative.
- B. The Owner's Representative shall be responsible for the performance of the goals, objectives, and Scope of Work of this Contract, as well as ensuring that the Project Schedule, budget and funding limitation of this Contract are satisfied. The Owner's Representative is also responsible for coordinating the input and work of various governmental agency or department staff, consultants, and contractors as it relates to the Scope of this Contract.
- C. The Owner's Representative will make decisions on all claims or requests for interpretation submitted by the Contractor and all of the decisions are final.
- D. The Owner's Representative has the authority to reject Work, which appears to not be in conformance with the Contract Documents, and all such Work shall be repaired or replaced, as directed by the Owner's Representative at no expense to Island Transit. However, the right of Island Transit to reject Work shall not create a duty on the part of Island Transit to exercise this right for the benefit of the Contractor or any other person or entity.
- E. The Owner's Representative will review all Shop Drawings, samples, and other submittals to determine conformance to the design concept and the information provided in the Contract Documents. Neither the Owner's Representative's review nor approval of any drawing, construction method, technique, sequence, procedure, submittal, or sample, shall in any way relieve the Contractor of its contract obligations.
- F. The post-award administration and contract file documentation will be the responsibility of Island Transit's Procurement Officer to ensure the Parties' compliance with the contract terms.
- G. Island Transit shall, at all times, have access to the Work whenever the Work is in preparation or progress. Unless indicated otherwise, Island Transit reserves the right to occupy or use the whole or any part of the work site or installation included under the Contract and such use or occupancy by Island Transit, or its assignees, shall not constitute completion or acceptance of the Work or any part thereof.

### **2.3 PERMITS BY CONTRACTOR**

- A. Island Transit has submitted building and public works permits for the Project and will pay permit fees directly to Island County. Contractor will be responsible for picking up the permit from the County. All other permits shall be coordinated and obtained from the applicable jurisdiction(s) in advance of associated Work.
- B. Contractor shall be solely responsible to obtain and pay for all other required permits prior to the start of construction. No delay claims will be acceptable if the Contractor fails to obtain the permits in a timely manner after issuance of NTP. Contractor shall submit copies of all obtained permits to Island Transit.
- C. Contractor shall coordinate all utility work and cooperate with all of the various utility company crews that will be performing work. Contractor shall use subcontractors approved by utility owners as

required. Contractor shall provide notification to the utility companies of the Contractor's schedule and provide access to the worksite to minimize delays or disruptions in the performance of the utility work.

- D. If requested, Island Transit shall provide easement information, utility information, and legal description of the site.
- E. Federal, State and municipal permits and inspections required by the Contractor will be identified in the appropriate Divisions of the Technical Specifications. It is Contractor's responsibility to ensure that any or all necessary permits are obtained to complete the Project.

## **2.4 PAYMENTS**

- A. Progress or Milestone payments may be requested by Contractor during the term of this Contract. Such payments will be based upon the Parties' agreed upon Schedule of Values (SOV), schedule of payments, critical milestones, or any other performance metrics. Payment requests, including schedules, shall be submitted by Contractor as provided in more detail in Section 2.11. Any subsequent changes shall be submitted at least 20 Calendar Days before the applicable request for payment using the agreed schedules.
- B. All payment requests shall be submitted to Island Transit on uniquely numbered invoices clearly specifying the work tasks completed, performance metrics achieved, payment request amounts, and applicable sales tax. Each pay request must show applicable Washington State Sales Tax as a separate line item on the payment certificate for the current billing period, as well as on the backup documents. Each pay request must also show a 5% deduction for retainage per billing period except for when there is a Retainage Bond. Pay requests shall be certified, scanned, and submitted electronically with supporting documents to the Island Transit Representative by the 5th day of each month following the end of the current billing period.
- C. Upon completion of all Work and Final Inspection by Island Transit, Contractor shall submit a final application for payment. Subject to Island Transit's right to withhold, as described in Paragraph D. hereunder, Island Transit may issue a payment representing 95% of the amount earned less any prior progress payments. Upon receipt of required project closeout documents, including but not limited to: an L&I approved "*Affidavit of Wages Paid*" for the Contractor and all subs, Consent of Surety to Final Payment, Contractor and Subcontractor Release of Liens, and certificates of release from the Department of Revenue, Employment Security Department, and the Department of Labor and Industries, pursuant to RCW 60.28.010, 60.28.030, and 60.28.050, Island Transit will issue a payment for the remaining 5% representing the retainage, or issue a release to the Surety regarding the Retainage Bond, provided any outstanding Claims against the retainage and/or Payment Bond are satisfied. Island Transit may withhold releasing the Retainage Bond for up to 45 days after receipt of all required forms or, if for retainage, withhold Final Payment for up to 60 days after receipt of all such required documents.
- D. Island Transit may withhold any payment otherwise due the Contractor on account of: (1) defective work not remedied; (2) claims filed or reasonable evidence indicating the probable filing of such claims; (3) Contractor's failure to make proper and prompt payment to subcontractors for labor, materials or equipment; (4) damages to Island Transit or to another contractor; (5) unpaid taxes or insurance; (6) unsatisfactory performance of the Work by Contractor; (7) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount, or (8) Contractor's persistent failure to perform the Work in accordance with the Contract Documents.
- E. Contractor's acceptance of any payment shall constitute an express waiver of all claims of whatever nature by Contractor against Island Transit.
- F. The Severin Doctrine is applicable to this Contract.

## **2.5 ASSIGNMENT AND SUBLETTING**

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- A. Contractor shall not assign or sublet the Work to be provided under this Contract, or any part thereof, without Island Transit's prior written consent nor shall it assign, by Power of Attorney or otherwise, any of the monies payable under this Contract unless by and with the like consent of Island Transit.
  - B. In the event Island Transit consents to permit subletting, such consent shall not be construed as making Island Transit a party to such subcontractor or assignee, or of subjecting Island Transit to liability of any kind whatsoever, to any subcontractor. No subcontractor shall, under any circumstances, relieve Contractor of its liability and obligation under this Contract and all transactions with Island Transit shall be made through the Contractor. In the event consent is given to assign all, or any part of any money due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the rights of the assignee in and to any monies due or to become due to Contractor shall be subject to all prior liens or all persons, firms, corporations for services rendered or materials supplied for the performance called for by the Contractor in this Contract.

## 2.6 **PREVAILING WAGE REQUIREMENTS**

- A. Pursuant to Chapter 39.12 RCW, as may be amended, the wage rates to be paid to all laborers, workers, and mechanics performing any part of this Contract, whether they are employed by the Contractor, subcontractors, or lower-tiered subcontractors, or any other person who performs a portion of the Work completed by this Contract, shall not be less than the Washington State prevailing wage rates paid for an hour's work in the same trade or occupation in Island County that were in effect on the Bid Due Date.
- B. The prevailing wage rates for this project may be found on the Department of Labor & Industries (L&I) website at <https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx> and are incorporated herein by reference as though fully set forth herein. In referencing such rates, Island Transit does not imply or warrant that contractors will find labor available at those rates. Upon request, Island Transit will provide a copy of the State prevailing wages.
- C. It is Contractor's sole responsibility to determine the most current wage rates it will have to pay. Any matters of dispute as to what the State prevailing wage rates are for work of a similar nature shall be referred to L&I's Prevailing Wage division whose decision shall be final and conclusive and binding on all parties in the dispute.
- D. Contractor shall post the applicable prevailing wage rates at the Work Site in a prominent and accessible place to the workers, or as allowed by [RCW 39.12.020](#), which shall include:
  - 1. Contractor's registration certificate number;
  - 2. Prevailing rate of wage for each classification of workers entitled to prevailing wages; and
  - 3. Estimated number of workers in each classification.
- E. Weekly certified payroll reports are required to be filed online with L&I at least once a month ([RCW 39.12.120](#)).
- F. **Intents and Affidavits:** Contractor and every subcontractor, regardless of tier, must file a "*Statement of Intent to Pay Prevailing Wages*" with L&I at the beginning of the Contract which lists all applicable categories of work that may apply, and must also file an "*Affidavit of Wages Paid*" upon completion of their respective work.
  - 1. No first payment will be made until Island Transit receives Contractor's L&I approved Intent.
  - 2. No Final Payment shall be made until Island Transit receives an L&I approved Affidavit for the Contractor and each subcontractor. A payment receipt from L&I is not an approval.
  - 3. Contractor is responsible for all fees associated with filing Intents and Affidavits. Such costs shall be included in bid pricing as part of the fixed costs of Overhead.

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## 2.7 CONTRACTOR RESPONSIBILITIES

### A. Contractor shall:

1. Be solely responsible for all construction means, methods, safety precautions, techniques, sequences, and procedures for performing, scheduling, and coordinating all portions of the Work in proper fashion and in strict compliance with all applicable codes, rules, regulations, and laws. In the event of conflicting requirements between these, Contractor shall comply with those codes, rules, regulations, and laws, which require the highest standard of construction quality and workmanship.
2. Be responsible for compliance with Island Transit policies and procedures that apply to all contractors and vendors working at Island Transit owned, controlled, or leased premises, or in locations where Contractor represents Island Transit.
3. Supervise and direct the Work using Contractor's best skill and attention; ensuring to enforce strict discipline and good order among its workers at all times and not employ any unfit or unskilled person in the project assigned task.
4. Be responsible for inspection of portions of the Work already performed under this Contract to determine that such portions are in proper condition to receive subsequent work.
5. Provide and pay for all labor, materials, equipment, tools, supplies, equipment and machinery, utilities, transportation, plant and other facilities and all services necessary for the proper execution of the Work for a completed operation, unless otherwise specifically stated in the Contract Documents.
6. Employ a competent project team, including but not limited to: a Project Manager, Superintendent, and necessary assistants who shall be in attendance at the project site during performance of the Work. **Contractor shall not remove or reassign any of the key management personnel without Island Transit's prior written consent.**
7. Warrant to Island Transit that all materials and equipment incorporated in the Work will be new, of good quality, free from faults and defects, and installed or completed in strict conformance with the Contract Documents. All Work not so conforming to these standards may be considered defective.
8. Pay all sales, consumer, use, and other similar taxes and pay for all fees, duties, and royalties required by law and shall file all notices, secure all permits, and licenses necessary for the execution of the Work.
9. Obtain any necessary business/operations licenses and pay any associated fees with regards to each separate jurisdiction, if the Work is spread throughout multiple local government jurisdictions.
10. Review and submit all samples and Shop Drawings, as directed by Island Transit, with reasonable promptness for the Island Transit Representative's concurrence that the submittals conform to the design concept and the information provided in the Contract Documents. The Work shall be in accordance with samples and Shop Drawings returned by the Island Transit Representative indicating concurrence.
11. At all times keep the premises free from accumulation of waste materials or rubbish caused by its operations. At the completion of the Work, Contractor shall remove all waste materials and rubbish from and about the project site, in accordance with existing regulations, as well all tools, construction equipment, machinery, and surplus materials, and shall clean all glass surfaces and leave the work "broom clean" or its equivalent, except as otherwise specified.
12. Fully comply with all federal, State, and local laws, regulations and ordinances.
13. Carefully study and compare the Contract Documents with any other information furnished by Island Transit and immediately report any errors, inconsistencies, or omissions discovered to the CTPM. If

Contractor performs any Work knowing it involves a recognized error, inconsistency, or omission in the Contract Documents without giving such notice to the Island Transit Representative, Contractor shall assume all liability for such performance and shall bear an appropriate amount of the attributable costs for corrections. Omissions from the Drawings or Specifications, or incorrectly described details of work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve Contractor from performing such omitted or incorrectly described details of work, and shall be performed as if fully and correctly set forth and described in the Drawings and Specifications

14. Confine operations at the Worksite to areas permitted by law, ordinances, permits, and the Contract Documents.

**B. Disruptions Caused by Labor or Other Disputes**

1. The term "dispute" as used in this Section includes labor-related and non-labor-related disputes, whether or not the persons or other entities involved in the dispute have an employment relationship with either the Contractor or Island Transit. Examples of such disputes include, but are not limited to, informational or other picketing and all other forms of concerted or non-concerted activity.
2. Contractor shall take all reasonable steps to prevent disputes arising from the presence of, or the performance of, the Work by the Contractor and from disrupting the Project or otherwise interfering with access to Island Transit property by Island Transit, its agents, employees, customers, or other contractors engaged on or near the site of the Project. If such a dispute disrupts the Project or interferes with access to Island Transit property, Contractor shall promptly and expeditiously take all reasonable action to eliminate or minimize such disruption or interference, including but not limited to:
  - a) Utilizing all reasonable means to prevent all unlawful conduct or picketing, or to restrict all lawful picketing or other activities to a single entrance to Island Transit property.
  - b) Posting notices or signs which advise interested persons and labor organizations that a particular entrance to Island Transit property is for the employees of "primary" or, as the case may be, "neutral" employers.
  - c) Policing entrances to assure that only authorized personnel may use the same.
  - d) Notifying all interested labor organizations of the "primary" or "neutral" status of particular entrances.
  - e) Upon Island Transit's request, altering or rerouting the access to the Project.
3. In the event any such picketing or activity is unlawful or has a secondary impact upon the employees of neutral employers, tenants, or their suppliers or contractors, promptly and expeditiously taking appropriate action to seek recourse through the appropriate governmental agency or State or federal courts to limit the location of such picketing so as to reduce the impact thereof upon neutral employers.
4. Island Transit will cooperate with Contractor to accomplish the foregoing actions and will render its assistance where appropriate; however, Island Transit shall have the right, without providing additional compensation to the contractor, to direct the Contractor to modify any of the foregoing actions which the Contractor has taken, or plans to take, or to overrule such actions, to designate the entrances to be used as "primary" or "neutral" entrances, and to take appropriate legal action in order to protect the interests of Island Transit and those of its tenants and other contractors. The foregoing actions to be taken by Contractor are the Contractor's primary responsibility. Neither the failure of Island Transit to request that Contractor take a specific action, nor the exercise by Island Transit of its rights under this Paragraph, shall modify, constitute a defense to, or waiver the obligations imposed upon Contractor in this Paragraph.
5. Failure to take the action described above, or to comply with the directives of Island Transit, shall be considered a material breach of the Contract.

6. Contractor shall pay all attorneys' fees and expenses incurred by Island Transit in establishing and enforcing Island Transit's rights under this Section whether or not suit was instituted.

**C. Differing Site Conditions**

Contractor shall promptly, and before the conditions are disturbed, give written notice to Island Transit of: (1) subsurface or latent physical conditions at the Worksite which differ materially from those indicated in the Contract, or (2) unknown physical conditions at the Worksite of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract. Island Transit will investigate the Worksite conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this Section and the Contract modified in writing accordingly. No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed unless Contractor has given the written notice required, and provided that the time prescribed above for giving written notice may be extended by Island Transit. No request by Contractor for an equitable adjustment to the Contract for Differing Site Conditions shall be allowed if made after Final Payment under this Contract.

**2.8 INDEMNIFICATION**

- A. For the purpose of this Section only, "Contractor" shall mean the prime contractor and all its subcontractors, lower tier subcontractors, suppliers, agents, any other person directly or indirectly employed by any of them, and anyone for whose acts any of them may be liable.
- B. Contractor shall defend, indemnify, and save harmless Island Transit, its officers, employees and agents from any and every claim and risk, including, but not limited to: suits or proceedings for bodily injuries (including death and emotional claims), patent, trademark, copyright or franchise infringement, and all losses, damages, demands, suits, judgments and attorney fees, and other expenses of any kind, on account of all personal bodily injuries (including death and emotional claims), property damages of any kind, whether tangible or intangible, including loss of use resulting therefrom, in connection with the Work performed under this Contract, or caused or occasioned in whole or in part by reason of the presence of the Contractor or its subcontractors, or their property, employees or agents, upon or in proximity to the property of Island Transit, or any other property upon which the Contractor is performing any work called for or in connection with this Contract, except only for those losses resulting solely from the negligence of Island Transit, its officers, employees and agents.
- C. Should a court of competent jurisdiction determine that this Contract is subject to RCW 4.24.115, then in the event of liability for damages arising out of bodily injury to persons or damages to property caused by, or resulting from, the concurrent negligence of Contractor and Island Transit, its members, officers, employees and agents, Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under industrial insurance, Title 51 RCW, solely for the purpose of the indemnification. This waiver has been mutually negotiated by the Parties.
- D. If a lawsuit in respect to this hold harmless provision ensues, Contractor shall appear and defend that lawsuit at its own cost and expense, and if judgment is rendered or settlement made requiring payment of damages by Island Transit, its officers, agents, employees and volunteers, Contractor shall pay the same.
- E. Contractor shall pay all attorneys' fees and expenses incurred by Island Transit in establishing and enforcing Island Transit's rights under this paragraph, whether or not suit was instituted.

**2.9 SUBCONTRACTS**



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- A. A subcontractor is a person who has an agreement with the Prime Contractor to perform a part of the Work that the Contractor is to perform for Island Transit.
  - B. Contractor shall, in all its subcontract agreements, ensure that all subcontractors are bound to the Contractor in the same manner that the Contractor is bound to Island Transit, and in strict accordance with all terms and conditions of the Contract Documents; however, nothing contained herein shall be interpreted as creating a contractual relationship between Island Transit and any subcontractor.
  - C. Contractor shall be responsible for the acts and omissions of all its employees and all subcontractors, their agents and employees, and all other persons performing any work under the Contract with the Contractor.

## **2.10 SEPARATE CONTRACTS**

- A. Island Transit reserves the right to perform construction operations with their own forces, or to award other contracts in connection with the other portions of the Project or other work on the site under these or similar conditions of the Contract.
- B. Contractor shall afford other contractors or tenants reasonable opportunity for the introduction and storage of their materials and equipment and for the execution of their work or business. Contractor shall properly coordinate this work with that of Island Transit, the tenants, or other contractors.

## **2.11 TIME OBLIGATIONS AND SCHEDULES**

- A. **Time**: Time is of the essence in the performance of this Contract. Contractor recognizes it is imperative that the Project proceed uninterrupted and shall endeavor to prevent and shall promptly cure any work stoppage caused by any labor or jurisdictional disputes arising out of the assignment of work to be performed by Contractor or its subcontractors of any tier.
- B. **Notice To Proceed (NTP)**: The Work to be performed under this Contract shall begin when a NTP is served upon Contractor (by e-mail or otherwise), or on the date specified in the NTP, and shall be completed no later than the date specified in the NTP or as may be mentioned elsewhere in the Contract Documents. Upon receipt of a NTP, Contractor shall promptly and diligently perform the Work as directed by Island Transit and shall not slow or stop the progress of the Work should a dispute arise and not immediately be resolved.
- C. **Construction Schedule Submittal**: Within 20 Calendar Days of the issuance of NTP1, Contractor shall submit for Island Transit's approval, a complete and detailed graphic and tabular construction schedule (Schedule) which shall show sequence and milestone dates in a form reasonably suitable for Island Transit's needs, and of sufficient scope to clearly define reasonable unitary and total times for all portions of the Project which clearly establishes the Critical Path of the Project. Island Transit shall be permitted to reasonably determine the amount of detail that will be included in the Schedule. If the Schedule is not provided within 15 Calendar Days and is not updated monthly, Island Transit, at its sole discretion, may delay payment to Contractor until an acceptable Schedule is provided.
- D. **Construction Schedule – Calendar Days**: The total number of Calendar Days shown on the Schedule shall not exceed the number of days specified in the NTP and the Contract Time can only be extended in accordance with the formal extension procedures described herein. If the approved Schedule shows completion of the Project sooner than the completion date specified in the NTP, the "float" between the two dates shall belong to the Project rather than to Island Transit or the Contractor exclusively. Any extensions of the Contract Time shall be net of any delays caused by the fault or negligence of the Contractor, or those for whom the Contractor is responsible, or which are otherwise the responsibility of Contractor. In addition to the Schedule and Schedule updates described herein, Island Transit may also request throughout the course of the Project, in which case Contractor shall prepare and deliver to Island Transit, a three-week "look ahead" schedule in detail which is reasonably acceptable to Island Transit.

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- E. **Approval of Construction Schedule:** Upon approval of the Schedule by Island Transit, such Schedule shall become a part of the Contract Documents. No changes in the final or milestone completion dates shall be incorporated into the Schedule without Island Transit's written approval. Contractor shall submit a monthly report which shows Project work completed versus Project work scheduled for completion.
- F. **Construction Schedule – Critical Dates:** Contractor shall maintain the Schedule and meet all critical dates. Should Contractor fail to meet any of the critical dates, unless failure to meet such critical dates is the result of causes set forth in Section 2.11(G), or should it become apparent that the critical dates will not be met, Contractor shall cause its employees, subcontractors, and all other parties covered by this Contract to perform work at hours and on days in addition to the normal working hours and days, and with whatever overtime work or shift work necessary to return to the original Schedule. Contractor shall not be reimbursed for any additional compensation paid to its employees or subcontractors, or for any cost resulting from such overtime work or shift work, and no adjustment shall be made to the Contract Amount.
- G. **Delays – Responsibility:**
1. In the event of delay to Contractor's Work resulting from the conduct or lack of conduct by Island Transit, its officers, employees, agents, or consultants; or resulting from delay or failure of Island Transit in making the project site available, or in furnishing any items required to be furnished to Contractor pursuant to the Contract Documents; or resulting from changes to the Project ordered by Island Transit; or resulting from Force Majeure as follows:
    - a) Extraordinary conditions of weather for the area and time of year, which shall not be deemed Extraordinary if they fall within 2 standard deviations from the mean of data recorded by the U.S. Weather Bureau for the Seattle/Tacoma metropolitan area over the last 20 years. Impacts of ongoing weather conditions shall be updated weekly by Contractor and provided to Island Transit. To preclude the difficulties of actual measurement, the Parties agree that weather data at the worksite shall be expressly deemed to be the same as that measured at the Seattle-Tacoma International Airport by the Environmental data and Information service of the National Oceanic and Atmospheric Administration ("NOAA") of the U.S. Department of Commerce.
    - b) War or national conflicts or priorities arising therefrom,
    - c) Fires beyond the reasonable control of Contractor,
    - d) Strikes or other labor disruptions, except for the first 5 Business Days of any strike or labor disruption,
    - e) Acts of nature,
    - f) Epidemic/Pandemic
    - g) Any other cause beyond Contractor's reasonable control (but not including delays caused by Contractor, subcontractors of any tier or suppliers); and for no other cause or causes.

Contractor shall be entitled to an extension of time and cost, as appropriate, with regard to the time for completion of the Project and only by the amount of time Contractor is actually delayed thereby in the performance of the Project, provided notice is given and Claim is made, both as hereinafter provided.
- H. **Delays – Burden of Proof:** It shall be Contractor's burden to prove that a delay exists for which an extension of time is allowable.
- I. **Lost Days:** The completion time contemplated by this Contract anticipates a certain number of lost days due to normal weather conditions. Only unusual or extreme weather conditions for the time of year will be considered as justification for an extension of time to complete the Project.
- J. **Substantial Completion:** After Substantial Completion, Contractor shall carry the Work forward expeditiously with adequate forces to achieve Final (Physical) Completion as soon as reasonably possible, but in all events within 30 Calendar Days, unless otherwise agreed to in writing by Island Transit, and satisfying all requirements necessary for Island Transit's Final Acceptance of the Project. The timing of all

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Work to be performed by Contractor after Substantial Completion, including but not limited to Punch List work, shall be coordinated with Island Transit.

## **2.12 PROTECTION OF PERSONS AND PROPERTY**

- A. Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to: (1) all employees on the Work and other persons who may be affected thereby, (2) all the Work and all materials and equipment to be incorporated herein, and (3) other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public authority (i.e. WISHA) having jurisdiction for the safety of persons or property and protect them from damage, injury, or loss. All damage or loss to property caused in whole or in part by the Contractor, subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor. Contractor shall notify the CTPM of any and all injuries, accidents, or safety related incidents pertaining to this Project immediately upon occurrence.
- B. **Project Safety:** Contractor agrees that it will meet all WISHA safety regulations and will notify Island Transit of all conditions on the job site, or contained within the Specifications, which appear to be in violation of the provisions of said Act. Contractor further agrees that it will include in all subcontracts, or contracts of purchase of materials, provisions requiring its subcontractors and suppliers to meet WISHA standards. All materials, components, and design elements of the Contract will be reviewed, and an affirmative determination made, by Contractor that they meet the requirements of WISHA.
- C. **Hazardous Chemical Inventory:** Contractor shall comply with the requirements of the Hazard Communication Standard, WAC 296-62-054 through 05425, and shall inform Island Transit of all hazardous substances which are to be used on Island Transit property and to which other personnel may be exposed under normal conditions of use or association or foreseeable emergency (Statutory Authority RCW 49.17.040 and 49.17.050). All such substances contemplated for use by a party to the Contract shall be communicated in writing to the CTPM no later than 5 Business Days before Work is to begin. Such writing shall identify the substance(s) by their common trade or generic chemical names, whether they are present singly or in combination with other substances, and the quantities to be used. Island Transit may request written information from Contractor about the substance(s), usually in the form of Safety Data Sheets (SDS) for which Island Transit does not have any previous information. Contractor is responsible for the safe transportation, storage, and use of all substances in accordance with the requirements of the Hazardous Materials Transportation Act (18 USC 1801 et. seq.) and other applicable laws and regulations. Nothing in this Section shall be construed so as to relieve Contractor of liability for the use, transport, storage, application, or disposal of a hazardous substance. Island Transit shall provide Contractor, upon its request, a current listing of substances known to be present on Island Transit property for the worksite concerned and to which Contractor's employees may reasonably be exposed. Island Transit assumes no liability for any effects of such exposure.
- D. **Drugs, Alcohol and Tobacco:** Island Transit provides and maintains a drug, alcohol, and tobacco free work environment that fully complies with company policy, the Drug-Free Workplace Act of 1988, and the Omnibus Transportation Employees Testing Act of 1991, 49 CFR Part 40 and 49 CFR Part 655. Contractor is expected to comply with Island Transit's Drug and Alcohol Abuse Policy which states that contractors suspected of being under the influence of either drugs or alcohol may be asked to leave company premises and could be banned from the property. Contractor shall further comply with Island Transit's Personnel Policy Section 9.5, Prohibiting Tobacco Use on Company Property" which prohibits tobacco use at any work site or on any company property. Island Transit has no designated smoking areas. A copy of Island Transit's policies will be made available to Contractor upon request.
- E. **COVID-19 Physical Distancing Plan:**

1. Within 10 Calendar Days of contract execution, Contractor must submit to Island Transit a work plan or written description detailing how the Contractor will meet all recommendations by the Centers for Disease Control and Prevention (CDC) and Island County Health District on physical distancing and Personal Protective Equipment (PPE) to slow the spread of COVID-19 while performing the Work as described in the Contract Documents.
2. All schedule impacts for implementing this plan will be accounted for in the Bid. Island Transit may request updated plans as recommendations change and actions should reflect current recommendations at the time of performance of the Work.
3. Pursuant to an Addendum to Proclamation 20-25 issued by the Washington State Governor, <https://www.governor.wa.gov/sites/default/files/proclamations/20-25%20Addendum%20Implementation%20of%20Phase%201%20Construction%20Restart%20Proclamation.pdf> Contractor shall meet the job site requirements set forth in this Addendum and any subsequent Addenda related to COVID-19 protocols for construction sites. All costs for meeting any subsequent requirements shall be borne by the Contractor and a request for an Equitable Adjustment may be made in accordance with Section 2.14(D) herein.

### **2.13 PAYMENT, PERFORMANCE AND RETAINAGE BONDS**

- A. **Payment and Performance Bonds:** On the date of contract execution and at Contractor's cost, Contractor shall furnish Island Transit, 1) a Payment Bond conditioned upon Contractor's payment of all subcontractors and materialmen, taxes imposed on Contractor under Title 82 RCW, and liquidated damages; and 2) a Performance Bond conditioned upon Contractor faithfully performing all of its obligations under the Contract and within the time prescribed therein. Each bond shall be made on Island Transit provided forms (see attached samples) and in an amount equal to 100% of the total Contract Amount, including all Change Orders and applicable sales tax. Bonds shall be issued by a corporate surety acceptable to Island Transit and licensed to do business in the State of Washington. In the event the surety becomes unacceptable to Island Transit during the course of construction, Contractor shall, upon Island Transit's written request and at contractor's sole cost and expenses obtain a payment, performance and warranty bond from another surety acceptable to Island Transit.
- B. **Retainage Bond:** Contractor may furnish Island Transit a Retainage Bond equal to 5% of the Contract Amount to be held in lieu of actual retainage. The bond shall be issued by a corporate surety acceptable to Island Transit and licensed to conduct business in the State of Washington. In the event the surety becomes unacceptable to Island Transit during the course of construction, Contractor shall, upon Island Transit's written request and at Contractor's sole cost and expense, obtain a Retainage Bond from another surety acceptable to Island Transit.

### **2.14 CHANGES IN THE WORK**

- A. **Owner Directed Changes:**
  1. Island Transit may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work, including but not limited to: (1) deleting any part of the Work; (2) increasing or decreasing quantities; (3) altering the Specifications, Drawings, or both; (4) altering the way the Work is done; (5) adding new work; (6) altering Island Transit furnished facilities, equipment, materials, services, or sites; (7) ordering the Contractor to accelerate or delay work. Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Island Transit causes an increase or decrease in the Contract Amount, Contract Time, or both, an equitable adjustment shall be made as provided hereunder and such adjustment shall be reduced to written agreement and executed by the Parties as a Change Order. Such changes shall not invalidate or nullify any portion of the Contract Documents nor release the surety. Contractor agrees to proceed diligently and perform the Work as altered.

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2. Changes or alterations in the Work will be communicated to the Contractor by a written Change Order Request (COR). If the changes or alterations significantly change the character of the Work, whether or not changed by any such different quantities or alterations, an equitable adjustment, excluding the loss of anticipated profits, will be made to the Contract. The amount to be paid to Contractor pursuant to the Contract shall, where applicable, be increased or decreased in the manner set forth hereunder. Upon receipt of a COR, Contractor shall promptly proceed to perform the Change in the Work, even though the amount of any resultant increase or decrease in the Contract Amount has not yet been determined or agreed upon. All Changes in the Work shall be performed in accordance with the Contract Documents. All Changes in the Work, when mutually agreed upon between the Parties as to method and/or amount of pricing and the effect, if any, upon the time to complete the Project, shall be reduced to written agreement and executed by Island Transit and Contractor as a Change Order. Change Orders shall be the only acceptable way to modify the Contract Amount or Contract Time.
- B. **Contractor Requested Changes:** Contractor shall promptly notify Island Transit in writing when it has received direction, instruction, interpretation, or determination (collectively, "Order") from any source that Contractor believes may cause a change in cost or time, or both, required for the performance of the Work. The COR shall state the date, circumstances, cost details, time implications, source of the Order, and a certification that Contractor regards the Order as a necessary change. The COR shall be submitted to Island Transit within 7 working days after Contractor receives said Order and before the Contractor acts thereon. Contractor may request additional time, compensation, or both with a COR. For any COR which has merit, Island Transit will initiate a Change Order to the Contract as provided in this Section. If the COR is denied and Contractor believes the request has merit, Contractor may proceed with the provisions in Section 2.20, Claims.
- C. **Change in Contract Amount:**
1. The Contract Amount shall only be changed by Change Order. Contractor shall include any request for a change in the Contract Amount in its Change Order proposal. Any agreed adjustment to the Contract Amount shall include a breakdown of cost detail, including but not limited to material, labor, Overhead, and Profit, which shall be negotiated and mutually agreed to.
  2. If the cost of Contractor's performance is changed due to the fault or negligence of Island Transit, or anyone for whose acts Island Transit is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Amount by delivering a written notice to Island Transit within 7 days of the occurrence of the event giving rise to the Request. For purposes of this part, "occurrence" means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event giving rise to the Request. If Contractor believes it is entitled to an adjustment in the Contract Amount, Contractor shall immediately notify Island Transit and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Island Transit access to any such records and, if requested, shall promptly furnish copies of such records to Island Transit.
  3. Contractor **shall not** be entitled to any adjustment in the Contract Amount for any occurrence of events or costs that occurred more than 7 days before Contractor's written notice to Island Transit; or to the extent Contractor's changed cost of performance is due to the fault or negligence of the Contractor or anyone for whose acts Contractor is responsible; or when the change is concurrently caused by Contractor and Island Transit; or for delays as defined in Section 2.11G. **Failure to properly give such written notice shall constitute a waiver of Contractor's right to an equitable adjustment.**
- D. **Equitable Adjustment:** Island Transit will have no obligation or liability on account of a Change in the Work except as specifically provided in this Section 2.14, Changes In The Work. No order, statement, or conduct of Island Transit (verbal or written) shall be treated as a Change Order under this provision or entitle the Contractor to an equitable adjustment. If any change under this provision causes an increase or a decrease in the Contractor's cost of, and or the time required for, the performance of any Work under this Contract, Island Transit will make an equitable adjustment and modify the Contract by a written Change Order or by an adjustment of the quantities as described in Section 2.14(L), Minor Adjustments in the Plans and Quantities.

For any change requested by Island Transit or the Contractor, the Contractor shall submit, within 7 working days of the request, a detailed price and time schedule proposal supported with documentation that reflects all cost and time related impacts on the Contract. The proposal shall be prepared in accordance with this Section and include a complete breakdown of direct costs of both deletions and additions directly attributable to the proposed change in the Work. It shall itemize labor, materials, equipment, and any other allowable direct costs. Each labor classification shall be broken out in detail. An aggregate labor total will not be acceptable. The proposal shall also be accompanied by signed bids of any subcontractor or sub-subcontractors who will perform any portion of the Change in the Work, and of any persons who will furnish materials or equipment for incorporation therein.

**E. Compensation for Change Orders:**

1. Overhead and Profit percentage markups shall not exceed those specified as allowed under this Section, and shall be deemed to cover all costs and expenses of any nature whatsoever, including without limitation those for general condition items such as clean-up, protection, supervision, estimating, field operations, small tools and security, which Contractor or any of its subcontractors may incur in the performance of, or in connection with, a Change in the Work and which are not otherwise specifically recoverable by them pursuant to this Section 2.14, Changes In The Work. The Parties agree and acknowledge that the adjustments to Contract Amount and Time, if any, contained in a Change Order shall constitute the total and complete compensation and remedy for the Change in the Work, including any effect of the individual change and any cumulative effects of prior Change Orders on the Work as a whole, and all direct and indirect costs of whatsoever kind or nature, including, without limitation, Overhead, extended Overhead, Profit, impact costs, ripple costs, delay costs, inefficiency costs, and all other special, incidental and consequential damages. The Parties shall negotiate a settlement of the time and cost related impacts of a change. A negotiated Change Order shall set out prices, scheduling requirements, time extensions and all costs of any nature arising out of the change. The execution of a Change Order by the Parties will be deemed an accord and satisfaction of all claims of any nature arising from or relating to the Change. In the event that the Parties are unable to agree on the amount of any adjustment to be made to the Contract Amount or Time, Island Transit may order the Contractor to proceed with the performance of the Work in question. Such work will, at Island Transit's option be paid for as either: (1) cost reimbursable work in accordance with Section 2.14(J), Cost Reimbursable Basis, or (2) pursuant to a unilateral Change Order issued by Island Transit. Contractor when so ordered shall proceed diligently with the Work.
2. When Contractor performs Work which the Contractor contends is additional or Changed Work under this Section, before agreement to a contract adjustment is reached, Contractor shall keep daily records of the costs incurred in connection with such Work in accordance with Section 2.14(J), Cost Reimbursable Basis and submit daily timesheets to Island Transit in accordance with that provision. Island Transit's action in approving timesheets submitted by Contractor shall not be construed as acceptance of Contractor's position regarding the need for the magnitude of an equitable adjustment for such Work.
3. Unless Island Transit agrees in writing to the contrary, Contractor shall only be permitted to perform Changes in the Work with its own forces if Contractor was the entity that performed, or was contemplated to perform, the original work of the trade in question.

**F. Pricing and Payment for Changes:**

1. Modifications in contract compensation shall be paid in accordance with properly executed Change Orders or as written minor adjustments per Section 2.14(L), Minor Adjustments in the Plans and Quantities. The method of how a Change Order will be priced, be it negotiated Lump Sum Fixed Price, Unit Price, Time and Materials, or a cost reimbursable basis, is solely at Island Transit's discretion.
2. In the event Change Order compensation is not agreed upon as negotiated Lump Sum Fixed Price, Unit Price, or Time and Materials, the change compensation shall be determined according to Section 2.14(J),

Cost Reimbursable Basis. Nothing in this Section shall be deemed to require a change in the contract compensation when additional, extra, or changed work is the result of an estimating, contracting, or engineering error by the Contractor. In no event shall Contractor be entitled to compensation for the loss of anticipated profits or consequential damages resulting for changes made in accordance with this Section 2.14.

3. If the Change in the Work will result in a decrease in the Work to be performed on the Project, the Contract Amount will be decreased by an amount equal to the estimated Cost of the Work as contained in the Contractor's or subcontractors' underlying bid or Schedule of Values. Further, if such decrease in the Work will result in a decrease in the time required to complete the Project, then the time for completion of the Project will be reduced by the length of time fairly attributable to such decrease in the Work.
4. Contractor shall timely submit costs in accordance with the provisions set forth in this Section 2.14. All costs shall be submitted within 14 Calendar Days of the completion of the changed work. **Failure to timely submit cost information shall serve as a waiver for compensation.** Cost information shall include verification supported by: (a) Labor detailed on daily time sheets; (b) Invoices for material; and (c) Any other information that serves as the basis for any claim for additional compensation.

**G. Change Order Pricing - Fixed Price:**

1. When the fixed price method is used to determine the value of any Work covered by a Change Order, or of a request for an equitable adjustment in the Contract Amount, the following procedures shall apply:
  - a) Contractor's COR shall be accompanied by a complete itemized list of the costs, including labor, material, subcontractor costs, Overhead, and Profit, and submitted on breakdown sheets in a form approved by Island Transit.
  - b) All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.
  - c) If any of Contractor's pricing assumptions are contingent upon anticipated actions of Island Transit, Contractor shall clearly state them in the COR or request for an equitable adjustment.
  - d) The cost of any additive or deductive changes in the Work shall be calculated as set forth below, including Overhead and Profit. Where a change in the Work involves additive/deductive Work by the same contractor or subcontractor, small tools, bonds, and insurance markups will apply to the net difference as set forth further in this Section.
  - e) If the total cost of the Change in the Work, or request for equitable adjustment, does not exceed \$1,000, Contractor will not be required to submit a breakdown if the description of the Change in the Work or request for equitable adjustment is sufficiently definitive for Island Transit to determine fair value.
  - f) If the total cost of the change in the Work, or request for equitable adjustment, is between \$1,000 and \$2,500, Contractor may submit a breakdown in the following level of detail if the description of the Change in the Work, or if the request for equitable adjustment, is sufficiently definitive to permit Island Transit to determine fair value:
    - 1) lump sum labor;
    - 2) lump sum material;
    - 3) lump sum equipment usage;
    - 4) Overhead and Profit, as set forth below; and;
    - 5) insurance and bond costs, as set forth below.

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- g) Any request for adjustment of Contract Amount based upon the fixed price method shall include only the following items:
- 1) **Craft Labor Costs:** These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:
    - i. **Basic Wages and Benefits:** Hourly rates and benefits as stated on the Department of Labor and Industries approved "Statement of Intent to Pay Prevailing Wages." Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours. No overtime premium will be paid, unless prior authorization has been given by Island Transit, and then only the premium portion of the overtime will be paid, with no additional benefits or Overhead.
    - ii. **Worker's Insurance:** Direct contributions to the State of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by the Department of Labor and Industries.
    - iii. **Federal Insurance:** Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
  - 2) **Material Costs:** This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts allowed by the supplier, freight costs, express charges, or special delivery charges, shall be itemized.
  - 3) **Equipment Costs:** This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the Change in the Work. Costs will be allowed for construction equipment only if used solely for the Changed Work, or for additional rental costs actually incurred by Contractor. Such charges shall not include charges for any item of equipment or tool with a new cost of five hundred dollars (\$500) or less, each. Equipment charges shall be computed on the basis of actual invoice costs or, if owned, from the current edition of one of the following sources:
    - i. Associated General Contractors – Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement; 2007 edition, as may be amended.
    - ii. The State of Washington Utilities and Transportation Commission for trucks used on highways.
    - iii. The National Electrical Contractors Association for equipment used on electrical work.
    - iv. The Mechanical Contractors Association of America for equipment used on mechanical work. The Data Quest Rental Rate (Blue Book) shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the aforementioned AGC WSDOT Equipment Rental Agreement.
  - 4) **Subcontractor Costs:** This is defined as payments Contractor makes to subcontractors for Changed Work performed by subcontractors of any tier. The subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.
  - 5) **Allowance for Overhead:** This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Island Transit of any change in the Contract Amount, but not to the cost of any change in the Contract Time, for which Contractor has been compensated pursuant to the conditions set forth in Section 2.14L. This allowance shall compensate Contractor for all non-craft labor, temporary construction facilities, field engineering, schedule updating, As-built drawings, home office cost, B&O taxes, office



engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the Change in the Work. It shall be strictly limited in all cases to a mutually acceptable reasonable amount or, if none can be agreed upon, to an amount not to exceed the rates below:

- i. For Contractor, for any Work actually performed by Contractor's own forces, 12% of the first \$50,000 of the cost and 6% of the remaining cost, if any.
  - ii. For each subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 12% of the first \$50,000 of the cost and 6% of the remaining cost, if any.
  - iii. For Contractor, for any work performed by its subcontractor(s), 6% of the first \$50,000 of the amount due each subcontractor and 4% of the remaining amount if any.
  - iv. For each subcontractor, for any Work performed by its subcontractor(s) of any lower tier, 6% of the first \$50,000 of the amount due the lower-tire subcontractor and 4% of the remaining amount if any.
  - v. The cost to which Overhead is to be applied shall be determined in accordance with subparagraphs 1) through 4) above.
- 6) **Allowance for Profit:** This is an amount to be added to the cost of any change in Contract Amount, but not to the cost of change in Contract Time for which Contractor has been compensated pursuant to the conditions set forth in Section 2.14(M). It shall be limited to a mutually acceptable reasonable amount, or if none can be agreed upon, to an amount not to exceed the rates below:
- i. For Contractor or subcontractor of any tier for work performed by their forces, 6% of the cost developed in accordance with this paragraph. For Contractor or subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% of the subcontractor cost developed in accordance with this paragraph.
- 7) **Cost of Change in Insurance or Bond Premium:** This is defined as:
- i. **Contractor's Liability Insurance:** The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and
  - ii. **Public Works Bond:** The cost of the additional premium for Contractor's bond arising directly from the changed Work. The costs of any change in insurance or bond premium shall be added after Overhead and Allowance for Profit are calculated in accordance with Paragraphs 2-14(G)(1)(g)(5) and 2-14(G)(1)(g)(6) above.

**H. Change Order Pricing -- Unit Prices:**

1. Whenever Island Transit authorizes Contractor to perform Work on a Unit Price basis, such authorization shall clearly state:
  - a) Scope of Work to be performed;
  - b) Type of reimbursement, including pre-agreed rates for material quantities; and
  - c) Cost limit of reimbursement.
2. Contractor shall:
  - a) Cooperate with Island Transit and assist in monitoring the Work being performed. As requested by Island Transit, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working;
  - b) Leave access as appropriate for quantity measurement;
  - c) Not exceed any cost limit(s) without Island Transit's prior written approval; and
  - d) Submit costs in accordance with this Paragraph 2-14(H) and satisfy the following requirements:

- 1) Unit prices shall be “fully burdened” rates that include reimbursement for all direct and indirect costs of the Work, including Overhead and Profit, and bond and insurance costs; and
- 2) Quantities must be supported by field measurement statements signed by Island Transit.

**I. Change Order Pricing -- Time-and-Materials (T&M) Prices:**

1. Whenever Island Transit authorizes Contractor to perform Work on a T&M basis, such authorization shall clearly state:
  - a) Scope of Work to be performed;
  - b) Type of reimbursement, including pre-agreed rates, if any, for material quantities or labor; and
  - c) Cost limit of reimbursement.
2. Contractor shall:
  - a) Cooperate with Island Transit and assist in monitoring the Work being performed. As requested by Island Transit, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working;
  - b) Identify on daily time sheets all labor performed in accordance with this authorization. Submit copies of daily time sheets within 2 working days for Island Transit's review;
  - c) Leave access as appropriate for quantity measurement;
  - d) Perform all Work in accordance with the Contract Documents as efficiently as possible; and
  - e) Not exceed any cost limit(s) without Island Transit's prior written approval.

**J. Cost Reimbursable Basis:**

1. Whenever Island Transit authorizes Contractor to perform Work on a Cost Reimbursable Basis, Work so performed and accepted shall be priced and paid for in the following manner
  - a) Direct Labor:
    - 1) For all labor directly engaged in the specific change, Contractor shall receive the prevailing wages paid on the project for each hour that the labor is actually engaged in the Work.
    - 2) The actual cost of the accident and unemployment premiums, the actual cost of any health, welfare, pension, or collective bargaining agreement benefits paid, computed on the base rate for the class of work involved for the actual amount of the payroll.
    - 3) No overtime premium will be paid, unless prior authorization has been given by Island Transit, and then only the premium portion of the overtime will be paid, with no additional benefits or Overhead.
  - b) Materials: For all materials and prices approved by Island Transit prior to placement of any order and used in the specific Change Order, Contractor shall receive the actual cost of materials, including freight charges, as shown by the original receipted bills for materials and freight, less any discount allowed by the supplier.
  - c) Contractor Owned or Leased Equipment:
    - 1) Payment for the use and operation of equipment owned or leased by Contractor shall be made for all construction and automotive equipment required in the performance of the change. Such charges shall not include charges for any item of equipment or tool with a new cost of five hundred dollars (\$500) or less, each.
    - 2) For equipment owned or leased by Contractor, the use and operation rates shall be as set forth in the latest edition of the Rental Rate Blue Book for Construction Equipment (Blue Book), published by Dataquest, Inc. San Jose, CA which is in effect at the time of commencement of the changed Work. Those rates shall be applied as follows:

- i. Rental for the equipment shall be computed and charged as follows: The monthly base rate for the equipment shall be multiplied by the rate of adjustment factor and the resulting product divided by one hundred seventy-six (176) hours/month to yield the hourly rental rate.

$$\text{Hourly Rental Rate} = \frac{\text{Monthly Rental Rate} \times \text{Rate Adjustment Factor}}{176 \text{ hours/month}}$$

The hourly rental rate for the equipment is multiplied by the actual number of hours the equipment is used for the changed Work.

- ii. The application of weekly, daily, or hourly rates as set forth in the Blue Book is hereby excluded.
- iii. The application of regional adjustment factors is hereby excluded.
- iv. Normal working conditions will be assumed unless otherwise approved by Island Transit.
- v. Use of the equipment for second or third shifts shall be at 50% of the first shift rate established in (i) above.
- vi. Unless otherwise agreed, the costs of fuel, lubricants, tires, and other expendables, repair parts, service and maintenance shall be charged at the Estimated Operating Cost/hr. as set forth in the Blue Book.
- vii. Operators will be paid for as Direct Labor in accordance with this Section 2.14(J)(1)(a).
- viii. Transportation costs to and from the work site for equipment shipped in specifically to perform changed Work, if approved in advance by Island Transit, will be paid separately. No payment for transportation costs will be made if the equipment brought to the work site for changed work is also used on contract work items.
- ix. Equipment standby time, if approved by Island Transit, will be paid for at 40% of the applicable rental rate.
- x. If the rate is not published in the Blue Book, Contractor shall furnish appropriate cost information to Island Transit to allow calculation of an appropriate rate following the principles established in the Blue Book.
- xi. All equipment rates as set forth above shall be established in writing before commencing any changed work.
- d) Outside Rental Equipment: If Contractor-owned or leased equipment is not available and equipment is rented from an outside source, payment will be made on the basis of actual invoiced cost, less any discount allowed by the renting source. Use of outside rental equipment at rates higher than the applicable Blue Book rate, as computed above, will not be allowed unless approved in writing in advance by Island Transit.
- e) Sub-contract and Outside Special Services: If Island Transit and Contractor agree that a certain item of work or service under the Change Request cannot be adequately performed by Contractor's organization, such work or service may be performed by a subcontractor or outside specialist. Where the cost reimbursable work necessitates fabrication or machining work by Contractor away from the work site, charges for such work may, by prior written agreement between Island Transit and Contractor, be accepted as a specialist billing. Costs for work performed by subcontractors shall be computed in the same way as if the work was done by Contractor.
- f) Overhead and Profit Percentage Allowances:
- 1) Contractor will be permitted to apply Overhead and Profit, not to exceed the percentages stated herein, to its increased cost resulting from any change in work ordered by Island Transit. Contractor's Overhead and Profit on the Work that it self-performs shall be calculated in accordance with paragraphs in Paragraphs 2-14(G)(1)(g)(5) and 2-14(G)(1)(g)(6) above. This is inclusive of any Design Fee or Construction Fee.

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- 2) The percentage allowances made to Contractor in accordance with the terms outlined herein constitute full compensation for all Overhead and Profit, work, services and costs not specifically designated in this provision or elsewhere in the Contract Documents as items for which payment is made. For purposes of Change Orders, the terms “Overhead”, “Profit”, and “direct cost” are defined as follows:
- i. Overhead: Means all costs not specifically allocable to the specific Change. It does not include Profit or direct costs specifically allocable to the specific change, including labor (inclusive of fringe and taxes), materials, contractor-owned or leased equipment, outside rental equipment, sub-contract and outside special services, permits, bond premium adjustments, insurance premium adjustments, quality control sampling and testing, and surveying. “Overhead” shall include, without limitation, the following costs:
    - a) All costs not specifically designated by the Contract for payment and not required by the Contract to be included in pay items; For the following classes of employees, the cost of all labor and labor related costs that are not a direct cost specifically allocable to the specific change, such as salaries, wages, burden, taxes, insurances, benefits and bonuses however described or classified by Contractor:
    - b) All supervisory and managerial employees above foreman level, whether or not directly engaged in the specific change, all professional, technical and administrative employees including field and office engineering, scheduling, estimating, purchasing, expediting, drafting, accounting, administration, clerical and secretarial;
    - c) All costs of ownership, rental, leasing, operation and maintenance of:
      - 1. Field offices and equipment; equipment facilities for telecommunications, data transfer, computing, office furniture, equipment and supplies; utilities; automobiles and pickup trucks unless used primarily for transportation of materials and supplies for the specific change; items of equipment and small tools costing \$500.00 or less per item.
      - 2. Expendable supplies and materials not incorporated into the Work.
      - 3. Safety equipment.
      - 4. Temporary construction.
      - 5. Transportation of materials, the cost of which is not identifiable to specific delivery or is included in the materials invoice.
      - 6. Employee parking.
      - 7. Permit fees not specifically related to the Work performed.
      - 8. Other field office Overhead costs.
  - ii. Profit: Is that portion of Contractor’s Bid Price or Unit Price that is not a Direct Cost or Overhead. Home and branch office costs shall not be part of Overhead. Such costs shall be deemed to be part of Contractor’s Profit; be the share of home and branch office costs allocable to the Contract; and include without limitation: Management and marketing costs; general and administrative expenses; administration, clerical/secretarial, accounting and payroll services; financing costs; and other home and branch office expenses.
  - iii. Direct Cost: Those costs in Paragraph 2.14(J)(1) Items a) – f) above which are directly related to the specific Change.
- g) Cost Reimbursable Invoices:
- 1) Time charged to cost reimbursable work shall be submitted daily to Island Transit for approval. Such time sheets shall be submitted in duplicate by Noon of the work day following the day on which the work was performed. One copy will be returned to Contractor; the other will be retained by Island Transit. Evidence of Island Transit’s approval of time sheets shall be submitted by Contractor with its invoice.

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- 2) Invoices for cost reimbursable work shall show in payroll from the dates, names, hours worked each day, rates of pay, and amounts paid for each individual employed on such work, and shall give in detail the nature of the Work performed by each employee.
  - 3) Invoices for materials shall be fully itemized showing the dates of delivery, quantities, unit prices, amounts, freight and discounts, and shall be accompanied by vendor invoices covering each item. Invoices for equipment rental shall be fully itemized showing a complete description including size and capacity of equipment. The number of hours operated each day, the rental rates and amounts for each individual piece of equipment used on such work, and any discount allowed.
  - 4) Invoices for cost reimbursable work shall be prepared and submitted in accordance with established payment procedures in Section 2.4, Payments. All invoices, payrolls, and other forms of requests for payment of cost reimbursable work shall be submitted in triplicate, with the progress payment request. Payment requests shall state the contract number and the cost reimbursable Work Order or Change Order number under which the Work was performed.
  - 5) Failure to present the requests in proper form within 45 Calendar Days after the close of the month in which the cost reimbursable work was performed shall constitute a waiver by Contractor of its right to present such claim thereafter or to receive payment therefore.
- K. **Contractor's Obligation to Proceed:** Contractor shall proceed diligently with any Work ordered under this Changes section in a timely manner so as to avoid delay and minimize any increase in the time required for performance of the Work. In no event shall Contractor proceed with any Changed Work without a fully executed Change Order or written order or directive from Island Transit to proceed. An inadvertent payment made by Island Transit for Work not specifically authorized in writing by Island Transit shall not constitute evidence or acknowledgement of Island Transit's liability for such payment. If the Parties disagree as to the change in Scope, Contract Amount, or Contract Time as a result of a Change in the Work, Contractor shall promptly and diligently perform the Work or the Change in the Work as directed by Island Transit. Contractor shall not slow or stop the progress of the Work or the Change in the Work pending resolution of any such disputes.
- L. **Minor Adjustments in the Plans and Quantities:**
1. Island Transit reserves the right to make minor adjustments in construction details shown on the Plans or required by the Specifications without the issuance of a formal Change Order when:
    - a) The character of the Work performed is the same, or substantially the same, as other Work required under the Contract;
    - b) There is an applicable pay item either in the original Bid Schedule or previously negotiated Change Order;
    - c) There is no difference in the quantity of the Work required or, unless specifically exempted in the Technical Specifications, the difference in the quantity of Work required does not exceed plus or minus 25% of the original contract quantity and the total of all adjustments to the pay item does not exceed plus or minus 25% of the original contract quantity or 5% of the total price, whichever is less; and
    - d) The adjustment does not affect the character or quantity of the other contract Work, the time for completion of the Contract, or the geographic contract limits.
  2. In accordance with this Paragraph 2.14(L), compensation for minor adjustments in the Plans or Specifications will be made by adjusting the pay quantity of the appropriate pay item, or previously priced item, for the actual increase or decrease in quantity attributable to the adjustment.
  3. An adjustment as described in this Paragraph 2.14(L) will be directed in writing by Island Transit and will provide an estimate of the magnitude of the adjustment and the proposed method of compensation.

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If Contractor disagrees with the direction or the method of the compensation, Contractor shall notify Island Transit in accordance with Section 2.14(B), Contractor Requested Changes.

**M. Change in the Contract Time:**

1. The Contract Time shall only be changed by a Change Order. Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time if the time of Contractor's performance is changed due to the fault or negligence of Island Transit, or anyone for whose acts Island Transit is responsible, or for Delay as defined in Section 2.11(G), Delays - Responsibility.
2. A request for an equitable adjustment in the Contract Time shall be based on a written COR delivered within 7 days of the occurrence of the event(s) giving rise to COR which shall set forth, at a minimum, a description of the event(s); the nature of the impacts to Contractor and its subcontractors of any tier, if any; and to the extent possible, the amount of the adjustment in Contract Time requested. **Failure to properly give such written notice shall, to the extent Island Transit's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.**
3. If Contractor believes it is entitled to an adjustment of Contract Time, Contractor shall immediately notify Island Transit and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Island Transit access to any such record and, if requested, shall promptly furnish copies of such records to Island Transit.
4. Contractor **shall not** be entitled to an adjustment in the Contract Time for any events that occurred more than 7 days before Contractor's written notice to Island Transit; or to the extent Contractor's changed time of performance is due to the fault or negligence of the Contractor or anyone for whose acts Contractor is responsible.
5. Within 30 days of the occurrence of the event giving rise to the request, unless Island Transit agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the COR with additional supporting data to include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Island Transit. **Failure to provide such additional information and documentation within the time allowed or within the format required shall constitute a waiver of Contractor's right to an equitable adjustment.**
6. Pending final resolution of any COR in accordance with this Paragraph, unless otherwise agreed to in writing, Contractor shall proceed diligently with performance of the Work.
7. Any change in the Contract Time covered by a Change Order, or based on a Request for an Equitable Adjustment (REA), shall be limited to the change in the critical path of Contractor's schedule attributable to the change of work or event(s) giving rise to the REA. Any COR for an adjustment in the Contract Time shall demonstrate the impact on the Critical Path of the Schedule. Contractor shall be responsible for showing clearly on the Progress Schedule that the change or event had a specific impact on the Critical Path and, except in case of concurrent delay, was the sole cause of such impact and could not have been avoided by re-sequencing the Work or other reasonable alternatives.
8. Contractor may request compensation for the cost of a change in Contract Time subject to the following conditions:
  - a) The change in Contract Time shall solely be caused by the fault or negligence of Island Transit or A/E;
  - b) Compensation is limited to changes in Contract Time for which Contractor is not otherwise entitled to be compensated under the Contract;
  - c) Contractor shall follow the procedures set forth in this Section.

- d) Contractor shall establish the extent of the change in Contract Time; and
- e) The daily cost of any change in Contract Time shall be limited to the items below, less funds that may have been paid pursuant to a change in the Contract Amount that contributed to this change in Contract Time:
  - 1) Cost of non-productive field supervision or labor extended because of the delay;
  - 2) Cost of weekly meetings or similar indirect activities extended because of the delay;
  - 3) Cost of temporary facilities or equipment rental extended because of the delay;
  - 4) Cost of insurance extended because of the delay;
  - 5) General and administrative Overhead in an amount to be agreed upon, but not to exceed 3% of Contract Amount divided by the Contract Time for each day of the delay.

## 2.15 WARRANTY

- A. In addition to Contractor's obligations to correct all deficient Work appearing during the course of performance of this Contract, Contractor shall remedy all defects due to faulty materials, equipment, furniture, or workmanship which appear within a period of one (1) year from the date of Final Acceptance of the Work under this Contract, or within such longer period of time as may be prescribed by law, or by the terms of any other applicable warranty period as specified or required by the Contract Documents or as provided by a manufacturer, dealer or supplier. The provisions of this Section shall apply to Work or materials done or provided by subcontractors, dealers, or suppliers as well as to Work done by direct employees of the Contractor.
- B. **Product:** In addition to any standard Manufacturer's Warranty, Contractor shall furnish Island Transit with copies of any warranties furnished as a normal trade practice in connection with the purchase of goods, including those from subcontractors and suppliers of materials and equipment and any work or service-related guarantee from same. Contractor is responsible for liability and expense caused by any inconsistencies or differences between the warranties extended to Island Transit by Contractor and those extended to Contractor by its suppliers, vendors, distributors and subcontractors. Such inconsistency or difference will not excuse Contractor's full compliance with its obligations under this Contract. Required repairs or replacements not covered by the Manufacturer's Warranty because of Contractor's deviation of the methods will be made by Contractor at no expense to Island Transit.
- C. Contractor further warrants to Island Transit that all furnished products shall: Conform to the requirements and specifications herein; Be of good marketable quality of latest model and current date; Exclude surplus remanufactured and used products; Be fit for the known purpose for which they are sold; Be free and clear of all liens and encumbrances and that Contractor has a good and marketable title to same; Not infringe any patent, registered trademark or copyright; and Contractor agrees to hold Island Transit harmless in the event of any infringement or claim thereof. Acceptance of any item or service and inspection incidental thereto by Island Transit shall not alter or affect the obligations of the Contractor or the rights of Island Transit.

## 2.16 TERMINATION

- A. **Termination For Convenience:** This Contract may be terminated by Island Transit at any time and for any reason upon written notice to Contractor. In the event of such termination, Contractor shall be paid, as total and complete compensation for the Work performed to date of termination, that portion of the Contract Sum which equals that portion of the Work performed up to the effective date of termination. In the event of Termination For Convenience of Island Transit, Contractor's claims resulting from such termination shall be limited to payment for (i) Work completed; (ii) Materials ordered prior to the termination date, provided that such ordered materials are subsequently delivered to Island Transit with a clean bill of sale, (iii) Contractor's fee allocable to items (i) and (ii); and (iv) Contractor's reasonable demobilization costs. Island Transit shall be released and discharged from all claims by the Contractor against Island

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Transit in connection with the termination. Contractor agrees Island Transit shall not be held liable for damages or loss of anticipated profits on account of such termination.

- B. **Termination For Cause:** If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision of the Contract, Island Transit may, after 7 days' written notice to Contractor, and without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from any payments then or thereafter due Contractor (as computed in the manner provided in Paragraph 2.16A above) or, at its option, may terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor and may finish the Work by whatever method Island Transit deems expedient. If the expense of completion of the Work performed hereunder exceeds any unpaid balance properly due Contractor, then Contractor shall pay the difference to Island Transit.
- C. **Termination Due to Suspension:** Island Transit may, in its sole discretion and upon written notice to Contractor, suspend the Work, in whole or in part, for a period of up to 90 consecutive Calendar Days. In the event Contractor is required by Island Transit to suspend all Work for more than 90 consecutive Calendar Days, Contractor may, upon 7 days' written notice, terminate the Contract. Upon termination, Contractor will be paid, as total and complete compensation for the Work performed to the date of termination, an amount computed in the manner as provided in Paragraph 2-16A. Island Transit shall not be held liable for damages or loss of anticipated profits on account of such termination.

## 2.17 **DISPUTES**

- A. Except as otherwise provided in this solicitation, any dispute concerning a question which is not disposed of by agreement between the Parties shall be decided by the Contracting Officer, who shall reduce the decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The Contracting Officer's Decision (COD) shall be final and conclusive unless, on or before the 90th day from the date of receipt of such copy, Contractor mails or otherwise furnishes a written appeal addressed to Island Transit's Executive Director (CEO).
- B. The decision of the CEO on such appeal shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary, so grossly erroneous as to constitute bad faith, or not supported by substantial evidence. No action challenging such decision shall be brought more than one year from the date of Contractor's receipt of such decision. In connection with any appeal of the COD, Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending the final resolution of a dispute hereunder, Contractor shall proceed diligently with the performance of the Contract and in accordance with the COD.
- C. If it is determined on appeal that the Contracting Officer's interpretation of the Contract, direction to the Contractor, or any other action required by the COD was an erroneous determination of the rights and obligations of the Parties under the Contract, the Contractor's remedy shall be the same as if such action were a Change Order under the Changes Section herein.

## 2.18 **PROJECT CLOSEOUT**

- A. In addition to any other closeout requirements stated elsewhere in the Contract Documents, the following items must occur and/or be on file with Island Transit after Final (Physical) Completion:
1. All temporary locks, keys, and other Owner Furnished items loaned to Contractor.
  2. Record Documents (i.e. As-Built Drawings, O&M Manuals, Warranties, etc.)
  3. Payment Application representing 95% payment of the Contract Amount (5% retainage deducted); or
    - a. Representing 100% payment of the Contract Amount, if there is a Retainage Bond.
  4. Affidavit of Wages Paid approved by L&I for Contractor and all subcontractors.



5. Verification that certified payrolls are on file with L&I and any compliance issues have been resolved.
  6. Releases from WA State Departments of Revenue, L&I, and Employment Security.
  7. Certificates of lien clearance for Contractor and all subcontractors.
  8. Consent of Surety for Final Payment
  9. Release for any outstanding Claims by subcontractors/materialmen, etc.
- B. Release of Retainage Bond, if applicable: Retainage Bond is held until all required closeout documents are on file with Island Transit.

## **2.19 DEBARMENT AND SUSPENSION**

- A. Contractor, including any of its officers or holders of a controlling interest, is obligated to inform Island Transit whether or not it is or has been on any debarred list by the State or federal government within a three (3) period from the Bid Due Date. Should Contractor ever be included on such a list during the performance of this Project, it shall so inform Island Transit. Being on such list may be grounds for non-award of a contract or termination.
- B. Bidders are required to submit Form 7.5 Certification of Non-Disbarment and Suspension.
- C. Contractor and all subcontractors will either: 1) Review a subcontractor's status on the Washington State Department of Labor and Industries "Debarred Contractor's List" at <https://secure.lni.wa.gov/debarandstrike/ContractorDebarList.aspx> and/or the federal System for Award Management (SAM) website at <https://www.sam.gov/SAM/> before entering into any contracts relative to this Project; or 2) Collect a certification from all lower tiered sub-contractors.

## **2.20 CLAIMS**

- A. It is an express condition of the Contractor's right to make a Claim or to receive any recovery or relief under or in connection with the Contract, that the Contractor submit a written notice of Intent to Claim to Island Transit in accordance with the provisions of this Section. Failure to comply with the provisions hereof shall constitute a waiver by Contractor of any right, equitable or otherwise, to bring any such claim against Island Transit.
- B. A Claim is a demand or assertion by one of the Parties seeking, as a matter of right, adjustment or interpretation of contract terms, payment of money, and extension of time or other relief with respect to the terms of the Contract. Claims shall be made in writing. A written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a Claim until certified as required under the Contract Disputes Act of 1978. The responsibility to substantiate claims shall rest with the Party making the Claim.
- C. **Notice of Intent to Claim:** Written Notice of Intent to Claim shall be given in writing within 8 Calendar Days of the commencement of the event giving rise to the Claim. If the event or occurrence is claimed to be an act of omission of Island Transit, notice shall be given prior to the commencing of the portion of the Work to which such alleged act or omission relates. The written Notice of Intent to Claim shall set forth: 1) the reasons for which Contractor believes additional compensation will or may be due; 2) the nature of the costs involved; 3) Contractor's plan or action for mitigating such costs; and 4) if ascertainable the amount of the potential claim.
- D. **Written Claim:** Following written notice of a Claim, Claims shall be made in writing within 21 Calendar Days after occurrence of the event giving rise to such Claim, or within 21 Calendar Days after the Claimant first reasonably should have known of the condition giving rise to the Claim, whichever is later. Contractor's written Claim shall provide, at a minimum, the following details: 1) the date and a detailed description of the event giving rise to the Claim; 2) a detailed statement of the nature of all impacts to Contractor and all

others, if any, affected by the Claim event; 3) a detailed breakdown and calculation of the amount of the adjustment in Contract Amount, if any, sought by the Contractor for itself and for others, if any, together with substantiation and backup for all costs; 4) a detailed explanation of the amount of the adjustment to Contract Time, if any, sought by Contractor, together with Critical Path Method (CPM) Schedule Analysis showing the claimed impact on the Project completion date asserted by Contractor; 5) a detailed analysis and substantiation for other relief, if any, sought with respect to the terms of the Contract; and 6) a statement of all provisions of the Contract Documents upon which the Claim is based.

- E. **Additional Records and Audit:** Contractor shall be responsible to furnish, when requested by Island Transit, such further information and details as may be required to determine the facts or contentions involved in said Claim. Contractor agrees to give Island Transit access to account books, records or other materials relating to the Work and shall cause his subcontractors to do the same, so that Island Transit can investigate such claim. The right of audit shall continue throughout the claims and/or dispute processes described herein. Depending upon the grounds for relief and the nature of the relief sought, additional submittals and conditions upon submitting claims may be required, as set forth elsewhere in the Contract.
- F. **Contractor's failure to submit any Claim in writing within the relevant time and in the manner prescribed shall waive any relief that might otherwise be due with respect to such Claim.**
- G. Pending final resolution of a Claim, Contractor shall proceed diligently with performance of the Contract. Island Transit will continue to make proper payments for work items that are undisputed and in accordance with the Contract.
- H. The Parties acknowledge and agree that this Section has been specifically negotiated and they hereby waive all Claims against each other for the following damages that may arise out of or relate to this Contract, incurred by Contractor (and those for whom Contractor is responsible) for principal or home office expenses including, without limitation, the compensation of personnel stationed there, for losses of bonding capacity, and for loss of Profit other than anticipated profits arising directly from performed Work.
- I. **Time and Schedule:** If Contractor claims entitlement to an extension of time to complete the Project, it shall be Contractor's responsibility to prove to Island Transit that the delay in completion of the Project was caused specifically by a delay in a portion of the Project that was on the critical path of the Construction Schedule. Each Claim the Contractor may submit for an adjustment on account of delay for any cause shall be accompanied by a revised Project Schedule reflecting the effects of the delay and Bids to minimize these effects. If no project schedule has been submitted to Island Transit reflecting conditions prior to delay for which relief is sought, then a project schedule so reflecting these conditions shall be prepared and submitted with the claim.
- J. **Review Timeframe:** Island Transit shall be entitled to reasonable time, in no case more than 90 days, after it receives the Claim in writing and accompanied by proper supporting documents and evidence, in which to investigate, review and evaluate such claim. When Island Transit has completed its investigation, review, and evaluation, it will advise Contractor of the relief, if any, to which it has found the Contractor to be entitled. Should Contractor not be satisfied with Island Transit's findings, the disputes resolution process may be used within 14 Calendar Days after being so advised thereof.
- K. In no event shall Claims be made after final payment is made under the Contract completion provisions. A Claim will cease to be a Claim if, at any time, a Change Order or Contract Amendment resolving the issue is signed by the Parties.

--END SECTION 2--

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## SECTION 3 – SPECIAL TERMS AND CONDITIONS

### 3.1 CONSTRUCTION DOCUMENTS

All information and documents concerning this Project will be posted on Island Transit's e-Procurement Portal and will be available to registered Vendors free of charge.

### 3.2 PROSECUTION AND COMPLETION OF THE WORK

The Work to be performed under the Contract is described in the Contract Documents. Island Transit intends to issue Substantial Completion on all portions of the Project as one complete Work.

### 3.3 LIQUIDATED DAMAGES

- A. The liquidated damage amounts set forth in the Contract Documents will be assessed for Contractor's failure to achieve Substantial Completion and/or Final Completion within the Contract Time. Liquidated damages are not a penalty but will be assessed against Contractor for failure to achieve Substantial Completion within the timeframe allotted. The liquidated damage amounts are fixed and agreed upon between the Parties. Due to the extreme difficulty of determining the actual damages Island Transit would sustain, the amount published shall be construed as the actual amount of damages sustained by Island Transit, and may be retained by Island Transit and deducted from payments to Contractor. Assessment of liquidated damages shall not release Contractor from any further obligations or duties pursuant to the Contract Work. Due to the nature of this Project and its impact to Island Transit's operations, additional damages calculated from Island Transit's operational impacts may also be assessed.
- B. **Failure to Achieve Substantial Completion:** Timely performance and completion of the Work is essential to Island Transit and the time limits stated in the Contract are of the essence. Island Transit will incur substantial damages if Substantial Completion of the Work does not occur within the Contract Time. Failure to achieve Substantial Completion within the Contract Time will result in damages assessed against the Contractor in the amount of **\$1,500.00 per day** for each day beyond the number of days or specific dates established for the appropriate work phase as identified.

### 3.4 PRECEDENCE OF DOCUMENTS

- A. Each part of this solicitation is meant to complement each other in describing a complete Work. Any requirement in one part binds as if stated in all parts. Contractor shall provide any Work or Materials clearly implied in the Contract even if the Contract does not mention it specifically. In the event of conflict between provisions, the most stringent provision shall be given precedence over the least stringent provision. Special Conditions will be given precedence over General Conditions.
- B. Any inconsistency in the parts of the Contract shall be resolved by following this Order of Precedence (i.e. 1 presiding over 2,3,4,5,6 and 2 presiding over 3,4,5,6); and so forth:
1. Mandatory Bid Forms
  2. Division 0, Section 2 "General Contract Terms and Conditions"
  3. Division 0, Section 3 "Special Provisions"
  4. Contract Plans
  5. Amendments to the Technical Specifications
  6. Technical Specifications
  7. Standard Plans/Working Drawings
  8. Other Standard Details included in the solicitation

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- C. On the Contract Plans, Working Drawings, and Standard Plans, computed dimensions shall take precedence over scaled dimensions. Larger scale drawings shall be given precedence over smaller scale drawings.
  - D. This Order of Precedence shall not apply when Work is required by one part of the Contract but omitted from another part or parts of the Contract. The Work required in one part must be furnished even if not mentioned in other parts of the Contract.
  - E. If any parts of the Contract requires Work that does not include a description for how the Work is to be performed, the Work shall be performed in accordance with Standard trade practice(s). For purposes of the Contract, a standard trade practice is one having such regularity of observance in the trade to justify an expectation that it will be observed by the Contractor in doing the Work.

### **3.5 TECHNICAL SPECIFICATIONS**

- A. These Division 0, "Bidding and Contract Requirements" provisions apply to Work in all other Sections (CSI Divisions 00 – 41) of the Technical Specifications.
- B. **Brand Name and "or Equal" Products:** Unless otherwise provided in the solicitation, or unless the name is followed by words indicating that no substitution is permitted, the reference to a certain brand name, make, model number, or manufacturer does not restrict the Bidder to the specific brand, make, model number or manufacturer identified. The specific references to a brand is not intended to exclude other products but to convey the salient characteristics of function, performance, design requirements and quality of the item described. Comparable products of other manufacturers will be considered if proof of comparability is submitted in accordance with Division 01, Section 01 60 00 "Product Substitution Procedures". Any item which Island Transit, at its sole discretion, determines to be equal to that which is specified, considering quality, workmanship, economy of operation, and suitability for the process intended, will be accepted.

### **3.6 TRENCH EXCAVATION SAFETY SYSTEMS BID**

- A. The Project will NOT involve trench excavation in excess of a depth of four feet.
- ~~B. Bidder must include a lump sum dollar amount in the space indicated on Form 7.2, Price Sheet for the cost of the trench safety systems for the trench excavation. Such costs shall not be considered as incidental to any other contract item, and any attempt to include the trench safety systems as an incidental cost is prohibited. Identification of this amount is an acknowledgment that the Bidder has considered proper safety provisions in the bid amount but does not relieve the Bidder of responsibility for full compliance with all laws and statutes regardless of their actual cost.~~
- C. ~~A Bid that identifies the cost of the trench safety systems as "N/A," "zero," or "0.00" shall be declared non-responsive.~~

--END SECTION 3--

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## SECTION 4 - INSURANCE REQUIREMENTS

### 4.1 EVIDENCE AND CANCELLATION OF INSURANCE

- A. Prior to execution of the Contract, Contractor shall file with Island Transit evidence of insurance and endorsements from the insurer(s) certifying to the coverage of all insurance required herein. All evidence of insurance must be certified by a properly authorized officer, agent, general agent or qualified representative of the insurer(s) and shall certify the name of the insured, the type and amount of insurance, the location and operations to which the insurance applies, the expiration date, and that Island Transit received notice at least thirty (30) days prior to the effective date of any cancellation, lapse or material change in the policy. Approval of insurance by Island Transit shall not relieve or decrease the liability of Contractor for any damages arising from Contractor's performance of the Work.
- B. Contractor shall, upon demand of Island Transit, deliver to Island Transit all such policies of insurance, and all endorsements and riders, and the receipts for payment of premiums thereon. Failure to provide such insurance in a time-frame acceptable to Island Transit shall enable Island Transit to suspend or terminate Contractor's Work hereunder in accordance with the provisions regarding "Termination for Convenience/Default/Suspension". Suspension or termination of this Contract shall not relieve Contractor from its insurance obligations hereunder.

### 4.2 INSURANCE REQUIREMENTS

- A. Contractor shall obtain and maintain the minimum insurance set forth below. By requiring such minimum insurance, Island Transit shall not be deemed or construed to have assessed the risks that may be applicable to the Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage. Nothing contained within these insurance requirements shall be deemed to limit the scope, application and/or limits of the coverage afforded, which coverage will apply to each insured to the full extent provided by the terms and conditions of the policy(s). Nothing contained with this provision shall affect and/or alter the application of any other provision contained with this Contract. For all coverages:
  1. Each insurance policy shall be written on an "occurrence" form; excepting that insurance for Professional Liability, Errors and Omissions, when required, may be acceptable on a "claims made" form.
  2. If coverage is approved and purchased on a "claims made" basis, Contractor warrants continuation of coverage either through policy renewals or the purchase of an extended discovery period, if such extended coverage is available, for not less than six (6) years from the date of completion of the Work which is the subject of this Contract.

- B. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Commercial General Liability: Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence) Form number CG 00 01 04 13, or most current edition.
2. Builders Risk Insurance:
  - a) During the period construction is in progress, and until completion of the Project and acceptance by Island Transit, Contractor shall buy and maintain in force builder's risk insurance on the entire Work. Such insurance shall be written on a completed value form and in any amount equal to the value of the completed Project, subject to subsequent modifications to that sum. The insurance shall be written on a replacement cost basis. This insurance shall name as loss payee Island Transit, Contractor and all subcontractors and sub-subcontractors in the Work. The builders risk policy shall be maintained in effect, unless otherwise provided for in the contract documents, until the earliest of the following dates: (a) the date on which all persons and organizations who are insureds on the policy agree it shall be terminated; (b) the date on which final payment has been made; (c) the date

on which the insurable interests in the property of all insureds other than the Transit Agency have ceased.

- b) Insurance required in this Section shall cover the entire Work at the site, including reasonable compensation for architect's services and expenses made necessary by an insured loss. Insured property shall include portions of the Work located away from the site but intended for use at the site and shall also cover portions of the Work in transit.
  - c) The policy shall include as insured property scaffolding, false work, and temporary building located at the site. The policy shall cover the cost of removing debris, including demolition as made legally necessary by the operation of any law, ordinance, or regulation.
  - d) Any deductible applicable to the insurance bought in compliance with this Section shall be identified and the responsibility for paying the part of any loss not covered because of application of deductible(s) shall be the responsibility of Contractor. If any part of any loss is not covered because of the application of a deductible amount and not identified, such loss will be paid by Contractor.
3. Business Auto Liability: ISO commercial auto form (CA 00 01, CA 00 05, CA 00 12, CA 00 20). If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in ISO form CA 00 01.
  4. Professional Liability: <NOT APPLICABLE>
  5. Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, as well as any similar coverage required for this Work by applicable federal or "Other States" State Law.
  6. Employers Liability or "Stop Gap": The protection provided by the Workers Compensation Policy Part 2 (Employers Liability) or, in states with monopolistic state funds, the protection provided by the "Stop Gap" endorsement to the General Liability policy.

If the Contractor maintains higher limits or broader coverage than the minimums shown below, the Transit Agency shall be entitled to the full coverage and limits maintained by or available to the Contractor: The Insurance obligations under this agreement shall be: 1—all the Insurance coverage and limits carried by or available to the Contractor; or 2—the minimum Insurance requirements shown in this agreement, whichever is greater.

**C. Minimum Limits of Insurance**

Contractor shall maintain limits no less than, for:

1. Commercial General Liability: \$2,000,000 Combined Single Limit per occurrence for Bodily Injury, Personal Injury and Property Damage, and for those policies with aggregate limits, a \$5,000,000 aggregate limit.
2. Business Auto Liability: \$1,000,000 limit each accident for any auto. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in ISO form CA 00 01.
3. Workers' Compensation: \$1,000,000 per Washington State statutory requirements.
4. Employers Liability Stop Gap: \$1,000,000.

**D. Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to and approved by Island Transit. The deductible and/or self-insured retention of the policies shall not limit or apply to Contractor's liability to Island Transit and shall be the sole responsibility of Contractor.

**E. Other Insurance Provisions**

The insurance policies required in this Contract are to contain, or be endorsed to contain, the following

provision:

1. Commercial General Liability Policy: Island Transit, its officers, officials, employees, and agents shall be covered as Additional Insured in respects to liability arising out of activities performed by or on behalf of Contractor under this Contract.
2. To the extent of Contractor's negligence, Contractor's insurance coverage shall be primary insurance as respects Island Transit, its officers, officials, employees and agents. Any insurance and/or self-insurance maintained by Island Transit, its officers, officials, employees or agents shall not contribute with the insurance or benefit the contractor in any way.
3. Contractor's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

**F. Acceptability of Insurers**

1. Each contract of insurance required hereunder, including but not limited to extensions and renewals, shall be by companies authorized by the Washington State Office of the Insurance Commissioner to enter into such contract of insurance or to transact insurance business in Washington. Unless otherwise approved by Island Transit, insurance is to be placed with insurers with a Bests' rating of no less than A:VIII or, if not rated with Bests', with minimum surpluses the equivalent of Bests' surplus size VIII.
2. If at any time one of the foregoing policies shall be or become unsatisfactory to Island Transit, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to Island Transit, Contractor shall, upon notice to that effect from Island Transit, promptly obtain a new policy, and shall submit the same to Island Transit, with the appropriate certificates and endorsements, for approval.

**G. Subcontractors**

Contractor shall include all subcontractors as insureds under its policies, or shall furnish separate certificates of insurance and policy endorsements for each subcontractor. Insurance coverages provided by subcontractors as evidence of compliance with the insurance requirements of this Contract shall be subject to all of the requirements stated herein. All subcontractors shall name Island Transit its officers, officials, employees and agents as Additional Insured, Form CG 2010 11 85, on a primary basis. All insurance policies shall be endorsed to provide that no policy shall be cancelled, changed or reduced in coverage, until after thirty (30) days prior written notice has been delivered to Island Transit through certified mail. Exceptions to form must be approved by the Executive Director.

**H. Work Site Safety**

Contractor shall have the "right to control" and bear the sole responsibility for the job site conditions, and job site safety. Contractor shall comply with all applicable federal, State and local safety regulations governing the job site, employees and subcontractors. Contractor shall be responsible for the subcontractor's compliance with these provisions.

**I. Rights of Subrogation**

1. Island Transit reserves and retains its rights of subrogation and shall further have the right, at its election and expense, to pursue collection and recovery from any and all responsible third parties. Contractor shall cooperate with Island Transit in such recovery and collection and shall make its records and personnel available.
2. As to any accident or incident to which this paragraph is applicable, any and all sums so recovered by Island Transit, as provided hereunder, after deduction only of court costs, shall be reimbursed to Contractor. The pendency of any collection efforts against third parties, including litigation, shall in no way delay or diminish the obligation of Contractor to promptly remit the sums due to the Authority under the provisions of this Paragraph.

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- J. Contractor shall not commence Work under this Contract, nor shall Contractor allow any subcontractor to commence Work, until it has obtained all insurance required under this Article and such insurance has been approved by Island Transit.
- K. Island Transit shall be named as Additional Insured on all insurance policy certificates and endorsements.
- L. Contractor shall furnish Island Transit with satisfactory written proof of coverage of the insurance (Certificates of Insurance) required prior to commencing any Work. Each policy of insurance shall contain the following clause:
- “It is agreed that these policies shall not be canceled nor the coverage reduced until thirty (30) days after Island Transit shall have received written notice of such cancellation or reduction by certified mail.”**
- M. This Contract is in no way intended to be a third party beneficiary contract and confers no rights on anyone other than Island Transit and the Contractor. Nothing herein shall constitute any imposition or acceptance of any personal obligation or liability not otherwise imposed by law upon or by any individual associated with Island Transit or Contractor.
- N. It is expressly agreed and understood that the officers, proprietors, owners, agents, servants, and employees of the Contractor are in no way entitled to any benefits, whatsoever (including so called employees benefits or fringe benefits) from Island Transit.
- O. In the event Contractor is required to make corrections on the premises after the Project has been inspected and accepted, Contractor shall obtain at its own expense and before commencement of any corrective Work, full insurance coverage as specified herein.
- P. The Contractor shall provide to the Transit Agency a performance and payment bond fully satisfying all requirements of RCW 39.08. Such bond or bonds shall be in an amount equal to 100 percent of the contract sum plus Washington State sales taxes. The Surety must possess a minimum rating from A.M. Best Company of A: VII. Also, the surety or co-sureties should be listed as acceptable surety on federal bonds by the US Department of Treasury.

**--END SECTION 4--**



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## **SECTION 5 – FEDERAL REQUIREMENTS**

### **5.1 Applicability of Federal Grant Contract**

- A. This Agreement may be subject to one or more financial assistance contracts between Island Transit and the U.S. Department of Transportation, which incorporate the current FTA Master Agreement and Circular 4220.1F, as amended. U.S. Department of Transportation's level of financial assistance may be between zero and eighty percent (0-80%). CONTRACTOR is required to comply with all terms and conditions prescribed for third party contracts in this Section 5.
- B. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, as amended, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. CONTRACTOR shall not perform any act, fail to perform any act, or refuse to comply with any Island Transit request that would cause Island Transit to be in violation of the FTA terms and conditions incorporated into this Agreement.
- C. The FTA Master Agreement obligates Island Transit to incorporate certain provisions into this Agreement and any lower tier subcontracts at any level and to take appropriate measures to ensure that CONTRACTOR and its lower tier subcontractors at any level comply with certain applicable requirements set forth in the FTA Master Agreement. The provisions of the FTA Master Agreement are hereby incorporated by reference into this Agreement. CONTRACTOR shall comply with all such requirements.
- D. Any changes to the FTA Master Agreement or the FTA Circular 4220.1F, as amended, that are applicable to this Agreement are made a part of this agreement. Copies of the FTA Master Agreement are available from Island Transit. Federal laws, regulations, policies, and administrative practices may be modified or codified after the date of this agreement is established and may apply to this solicitation. To assure compliance with changing federal requirements, CONTRACTOR agrees to accept all changed requirements that apply to this agreement.

### **5.2 Federal Funding Limitation**

- A. CONTRACTOR understands that a portion of the funds to pay for its performance under this Agreement are anticipated to be made available from the United States Department of Transportation through the Federal Transit Administration (FTA). Island Transit's obligation hereunder is, in part, payable from funds that are appropriated and allocated by FTA for the performance under this Agreement. If such funds are not allocated, or ultimately are disapproved by FTA, Island Transit may be required to terminate or suspend CONTRACTOR's services without penalty.
- B. In this event, the Agreement will be terminated for convenience in accordance with Division 00 – Section 2, Paragraph 2.16 of this Agreement.

### **5.3 Recovered Materials**

- A. CONTRACTOR agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in subpart B of 40 CFR Part 247. These requirements extend to all third party contractors and their contracts at every tier and subrecipients and their subagreements at every tier.

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#### 5.4 **Energy Conservation**

- A. CONTRACTOR agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. Section 6321 et seq.).

#### 5.5 **Clean Water**

- A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC §§ 1251, et seq. CONTRACTOR agrees to report each violation to Island Transit and understands and agrees that Island Transit will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- B. CONTRACTOR also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

#### 5.6 **Clean Air**

- A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 USC §§ 7401, et seq. CONTRACTOR agrees to report each violation to Island Transit and understands and agrees that Island Transit will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- B. CONTRACTOR also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

#### 5.7 **Federal Lobbying Restrictions**

- A. This Agreement is subject to Section 319, Public Law 101-121 (31 U.S.C. §1352) and U.S. DOT regulations "New Restrictions on Lobbying", 49 CFR Part 20, which prohibits Federal funds from being expended to influence or to attempt to influence an officer or employee of any agency, members of Congress, an office or employee of Congress, or an employee of an Member of Congress in connection with the awarding of any federally funded contract, the making of any Federal grant or loan, or entering into any cooperative agreement and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. CONTRACTOR and any subcontractors that at any time apply or bid for a contract award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying". Each tier certifies to the tier above that it will not and has not used Federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or any employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to CONTRACTOR. CONTRACTOR's signature on this certification certifies that: a) it has not engaged in the prohibited activity, and b) the language of the certification is or will be included in all lower tier subcontracts that exceed \$100,000, and (3) that all its subcontractors have certified and disclosed accordingly. Island Transit is responsible for keeping the certification form of CONTRACTOR, who is in turn responsible for keeping the certification forms of subcontractors. Further, by executing the Agreement, CONTRACTOR agrees to comply with these laws and regulations. If CONTRACTOR or its subcontractors have engaged in any lobbying activities to influence or attempt to influence the awarding of subcontracts under this Agreement, the contractor must disclose these activities. In such a case, CONTRACTOR and its subcontractor shall complete Standard Form SF-LLL, "Disclosure of Lobbying Activities".

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- B. CONTRACTOR and any subcontractor shall file a disclosure form (SF-LLL) at the end of each calendar quarter in which there occurs any event that requires disclosure (as described in Subsection (A) above) or that materially affects the accuracy of a previously filed disclosure form. An event that materially affects the accuracy of the information reported includes:
1. A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence this federally funded Agreement; or
  2. A change in the person(s) influencing or attempting to influence this federally funded Agreement; or
  3. A change in the officer(s), employee(s) or member contracted to influence or attempt to influence this federally funded Agreement.

#### **5.8 Program Fraud and False or Fraudulent Statements or Related Acts**

- A. CONTRACTOR acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Agreement. CONTRACTOR certifies or affirms, the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to this Agreement or the FTA assisted project for which this work is being performed. In addition to other penalties that may be applicable, CONTRACTOR further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on CONTRACTOR to the extent the Federal Government deems appropriate.
- B. CONTRACTOR also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on CONTRACTOR, to the extent the Federal Government deems appropriate.
- C. CONTRACTOR agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

#### **5.9 Civil Rights**

- A. In addition to Island Transit nondiscrimination requirements set forth in other Sections in this Agreement, the following Federal requirements apply to CONTRACTOR's performance under this Agreement:

1. Nondiscrimination

In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, CONTRACTOR agrees that it will not discriminate against any person on the basis of race, color, creed, national origin, sex, age, or disability under any program or activity receiving Federal financial assistance. In addition, CONTRACTOR agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

2. Equal Employment Opportunity

a. Race, Color, Creed, National Origin, Sex

In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, CONTRACTOR agrees to comply with all applicable equal

employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulation, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor", 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity", as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. CONTRACTOR agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff, or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship.

b. Age

In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623 and Federal transit law at 49 U.S.C. § 5332, CONTRACTOR agrees to refrain from discrimination against present and prospective employees for reason of age.

c. Disabilities

In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, CONTRACTOR agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the "Americans with Disabilities Act", 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities.

d. Disadvantaged Business Enterprises

This Agreement is subject to the requirements of Title 49 C.F.R. Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. CONTRACTOR and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. CONTRACTOR shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of this U.S.D.O.T.-assisted Agreement. Failure by CONTRACTOR to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as Island Transit deems appropriate. Each subcontract CONTRACTOR signs with a subcontractor must include the assurance in this paragraph (see 49 C.F.R. 26.13(b)).

e. CONTRACTOR also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties. In addition, the CONTRACTOR agrees to comply with any implementing requirements FTA may issue.

3. Flow Down

The Civil Rights requirements flow down to all third party contractors and their contracts at every tier.

**5.10 Certification Regarding Debarment, Suspension and Other Matters**

- A. Pursuant to Executive Order 12549 and 12689, "Debarment and Suspension", 31 USC § 6101 and federal regulations in 49 CFR 29, entities and individuals who are debarred or suspended by the federal government are excluded from obtaining federal assistance funds under this Agreement. To assure that such entities and individuals are not involved as participants on this FTA-financed contract, CONTRACTOR and any subcontractor with a contract that exceeds \$100,000 shall complete and submit, as part of the execution of this Agreement or, in the case of a subcontractor, as part of its Bid, the certification form, contained in these documents, for itself, its principals and its subcontractor(s) for any subcontract more than \$100,000. The inability of a contractor to provide a certification will not necessarily result in denial of consideration for contract

award. A contractor that is unable to provide a certification must submit a complete explanation attached to the certification form. Failure to submit a certification or explanation may disqualify the contractor from participation under this Agreement. Island Transit, in conjunction with FTA, will consider the certification or explanation in determining contract award. No contract will be awarded to a potential third-party contractor submitting a conditioned debarment or suspension certification, unless approved by the FTA.

- B. The certification is a material representation of fact upon which reliance is placed in determining to enter into this Agreement and any subsequent determination of award of a subcontract. If at any time CONTRACTOR learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances, it shall immediately provide written notice to Island Transit. If it is later determined that CONTRACTOR knowingly rendered an erroneous certification or failed to notify Island Transit immediately of circumstances which made the original certification no longer valid, Island Transit may terminate the contract, in addition to other remedies available including FTA suspension and/or debarment.
- C. Subcontractors' Certification Regarding Debarment Suspension Or Ineligibility
  - 1. CONTRACTOR shall not knowingly enter into any subcontract exceeding \$100,000 with an entity or person who is debarred, suspended, or who has been declared ineligible from obtaining federal assistance funds, and shall require each subcontractor to complete the federally required certification.
  - 2. Each subcontract, regardless of tier, shall contain a provision that the subcontractor shall not knowingly enter into any lower tier subcontract with a person or entity who is debarred, suspended or declared ineligible from obtaining federal assistance funds, and a provision requiring each lower-tiered subcontractor to provide the federally required certification.

#### **5.11 Contract Work Hours and Safety Standards Act**

##### A. Overtime

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.

##### B. Violation

In the event of any violation of the clause set forth in paragraph (A) of this section, CONTRACTOR, or any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, CONTRACTOR or its subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (A) of this section, in the sum of ten dollars (\$10.00) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in paragraph (A) of this section.

##### C. Withholding for Unpaid Wages

Island Transit shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by CONTRACTOR or its subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by CONTRACTOR, such sums as may be determined to be necessary

to satisfy any liabilities of CONTRACTOR or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (B) of this section.

D. Subcontracts

CONTRACTOR or its subcontractors shall insert in any subcontracts the clauses set forth in this section, and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

E. Payrolls and Basic Records

Payrolls and basic records relating thereto shall be maintained by CONTRACTOR during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

**5.12 No Government Obligations to Third Parties**

- A. CONTRACTOR agrees that, absent the Federal Government's express written consent, the Federal Government shall not be subject to any obligations or liabilities to any subrecipient, any third party contractor, or any other person not a party to the Grant Agreement in connection with the construction and operation of Island Transit operations. Notwithstanding any concurrence provided by the Federal Government in or approval of any solicitation, subagreement, or third party contract, the Federal Government continues to have no obligations or liabilities to any party, including a subrecipient or third party consultant.

**5.13 Buy America Requirements**

- A. CONTRACTOR will comply with the requirements of section 165(a) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations in 49 CFR Part 661, which provide that federal funds may not be obligated under specific circumstances unless steel, iron and manufactured products used in FTA-funded project are produced in the United States, unless a waiver has been granted by the FTA or the product is subject to a general waiver. General Waivers are listed in 49 CFR 661.7.
- B. CONTRACTOR must submit to Island Transit the appropriate Buy America certification, with all FTA-funded contracts, except those subject to a general waiver.

**5.14 Electronic and Information Technology**

When providing reports or other information to Island Transit, or to the Federal Transit Administration (FTA), among others, on behalf of Island Transit, CONTRACTOR agrees to prepare such reports or information using electronic or information technology capable of assuring that the reports or information delivered will meet the applicable accessibility standards of Section 508 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794d, and U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards", 36 C.F.R. Part 1194.

**END SECTION 5**

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**SECTION 6 – SAMPLE STANDARD FORM OF AGREEMENT**

**CONTRACT ITB #0X-XX – TITLE**

**1. Contract Documents and Order of Precedence**

This Contract consists of the documents in order of precedence listed below:

- a. Change Orders and Contract Amendments
- b. Form of Contract
- c. Section 4: Special Terms and Conditions
- d. Section 5: General Terms & Conditions
- e. Section 3: Scope of Work, and
- f. Contractor’s Bid

**2. Compensation**

Pricing shall be in accordance with the Price Sheet, Form 7.2.

Total Not-To-Exceed Contract Amount is \$\_\_\_\_\_.

**3. Contract Period of Performance**

From the date of execution until the project Final (Physical) Completion date on or before July 2024.

**4. Notices**

Any Notice legally required to be given by one Party to another under the Contract shall be in writing, dated, and signed by the Party giving such Notice or by a duly authorized representative of such Party.

Legal and other Notices shall not be effective unless transmitted by any method that provides confirmation of transmission and delivery, such as email with acknowledgement, fax, certified mail or registered mail and addressed to:

- a. Island Transit, Procurement Manager, \_\_\_\_\_, Coupeville, WA \_\_\_\_
- b. Company Name, Contact, Title, Address.

**5. Entire Agreement**

This Contract constitutes the complete and entire agreement between the Agency and Contractor and supersedes any prior agreements that are not incorporated as a part of the Contract.

_____ Contractor Name	<b>ISLAND TRANSIT</b> _____ Agency
_____ Signature of Authorized Official	_____ Todd Morrow, Executive Director
_____ (Print or type name and title)	_____ Date
_____ Date	

**--END SECTION 6--**

**SECTION 7**  
**MANDATORY FORMS**



## FORM 7.0 VENDOR COMMITMENT AND INFORMATION

Vendor/Company Name:		
Vendor/Company Address:		
City:	State:	ZIP:
Federal Tax ID #:	WA State UBI /State Excise Tax Registration #:	
WA State Contractor Registration #	DUNS#	
WA State Employment Security Department #		
If applicable, Bidder is a:		
<input type="checkbox"/> Certified S/M/W/VBE # _____ <input type="checkbox"/> Non-Certified S/M/W/VBE # _____		
Contact Name (If different from Authorizing Official):	Contact Title (If different from Authorizing Official):	
Contact E-mail:	Contact Direct Phone:	
Contact Address (If different from above):		
City:	State:	ZIP:
By responding to this solicitation, Bidder understands and agrees to be bound by all requirements and contract terms and conditions contained in this solicitation. By signing this form, Bidder certifies compliance with ALL Responsibility Criteria per Section 1.7, and Bidder acknowledges receipt and understanding of any and all Addenda issued for this solicitation.		
<b>This Form, signed by an individual authorized to legally commit the Bidder, shall be submitted as the cover page.</b>		
Bidder also certifies that:		
A. The only persons, firms, corporations, joint ventures/partnerships, and/or other parties interested in the Bid as principals are those listed as such on the Bid Forms; and		
B. The Bid is made without collusion with any other person, firm, corporation, joint venture/partnership, and/or other party; and		
C. Joint ventures/partnerships are to provide a signed copy of their agreement with their Bid.		
<b>OFFICIAL AUTHORIZED TO SIGN FOR BIDDER</b>		
I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.		
Print Name and Title:	Date:	
Signature:	Location or Place Executed: City/State	

### FORM 7.1 CERTIFICATION REGARDING CONFLICT OF INTEREST

Bidder is required to certify that performance of the Work will not create any conflicts of interest or disclose any actual or potential conflicts of interest by completing and signing one of the following statements:

Bidder hereby certifies under penalty of perjury under the laws of the State of Washington that to the best of its knowledge and belief, performance of the Work or services described in the Bid Documents will not create any conflicts of interest for the Bidder, any affiliates, any proposed subcontractors, or key personnel of any of these organizations.	
Vendor/Company Name:	
Authorizing Official Name:	Authorizing Official Title:
Authorizing Official Signature:	Date:

**OR**

Name of Individual/Company to which potential conflict of interest might apply:	
Nature of potential conflict of interest:	
Proposed Remedy:	
Vendor/Company Name:	
Authorizing Official Name:	Authorizing Official Title:
Authorizing Official Signature:	Date:

### FORM 7.2 BID FORM: PRICE SHEET

Vendor/Company Name:
----------------------

This Project shall be priced and bid on a total Lump Sum Bid basis. The lump sum bid shall include everything necessary for the prosecution and completion of the Work as detailed in the Bid Documents, including but not limited to, furnishing all labor (prevailing wages apply), materials, equipment, supplies, tools, plant and other facilities, all management, supervision, services, insurance, licenses, permits, fees, inspections, and all other incidental costs necessary, except as may be provided otherwise in the Bid Documents.

**WAC 458-20-171 does not apply to the work. Washington State Sales Tax must be included in the Bid Price as a separate line item as indicated for Items 1tx and 2tx below.** In the event of a tax increase during the course of the Contract, Island Transit will pay the appropriate sales tax amount where applicable. See also Division 0, Section 1.11(D) regarding tax.

Unit prices will prevail in case of mathematical error. Only the Total Lump Sum Bid amount will be read at Bid Opening.

## BID SCHEDULE

ITEM NO.	DESCRIPTION	QTY	UOM	LUMP SUM PRICE
1a.	<b>Main Base Solar Installation</b>			\$
1b.	<b>Main Base</b> Visual Display Monitor, mounting hardware, data connectivity to PV system, and complete installation			\$
1tx.	<b>Sales Tax on 1a &amp; 1b at 8.7%</b>			\$
	<b>Subtotal: Item 1</b>			1
2a.	<b>Camano Satelite Solar Installation</b>			\$
2b.	<b>Camano Satellite</b> Visual Display Monitor, mounting hardware, data connectivity to PV system, and complete installation			\$
2tx.	<b>Sales Tax on 2a &amp; 2b at 8.7%</b>			\$
	<b>Subtotal: Item 2</b>			1

<b>TOTAL LUMP SUM BID</b> (From Subtotal Items 1 – 2)	\$
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### FORM 7.3 REFERENCES & PROJECT EXPERIENCE

The Bidder shall submit a list of a minimum of two (2) projects of similar size and scope to this project for analysis by Island Transit. Information provided about each project shall include the following:

- Owner's Name and contact information for the Owner's Representative (include phone numbers and e-mail addresses);
- Final contract amount;
- Project completion date.

**1. PROJECT NAME** \_\_\_\_\_

Description of Work performed by the Bidder \_\_\_\_\_

\_\_\_\_\_

Final Contract Amount: \_\_\_\_\_ Date of Completion: \_\_\_\_\_

Owners Name: \_\_\_\_\_

Reference Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**2. PROJECT NAME** \_\_\_\_\_

Description of Work performed by the Bidder \_\_\_\_\_

\_\_\_\_\_

Final Contract Amount: \_\_\_\_\_ Date of Completion: \_\_\_\_\_

Owners Name: \_\_\_\_\_

Reference Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**3. PROJECT NAME** \_\_\_\_\_

Description of Work performed by the Bidder \_\_\_\_\_

\_\_\_\_\_

Final Contract Amount: \_\_\_\_\_ Date of Completion: \_\_\_\_\_

Owners Name: \_\_\_\_\_

Reference Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

### FORM 7.4 LOCAL AGENCY SUBCONTRACTOR LIST

*Prepared in compliance with RCW 39.30.060 as amended*  
**To Be Submitted with the Bid Response**

Project Name: ITB #01-21 MAIN BASE & CAMANO SATELLITE SOLAR INSTALLATION

**Failure to list subcontractors with whom the Bidder, if awarded the Contract, will directly subcontract for performance of the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.**

Subcontractor(s) with whom the Bidder will directly subcontract that are proposed to perform the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. The work to be performed is to be listed below the subcontractor(s) name.

**To the extent the Project includes one or more categories of work referenced in RCW 39.30.060, and no subcontractor is listed below to perform such work, the Bidder certifies that the work will either (i) be performed by the Bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the Bidder.**

Subcontractor Name \_\_\_\_\_ SBE: Yes / No DBE: Yes / No

Work to be performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_ SBE: Yes / No DBE: Yes / No

Work to be performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_ SBE: Yes / No DBE: Yes / No

Work to be performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Bidders are notified that it is the opinion of Island Transit that PVC or metal conduit, junction boxes, etc. are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the Project.

## FORM 7.5 CERTIFICATE OF NON-DISBARMENT AND SUSPENSION

**Instructions for Certification:** By signing and submitting this bid or proposal, the prospective lower-tier participant is providing the signed certification set out below.

(1) It will comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 CFR part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 CFR part 180,

(2) To the best of its knowledge and belief, that its Principals and Subrecipients at the first tier:

- a. Are eligible to participate in covered transactions of any Federal department or agency and are not presently:
  1. Debarred,
  2. Suspended,
  3. Proposed for debarment,
  4. Declared ineligible,
  5. Voluntarily excluded, or
  6. Disqualified,
- b. Its management has not within a three-year period preceding its latest application or proposal been convicted of or had a civil judgment rendered against any of them for:
  1. Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction, or contract under a public transaction,
  2. Violation of any Federal or State antitrust statute, or,
  3. Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making any false statement, or receiving stolen property,
- c. It is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses listed in the preceding subsection 2.b of this Certification,
- d. It has not had one or more public transactions (Federal, State, or local) terminated for cause or default within a three-year period preceding this Certification,
- e. If, at a later time, it receives any information that contradicts the statements of subsections 2.a – 2.d above, it will promptly provide that information to FTA,
- f. It will treat each lower tier contract or lower tier subcontract under its Project as a covered lower tier contract for purposes of 2 CFR part 1200 and 2 CFR part 180 if it:
  1. Equals or exceeds \$25,000,,
  2. Is for audit services, or,
  3. Requires the consent of a Federal official, and
- g. It will require that each covered lower tier contractor and subcontractor:
  1. Comply and facilitate compliance with the Federal requirements of 2 CFR parts 180 and 1200, and
  2. Assure that each lower tier participant in its Project is not presently declared by any Federal department or agency to be:
    - a. Debarred from participation in its federally funded Project,
    - b. Suspended from participation in its federally funded Project,
    - c. Proposed for debarment from participation in its federally funded Project,
    - d. Declared ineligible to participate in its federally funded Project,
    - e. Voluntarily excluded from participation in its federally funded Project, or
    - f. Disqualified from participation in its federally funded Project, and
  3. It will provide a written explanation as indicated on a page attached in FTA's TrAMS platform or the Signature Page if it or any of its principals, including any of its first tier Subrecipients or its Third-Party Participants at a lower tier, is unable to certify compliance with the preceding statements in this Certification Group.

**(CONTINUED NEXT PAGE – include both pages with Proposal)**

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(3) It will provide a written explanation as indicated on a page attached in FTA's TrAMS platform or the Signature Page if it or any of its principals, including any of its first tier Subrecipients or its Third-Party Participants at a lower tier, is unable to certify compliance with the preceding statements in this Certification Group.

**Certification**

Contractor: \_\_\_\_\_

Signature of Authorized Official: \_\_\_\_\_ Date: \_/\_\_\_\_\_/\_\_\_\_\_

Name and Title of Contractor's Authorized Official: \_\_\_\_\_

## FORM 7.6 CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

Bidder hereby certifies that, within the 3-year period immediately preceding the bid solicitation date, Bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

\_\_\_\_\_  
Bidder's Business Name

\_\_\_\_\_  
Signature of Authorized Official\*

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
State

**Check One:**

Sole Proprietorship       Partnership       Joint Venture       Corporation

State of Incorporation, or if not a corporation, State where business entity was formed:

\_\_\_\_\_

If a co-partnership, give firm name under which business is transacted:

\_\_\_\_\_

*\* If a corporation, bid must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, bid must be executed by a partner.*

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness Printed Name



### FORM 7.7 BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we

\_\_\_\_\_  
(Insert Full Name and Address of Legal Title of Surety)

as Principal, hereafter called Principal, and

\_\_\_\_\_  
(Insert Full Name and Address of Legal Title of Surety)

a corporation duly organized under the laws of the State of Washington as Surety, hereinafter called the Surety, are held and firmly bound unto Island Transit, as Obligee, hereinafter called the Obligee, in the sum of:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_) for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and Sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Principal) (Seal)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Surety) (Seal)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Title)

A Joint Venture

By \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

## SECTION 8 – DEFINITION OF WORDS AND TERMS

Words and terms shall be given their ordinary and usual meanings. Where used in the Contract Documents, the following words and terms shall have the meanings indicated. The meanings shall be applicable to the singular, plural, masculine, feminine and neuter of the words and terms.

Acceptance: Formal action of Island Transit in determining that the Contractor's Work has been satisfactorily completed in accordance with the Contract.

Act of Nature: A cataclysmic phenomenon of nature, such as an earthquake, flood, or cyclone.

Addenda: Written additions, deletions, clarification, interpretations, modifications or corrections to the Contract Documents issued by Island Transit during the bid period and prior to the date and time established for submittal of Bids.

Award Date: The date of the formal decision of Island Transit's Board of Directors to accept the lowest, responsive and responsible Bidder for the Work.

Bid: The response submitted by a Bidder to an Invitation To Bid (ITB) or Invitation For Bids (IFB).

Bidder: Individual, association, partnership, firm, company, corporation, or a combination thereof, including joint ventures, submitting a Bid to perform the Work.

Bidder's Representative: The individual designated in writing by the Bidder to act on its behalf under this Contract.

Bid Opening Date: The date on which Island Transit publicly opens and reads the bids aloud.

Buyer/Contracting Officer/Procurement Specialist: Individual designated by Island Transit to conduct the Contract solicitation process, draft and negotiate contracts, resolve contractual issues and support Island Transit Representatives during Contract performance.

Change Order: Written order issued by Island Transit, with or without notice to sureties, making changes in the Work within the scope of this Contract.

Executive Director: Island Transit's Executive Director.

Island Transit: Means the Island County Public Transportation Benefit Area Corporation dba. Island Transit, a Washington State municipal corporation, and any of the officers, employees, agents or other officials lawfully representing Island Transit.

Complete/Completion: For purposes of this Contract, the terms "complete" and "completion" shall mean and refer to actual Final Completion of all the work required by the Contract Documents, including all corrective and remedial work, in a condition acceptable to Island Transit.

Construction Administrator (CA): Also known as Island Transit Representative, or the Construction Manager (CM). The individual hired and designated by Island Transit to be the Contractor's primary point of contact and who will forward instructions to the Contractor from the Owner or the Owner's design team. The CA will: 1) accept and review all submittals from the Contractor and forward them to the appropriate party; 2) coordinate weekly project meetings, prepare meeting minutes, record and track Change Orders, review Pay Requests, review weekly and monthly schedules, and make recommendations to the Owner; 3) report directly to the Owner; 4) coordinate the acceptance of all work and materials; and 5) keep an accurate count of the work days, record of the progress of the project, prepare Daily Reports, and will document the Contractor's performance. The CA has the authority to reject defective material and suspend work that is being performed improperly, subject to the final decision of the Owner. The CA will not have authority to give advice that is contrary to the Contract but may advise the Contractor of any faulty work or materials, and infringements on the terms of the Contract.

Contract or Contract Documents: The writings and drawings embodying the legally binding obligations between Island Transit and Contractor for completion of the services or Work under the Contract.

Contract Execution Date: The date Island Transit officially binds the Agency and the Contractor to the Contract.

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Contract Plans: A publication addressing the Work required for an individual project. At the time of the call for bids, the Contract Plans may include, but are not limited to, the following: a vicinity map, a summary of quantities, structure notes, signing information, traffic control plans, and detailed drawings; all for a specific individual project.

Contract Price: Amount payable to Contractor under the terms and conditions of the Contract for the satisfactory performance of the Services or Work thereunder.

Contract Period: The period of time during which the Contractor shall perform the Services or Work under the Contract.

Contract Time: Number of calendar days and/or the intermediate and Final Completion dates stated in the Contract Documents for the completion of the physical work.

Contractor: Means the firm, provider, organization, individual or other entity performing services under the Contract, including all employees, agents, and subcontractors of the Contractor.

Contractor's Representative: The individual designated in writing by the Contractor to act on its behalf.

Contractor's Safety Officer: The individual designated in writing by the Contractor who will be responsible for work-site safety, weekly safety training, for maintaining Site Specific Project Safety Plans, and part of the project team, the initial pre-construction meetings and other project meetings.

Cost Analysis: The review and evaluation of the separate cost elements and proposed Profit of the Contractor's cost or pricing data. Cost analysis is the application of judgment utilizing criteria to project from the data to the estimated costs in order to form an opinion on the degree to which the proposed costs represent what the Contract should cost, assuming reasonable economy and efficiency.

Critical Path Method (CPM): The sequence of production activities that takes the longest time from start to finish. This technique is useful for planning, scheduling, and monitoring complex projects composed of a large number of interrelated and interdependent activities. It is often used in construction procurement to sequence critical timeline events.

Day: Calendar Day.

Effective Date: The first date the Contract is in full force and effect. It may be a specific date agreed to by the Parties or, if not so specified, the date of the last signature of a party to the Contract.

Final Acceptance: Occurs when Island Transit formally accepts the Work as final complete after verifying that all documentation required by the Contract and by law have been furnished by Contractor. The date of Final Acceptance starts the statutory waiting period for releasing Contractor's retainage, if any.

ITB: Invitation To Bid. Also known as the solicitation document.

Month: The period commencing on the first day of a calendar month and ending on the first day of the next succeeding calendar month.

Notice of Award (Intent To Award): The written notice from Island Transit to the successful Bidder and all Planholders announcing acceptance of the Bid.

Notice To Proceed: The date stated in the Notice To Proceed (NTP) on which a contract action or time begins.

Owner: Island Transit.

Person: Includes individuals, associations, firms, companies, corporations, partnerships, and joint ventures.

Physical Completion: Also known as Final Completion. Occurs when all physical work is completed, including Punchlist items, as applicable, and Contractor has demobilized from the work site; however, there may still be some outstanding paperwork or documentation remaining.

Price: The charges, costs, rates, and/or fees charged for the services under the Contract, payable in United States dollars.

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Price Analysis: The process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed Profit.

Project Manager: The individual designated by Island Transit to oversee the Capital Facilities construction documentation such as Drawings, Specifications, etc.

Proposed Change Order (PCO): A written document issued by Island Transit, Contractor, or designee, for the consideration of Changes in the Work, including a cost estimate and its effect on the Schedule and overall project budget. Such a document shall not be interpreted or construed to constitute a Change Order.

Proprietary Information: Information owned by the Contractor for which Contractor claims a protectable interest under law. Proprietary Information includes, but is not limited to, information protected by copyright, patent, trademark or trade secret laws.

Provide: Furnish without additional charge.

RCW & WAC: The Revised Code of Washington and the Washington Administrative Code, respectively, which provide the statutory framework within which Island Transit procures goods and services.

Reference Documents: Reports, Specifications, and Drawings which are available to Bidders for information and reference in preparing Bids but not as part of this Contract.

Scope of Work or Work: The particular services and any associated goods, materials, and equipment to be provided by the Contractor under the terms and conditions of the Contract.

Services: The furnishing of labor, time or effort by a Contractor, not involving the delivery of any specific end product. Work performed to meet a demand, especially Work not connected with a manufacturing process.

Severin Doctrine: U.S. Court of Claims ruling which states that a General Contractor cannot sue an Owner on behalf of one of its subcontractors to recover monies due to the subcontractor unless the General Contractor is itself liable to the subcontractor.

Shall, Must or Will: Whenever used to stipulate anything, must or will means mandatory by either the Contractor or Island Transit, as applicable, and means that the Contractor or Island Transit, as applicable, has thereby entered into a covenant with the other Party to do or perform the same.

Special Provisions: Supplemental Specifications or modifications to the Standard Specifications and the amendments to the Standard Specifications that apply to an individual project.

Specifications or Technical Specifications: A section of the Invitation To Bid consisting of written descriptions of services to be performed or of the technical requirements to be fulfilled under this Contract.

Standard Plans: Specific plans or drawings adopted by Island Transit which show frequently recurring components of Work that have been standardized for use.

Subcontractor: Means one not in the employment of the Contractor who is performing all or part of the contract under a separate contract with the Contractor. The terms "subcontractor" and "subcontractors" may refer to subcontractor(s) in any tier.

Submittals: Information which is submitted to Island Transit post-award in accordance with the Specifications.

Subsection: For reference or citation purposes, Subsection shall refer to the paragraph, or paragraphs, called out by part, section and alphanumeric designator

Substantial Completion: Occurs when the Work is sufficiently complete so that Island Transit can occupy or utilize the Work, or portions of the Work, for its intended operational use (i.e. issue date of a building permit) although Punchlist items might need to be completed. Substantial Completion starts the Warranty period and Liquidated Damages may be applied if Contractor fails to meet this date.

**--END SECTION 8--**

**SECTION 9 – SAMPLE PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS that \_\_\_\_\_, as principal, and \_\_\_\_\_, Company, a corporation organized and existing under and by virtue of the laws of \_\_\_\_\_ as surety and licensed to do business within the State of Washington, as surety are held and firmly bound under the Island County Public Transportation Benefit Area dba. Island Transit, Washington, (hereinafter "Island Transit"), in the full sum of (\_\_\_\_\_) \_\_\_\_\_ Dollars lawful money of the United States, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of the obligation are such that

**WHEREAS**, the principal has entered into an agreement in writing with Island Transit dated \_\_\_\_\_ 20\_\_\_\_, for the " \_\_\_\_\_ Project" according to the terms, conditions, and covenants specified in the agreement including all of the contract documents therein referred to, which are hereby referred to and made a part hereof as fully and completely as thought forth in detail herein; and

**WHEREAS**, it is understood and a part of the consideration for this obligation that Island Transit shall have the right to sue on this bond in its own name to recover for any loss, injury, damage, or liability whatsoever sustained or incurred by it, by reason of any breach of the contract documents, or of any provision in this bond; and

**WHEREAS**, suit on this bond if brought for breach of performance by principal as to a condition hereof (including any condition or performance responsibility incorporated by reference), such action may be commenced against both the principal and surety as joint and several obligator, with or without prior notice of such breach of performance by principal having been given to surety;

**NOW, THEREFORE**, if the principal shall well, truly and faithfully perform all of the provisions and fulfill all of the undertakings, covenants, terms, conditions, and agreements of said contract during the period of the original contract, and any extension thereof that may be granted by Island Transit, with or without notice to the surety, and during the life of any guarantee required under the contract and shall also well and truly perform and fulfill all of the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived; and furthermore, shall pay all laborers, mechanics and subcontractors and materialmen, and all persons who shall supply such person or persons, and such principal or subcontractors with the provisions and supplies for the carrying on of such work, shall indemnify and save harmless Island Transit from all cost and damage by reason of the principal's default or failure to do so and shall pay the State of Washington sales and use taxes and the amounts due said state pursuant to Titles 50 and 51 of the Revised Code of Washington.

**IT IS FURTHER DECLARED AND AGREED** that nothing of any kind or nature whatsoever that will not discharge the principal, shall operate as a discharge or release of liability of the surety, any law, rule of equity or usage relating to the liability of sureties to the contrary notwithstanding.

SEALED AND DATED this \_\_\_\_\_ day \_\_\_\_\_ of 20\_\_\_\_.

PRINCIPAL

By: \_\_\_\_\_

Title: \_\_\_\_\_

SURETY

By: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF WASHINGTON            )  
  ) ss  
COUNTY OF SNOHOMISH        )

On this day personally appeared before me \_\_\_\_\_, to me known to be the individual described in and who executed the within and foregoing instrument and acknowledged to me that he signed the same as his free and voluntary act and deed for the uses and purposes therein mentioned.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this \_\_\_ day \_\_\_\_\_ of 20\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC in and for the State of Washington,  
residing in \_\_\_\_\_

STATE OF WASHINGTON            )  
  ) ss  
COUNTY OF SNOHOMISH        )

On this day personally appeared before me \_\_\_\_\_, to me known to be the attorney-in-fact of the \_\_\_\_\_, Company, a surety, that executed the within and foregoing instrument, and acknowledged the said corporation for the purposes therein mentioned, and an oath, stated that he was authorized to execute said instrument on behalf of said surety, and the seal affixed thereto is the corporate seal of said surety corporation.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this \_\_\_ day \_\_\_\_\_ of 20\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC in and for the State of Washington,  
residing in \_\_\_\_\_

*Note: If attorney-in-fact signs for surety, a certified copy of the Power of Attorney must be attached.*

**--END SECTION 9--**

**SECTION 10 – SAMPLE LABOR AND MATERIALS PAYMENT BOND**

**KNOW ALL MEN BY THESE PRESENTS** that \_\_\_\_\_, as principal, and \_\_\_\_\_, Company, a corporation organized and existing under and by virtue of the laws of \_\_\_\_\_ as surety and licensed to do business within the State of Washington, as surety are held and firmly bound under the Island County Public Transportation Benefit Area dba. Island Transit, Washington, ("Island Transit"), in the full sum of ( \_\_\_\_\_ ) \_\_\_\_\_ Dollars lawful money of the United States, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of the obligation are such that

**WHEREAS**, the principal has entered into an agreement in writing with Island Transit dated \_\_\_\_\_ 20\_\_\_\_, for the " \_\_\_\_\_ Project" according to the terms, conditions, and covenants specified in the agreement including all of the contract documents therein referred to, which are hereby referred to and made a part hereof as fully and completely as thought forth in detail herein; and

**WHEREAS**, it is understood and a part of the consideration for this obligation that Island Transit shall have the right to sue on this bond in its own name to recover for any loss, injury, damage, or liability whatsoever sustained or incurred by it, by reason of any breach of the contract documents, or of any provision in this bond; and

**WHEREAS**, suit on this bond if brought for breach of performance by principal as to a condition hereof (including any condition or performance responsibility incorporated by reference), such action may be commenced against both the principal and surety as joint and several obligator, with or without prior notice of such breach of performance by principal having been given to surety;

**NOW, THEREFORE**, if the principal shall well, truly and faithfully perform all of the provisions and fulfill all of the undertakings, covenants, terms, conditions, and agreements of said contract during the period of the original contract, and any extension thereof that may be granted by Island Transit, with or without notice to the surety, and during the life of any guarantee required under the contract and shall also well and truly perform and fulfill all of the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived; and furthermore, shall pay all laborers, mechanics and subcontractors and materialmen, and all persons who shall supply such person or persons, and such principal or subcontractors with the provisions and supplies for the carrying on of such work, shall indemnify and save harmless Island Transit from all cost and damage by reason of the principal's default or failure to do so and shall pay the State of Washington sales and use taxes and the amounts due said state pursuant to Titles 50 and 51 of the Revised Code of Washington.

**IT IS FURTHER DECLARED AND AGREED** that nothing of any kind or nature whatsoever that will not discharge the principal, shall operate as a discharge or release of liability of the surety, any law, rule of equity or usage relating to the liability of sureties to the contrary notwithstanding.

SEALED AND DATED this \_\_\_\_\_ day \_\_\_\_\_ of 20\_\_\_\_

PRINCIPAL

By: \_\_\_\_\_

Title: \_\_\_\_\_

SURETY





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**SECTION 11 – SAMPLE COVID-19 COMPLIANCE CERTIFICATION**

**CONTRACTOR CERTIFICATION OF COMPLIANCE  
WITH COVID-19 SAFETY REQUIREMENTS**

**DATE:** XXX  
**CONTRACTOR:** NAME  
**CONTRACT #:** 20XX-XXX

By signing below, the individual signing this certification has been granted the authority to do so and by their signature affirms the Contractor, and its subcontractors of any tier, agree to comply with all current and future COVID-19 proclamations, regulations, requirements and/or related guidance issued by the Office of the Governor of Washington State as it may relate to Island Transit construction projects.

Contractor will further require its subcontractors of all tiers to provide a similar certification of compliance to the Contractor prior to commencing any work under this Contract.

Contractor shall indemnify and defend Island Transit against any claim arising or resulting from non-compliance with the terms of this Certificate.

Vendor/Company Name:	
Authorizing Official Name:	Authorizing Official Title:
Authorizing Official Signature:	Date:

--END SECTION 11--

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## SECTION 01 11 00

### SUMMARY OF WORK

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Locations:

Island Transit Main Operating Base, 19758 SR 20, Coupeville, WA and

Island Transit's Satellite Facility, 198 Can Ku Road, Camano Island, WA

- B. Project Overview:

The Project consists of furnishing all labor, materials and other incidentals for installation of Solar Photovoltaic systems tied to the utility grid at two separate project sites.

Elements at each site include but are not limited to: cables, AC and DC disconnect switches, combiner boxes, branch circuits, solar PV panels (modules), metering equipment, PV mounting hardware (PV mounting rails, tilt support legs, cross braces, support rails, seismic supports, mounting clips, brackets, environmental panel monitoring system (temperature, wind, solar irradiance), roof mounting standoffs, raceway and conductors, PV module power performance sensors, data acquisition and remote monitoring hardware and software, and utility grid-tie interconnection.

Main Base: Total system size shall be 124 kW DC.

Camano Satellite: Total system size shall be 10.4 kW DC

The engineers' estimate is \$220,000 - \$260,000.

##### 1.03 DAYS/HOURS OF WORK

- A. Conform to requirements of applicable jurisdictions regarding limitations on work hours.
- B. Unless otherwise approved in writing by the Resident Engineer, the following maximum work hours have been established. Obtain all necessary permits and

approvals to work outside of these hours. The hours of work require all other Specifications to be met:

1. Project Site:
  - a. Weekdays: 8:00 am to 6:00 pm.
  - b. Weekends and State Recognized Holidays: 8:00 am to 6:00 pm.

#### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. It is assumed that existing facilities adjacent to the scope of the Work are in good repair. Damage or defects noticed by the Contractor shall be reported immediately to the Resident Engineer and prior to the start of Work. Damage caused by the Contractor shall be repaired and/or replaced to a condition equal to or better than that existing prior to the damage, at no additional cost to Island Transit.
- B. Contractor's use of premises for Work and storage is limited to the area shown.  
  
Contractor shall coordinate and obtain advance approval with Island Transit access into the site and proposed laydown area.  
  
Contractor may
- C. The facilities are to remain operational and accessible to Island Transit employees and contractors for the duration of the work.

#### **1.05 EXAMINATION**

- A. Persons performing Work shall examine surfaces to receive their Work and shall report in writing to Island Transit any conditions detrimental to Work. Failure to examine and report makes Contractor responsible, at no increase in Contract Sum, for corrections Island Transit may require. Commencement of Work constitutes acceptance of existing conditions.

#### **1.06 PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

- A. The Contractor shall locate existing installations before proceeding with installation, shall maintain service where appropriate, and shall repair any damage caused by the Work, at no increase in Contract Sum.

#### **PART 2 - PRODUCTS NOT USED**

#### **PART 3 - EXECUTION NOT USED**

**END OF SECTION**

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## SECTION 01 31 10

### PROJECT COORDINATION

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 PROJECT COORDINATION

- A. General:
1. Coordinate the Work; do not delegate responsibility for coordination to any subcontractor.
  2. Anticipate all subcontractors and their relationship with the total Work.
  3. Resolve disputes between subcontractors and materials suppliers.
- B. Schedule and coordinate utility shutdowns with Island Transit and electrical utility. Contractor is responsible for coordinating with local utilities. Main Base electrical service is by Puget Sound Energy, and Camano Satellite is served by Snohomish County PUD.
1. Confirm requests for equipment and utility shutdowns in writing to Island Transit not less than 14 Days prior to the proposed date. Include, as a minimum, the following information:
    - a. Equipment or utility services affected;
    - b. Reason shutdown is required;
    - c. Work to be accomplished during the shutdown;
    - d. Proposed date and time; and
    - e. Duration of the shutdown.
  2. The actual time and date of shutdowns will be subject to approval of Island Transit.
  3. The duration of shutdowns shall be held to a reasonable minimum as determined by Island Transit.
  4. Ensure that materials and equipment required for the work to be accomplished during shutdown be complete and available on the job for review by Island Transit three (3) Days prior to the shutdown, if requested. If not adequately prepared, the shutdown will be canceled and rescheduled.
  5. Include in the bid all costs associated with utility shutdowns. Island Transit will make no extra payment for overtime work, schedule changes, or failure to complete utility connections within authorized shutdown periods.
- C. Coordinate use of Project space and installation of electrical work. Electrical conduit is shown diagrammatically on the Contract Drawings. Follow routings shown for as closely as practicable, with allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for

other installations, for maintenance, and for repairs. Except as otherwise shown, conceal wiring and the like within the construction. Coordinate locations of external elements with finish elements.

### 1.03 JOB SITE ADMINISTRATION

- A. Field Measurements and Templates:
  - 1. Obtain field measurements required for accurate fabrication and installation of Work included in this Contract. Exact measurements are the Contractor's responsibility.
  - 2. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Verify in field.
- B. Responsibility:
  - 1. The Contractor shall be in charge of this Contract and the Site, as well as directing and scheduling of all Work.
  - 2. Final responsibility for performance, interface, and completion of Work and Project shall be the Contractor's.

### 1.04 PHOTOGRAPHIC DOCUMENTATION

- A. Digital Still Photos: Contractor shall record existing conditions and construction activities with digital photo documentation in jpeg or other file format, with adequate resolution, to be agreed upon with Island Transit Representative. Digital photo files shall include a date/time stamp embedded within file.
- B. Contractor shall submit image files and thumbnails electronically on CD or DVD, or as otherwise requested in electronic transfer by Island Transit Representative.
- C. Provide the following types of still photos:
  - 1. Pre-Construction Photographs: Submit prior to start of construction.
  - 2. Construction Photographs: Submit weekly.
  - 3. Subject-specific construction photographs (such as, but not limited to: potential change, non-conformance, quality, and property damage): Submit within three (3) Days of date photo is taken.
  - 4. Final Completion Construction Photographs: Submit within 30 Days of Notice of Substantial Completion.
- D. Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software. Set camera to stamp the date and time on each digital image.
- E. Contractor shall take and submit a minimum number of photos to accurately document the conditions and provide complete coverage of the project site existing conditions, progression of the work, and final installation of the work.

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## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

- A. Comply with Specifications for each specific product involved.

## **PART 3 - EXECUTION**

### **3.01 CUTTING AND PATCHING**

- A. Execute cutting and patching Work and structural reinforcing in a manner to prevent damage to other Work and to provide proper surfaces for installation of repairs, penetrations through surfaces, or other items.
- B. For all new Work employ original installer or fabricator to perform cutting and patching for weather exposed or moisture resistance elements, fireproofing, and finished surfaces exposed to view.
- C. Provide cutting and patching for all existing work, where mechanical and electrical utilities or similar services extend beyond limits of work for new construction, to match existing.
- D. General: Provide and be responsible for all cutting, fitting, and patching required to complete the Work, or to:
  - 1. Make its several parts fit together and to provide for installation of ill-timed Work.
  - 2. Uncover portions of Work to provide for installation of ill-timed Work.
  - 3. Remove and replace defective Work.
  - 4. Remove and replace Work not conforming to Contract Document requirements.
  - 5. Remove samples of installed Work as specified for testing.
  - 6. Provide routine penetrations on non-structural surfaces for installation of piping.
- E. Project Conditions:
  - 1. Inspect existing conditions including elements subject to damage or movement during cutting and patching.
  - 2. After uncovering Work, inspect conditions affecting installation of products or performance of Work.
  - 3. Report unsatisfactory or questionable conditions to Architect in writing. Do not proceed with Work until Architect provides further instructions.
- F. Materials:
  - 1. Those required for original installation.
  - 2. For any change in materials, submit request for substitution to Architect.
- G. Preparation:

1. Provide adequate temporary support as required to assure structural value or integrity of the affected portion of the Work.
  2. Provide devices and methods to protect other portions of the Project which may be exposed by uncovering Work.
- H. Performance:
1. Execute cutting and patching by methods which will avoid damage to other areas, and will provide proper surfaces to receive patching and finishing. Cutting which will in any way impair the structural strength of the buildings will not be allowed. Pay all costs, as determined by Architect for remedial Work necessitated by cutting which impaired the structural integrity of the building.
  2. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
  3. Restore Work which has been cut or removed; install new products to provide completed Work in accordance with Contract Document requirements.
- I. Adjust and fit products to provide a neat installation. Finish or refinish surfaces, as required, to match adjacent finishes. Repaint surfaces to nearest change in plane.

### **3.02 PROGRESS AND FINAL CLEANING**

- A. "Clean," for the purpose of this Article, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- B. General:
1. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.
  2. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.
  3. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
  4. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
  5. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
  6. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.
- C. Progress Cleaning:
1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
  2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Re-stack, tidy or otherwise service arrangements to meet specified requirements.
  3. Maintain the site in a neat and orderly condition at all times.



- D. Final Cleaning: Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described in Article 3.1 above.
- E. Schedule final cleaning as approved by Owner to accept Work.

**END OF SECTION**

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## SECTION 01 31 20

### PROJECT MEETINGS

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 PRECONSTRUCTION CONFERENCE

- A. Prior to commencement of Work, a pre-construction conference will be held to discuss procedures to be followed.
- B. Location: Island Transit Main Base, 19758 State Route 20, Coupeville, WA
- C. Attending shall be:
  - 1. Owner's Representative
  - 2. Owner's Professional Consultants
  - 3. Contractor
  - 4. Contractor's Superintendent
  - 5. Others as appropriate.

##### 1.03 PROGRESS MEETINGS

- A. Contractor shall prepare agenda, schedule, and hold periodic meetings as required for progress and coordination of the Work. Contractor shall record agreed action and resolutions in minutes of meeting and promptly distribute to attending parties.
- B. Location: Island Transit Main Base, 19758 State Route 20, Coupeville, WA
- C. Attending shall be:
  - 1. Owner's Representative
  - 2. Owner's Professional Consultants, as appropriate to the agenda
  - 3. Contractor
  - 4. Contractor's Superintendent
  - 5. Suppliers or others, as appropriate to the agenda.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

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## SECTION 01 32 50

### PROGRESS SCHEDULES

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 PROGRESS SCHEDULE

- A. The Contractor shall prepare and submit to the Island Transit for review and approval prior to starting work at the site a comprehensive bar chart type progress Schedule that indicates a time bar for each significant category or unit of Work.
1. Contractor shall provide separate schedule for each project location.
  2. Schedules shall represent a practical and logical plan to complete the work within the Contract time, and convey the plan to execute the work.
  3. Schedule shall include all elements of the installation, indicate critical path, and shall include the full duration of the work from Notice of Award to project closeout.
  4. Schedule shall indicate sequencing, and show time allowance for submittals and subsequent procurement, fabrication and delivery of elements.
  5. Contractor shall include anticipated required inspections.
  6. Contractor shall indicate coordination with utility providers in schedule.
  7. The Contractor shall show critical submittal dates related to each time bar, or prepare separate coordinated listing of critical submittal dates.
  8. Schedule shall include proposed utility shut down dates.
- B. Contractor shall revise to incorporate initial comments as needed, and distribute schedule to Owner in preapproved electronic format (such as .pdf).
- C. The Contractor shall review and update the Schedule coincident with payment request submission, and shall redistribute updated versions.
- D. The Contractor shall update the Progress Schedule during construction every (2) two weeks to keep it current.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

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## **SECTION 01 33 00**

### **SUBMITTAL PROCEDURES**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### **1.02 SUMMARY**

- A. Items requiring Shop Drawings, Product Data, and Samples are specified in the individual Sections. Submission of Shop Drawings, Product Data, and Samples is required only for those items where submittals are specified.
- B. Related Sections:
  - 1. Product Substitution Procedures: Section 01 60 00.

##### **1.03 SHOP DRAWINGS**

- A. Present information required on Shop Drawings in a clear and thorough manner. Identify details by reference to drawing and detail, schedule, or room numbers shown and specified.

##### **1.04 PRODUCT DATA**

- A. Clearly mark each copy to identify pertinent products or models. Show performance characteristics and capacities, dimensions and clearances required, wiring or piping diagrams and controls.
- B. Modify manufacturer's standard schematic drawings and diagrams to delete information which is not applicable to the Work.
- C. Supplement standard information to provide information specifically applicable to the Work.

##### **1.05 SAMPLES**

- A. Samples shall be of sufficient size and quality to clearly illustrate functional characteristics of product, with integrally related parts and attachment devices.
- B. Submit full range of colors, textures, and patterns.

### **1.06 CONTRACTOR'S RESPONSIBILITIES**

- A. Review, mark up as appropriate, and stamp Shop Drawings, Product Data, and Samples prior to submission.
- B. Determine and verify field measurements, field construction criteria, catalog numbers and similar data, and conformance with requirements of Contract Documents.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify Island Transit in writing, at time of submission, of any deviation in submittals from requirements of Contract Documents.
- E. Begin no fabrication or Work which requires submittals prior to Island Transit returns final reviewed submittals.

### **1.07 SUBMISSION REQUIREMENTS**

- A. Make submittals promptly in accordance with approved schedule and in such a manner as to cause no delay in the Work.
- B. Number of Submittals Required:
  - 1. Shop Drawings and Product Data: Submittals shall be electronic pdf format. Resubmit as required until final approval by Island Transit's representative.
  - 2. Non-Reproducible Submittals: Submit the number of copies which the Contractor requires, plus two which will be retained by Island Transit.
  - 3. Samples: Submit number stated in each Section.
- C. Submittals shall Contain:
  - 1. Date of submission and dates of any previous submissions with identification of revisions on any re-submittals.
  - 2. Project title and number; Contract identification; names of Contractor, supplier, and manufacturer.
  - 3. Relation to adjacent or critical features of the Work or materials.
  - 4. Applicable Standards, such as ASTM or Federal Specification numbers.

### **PART 2 - PRODUCTS - NOT USED**

### **PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **SECTION 01 41 00**

### **REGULATORY REQUIREMENTS**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### **1.02 APPLICABLE CODES AND STANDARDS**

- A. Any specific reference in the Specifications to codes, regulations, reference standards, manufacturer's instructions or requirements of regulatory agencies shall mean the latest printed edition of each in effect at the date of submission of bids unless the document is shown dated.
- B. Perform the Work in conformance with the applicable requirements of all regulatory agencies with jurisdiction over the elements of the installation and the location of the work - including but not limited to the following:
  - 1. International Building Code (IBC) 2018 Edition as amended by WA State.
  - 2. National Electrical Code (NEC) current edition.

#### **PART 2 - PRODUCTS - NOT USED**

#### **PART 3 - EXECUTION - NOT USED**

**END OF SECTION**



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## SECTION 01 50 00

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 - GENERAL

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements for the Contractor's construction facilities and temporary controls.

##### 1.03 DESCRIPTION

- A. This Section specifies minimum actions required. Other actions may be specified elsewhere in the Contract Documents, manufacturer's literature, and governing regulations.
- B. Nothing in this Section is intended to limit types or amounts of construction facilities and temporary controls.
- C. No omission from this Section will be recognized as a temporary activity that is not required to complete the Work.

##### 1.04 DISPOSAL OF WASTE MATERIALS

- A. Dispose of all refuse and waste material off Owner's property in a legal manner conforming to all requirements of local authorities having jurisdiction. Do not stockpile waste material on Owner's property. Immediately clean up any spilled material.
- B. Clean all trash and debris from work area daily. Keep work area, site, and adjacent properties free from accumulations of waste materials, rubbish and windblown debris resulting from construction operations.
- C. Provide on-site containers for collection of waste materials, debris and rubbish. Periodically remove waste from the site. Do not use Owner's waste containers for construction waste.

- D. Dispose of all flammable, hazardous, and toxic waste materials daily. Storage of these materials will not be permitted on the interior of building.
- E. Locate trash containers and dumpster within the fenced Work Area, with locations to be coordinated and approved by Island Transit Representative.
  - 1. Dumpsters shall have a hinged lid that shall be closed and locked at the end of each day's work.

#### **1.05 TEMPORARY ELECTRICITY**

- A. The Contractor shall provide electrical power, including temporary power service or electrical generator(s) required to complete the work of this Contract. The Contractor will provide for all connection costs including but not limited to fees, meters, transformers, disconnects, cabling, etc. and shall remove temporary connections after Work is completed.
- B. Provide temporary electric feeders from electrical service. Power consumption shall not disrupt Owner's need for continuous service. Verify type of service characteristics and provide temporary feeders accordingly.
- C. Provide power outlets for construction operations, with branch wiring and distribution boxes. Provide OSHA/WISHA approved flexible power cords as needed.
- D. Provide temporary service disconnect and over current protection at convenient location.
- E. Contractor shall coordinate the use of existing, active convenience receptacles prior to the start of work. Contractor shall not use existing convenience receptacles without prior written authorization from Island Transit.
- F. Existing, permanent convenience receptacles may be utilized during construction provided they are replaced if damaged or defaced in any way.

#### **1.06 TEMPORARY LIGHTING**

- A. Provide and maintain lighting for construction operations. Provide sufficient lighting to ensure proper workmanship everywhere.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as needed.
- C. Maintain lighting and provide routine repairs.

#### **1.07 TEMPORARY SANITARY FACILITIES**

- A. Provide and maintain temporary OSHA/WISHA required portable toilet facilities and enclosures; in sufficient numbers and locations to accommodate the size of workers on site. Maintain daily in clean and sanitary condition.

### **1.08 TEMPORARY BARRIERS**

- A. Provide barriers to protect the public from any potentially unsafe conditions, and from damage and/or dust from construction operations.
- B. Protect non-owned vehicular traffic, stored materials, site, landscaping and structures from damage.

### **1.09 TEMPORARY STORAGE**

- A. The Contractor shall make provisions necessary to ensure the safe and weathertight protection of materials, or equipment temporarily stored.

### **1.10 ENVIRONMENTAL PROCEDURES**

- A. Comply with all environmental and health safety regulations.

### **1.11 MACHINERY AND EQUIPMENT RESTRICTIONS**

- A. Equipment and Internal Combustion Engine Noise: The noise level of each vehicle or piece of equipment shall not be greater than 90 DB(A) at a distance of 50 feet as measured under noisiest operating conditions. Mufflers for stationary engines shall be hospital-area quality of silencing.

### **1.12 EMERGENCY CONTACTS**

- A. Provide Owner with two emergency contact names (Superintendent and Project Manager), with home phone, cell phone and pager numbers.

### **1.13 CONSTRUCTION PARKING**

- A. Construction workers shall park only in designated areas. Coordinate with Owner for locations.

## **PART 2 – PRODUCTS – NOT USED**

## **PART 3 – EXECUTION – NOT USED**

**END OF SECTION**

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## **SECTION 01 60 00**

### **PRODUCT REQUIREMENTS**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### **1.02 SECTION INCLUDES**

- A. This Section specifies administrative and procedural requirements for materials and equipment related to:
  1. Transportation and handling
  2. Storage and protection
  3. Product options

##### **1.03 DEFINITIONS**

- A. Performance Specifications: No manufacturer is specified, and requirements are specified by descriptive requirements, design requirements, performance requirements, reference standards, and codes. Product options complying with or exceeding provisions of Contract Documents are acceptable and require no Substitution Request.
- B. Open Proprietary Specifications: Products by one or more manufacturers are specified, and specification Section allows for approval of other products by Substitution Request. Submit Substitution Request for other products to Architect under provisions of this Section.

##### **1.04 SUBSTITUTION REQUESTS DURING BIDDING PERIOD**

- A. Submit Substitution Request to reach Island Transit by 3:00 PM, no more than five (5) working days prior to date for receiving Bids, and in conformance with Instructions to Bidders.
- B. Bidders will be notified by Addendum of products approved in addition to those specified. No other form of approval, including verbal or implied, is acceptable to indicate approval of Substitution Request.

##### **1.05 SUBSTITUTION REQUESTS DURING CONSTRUCTION PERIOD**

- A. Substitution Requests, submitted by Contractor will not be considered, except for the following reasons. Indicate one or more reasons why substitution is required with Substitution Request.

1. Unavailability: Specified item has been discontinued or is unavailable in time to meet Construction Schedule through no fault of Contractor or subcontractor.
  2. Unsuitability: Subsequent information discloses specified item is unsuitable, inappropriate, unable to perform properly, or fit designated space.
  3. Regulatory Requirements: Substitution is required to comply with Code interpretations or insurance regulations.
  4. Warranty: Manufacturer or fabricator declare specified item to be unsuitable for use intended or refuses to certify or warrant performance of specified item for Project.
- B. During Construction Period, Contractor will be notified by Island Transit in writing of decision to accept or reject Substitution Request.

### **1.06 SUBMITTAL REQUIREMENTS**

- A. Limit each request to one Substitution Request form.
- B. Burden of proof is upon Substitution Request, as proposed, to show compliance with specified requirements. Submit drawings, product data, samples, certified test results, and as needed to fully describe Substitution request for evaluation by Architect.
- C. Where product data includes other than that proposed by substitution Request, clearly mark, or otherwise indicate, exact substitution.
- D. Document each Substitution Request with complete data substantiating that proposed substitution complies with provisions of Contract Documents.
- E. Submission of Substitution Request constitutes representation that Bidder or Contractor:
1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
  2. Shall provide the same or better warranty for substitution as for specified product.
  3. Shall be responsible for effect of substitution upon related Work, shall coordinate installation, and be responsible for other changes which may be required for Work to be complete in all respects, in compliance with design intent and in compliance with all applicable codes and regulatory requirements.
  4. Be responsible for additional costs which may subsequently become apparent. This includes additional costs for required additional Architect's services made necessary by the substitution.
  5. Shall provide all cost savings to Contract Sum as credits.
  6. Shall provide specified product, material, or system should substitution be rejected, at no change in Contract Sum.
- F. Substitutions indicated or implied on submittals, such as Shop Drawings, will not be accepted.

- G. Products and materials included in the Work, not specified or approved by Substitution Request, are defined as Non-Conforming Work. Remove and replace with conforming Work at Contractor's expense with no increase in Contract Time, as directed by Architect.

**1.07 OWNER WILL NOT CONSIDER**

- A. Substitution Requests which do not provide adequate or clearly defined information for complete and timely appraisal.
- B. Substitutions which, if accepted, will require substantial revisions of Contract Documents.
- C. Substitution indicated or implied by Shop Drawings and other submittals.
- D. Substitutions not approved by published Addendum during Bid Period or not approved in writing by Architect during Construction period.
- E. Substitutions not submitted on completed Substitution Request Form.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 01 61 00**

**SUBSTITUTION REQUEST FORM**

SUBMITTED TO:

PROJECT: Main Base and Camano Satellite Solar Installation  
Coupeville, WA and Camano, WA

SPECIFIED ITEM:

Section No.	Paragraph No.	Description of Specified Item
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The Undersigned requests consideration for the following substitution to that specified  
PROPOSED SUBSTITUTION:

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ATTACHED DATA:

Include product description, specifications, drawings, photographs, performance, and test data as necessary for evaluation. Clearly identify proposed substitution and portions of data from other items where more than one item is described.

Include description of changes to Contract Documents required by proposed substitution.

CERTIFICATION:

The Undersigned certifies that the following paragraphs are correct:

1. Proposed substitution does not affect dimensions shown on Drawings.
2. The Undersigned will pay for changes to building design, including engineering design, detailing, and construction costs, caused by requested substitution.
3. Proposed substitution will have no adverse effect on other trades, Construction Schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for proposed substitution.

Undersigned further states that function, appearance, and quality of proposed substitution are equivalent or superior to specified item.

SUBMITTED BY:

Signature \_\_\_\_\_  
Firm \_\_\_\_\_  
Address \_\_\_\_\_  
Date \_\_\_\_\_  
Telephone (    ) \_\_\_\_\_

FOR USE BY ISLAND TRANSIT:

Approved             Approved as Noted  
 Not Approved        Received too Late  
By \_\_\_\_\_  
Date \_\_\_\_\_  
Remarks \_\_\_\_\_

LIST ATTACHMENTS:

**END OF SECTION**



**SECTION 01 77 00**  
**CLOSEOUT PROCEDURES**

**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. This Section specifies requirements for performing all operations necessary for and incidental to closing out a Contract and assisting in the final inspection.

1.02 QUALITY CONTROL

- A. Facilities: Maintain facilities in accordance with the Contract Documents until Final Acceptance of the Work. The following apply to interim facilities:
1. Inspect all elements of installation; align and repair defects, and demonstrate operation to Island Transit.
  2. Inspect all areas within Contractors access during the installation: clean or repair and restore as required.

1.03 CLOSEOUT SCHEDULE AND PROCEDURE

- A. Requirements Preparatory to Final Inspection:
1. Clean the project site and all applicable appurtenances and improvements as specified in Section 01 31 10 Project Coordination.
  2. Properly mount operating instructions for equipment and post as specified or required.
  3. Complete record drawings, specifications, and as-built surveys, and submit to the Resident Engineer as specified in Section 01 78 39 As-built Drawings. Also include the required closeout documents in the O&M Manuals described in Section 01 78 23 Operation and Maintenance Data.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01 78 23

### OPERATION AND MAINTENANCE DATA

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. This Section specifies requirements for providing Operation and Maintenance (O&M) Manuals and Operating and Maintenance Instructions for installed equipment and systems.

##### 1.02 SUBMITTALS

- A. Preliminary Operation and Maintenance Materials: Within 60 days of approval of product data submittals.
  - 1. Two hard copies and 2 electronic versions (CD or DVD)
- B. Operation and Maintenance Manuals: Due before the work will be considered ready for start-up and testing and commissioning, but no later than 60 days before commencement of start-up, testing and commissioning activities.
  - 1. Two hard copies and 2 electronic versions (CD or DVD)
- C. Renewal Parts Catalog
- D. Posted Operating and Maintenance Instructions

##### 1.03 PRELIMINARY O&M MATERIALS

- A. Submit preliminary O&M materials for the following divisions of Work:
  - 1. Division 26 – Electrical

##### 1.04 OPERATION AND MAINTENANCE MANUALS

- A. Include instructions of each equipment plant and its component parts, including but not limited to the following:
  - 1. Manufacturers' certificates
  - 2. Warranty slips
  - 3. Parts lists
  - 4. Descriptive brochures
  - 5. Maintenance and operating instructions for all equipment and systems installed
  - 6. Installation and start-up instructions
  - 7. Installation verification checklist
  - 8. Start-up checklist

B. Format

1. Standard sized manuals shall be reproduced on pages that are 8-1/2 inch x 11 inch. The binder cover shall be 10 inch to 10-1/2 inch wide (depending on ring size) and 11-1/2 inch to 12 inch high. The binders shall not exceed 3 inches overall thickness. Punched holes shall be on 3/4 in centers. Folded pages will be permitted (11 inch x 17 inch, "Z" - folded) where the information to be conveyed cannot be presented clearly on single pages. Manuals for 8-1/2 inch x 11 inch pages may be divided into multiple volumes if the required material cannot be accommodated within the maximum binder thickness. Cross-references and a Table of Contents shall be provided in each volume.
2. All covers shall be approximately 1/16 inch thick, resistant to oil, moisture, and wear, to a high degree commensurate with their intended uses. Final sets of manuals shall be serialized with numbers to be supplied by Island Transit. The numbers shall be permanently marked on the spine of the cover.
3. Loose-leaf metal binder rings with locks shall be used to prevent undesired opening and to provide positive engagement when closed. Diagrams and illustrations shall not be loose or in pockets.
4. Printed material shall be clearly reproducible by dry copying machines. This precludes the use of halftone illustrations. Line drawings are required.
5. Supply master reproducible copies of all documents. The quality of the master shall be such that duplicates may be made of the same quality as the original, approved submittals.
6. All documents or drawings shall be in English language only. All dimensions given in metric units shall also state the English unit equivalents in parenthesis next to the metric dimensions.
7. Include a title page, contents page, frontispiece, and information covering description, installation, operation, preventive maintenance, corrective maintenance, overhaul, parts list, and list of recommended spare parts, and an appendix.
8. Include on the title page, the name and function of the equipment, manufacturer's identification number, and the Contract Specifications number and title.
9. List the contents of all sections and subsection titles of the Manuals with reference to the page on which each starts and a list of included drawings.
10. Frontispiece shall be a recognizable illustration of the equipment described in the Manuals.
11. Paper: loose leaf, 60 or 70 pound offset.

C. Contents

1. Descriptive information including drawings and diagrams, and a physical and functional description of the equipment, and major assemblies and subassemblies
2. Cover the installation information and pre-installation inspection, installation, calibration, and preparation for operation, both for initial installation and for installation after overhaul.

3. Include the operation information, step-by-step procedures for starting, restarting, operating, shutdown, and emergency requirements. Include the information on performance specifications and operating limitations.
4. Include the maintenance information step-by-step procedures for inspection, operation checks, cleaning, lubrication, adjustments, repair, overhaul, disassembly, and reassembly of the equipment for proper operation of the equipment. Include a list of special tools that are required for maintenance with the maintenance information.
5. Provide the complete parts list and a list of recommended spare parts with all necessary information, including part numbers and catalog item numbers if applicable, for identifying parts. Identify parts or assemblies obtained from another manufacturer by the name of that manufacturer and its identifying part number. Supply the size, capacity, or other characteristics of the part if required for identification. The material in the maintenance manuals and parts catalogs shall be organized and indexed, with a standard numbering system.
6. Include in the appendix safety precautions, a glossary, and, if available at time of submittal, copies of test reports and other relevant material not specified to be submitted.
7. Delete all information on material or equipment not used in the work from the O&M Manuals.

D. Manual Revisions

1. Revise the O&M Manuals to show the equipment as installed.
2. Revise by issue of replacement pages to the final O&M Manuals, or by reissue of the O&M Manuals, at Resident Engineer's option.
3. Following the issue of each publication, provide revised table of contents and pages covering any changes, whether required by change of design, or procedures, or due to error. Submittals of revised pages shall be accompanied by an updated revision record for each manual documenting date revised, page number, effective date of the revision, a description of the change, and the reason for the change. Manual and catalog revisions shall be supplied to Island Transit before, or coincident, with the arrival of the altered parts or components.
4. These revisions shall be kept current (revised every 6 months or less) during the warranty period. After the warranty period, revisions shall be supplied to Island Transit every 6, 9 or, 12 months for a period of 2 additional years. Changes affecting safety, safe maintenance or operation shall be supplied as soon as they are discovered

1.05 RENEWAL PARTS CATALOG

- A. Enumerate and describe every component with its related parts, including supplier's number, Contractor's number, Drawings Apparatus Reference number, and provision for entry of Island Transit part number.
- B. Use cut-away and exploded drawings to aid identification of parts not readily identified by description.
- C. Parts common to different components, as for instance, bolts, and nuts, must bear the same Contractor's number with a reference to other components in which they are found.

- D. Identify each part or component as being part of the next assembly.
- E. Commercially available items such as common standard fastenings, fuses, lamps, fittings, etc., must be identified by standard hardware nomenclature besides Contractor's number. Provide a separate list of these items in the catalog with adequate information to order these items through commercial channels. List a minimum of 3 suppliers for each part.
- F. Provide a complete itemization of servicing materials (oils, paints, special compounds, greases, etc.) required and component requiring its use.
- G. Provide ordering and procurement information required for components and subassemblies to the lowest level replaceable component. Ensure Island Transit shall not need to request information from Contractor at any future date.
- H. Submit lists in the form of reproducible Bills of Materials suitable for loose-leaf binding adequately cross-referenced to related drawings and Bills of Material.

#### 1.06 POSTED OPERATING AND MAINTENANCE INSTRUCTIONS

- A. Provide and mount at each location with equipment that needs to be operated or maintained, a printed sheet under framed clear acrylic plastic, giving brief, concise operating and maintenance instructions for items of mechanical, optical, and electrical equipment at that location.
- B. Provide color coded lubrication charts and lubrication diagrams. Each color is to represent a different lubricant when two or more types of lubrication are required on one piece of equipment.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### 3.01 SPECIAL SUBMITTAL PROCEDURES

- A. Work with Island Transit to review O&M Manuals together in meeting environment.
- B. Revise manuals in accordance with directions and comments from both meeting inputs and formal mark-ups (by reviewers).

#### 3.02 INSTRUCTION OF ISLAND TRANSIT'S PERSONNEL FOR CONSTRUCTION CONTRACTS

- A. Before final inspection or Acceptance, instruct designated operating and maintenance personnel in the operation, adjustment, and maintenance of all equipment and systems.
- B. Explain to O&M personnel, in full and to their complete understanding, all procedures necessary to operate and maintain all equipment and systems on a continuing basis.
- C. Review the contents of the O&M Manuals with O&M personnel in full detail to explain all aspects of the Manuals related to the operation and maintenance of all equipment and systems.

3.03 ISLAND TRANSIT RESPONSIBILITY

- A. Upon receipt of Contractor's Notice of Substantial Completion, Island Transit will designate operating and maintenance personnel who will be responsible for operation, adjustment, and maintenance of all equipment and systems.
- B. Island Transit and O&M personnel will set a meeting, to introduce and to review their complete understanding of all procedures necessary to operate and maintain all equipment and systems on a continuing basis.
- C. Island Transit and O&M personnel will review the contents of the O&M Manuals with Contractor's personnel in full detail as they relate to the operation and maintenance of all equipment and systems.

**END OF SECTION**

## **SECTION 01 78 39**

### **AS-BUILT DRAWINGS**

#### **PART 1 - GENERAL**

##### 1.01 DESCRIPTION

- A. This Section includes requirements for preparation, maintenance, completion, and submission of As-Built Drawings.

##### 1.02 SUBMITTALS

- A. Incremental As-Built Drawings, within 14 days of request by the Resident Engineer
- B. Final As-Built Drawings, within the time frame specified in the General Conditions.

#### **PART 2 - PRODUCTS (NOT USED)**

#### **PART 3 - EXECUTION**

##### 3.01 GENERAL

- A. Utilize full-sized Contract Drawings for the As-Built Drawings. Update to show:
  - 1. Dimensions and details of field changes made by Contractor
  - 2. Changes made by Change Order, approved Substitution request or approved deviation request
  - 3. Clarifications to details identified by Field Clarification or Request for Information (RFI)
  - 4. Dimensional location of all embedded, buried and concealed features as placed by Contractor, including electrical conduit, structural attachments, and items not located or shown on the Drawings but placed by Contractor
  - 5. Dimensional location of substantially differing site conditions of existing utilities, structures, and objects exposed, but not placed, during construction

##### 3.02 MARKING DEVICES

- A. Use colored pencils or pens to annotate As-Built Drawings, using the following conventions:
  - 1. Red: Information to add to the electronic record drawings.
  - 2. Green: Information to delete from the electronic record drawings.
  - 3. Blue: Communications, instructions, or reference information used to clarify changes to be made to the electronic record drawings (but not itself

added). This may include dimensions and references to other documents.

B. Stamp set "As-Built."

### 3.03 RECORDING

A. General:

1. Record changes concurrently with construction progress. No Work shall be covered or concealed until the As-Built information is obtained and documented.
2. Record actual arrangement and routing of embedded conduit relative to visible structural items. Dimension conduit off of walls, columns, or other similar features.
3. Provide coordinates obtained from As-Built field surveys in tabular format on the As-Built Drawings.

B. Minimum Recording Standards:

1. Graphical Sketch: If the Contract Drawings are not of sufficient size, scale, or the detail/level-of-change is too complex to incorporate directly on the drawings, include a sketch to convey the change information. Sketch can originate from:
  - a. Change Documentation: Provided in response to an RFI, through a Field Clarification, or other similar document.
  - b. Contractor Generated: If no sketch from the change documentation exists, provide one.
2. Sketches shall include:
  - a. Sufficient details and dimensions to accurately locate all objects within the Conformed Drawing
  - b. The change documentation number, if applicable (e.g., RFI number, Field Clarification number) and the related As-Built Drawing number, in blue pen or pencil
  - c. The change documentation sketch number, if applicable, in blue pen or pencil
3. As-Built Drawings shall include:
  - a. The cross referenced sketch identification number and change documentation number, if applicable

C. The following are prohibited:

1. Simply referencing change documentation without supporting graphical information
2. Providing information that is irrelevant to changes in the drawings



3.04 MAINTENANCE AND VERIFICATION

- A. At the request of the Owner, make available for verification that the As-Built Drawings are being maintained with current information, that the information is being recorded in a legible and neat manner, and that the information is accurate and complete.
- B. If the As-Built Drawings are not being maintained in a satisfactory manner, the Owner may withhold part or all of a progress payment, until the As-Built Drawings have been brought current with neat, legible and accurate information.

3.05 FINAL SUBMISSION

- A. Submit:
  - 1. Final As-Built Drawings and related documentation, including sketches, in the same size, scale, and color as the original, to the Owner for review and acceptance
  - 2. Color scanned, electronic Portable Document Format (PDF) files of Final As-Built Drawings with a minimum density of 300 dpi
- B. Record changes subsequent to substantial completion of the Work, including changes resulting from replacements, repairs and alterations made as part of its warranty.

**END OF SECTION**

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## SECTION 01 78 70

### WARRANTIES AND BONDS

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 0 and 1 Specification Sections, apply to work of this Section.

##### 1.02 SUMMARY

- A. Compile specified certificates, bonds and similar certification.
- B. Compile specified services and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
  - 1. Submit to Island Transit on Contractor's letterhead for review and approval.
- E. Related Requirements:
  - 1. Coordinate related requirements specified in other parts of the Project Manual, including but not limited to following.
    - a. Section 01 78 23 Operating and Maintenance Data.
    - b. Each respective Section as required.

##### 1.03 SUBMITTALS

- A. Assemble executed certificates, warranties, bonds, and any required service and maintenance contracts from the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Contents: Neatly type Table of Contents in orderly sequence. Furnish complete information for each item as follows:
  - 1. Product or work item;
  - 2. Firm, with name of principal, address, and telephone number;
  - 3. Scope;
  - 4. Date of beginning of warranty or service and maintenance contract;
  - 5. Duration of warranty or service maintenance contract;
  - 6. Information for Owner's personnel, including:
    - a. Proper procedure in case of failure;
  - 7. Instances which might affect validity of warranty or bond.

8. Contractor, name of responsible principal, address, and telephone number.

#### 1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate, packets conforming to following requirements.
  1. Size: 8-1/2" X 11" punched sheets for 3-ring binder. Fold larger sheets to fit into binders.
  2. Binders: Commercial quality heavy-duty plastic or fiberboard 3-ring D-ring binders. All binding is subject to the Architect's approval.
  3. Covers: Identify each packet with typed or printed title "WARRANTIES AND BONDS" and showing:
    - a. Title of Project.
    - b. Name of Contractor.
- B. Format/Warranties/Guarantees:
  1. In addition to guarantees required by "General Conditions of Contract", furnish written guarantees warranting certain portions of work for longer periods.
  2. Address them to Owner.
  3. Submit through Architect on Contractor's letterhead before final payment and acceptance of work by Owner.
  4. Where more than one subcontractor is involved, submit guarantee for each.
- C. Form of Guarantee for other specified installation:
  1. I (We), (insert name of contractor), certify (insert name of trade or portion of work being guaranteed) installed by (insert name of appropriate subcontractor) on (insert name of job) located at (insert address) is performed in strict accordance with Contract Documents. Further, I (We) guarantee this work to be (watertight, and without leaks) (other) caused by defects in materials and workmanship, for (fill in specific required guarantee period) years from (date of acceptance of work), and will repair, or replace, without delay, any defects in materials and workmanship discovered within guarantee period.

Sincerely,

(Name of Contractor/responsible principal/ address/telephone number).  
Signed by Owner, Partner, or other person authorized to commit firm.)

#### 1.05 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during progress of construction:
  1. Submit documents within ten days after final inspection and acceptance;  
or:
    - a. Otherwise make submittals within ten days after Date of Substantial Completion, prior to final request for payment.

- B. For items of work, where acceptance is delayed materially beyond the date of Substantial Completion, provide updated submittal within ten days after acceptance. List the date of acceptance as the start of the warranty period.

#### **1.06 WARRANTY LENGTHS AND START DATES**

- A. All materials, parts, and labor shall be warranted for a minimum period of (1) one year; unless greater lengths for specific sections are specified elsewhere within the Project Manual.
- B. Warranty periods shall begin on the date established as Substantial Completion.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

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## SECTION 26 05 19

### LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Copper building wire rated 600 V or less.
  - 2. Photovoltaic cable, Type PV, rated 2000 V or less.
  - 3. Connectors, splices, and terminations rated 600 V and less.

##### 1.02 DEFINITIONS

- A. PV: Photovoltaic.
- B. RoHS: Restriction of Hazardous Substances.

##### 1.03 SUBMITTALS

- A. Product Data: For each type of product.
- B. Product Schedule: Indicate type, use, location, and termination locations.

##### 1.04 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

#### PART 2 - PRODUCTS

##### 2.01 COPPER BUILDING WIRE

- A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.
- B. Manufacturers:
  - 1. Service Wire Co.
  - 2. Alpha Wire Company.
  - 3. American Bare Conductor.
  - 4. Cerro Wire LLC.
  - 5. Encore Wire Corporation.

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- 6. Okonite Company.
  - 7. Southwire Company.
  - C. Standards:
    - 1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
    - 2. RoHS compliant.
    - 3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."
  - D. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8 for stranded conductors.
  - E. Conductor Insulation:
    - 1. Type THHN and Type THWN-2: Comply with UL 83.

## **2.02 PHOTOVOLTAIC CABLE, TYPE PV**

- A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 2000 V.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Encore Wire Corporation.
  - 2. General Cable; General Cable Corporation.
  - 3. Southwire Company.
- C. Standards:
  - 1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
  - 2. RoHS compliant.
  - 3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."
- D. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8 for stranded conductors.
- E. Conductor Insulation: Comply with UL 44 and UL 4703.

## **2.03 CONNECTORS AND SPLICES**

- A. Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and

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labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

- B. Manufacturers:
  - 1. Service Wire Co.
  - 2. 3M Electrical Products.
  - 3. AFC Cable Systems; a part of Atkore International.
  - 4. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 5. TE Connectivity Ltd.
  - 6. Thomas & Betts Corporation; A Member of the ABB Group.
- C. Jacketed Cable Connectors: For steel and aluminum jacketed cables, zinc die-cast with set screws, designed to connect conductors specified in this Section.
- D. Lugs: One piece, seamless, designed to terminate conductors specified in this Section.
  - 1. Material: Copper.
  - 2. Type: One hole with standard barrels.
  - 3. Termination: Compression.

## **PART 3 - EXECUTION**

### **3.01 CONDUCTOR MATERIAL APPLICATIONS**

- A. Feeders: Copper; solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- C. PV Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

### **3.02 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS**

- A. Exposed Feeders and Branch Circuits: Type THHN/THWN-2, single conductors in raceway.
- B. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- C. PV Circuits: Type PV for PV source circuits rated at 1000 V.

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### 3.03 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 26 05 33 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

### 3.04 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

### 3.05 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

### 3.06 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
  - 1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors for compliance with requirements.
  - 2. Perform each of the following visual and electrical tests:
    - a. Inspect exposed sections of conductor and cable for physical damage and correct connection according to the single-line diagram.
    - b. Test bolted connections for high resistance using one of the following:
      - 1) A low-resistance ohmmeter.



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- 2) Calibrated torque wrench.
  - 3) Thermographic survey.
  - c. Inspect compression-applied connectors for correct cable match and indentation.
  - d. Inspect for correct identification.
  - e. Inspect cable jacket and condition.
  - f. Insulation-resistance test on each conductor for ground and adjacent conductors. Apply a potential of 500-V dc for 300-V rated cable and 1000-V dc for 600-V rated cable for a one-minute duration.
  - g. Continuity test on each conductor and cable.
  - h. Uniform resistance of parallel conductors.
- B. Cables will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports to record the following:
- 1. Procedures used.
  - 2. Results that comply with requirements.
  - 3. Results that do not comply with requirements, and corrective action taken to achieve compliance with requirements.

**END OF SECTION**

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## SECTION 26 05 26

### GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section includes grounding and bonding systems and equipment.

##### 1.02 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control reports.

#### PART 2 - PRODUCTS

##### 2.01 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

##### 2.02 MANUFACTURERS

- A. Cooper Power Systems.
- B. Storm Copper Components Co.
- C. O-Z / Gedney Co.
- D. Harger.
- E. Or other reviewed and approved Manufacturers.

##### 2.03 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
  - 1. Solid Conductors: ASTM B 3.
  - 2. Stranded Conductors: ASTM B 8.
  - 3. Size as shown on plans and per NEC Article 250.

- a. Grounding Electrode Conductors for AC Systems:
  - 1) See NEC Table 250.66.
- b. Equipment Grounding Conductors:
  - 1) See NEC Table 250.122.

## **2.04 CONNECTORS**

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bus-Bar Connectors: Mechanical type, cast silicon bronze, solderless compression-type wire terminals, and long-barrel, two-bolt connection to ground bus bar.
- C. Cable-to-Cable Connectors: Compression type, copper or copper alloy.
- D. Conduit Hubs: Mechanical type, terminal with threaded hub.

## **PART 3 - EXECUTION**

### **3.01 APPLICATIONS**

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.
- B. Conductor Terminations and Connections:
  - 1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
  - 2. Connections to Structural Steel: Welded connectors.

### **3.02 EQUIPMENT GROUNDING**

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.

### **3.03 INSTALLATION**

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
  - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.

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2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
  3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.
- C. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact are galvanically compatible.
1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
  2. Make connections with clean, bare metal at points of contact.
  3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
  4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
  5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

### **3.04 FIELD QUALITY CONTROL**

- A. Perform tests and inspections.
- B. Tests and Inspections:
  1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
  2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
- C. Grounding system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.
- E. Report measured ground resistances that exceed the following values:
  1. Power and Lighting Equipment or System with Capacity of 500 kVA and Less: 10 ohms.
  2. Power and Lighting Equipment or System with Capacity of 500 to 1000 kVA: 5 ohms.

- F. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Owner promptly and include recommendations to reduce ground resistance.

**END OF SECTION**

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## SECTION 26 05 33

### RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
- B. Metal conduits and fittings.
- C. Metal wireways and auxiliary gutters.

##### 1.02 DEFINITIONS

- A. GRC: Galvanized rigid steel conduit.

##### 1.03 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, hinged-cover enclosures, and cabinets.

#### PART 2 - PRODUCTS

##### 2.01 METAL CONDUITS AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. AFC Cable Systems, Inc.
  - 2. Allied Tube & Conduit.
  - 3. Anamet Electrical, Inc.
  - 4. Electri-Flex Company.
  - 5. FSR Inc.
  - 6. O-Z/Gedney; and EGS Electrical Group brand.
  - 7. Patriot Aluminum Products, LLC.
  - 8. Picoma Industries.
  - 9. Republic Conduit.
  - 10. Robroy Industries.

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11. Southwire Company.
  12. Thomas & Betts Corporation, A Member of the ABB Group.
  13. Western Tube and Conduit Corporation.
  14. Wheatland Tube Company.
- B. Metal Conduit:
1. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  2. GRC: Comply with ANSI C80.1 and UL 6.
  3. EMT: Comply with ANSI C80.3 and UL 797.
- C. Metal Fittings:
1. Comply with NEMA FB 1 and UL 514B.
  2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  3. Fittings, General: Listed and labeled for type of conduit, location, and use.
  4. Fittings for EMT:
    - a. Material: Steel.
    - b. Type: Compression.
  5. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.

## **PART 3 - EXECUTION**

### **3.01 RACEWAY APPLICATION**

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed Conduit: GRC.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed, Not Subject to Physical Damage: EMT.
  2. Exposed, Not Subject to Severe Physical Damage: EMT.

- 
3. Exposed and Subject to Severe Physical Damage: GRC. Raceway locations include the following:
    - a. Mechanical rooms.
  4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
  5. Damp or Wet Locations: GRC.
- C. Minimum Raceway Size: 3/4-inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
  2. EMT: Use compression, steel fittings. Comply with NEMA FB 2.10.
- E. Install surface raceways only where indicated on Drawings.
- F. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F.

### **3.02 INSTALLATION**

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Do not install raceways or electrical items on any "explosion-relief" walls or rotating equipment.
- C. Do not fasten conduits onto the bottom side of a metal deck roof.
- D. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- E. Complete raceway installation before starting conductor installation.
- F. Install no more than the equivalent of four 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
- G. Make bends in raceway using large-radius preformed ells. Field bending shall be according to NFPA 70 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- H. Conceal conduit within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- I. Support conduit within 12 inches of enclosures to which attached.



- J. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- K. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- L. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- M. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- N. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- O. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- P. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

### **3.03 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS**

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies.

### **3.04 FIRESTOPPING**

- A. Install firestopping at penetrations of fire-rated floor and wall assemblies.

### **3.05 PROTECTION**

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
  - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
  - 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

**END OF SECTION**

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## SECTION 26 28 16

### ENCLOSED SWITCHES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Fusible switches.
  - 2. Nonfusible switches.
- B. NC: Normally closed.
- C. NO: Normally open.
- D. SPDT: Single pole, double throw.

##### 1.02 ACTION SUBMITTALS

- A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include nameplate ratings, dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, accessories, and finishes.
  - 1. Enclosure types and details for types other than NEMA 250, Type 1.
  - 2. Current and voltage ratings.
  - 3. Short-circuit current ratings (interrupting and withstand, as appropriate).
  - 4. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices, accessories, and auxiliary components.
  - 5. Include time-current coordination curves (average melt) for each type and rating of overcurrent protective device; include selectable ranges for each type of overcurrent protective device. Provide in PDF and electronic format.
- B. Shop Drawings: For enclosed switches and circuit breakers.
  - 1. Include wiring diagrams for power, signal, and control wiring.

##### 1.03 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

##### 1.04 CLOSEOUT SUBMITTALS

- 
- A. Operation and Maintenance Data: For enclosed switches and circuit breakers to include in emergency, operation, and maintenance manuals.
    - 1. In addition to items specified in Section 01 78 23 "Operation and Maintenance Data," include the following:
      - a. Manufacturer's written instructions for testing and adjusting enclosed switches and circuit breakers.
      - b. Time-current coordination curves (average melt) for each type and rating of overcurrent protective device; include selectable ranges for each type of overcurrent protective device. Provide in PDF and electronic format.

#### **1.05 MAINTENANCE MATERIAL SUBMITTALS**

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Fuses: Equal to 10 percent of quantity installed for each size and type, but no fewer than three of each size and type.
  - 2. Fuse Pullers: Two for each size and type.

#### **1.06 QUALITY ASSURANCE**

- A. Testing Agency Qualifications: Accredited by NETA.
  - 1. Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.

#### **1.07 WARRANTY**

- A. Manufacturer's Warranty: Manufacturer and Installer agree to repair or replace components that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: One year(s) from date of Project Completion.

### **PART 2 - PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Eaton Cutler-Hammer.
- B. Siemens.
- C. Square D (Schneider Electric).
- D. Or approved equal.

#### **2.02 PERFORMANCE REQUIREMENTS**

- 
- A. Seismic Performance: Enclosed switches and circuit breakers shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
    - 1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

### 2.03 GENERAL REQUIREMENTS

- A. Source Limitations: Obtain enclosed switches and circuit breakers, overcurrent protective devices, components, and accessories, within same product category, from single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by an NRTL, and marked for intended location and application.
- C. Comply with NFPA 70.

### 2.04 FUSIBLE SWITCHES

- A. Type HD, Heavy Duty:
  - 1. Single throw.
  - 2. Three pole.
  - 3. 600-V ac.
  - 4. 1200 A and smaller.
  - 5. UL 98 and NEMA KS 1, horsepower rated, with clips or bolt pads to accommodate specified fuses.
  - 6. Lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.
- B. Accessories:
  - 1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
  - 2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
  - 3. Class R Fuse Kit: Provides rejection of other fuse types when Class R fuses are specified.
  - 4. Hookstick Handle: Allows use of a hookstick to operate the handle.
  - 5. Lugs: Mechanical type, suitable for number, size, and conductor material.
  - 6. Service-Rated Switches: Labeled for use as service equipment.

### 2.05 NONFUSIBLE SWITCHES

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- A. Type GD, General Duty, Three Pole, Single Throw, 600-V ac, 100 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
  - B. Type HD, Heavy Duty, Three Pole, Single Throw, 600-V ac, Larger than 100A: UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.
  - C. Accessories:
    - 1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
    - 2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
    - 3. Class R Fuse Kit: Provides rejection of other fuse types when Class R fuses are specified.
    - 4. Hookstick Handle: Allows use of a hookstick to operate the handle.
    - 5. Lugs: Mechanical type, suitable for number, size, and conductor material.
    - 6. Service-Rated Switches: Labeled for use as service equipment.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
  - 1. Commencement of work shall indicate Installer's acceptance of the areas and conditions as satisfactory.

### **3.02 PREPARATION**

- A. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions:
  - 1. Notify Owner no fewer than seven days in advance of proposed interruption of electric service.
  - 2. Do not proceed with interruption of electric service without Owner's written permission.
  - 3. Comply with NFPA 70E.

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### 3.03 ENCLOSURE ENVIRONMENTAL RATING APPLICATIONS

- A. Enclosed Switches and Circuit Breakers: Provide enclosures at installed locations with the following environmental ratings.
  - 1. Indoor, Dry and Clean Locations: NEMA 250, Type 1.
  - 2. Outdoor Locations: NEMA 250, Type 3R.
  - 3. Wash-Down Areas: NEMA 250, Type 4X.
  - 4. Other Wet or Damp, Indoor Locations: NEMA 250, Type 4.
  - 5. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 12.

### 3.04 INSTALLATION

- A. Coordinate layout and installation of switches and components with equipment served and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Install individual wall-mounted switches with tops at uniform height unless otherwise indicated.
- C. Temporary Lifting Provisions: Remove temporary lifting of eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.
- D. Install fuses in fusible devices.
- E. Comply with NFPA 70 and NECA 1.

### 3.05 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
- B. Label each enclosure with engraved metal or laminated-plastic nameplate.

### 3.06 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections for Switches:
  - 1. Visual and Mechanical Inspection:
    - a. Inspect physical and mechanical condition.
    - b. Inspect anchorage, alignment, grounding, and clearances.
    - c. Verify that the unit is clean.

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- d. Verify blade alignment, blade penetration, travel stops, and mechanical operation.
  - e. Verify that fuse sizes and types match the Specifications and Drawings.
  - f. Verify that each fuse has adequate mechanical support and contact integrity.
  - g. Inspect bolted electrical connections for high resistance using one of the two following methods:
    - 1) Use a low-resistance ohmmeter.
      - a) Compare bolted connection resistance values to values of similar connections. Investigate values that deviate from those of similar bolted connections by more than 50 percent of the lowest value.
    - 2) Verify tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with manufacturer's published data or NETA ATS Table 100.12.
      - a) Bolt-torque levels shall be in accordance with manufacturer's published data. In the absence of manufacturer's published data, use NETA ATS Table 100.12.
  - h. Verify that operation and sequencing of interlocking systems is as described in the Specifications and shown on the Drawings.
  - i. Verify correct phase barrier installation.
  - j. Verify lubrication of moving current-carrying parts and moving and sliding surfaces.
2. Electrical Tests:
- a. Perform resistance measurements through bolted connections with a low-resistance ohmmeter. Compare bolted connection resistance values to values of similar connections. Investigate values that deviate from adjacent poles or similar switches by more than 50 percent of the lowest value.
  - b. Measure contact resistance across each switchblade fuseholder. Drop values shall not exceed the high level of the manufacturer's published data. If manufacturer's published data are not available, investigate values that deviate from adjacent poles or similar switches by more than 50 percent of the lowest value.
  - c. Perform insulation-resistance tests for one minute on each pole, phase-to-phase and phase-to-ground with switch closed, and

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across each open pole. Apply voltage in accordance with manufacturer's published data. In the absence of manufacturer's published data, use Table 100.1 from the NETA ATS. Investigate values of insulation resistance less than those published in Table 100.1 or as recommended in manufacturer's published data.

- d. Measure fuse resistance. Investigate fuse-resistance values that deviate from each other by more than 15 percent.
- e. Perform ground fault test according to NETA ATS 7.14 "Ground Fault Protection Systems, Low-Voltage."

C. Tests and Inspections for Molded Case Circuit Breakers:

1. Visual and Mechanical Inspection:

- a. Verify that equipment nameplate data are as described in the Specifications and shown on the Drawings.
- b. Inspect physical and mechanical condition.
- c. Inspect anchorage, alignment, grounding, and clearances.
- d. Verify that the unit is clean.
- e. Operate the circuit breaker to ensure smooth operation.
- f. Inspect bolted electrical connections for high resistance using one of the two following methods:
  - 1) Use a low-resistance ohmmeter.
    - a) Compare bolted connection resistance values to values of similar connections. Investigate values that deviate from those of similar bolted connections by more than 50 percent of the lowest value.
  - 2) Verify tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with manufacturer's published data or NETA ATS Table 100.12.
    - a) Bolt-torque levels shall be in accordance with manufacturer's published data. In the absence of manufacturer's published data, use NETA ATS Table 100.12.
- g. Inspect operating mechanism, contacts, and chutes in unsealed units.
- h. Perform adjustments for final protective device settings in accordance with the coordination study.

2. Electrical Tests:



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- a. Perform resistance measurements through bolted connections with a low-resistance ohmmeter. Compare bolted connection resistance values to values of similar connections. Investigate values that deviate from adjacent poles or similar switches by more than 50 percent of the lowest value.
  - b. Perform insulation-resistance tests for one minute on each pole, phase-to-phase and phase-to-ground with circuit breaker closed, and across each open pole. Apply voltage in accordance with manufacturer's published data. In the absence of manufacturer's published data, use Table 100.1 from the NETA ATS. Investigate values of insulation resistance less than those published in Table 100.1 or as recommended in manufacturer's published data.
  - c. Perform a contact/pole resistance test. Drop values shall not exceed the high level of the manufacturer's published data. If manufacturer's published data are not available, investigate values that deviate from adjacent poles or similar switches by more than 50 percent of the lowest value.
  - d. Perform insulation resistance tests on all control wiring with respect to ground. Applied potential shall be 500-V dc for 300-V rated cable and 1000-V dc for 600-V rated cable. Test duration shall be one minute. For units with solid state components, follow manufacturer's recommendation. Insulation resistance values shall be no less than two megohms.
3. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
  4. Perform the following infrared scan tests and inspections and prepare reports:
    - a. Initial Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each enclosed switch and circuit breaker. Remove front panels so joints and connections are accessible to portable scanner.
    - b. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan of each enclosed switch and circuit breaker 11 months after date of Substantial Completion.
    - c. Instruments and Equipment: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
  5. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Enclosed switches and circuit breakers will be considered defective if they do not pass tests and inspections.

- E. Prepare test and inspection reports.
  - 1. Test procedures used.
  - 2. Include identification of each enclosed switch and circuit breaker tested and describe test results.
  - 3. List deficiencies detected, remedial action taken, and observations after remedial action.

### **3.07 ADJUSTING**

- A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.

**END OF SECTION**

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## SECTION 26 31 00

### SOLAR PHOTOVOLTAIC UTILITY GRID-TIED SYSTEMS

#### PART 1 - GENERAL

##### 1.01 GENERAL

- A. Conform to General Conditions, Supplementary Conditions, Division 01 and Division 26.
- B. Review the Specifications and Drawings for coordination with additional requirements and information that applies to work under this Specification.

##### 1.02 SUMMARY

- A. The Contractor shall design, furnish, and install the complete Solar Photovoltaic (PV) Grid-Tied System as described herein and where shown on the Drawings.
- B. The Contractor shall adhere to the State of Washington General Conditions and Supplementary Instructions in Division 01 of the Contract Documents.
- C. This Section Includes: Solar photovoltaic (PV) utility grid-tied system including the following:
  - 1. Roof mounted solar modules.
  - 2. AC/DC inverters.
  - 3. Disconnect switches.
  - 4. Overcurrent protection.
  - 5. Connections to AC distribution system.
  - 6. Metering equipment.
  - 7. Application of service.
  - 8. Coordination with utility.
  - 9. Environmental and PV modules performance sensors.
  - 10. Web-based software program with graphics.
- D. The system shall supply power to the Owner's electrical distribution system. The system shall not exceed the inverter's maximum input voltage.
- E. Provide complete solar photovoltaic system for each project site. Provide all required interconnecting cables, AC and DC disconnect switches, combiner boxes, branch circuits, solar PV panels (modules), metering equipment, PV

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mounting hardware (PV mounting rails, tilt support legs, cross braces, support rails, seismic supports, mounting clips, brackets, environmental panel monitoring system (temperature, wind, solar irradiance), roof mounting standoffs, raceway and conductors, PV module power performance sensors, data acquisition and remote monitoring hardware and software, and utility grid-tie interconnection.

1. Main Base: Total system size shall be 124 kW DC.
  2. Camano Satellite: Total system size shall be 10.4 kW DC.
- F. Systems must be designed and installed using UL or ETL listed components, including mounting systems.

### **1.03 RELATED SECTIONS**

- A. Division 26 Section "Grounding and Bonding".
- B. Division 26 Section "Raceways and Boxes".
- C. Division 26 Section "Low-Voltage Electrical Power Conductors and Cables".

### **1.04 STANDARDS**

- A. It is the intent of these Specifications to ensure the PV system installed adheres to any and all of the following.
  1. Washington State Building Codes and Standards.
  2. Washington State Solar Initiative Program.
  3. Applicable utility rules and tariffs.
  4. Any and all technical and installation specifications and guidelines recommended by the manufacturers.

### **1.05 REFERENCE STANDARDS**

- A. The systems shall be designed in accordance with applicable portions of the following standards:
  1. ANSI C62.41.1 (American National Standards Institute): IEEE Guide on the Surge Environment in Low-Voltage (1000 V and less) AC Power Circuits.
  2. ANSI C62.41.2 (American National Standards Institute): IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits.
  3. IEEE 519 (Institute of Electrical and Electronic Engineers): IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.
  4. IEEE 929-2000 (Institute of Electrical and Electronic Engineers): Recommended Practice for Utility Interface of Photovoltaic Systems.

5. NEC 2020 (National Fire Protection Association): National Electrical Code.
6. UL 1703 (Underwriters Laboratories Inc.): Flat-Plate Photovoltaic Modules and Panels.
7. UL 1741 (Underwriters Laboratories Inc.): Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
8. FCC Part 15 A and B (Federal Communications Commission).

#### **1.06 DEFINITIONS**

- A. IP Code: Required ingress protection to comply with IEC 60529.
- B. MPPT: Maximum power point tracking.
- C. PV: Photovoltaic.
- D. STC: Standard Test Conditions defined in IEC 61215.

#### **1.07 ADMINISTRATION REQUIREMENTS**

- A. Physical layout shall be coordinated and signed off on by structural engineer of record.
  1. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
  2. Provide roof penetrations that preserve the integrity of the roofing system and do not void the roof warranty.
  3. Notify Owner's Representative and Electrical Engineer of any conflicts with or deviation from the contract documents. Obtain direction prior to proceeding with work.
- B. Utility Interconnection:
  1. Assist in preparing and submitting documentation as required for securing utility interconnection agreement between Owner and serving utility.
  2. Coordinate with utility to provide net metering and production metering suitable for system requirements.

#### **1.08 QUALITY ASSURANCE**

- A. Conform to requirements of NFPA 70.
- B. The manufacturer of the components for the system shall be a United States based manufacturer with a minimum of 5-years of documented experience in the design and fabrication of photovoltaic panels and inverters.

- C. The designing and installing Contractor shall have installed similar type photovoltaic systems for a minimum of 5-years as a principal business, not just occasionally.
- D. The foremen and journeymen electricians and installers shall have received adequate training and are trained in the installation of photovoltaic systems. The Contractor shall provide documentation that this requirement is met.
- E. The designer of the shop drawings shall have a minimum of 5-years' experience designing solar voltaic arrays for commercial installations. The designer shall have designed at least two successful commercial installations within the last 10-years. Please submit project name, location, and client point of contact.
  - 1. Installer to be North American Board of Certified Energy Practitioners certified and have 2-years of experience installing photovoltaic systems.

### **1.09 PRE-INSTALLATION MEETING**

- A. Convene minimum one week prior to commencing work of this Section. Discuss installation procedures of equipment, connection points of equipment to building infrastructure, and safety procedures of installation and post-installation work, hazards of solar array systems, and procedures if accidental contact of solar arrays occur.
- B. Provide a schedule, indicating installation tasks, time duration for each task, and coordination items to be discussed at least five days prior to the meeting to the Owner's Representative. Within the project schedule, include milestone dates for equipment installation, testing, and energizing of equipment durations.

### **1.10 SUBMITTALS**

- A. Prepare and submit all information required for plan review and permitting by authorities having jurisdiction.
- B. Product Data: Submit product data for the PV system to be installed, including model numbers, types, dimensions, weights, kW, kVAR, currents, voltages, locations, required clearances, and other data shown for the items listed below:
  - 1. Roof mounted solar panels.
  - 2. Photovoltaic Inverters: Include short-circuit capabilities.
  - 3. Combiner Panels/Boxes.
  - 4. DC Disconnect Switches: Include interrupting rating.
  - 5. AC Disconnect Switches: Include interrupting rating.
  - 6. Fuses: Include voltage, amperes, and interrupting ratings.
  - 7. Utility meter and base (if required).
  - 8. Circuit Breakers: Include types, frames, and trip ratings.

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9. Environmental panel monitoring system.
  10. Web based software program loaded on a remote computer.
- C. Qualifications:
1. Manufacturer.
  2. Designer.
  3. Installing Contractor.
  4. Foremen and Electricians (installers).
- D. Shop Drawings:
1. The Contractor shall develop shop drawings detailing the layout of solar panels, structural details including connections to the building, roof penetrations, wiring of solar panels, routing of wiring and raceway runs, locations and elevations of inverters, combiner panels/boxes, and connections to the main switchboard. The shop drawings shall be a minimum of 1/8 inch scale.
- E. Design Data:
1. Include structural calculations, certified by structural engineer, for equipment and mounting system. Submit to Owner's Representative for review.
- F. Samples:
1. For roof mounted solar panels including frame, rails, mounting hardware, and exposed accessories to review materials, finishes, and profile of assembly prior to installation.
  2. Samples may be used for final installation with Owner's written approval.
- G. The Contractor shall furnish two (2) equipment submittal copies. Submittals shall be specific for the equipment furnished and shall include as-built information.
- H. The Contractor shall complete and submit an application to the serving utility as well as the City for the PV system. Include appropriate documentation as indicated in utility's application. Please copy all correspondence to the Owner and Engineer.
- I. Commissioning: Submit equipment manufacturer's installation, startup, and testing procedures for approval by the Owner's Representative after approval of connection from the serving Utility. At minimum, this documentation must include the following items:
1. All required equipment components that will be provided and installed.
  2. All equipment components are clean and free of any damage.

3. All equipment control and power wiring connections are complete, verified, and recorded.
  4. All equipment components which require adjustment, calibration, are recorded.
  5. All equipment components amperes, voltages are recorded for each phase.
  6. All equipment components proper operation shall be verified and recorded.
  7. Performance figures are recorded and compared to expected baseline.
  8. All necessary warranty information is recorded and submitted.
  9. Maintenance access and provisions are provided with easy access.
  10. Equipment performs operational service without failures or interruptions.
  11. Equipment and components perform as specified.
  12. Equipment recovers cleanly from power failure and resumes normal operation.
  13. All operational modes of equipment are functional.
  14. Equipment components operate without excessive heat or noise.
  15. Equipment components are operating with smooth action and accuracy.
- J. Training: At least 1-month prior to scheduled training, submit training session agendas for approval by the Owner's Representative.

#### **1.11 WARRANTY**

- A. The manufacturer shall guarantee the system(s) to be free from material defects and workmanship for a period of 1-year from date of completed installation. Manufacturer agrees to repair or replace components of PV modules that fail in materials or workmanship within specified warranty period.
- B. The solar panels shall have the following power output warranty:
  1. 10-years at 90-percent minimum output.
  2. Remaining 15-years at 80-percent minimum output.
- C. AC/DC power inverters shall have a minimum of 10-year warranty.
- D. Power optimizers shall have a minimum of 25-year warranty.

## **PART 2 - PRODUCTS**



---

## 2.01 PHOTOVOLTAIC MANUFACTURERS

- A. Manufacturers:
  - 1. Photovoltaic Module to be compliant with Buy American Act.
  - 2. Modules to be built in Washington State.
  - 3. Basis of Design: SilFab SIL-370 HC
- B. Description:
  - 1. Shall be NEC 2020 compliant.
  - 2. Shall be UL listed to 1000 V DC.
  - 3. Shall meet IEC 61646 requirements.

## 2.02 AC/DC INVERTERS

- A. Manufacturers:
  - 1. Manufacturer to be listed on California Energy Commission Solar Equipment List.
  - 2. Basis of Design:
    - a. Main Base: SolarEdge SE100KUS.
    - b. Camano Satellite: SolarEdge SE7600H-US.
- B. The inverters shall utilize sine-wave technology and high frequency PWM.
- C. Inverter Specifications:
  - 1. AC Input Frequency: 60 Hz.
  - 2. Peak Efficiency: 95-percent, minimum.
  - 3. UL 1741 / IEEE 1547 Listed.
  - 4. AC Output Voltage:
    - a. Main Base: 480V, 3-phase.
    - b. Camano Satellite: 240V, 1-phase.
  - 5. Enclosure: NEMA 250, Type 3R.
- D. Ground fault detection shall be incorporated with automatic shutdown of more than one (1) amp.
- E. Automatic disconnect upon utility power outage shall be integral to the unit and system.

- F. Provide with LCD display, RS-485 communications, integrated web server for remote online access to all current data from any PC for data storage.
- G. Provide size and quantity of inverters necessary to achieve maximum performance and accommodate the PV arrays.

### **2.03 COMBINER PANELS/BOXES**

- A. Fuse disconnecting means for PV array strings (circuits).
- B. Meet UL 1741 Standard. Self-certification is not acceptable.
- C. Array combiner fuse types shall contain Class R fuses in a maximum of six (6) string (circuit) configurations, 1000 V DC rated continuous duty.
- D. Source combiner to contain touch-safe midget class fuse holders, rated for 1000 V DC continuous duty. Maximum of 24 string (circuit) configuration.
- E. Provide with NEMA-3R enclosure, cabinet style with pad lockable latch, and continuous hinged door.
- F. Provide quantities as required to accommodate the total quantity of PV arrays.

### **2.04 SOLAR AC DISCONNECT**

- A. Refer to and comply with Section 26 28 16 "Enclosed Switches".

### **2.05 UTILITY METER AND BASE**

- A. Comply with serving electrical utility company and coordinate all requirements
  - 1. Main Base: Puget Sound Energy (PSE).
  - 2. Camano Satellite: Snohomish County PUD (SnoPUD).
- B. When required by serving Utility, provide utility meter, base, and relaying equipment to allow connection of solar photovoltaic system to the Utility's grid. Metering shall be Net-Metering per the serving Utility's standards.

### **2.06 MONITORING**

- A. Provide monitoring system compatible with AC/DC Inverter System interface. The system shall include the following as minimum requirements:
  - 1. Web-based views of how the solar electric system is working.
  - 2. Automatic calculation on the reduction of green-house gas emissions.
  - 3. Provide system IP address to allow remote display with web-based views.

### **2.07 MOUNTING SYSTEM**

- A. Manufacturers:

- 
1. Unirac MetalX
  2. S-5!
  3. Or Approved Equal
- B. Mounting Structures:
1. Roof mount: Extruded aluminum
  2. Panel frame and accessories exposed to view shall be matte finish, dark or black color.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Do not begin installation until mounting surfaces have been properly prepared.
- B. If preparation of mounting surfaces is the responsibility of another installer, notify Owner's Representative of unsatisfactory preparation before proceeding.
- C. Examine modules and array frame before installation. Reject modules and arrays that are wet, moisture damaged, or mold damaged.
- D. Examine roofs, supports, and supporting structures for suitable conditions where PV system will be installed.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.02 INSTALLATION**

- A. Comply with NECA 1.
- B. Coordinate layout and installation of PV panels with roof assembly and other construction.
- C. The systems wiring, components, raceways, and connections must be suitable for conditions for which they are to be installed. An internal data meter must be installed to measure the AC output of the inverter(s). This meter should be located in a location accessible to facilities personnel.
- D. Install weatherseal fittings and flanges where PV panel assemblies penetrate exterior elements such as walls or roofs. Seal around openings to make weathertight. Seal joints as recommended by the manufacturer of the metal roof system as not to void the roofing manufacturer's warranty
- E. Interconnection must comply with the serving Utility, and their PV interconnection standards. The Contractor shall assist the Owner in preparing and submitting the appropriate interconnection agreements with the serving Utility. This shall be done at no cost or liability to the Owner.

- F. Solar Panel Module Mounting: Panels shall be mounted to the roofing system with the least required roof standoffs. Provide a Structural Engineer Certification that the new solar PV system mounting and racking support system is rated to meet the local seismic zone, wind speeds, and snow loads. The system shall be compatible with the roofing type and shall not void the manufacturer's roofing warranty.
- G. Provide markings for all interior and exterior direct-current raceways, enclosures, cable assemblies, combiner boxes, disconnects, and inverters per 2018 International Fire Code (IFC) 1204 and 2020 National Electrical Code (NEC).
- H. A 4-foot-wide clear path of travel must be maintained to all rooftop equipment. A 6-foot-wide clear perimeter must be maintained around the edges of the roof. Where either axis of the building is 250 feet or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum width of 4-feet. Adjust this requirement per Fire Marshal's direction.
- I. Coordinate and attend a meeting with the Fire Marshall. Provide drawings incorporating final agreed Fire Marshal comments.
- J. If required, attend meeting(s) with the serving Utility and coordinate metering requirements and location of disconnecting means.

### **3.03 MANUFACTURER'S FIELD SERVICES**

- A. Furnish the Manufacturer's Representative services specified in Article titled "Commissioning" of this Section.

### **3.04 ELECTRICAL CONNECTIONS TO ELECTRICAL DISTRIBUTION SYSTEM**

- A. Contractor is responsible for all labor, materials, and installation up to the building electrical distribution system connection point. The Contractor shall provide the final connections to the electrical distribution system.

### **3.05 GROUNDING**

- A. Grounding shall be as required in NEC Section 690, part V.
- B. Provide all equipment grounding and grounding electrodes in accordance with NEC 2020, Section 690.
- C. Provide grounding of equipment frames with copper bonding conductors per NEC 690.43(C).

### **3.06 LABELLING**

- A. Provide and install all required safety and warning labels per NFPA, NEC, local and State codes, and per AHJ.
- B. Provide and install "Warning" and "Shock Hazards" labels to all inverters.

### **3.07 COMMISSIONING**

- 
- A. The Manufacturer's Representative shall perform and document the installation verification, startup, and testing. Refer to the following for additional requirements.
  - B. Only the Owner's Representative and Manufacturer's Representative can approve of the installation, startup, and testing procedures. These shall be acceptable for use during the required documenting of the installation verification, startup, and testing procedures.
  - C. Provide all calibration and testing instrumentation to successfully and properly install, startup, and test equipment. Ensure all calibration and testing instrumentation has been calibrated by NIST traceable or equivalent calibration certificate within one year of use.
  - D. Provide a minimum of 2-weeks' notice to the Manufacturer's Representative, and Owner's Representative, prior to the scheduled installation, verification, startup, and testing.
  - E. Provide site coordination to ensure equipment testing is not impacted by other site work. The Contractor shall ensure the equipment is in proper working order for the scheduled startup and/or testing.
  - F. Any issues or deficiencies discovered during testing that impact operational demonstration shall require retesting in order to properly demonstrated equipment operation upon issue/deficiency resolution at no additional cost to the Owner.

### **3.08 DEMONSTRATION AND TRAINING**

- A. Furnish two (2) 4-hour training sessions of instruction periods, each for minimum of four (4) people, to be conducted at the Project site. Part of the instruction shall include the procedures to shut down the solar PV system in the event of an emergency. The Contractor shall insure that Owner's personnel and the Fire Department can easily identify what to do in the event of an emergency and can be able to perform these tasks quickly and safely. Instruction shall also include operation of the monitoring system. Provide a minimum of 2-weeks' notice of the scheduled training session.

### **3.09 OPERATION AND MAINTENANCE**

- A. Provide O&M Manuals per Division 01 requirements. O&M Manuals shall include step by step instructions on operations manuals on how to shut down the solar PV system in the event of an emergency.
- B. The Contractor shall provide a contact website and phone number for technical assistance. Provide reports from monitoring system to demonstrate the system is fully operational.

**END OF SECTION**



*Island Transit*

**ISLAND COUNTY PUBLIC TRANSPORTATION  
BENEFIT AREA**

**INVITATION TO BID #01-21  
MAIN BASE AND CAMANO SATELLITE  
SOLAR INSTALLATION**

19758 SR 20, COUPEVILLE WA 98239

**VOLUME 2 OF 2:  
TECHNICAL DRAWINGS**

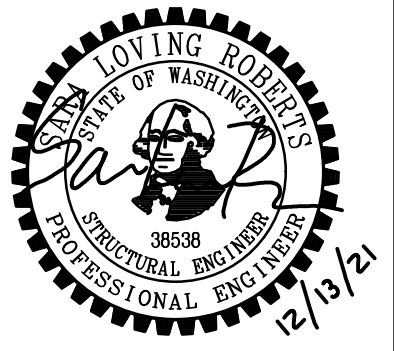
December, 2021

# ISLAND TRANSIT MAIN BASE & CAMANO SATELLITE

## SOLAR INSTALLATION



**kpff**  
1601 5th Avenue,  
Suite 1600  
Seattle, WA 98101  
206.622.5822  
www.kpff.com



### PROJECT TEAM:

**CLIENT:**  
ISLAND TRANSIT  
19758 STATE ROUTE 20  
COUPEVILLE, WA 98239  
CONTACT: PETE SCHRUM  
360.678.9541

**PROJECT ENGINEER:**  
KPFF CONSULTING ENGINEERS  
1601 FIFTH AVE. SUITE 1600  
SEATTLE, WA 98101  
CONTACT: DIANA TIMPSON  
206.622.5822

**ELECTRICAL ENGINEER:**  
TRES WEST ENGINEERS, INC.  
2702 S. 42ND STREET, SUITE 301  
TACOMA, WA 98406  
CONTACT: JAMES CHONG  
253.472.3300

### DRAWING LIST:

G1.0 COVER SHEET, DRAWING INDEX & PROJECT INFORMATION  
G1.1 MAIN BASE – SITE PLAN AND CODE SUMMARY  
G2.1 CAMANO SATELLITE – SITE PLAN AND CODE SUMMARY

E1.0 MAIN BASE AND CAMANO – ELECTRICAL GENERAL NOTES AND LEGEND

E1.1 MAIN BASE – MAINTENANCE BUILDING PLAN  
E1.2 MAIN BASE – ENLARGED ELECTRICAL ROOMS  
E1.3 MAIN BASE – MAINTENANCE BUILDING ROOF PLAN  
E1.4 MAIN BASE – ADMIN BUILDING PLAN  
E1.5 MAIN BASE – ONE LINE DIAGRAM  
E1.6 MAIN BASE – ONE LINE DIAGRAM  
E1.7 MAIN BASE – ONE LINE DIAGRAM

E2.0 CAMANO SATELLITE – SITE PLAN  
E2.1 CAMANO SATELLITE – BUILDING PLAN  
E2.2 CAMANO SATELLITE – ROOFPLAN  
E2.3 CAMANO SATELLITE – ONE LINE DIAGRAM

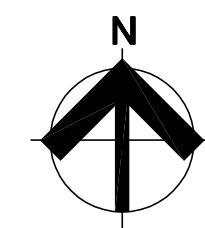
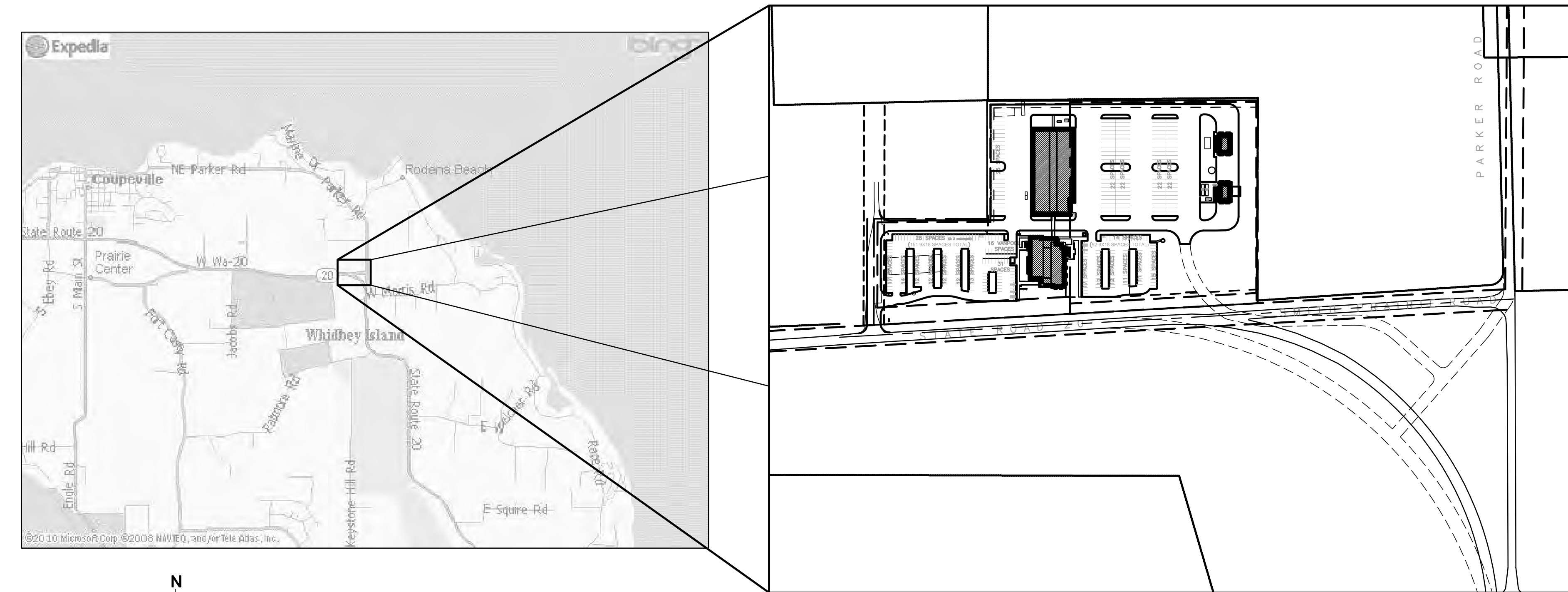
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INSTALL ROOF MOUNTED SOLAR PANELS AT TWO EXISTING MAINTENANCE FACILITIES, AND CONNECT TO LOCAL PUBLIC UTILITIES: PUGET SOUND ENERGY AT COUPEVILLE MAIN BASE, AND SNOHOMISH COUNTY PUD AT CAMANO SATELLITE

### PROJECT LOCATIONS:

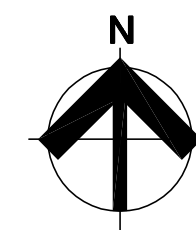
ISLAND TRANSIT MAIN BASE  
19758 STATE ROUTE 20  
COUPEVILLE WA 98239

ISLAND TRANSIT CAMANO SATELLITE  
198 CAN KU ROAD  
CAMANO ISLAND, WA 98282



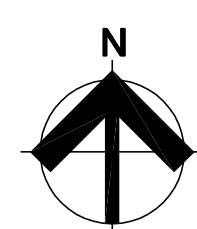
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NOT TO SCALE



### SITE MAP MAIN BASE

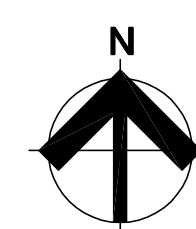
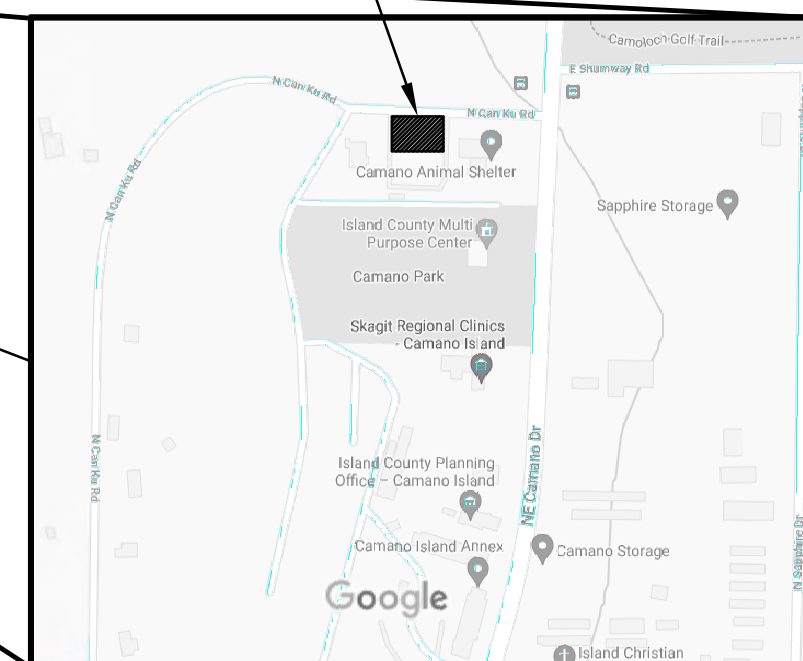
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### VICINITY MAP CAMANO SATELLITE

NOT TO SCALE

PROJECT SITE



### SITE MAP CAMANO SATELLITE

NOT TO SCALE

# IFB #01-21 VOLUME 2 OF 2

# 100% ISSUE FOR BID

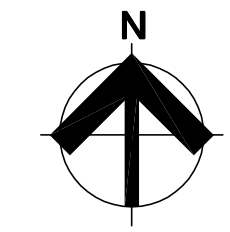
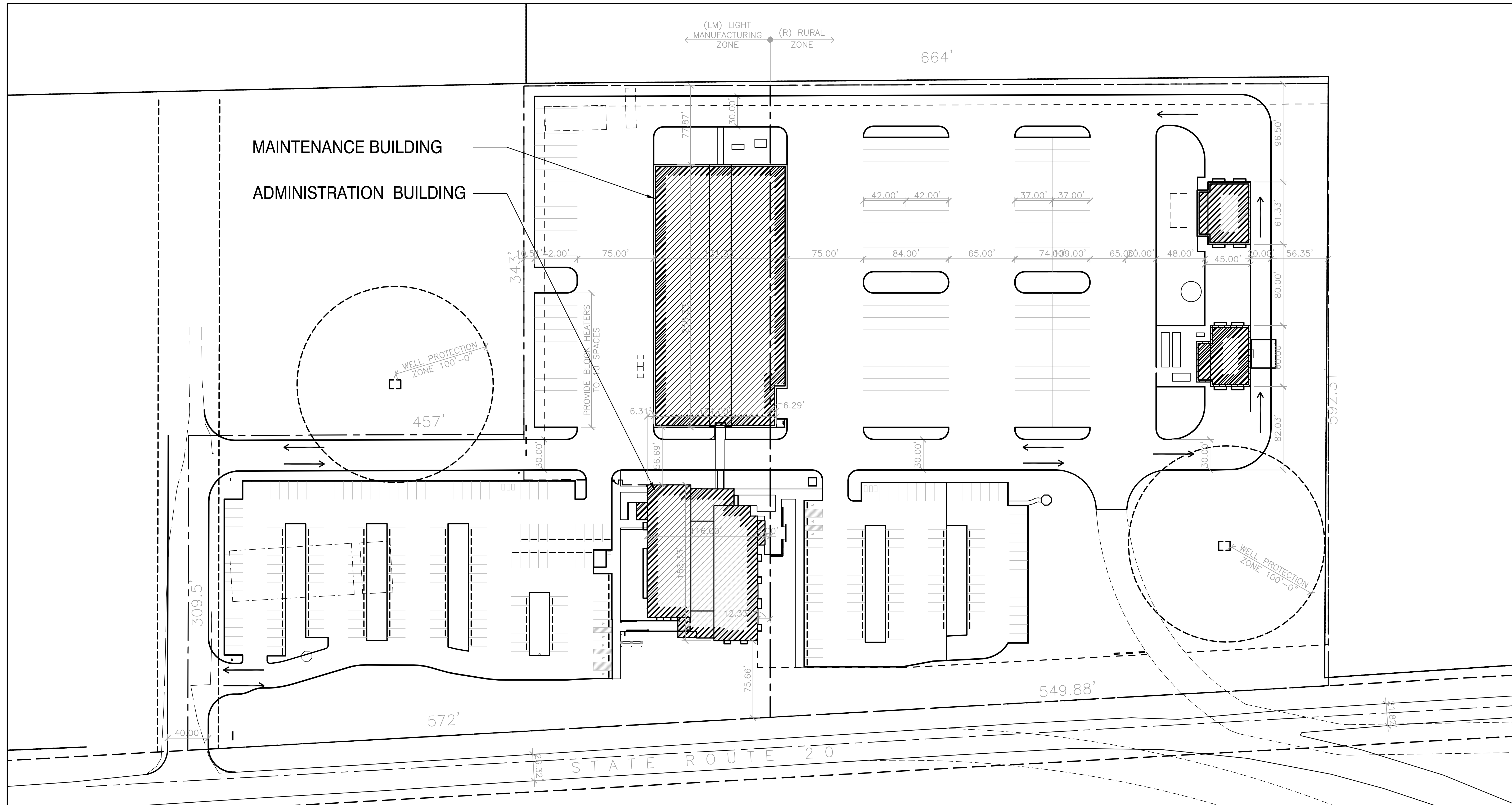
NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:  
MAIN BASE AND CAMANO SATELLITE**  
19758 State Route 20, Coupeville, WA  
174 Can Ku Road, Camano Island, WA  
COVER SHEET, DRAWING INDEX  
& PROJECT INFORMATION

PROJECT NO.: 2100406  
SCALE: AS SHOWN  
DATE: 12-14-2021  
SHEET NO.

# G1.0

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 Xref Filename: | ITOC\TB | x=site |



**SITE PLAN MAIN BASE**  
 SCALE: 1"=50'-0"

**BUILDING CODE INFORMATION:**

APPLICABLE BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH WA STATE AMENDMENTS  
 JURISDICTION: ISLAND COUNTY PLANNING & COMMUNITY DEVELOPMENT  
**MAINTENANCE BUILDING:**  
 OCCUPANCY CATEGORY: F-1, S-1 AT MEZZANINE  
 CONSTRUCTION TYPE: V-B  
**ADMINISTRATION BUILDING:**  
 OCCUPANCY CATEGORY: B  
 CONSTRUCTION TYPE: V-B

**DESCRIPTION OF WORK:**

INSTALLATION OF ROOF MOUNTED SOLAR PANELS AT MAINTENANCE BUILDING, CONNECTION TO MAIN ELECTRICAL PANEL AT MAINTENANCE BUILDING, AND INTERCONNECTION WITH PUGET SOUND ENERGY. CONNECTION TO ENERGY USAGE DISPLAY MONITOR AT ADMINISTRATION BUILDING LOBBY.  
**ZONING INFORMATION:**  
 LM & R: LIGHT MANUFACTURING AND RURAL  
 OVERLAY DISTRICTS: EBEBY'S LANDING  
 DESIGNATED USE: TRANSIT / BUS BASE

**ADDRESS:**

19758 STATE ROUTE 20  
 COUPEVILLE, WA 98239  
**PARCEL NO.:**  
 R13102-484-4840  
**LEGAL DESCRIPTION:**  
 NE 1/4, SEC 2, TWP 31N, R1E

TR D SP 78-24 PT J KINETH DC: BG INT WLN DC & SLN SEC 35 N660' E2085 .94' S838.2' TPB W330' S TO NLY LN HWY ELY ALG HWY TP S OF TPB N TPB EX N330' TGV & SUB TO EZ SITE PLAN REVIEW SPR #48-93 TGV IN KINETH DC E182' OF BG WLN SD DLC & SLN 35-32-1 N1 E66



**kpff**  
 1601 5th Avenue, Suite 1000  
 Seattle, WA 98101  
 206.421.5822  
 www.kpff.com



NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

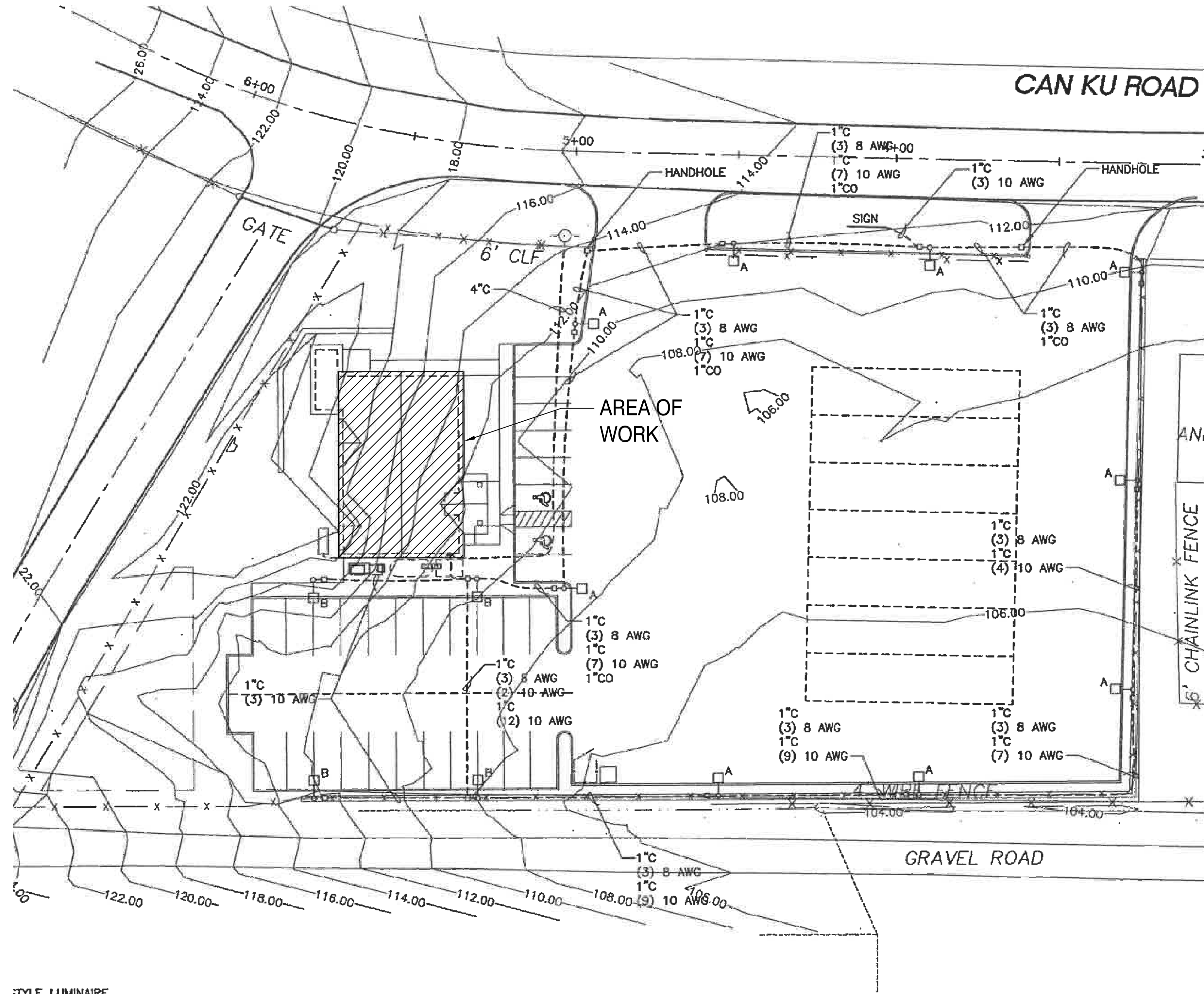
**ISLAND TRANSIT SOLAR INSTALLATION:  
 MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE: SITE PLAN, ZONING &  
 BUILDING CODE INFORMATION**

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12-14-2021
SHEET NO.	

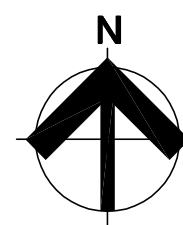
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 Xref Filename: | ITOC\TB |



STYLE LUMINAIRE



**SITE PLAN CAMANO SATELLITE**

SCALE: 1"=20'-0"

**ADDRESS:**

174 CAN KU ROAD  
 CAMANO ISLAND, WA 98282

**PARCEL NO.:**

S7635-00-00001-0

**LEGAL DESCRIPTION:**

NW 1/4 OF SW 1/4 SEC 31, TWP 32N, R3E

PA-HA-WTA PT LOT 1, DESC: BG SECR LOT 1 PLAT PA-HA-WITA DIV 1 REC V11 PG30 S89\*W 185.79' TPB CONT S89\*W 352.17' N30\*E 213.74' TO SLN KAN KU RD ELY ALG SLN ON CURV TO LEFT 64.67' RADIUS 348.31' ANGLE 10\* S88\*E ALG SLN SD RD 182.37' S1\*W 170.81' TPB

**DESCRIPTION OF WORK:**

INSTALLATION OF ROOF MOUNTED SOLAR PANELS AT BUILDING AND INTERCONNECTION TO SNOHOMISH COUNTY PUD. CONNECTION TO ENERGY USAGE DISPLAY MONITOR AT BUILDING ENTRANCE LOBBY.

**ZONING INFORMATION:**

LM: LIGHT MANUFACTURING  
 OVERLAY DISTRICTS: N/A  
 DESIGNATED USE: TRANSIT OPERATION BASE

**BUILDING CODE INFORMATION:**

APPLICABLE BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH WA STATE AMENDMENTS

JURISDICTION: ISLAND COUNTY PLANNING & COMMUNITY DEVELOPMENT

OCCUPANCY CATEGORY: B

CONSTRUCTION TYPE: V-B



NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:  
 MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
 CAMANO SATELLITE: SITE PLAN, ZONING & BUILDING CODE INFORMATION

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12-14-2021
SHEET NO.:	

**G2.1**

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	LIGHTING OR POWER PANEL
	BRANCH CIRCUIT WIRING AND CONDUIT AS REQUIRED FOR CKTS DEVICES AND EQUIP INDICATED ON PLANS. (WIRING AND CONDUIT SIZE MAY NOT APPEAR ON PLANS). PROVIDE CONDUCTORS AND CONDUIT PER NEC CODE. #12 AWG, 3/4"C. MIN. EMT OR RIGID STEEL. ↓ INDICATES EQUIP GND. ↓ INDICATES ISOLATED GROUND.
	CONDUIT EXPOSED
	CONDUIT CONCEALED IN WALL OR CEILING SPACE ONLY
	CONDUIT UNDER GROUND OR FLOOR
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT STUB OUT WITH PLASTIC BUSHING
	BRANCH CIRCUIT HOME RUN
	GROUNDING ELECTRODE PER CODES
	CODE SIZED JUNCTION BOX WITH COVER PLATE
	DUPLEX RECEPTACLE
	TWO DUPLEX RECEPTACLES IN COMMON BACK BOX AND UNDER COMMON PLATE
	SPECIAL EQUIP CONNECTION WITH LIQUID TIGHT FLEX TO MATCH EQUIPMENT
	MOTOR RATED SWITCH
	EQUIPMENT CONNECTION, SEE EQUIPMENT CONNECTION SCHEDULES FOR SPECIFIC REQUIREMENTS.
	FUSED DISCONNECT SWITCH

SCOPE OF WORK LEGEND	
STYLE	DESCRIPTION
	EXISTING TO REMAIN UNLESS NOTED OTHERWISE
	NEW WORK
	DEMO WORK

### PHOTOVOLTAIC GENERAL NOTES

1. PROVIDE COMPLETE SOLAR PHOTOVOLTAIC SYSTEM. PROVIDE ALL REQUIRED INTERCONNECT CABLES, DC AND AC DISCONNECT SWITCH, BRANCH CIRCUITS, SOLAR PV PANELS (MODULES), METERING EQUIPMENT, MOUNTING HARDWARE, MOUNTING CLIPS AND BRACKETS AND SEISMIC SUPPORTS.
2. PV SYSTEM SHALL NOT EXCEED 1000VDC.

### APPLICABLE CODES

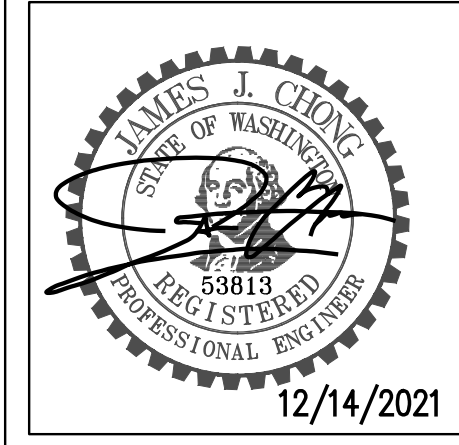
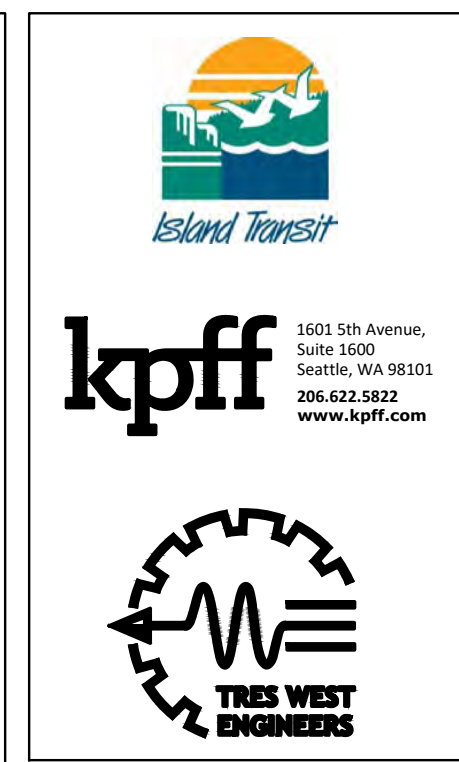
2020 NATIONAL ELECTRICAL CODE (NEC)  
 2018 INTERNATIONAL FIRE CODE (IFC)  
 2018 INTERNATIONAL BUILDING CODE (IBC)  
 NATIONAL FIRE PROTECTION AGENCY (NFPA)  
 WASHINGTON ADMINISTRATIVE CODE (WAC)

### APPLICABLE STANDARDS

UNDERWRITERS LABORATORIES (UL)  
 NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)  
 NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA)  
 INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

### GENERAL REQUIREMENTS

1. PROVIDE COMPLETE WORK FOR REQUIREMENTS AS DESCRIBED ON LEGEND.
2. ANY AND ALL SHUT-DOWNS AND CHANGE OVERS SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER AND OWNER'S REPRESENTATIVE PRIOR TO THE WORK. TEMPORARY POWER SHALL BE AVAILABLE AT ALL TIMES WHEN WORK ON ACTIVE POWER SYSTEMS IS UNDERWAY SO THAT, IN THE CASE OF AN UNSCHEDULED POWER OUTAGE, SUCH TEMPORARY POWER SYSTEMS CAN BE PUT IN PLACE IMMEDIATELY AND KEPT OPERATIONAL UNTIL THE PERMANENT POWER SUPPLY IS RESTORED.
3. CIRCUITS, WIRE SIZE AND WIRE HASH MARKS ARE SHOWN FOR CIRCUIT CLARITY, BUT MAY NOT NECESSARILY REPRESENT THE COMPLETE WIRING COUNTS AND MINIMUM SIZES FOR CONNECTING THE CIRCUITS SHOWN. E.C. TO INCLUDE IN THE BID, ALL THE REQUIRED CONDUIT SIZES AND NUMBER OF CONDUCTORS IN ORDER TO INSTALL ALL CIRCUITS SHOWN AS NECESSARY. PROVIDE SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT.
4. CERTAIN AREAS OF THE BUILDING AND CRITICAL SYSTEMS SHALL NOT BE WITHOUT POWER AT ANY TIME WITHOUT WRITTEN PERMISSION BY THE OWNER. E.C. SHALL HAVE EXPERIENCE WORKING WITHIN SUCH AN ENVIRONMENT AND SHALL PROVIDE A DETAILED PHASING SCHEDULE FOR THE WORK TO ENSURE THAT ALL POWER REQUIREMENTS ARE MET PRIOR TO DEMOLITION WORK ON SUCH SYSTEMS.
5. DO NOT TAKE MEASUREMENTS FROM PLANS FOR DEVICE LOCATIONS. FIELD VERIFY EXACT DEVICE AND EQUIPMENT LOCATIONS AND MOUNTING HEIGHTS WITH OWNER'S REPRESENTATIVE FOR PROPER INSTALLATION.
6. E.C. SHALL EXAMINE THE SITE PRIOR TO BID TO BECOME COMPLETELY FAMILIAR WITH THE EXTENT OF THE PROJECT AND DEMOLITION.
7. EXTERIOR MOUNTED ELECTRICAL DEVICES (SUCH AS DISCONNECT SWITCH, STARTER, SPEAKER, FIRE ALARM HORN, ETC.) SHALL INCLUDE NEMA-3R WEATHERPROOF COVERS.
8. IDENTIFY, INVESTIGATE, AND PROTECT ALL EXISTING ACTIVE SYSTEMS FROM DAMAGE AT ALL TIMES. ANY DAMAGES SHALL BE REPAIRED IMMEDIATELY PRIOR TO CONTINUING OR PERFORMING ANY OTHER WORK.
9. INCLUDE COST OF PROVIDING ALL ELECTRICAL CONNECTIONS AS REQUIRED FOR FULL OPERATION OF ALL OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.
10. LABEL ALL J-BOXES WITH PANEL NAME AND CIRCUIT NUMBER. ALL DEVICE COVER PLATES SHALL HAVE SAME CIRCUIT IDENTIFICATION WRITTEN IN PERMANENT MARKER ON INSIDE OF COVERPLATE. ALL EQUIPMENT DISCONNECTS SHALL HAVE EQUIPMENT NAME, CIRCUIT IDENTIFICATION, FUSE SIZE, AND FULL LOAD AMPERE INFORMATION PRINTED ON PHENOLIC LABEL AND ATTACHED TO THE OUTSIDE OF THE DISCONNECT.
11. ONE-LINE DIAGRAM AND CONDUIT ROUTING ARE SCHEMATIC AND DO NOT SHOW EXACT PHYSICAL ARRANGEMENT OF EQUIPMENT WHERE INDICATED ON DRAWINGS. JUNCTION BOXES, AND PULLBOXES ARE MINIMUM REQUIREMENTS. PROVIDE FITTINGS AND PULLBOXES OF ADEQUATE SIZE IN THE RACEWAY SYSTEM WHEREVER NECESSARY OR REQUIRED BY NATIONAL ELECTRICAL CODE. PROVIDE EXPANSION JOINT FITTINGS FOR CONDUITS PASSING THROUGH NEW OR EXISTING EXPANSION JOINTS INSTALLED BETWEEN BUILDINGS. VERIFY EXACT LOCATIONS AND DETAILS OF EXPANSION JOINTS PRIOR TO WORK. COORDINATE ALL CONDUIT ROUTING, PULLBOX, AND EQUIPMENT LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS OF EQUIPMENT INSTALLATIONS. ALL EMPTY CONDUITS SHALL HAVE PULL WIRES.
12. REPORT ANY AND ALL SUSPECTED HAZARDOUS MATERIAL TO OWNER'S REPRESENTATIVE IMMEDIATELY UPON DISCOVERY. ALL SUCH MATERIALS SHALL BE DEMOLISHED AND DISPOSED OF BY A CONTRACTOR LICENSED TO DO THIS WORK IN ACCORDANCE WITH ALL LAWS AND ORDINANCES.
13. REMOVE AND RETURN EXISTING SYSTEM COMPONENTS OR DEVICES TO OWNER AS DIRECTED BY OWNER. DO NOT REUSE ANY USED DEVICES. ALL WORK SPECIFIED HEREIN SHALL BE NEW UNLESS SPECIFICALLY PERMITTED BY OWNER.
14. PRIOR TO PREPARATION OF BID, VISIT JOBSITE AND EXAMINE EXISTING CONDITIONS. INCLUDE IN WORK SCOPE ALL COSTS FOR CUTTING, PATCHING AND CORE DRILLING REQUIRED TO INSTALL CONDUIT AND OTHER WIRING METHODS THROUGH EXISTING WALLS, FLOORS AND OTHER BUILDING ELEMENTS (NOT SHOWN ON DRAWINGS).
15. PROVIDE SEPARATE NEUTRALS FOR ALL INDIVIDUAL CIRCUITS.
16. WHERE EXISTING WORK HAS BEEN REMOVED, PATCH ALL EXISTING SURFACES TO COMPLETELY MATCH ADJACENT SURFACES.
17. WORK SPECIFIED HEREIN INVOLVES WORKING ON AN ACTIVELY OCCUPIED AND FULLY OPERATIONAL BUILDING IN AREAS THAT MUST BE MAINTAINED OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. BIDDER SHALL BE FULLY RESPONSIBLE TO MAINTAIN ANY AREA OF THE BUILDING AND SYSTEM IDENTIFIED HEREIN OR OTHERWISE SPECIFIED.
18. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE IN THE BID, ALL CONSTRUCTION COSTS INCLUDING OVERTIME WORK, WEEKEND WORK, HOLIDAY WORK, AND AFTER-HOURS WORK AS REQUIRED. CONTRACTOR SHALL ALSO INCLUDE ALL ELECTRICAL UTILITY PROVIDER (PUGET SOUND ENERGY AT COUPEVILLE MAIN BASE AND SNOHOMISH COUNTY PUD AT CAMANO SATELLITE) FEES AND COSTS IN THE BID INCLUDING ALL UTILITY MATERIAL AND LABOR COSTS FOR UTILITY SCOPE OF WORK AS WELL AS UTILITY INTERCONNECTION APPLICATION, PLAN REVIEW, PERMIT, AND INSPECTION FEES. BID SHALL INCLUDE COSTS FOR ALL WORK TO COMPLETE PROJECT.



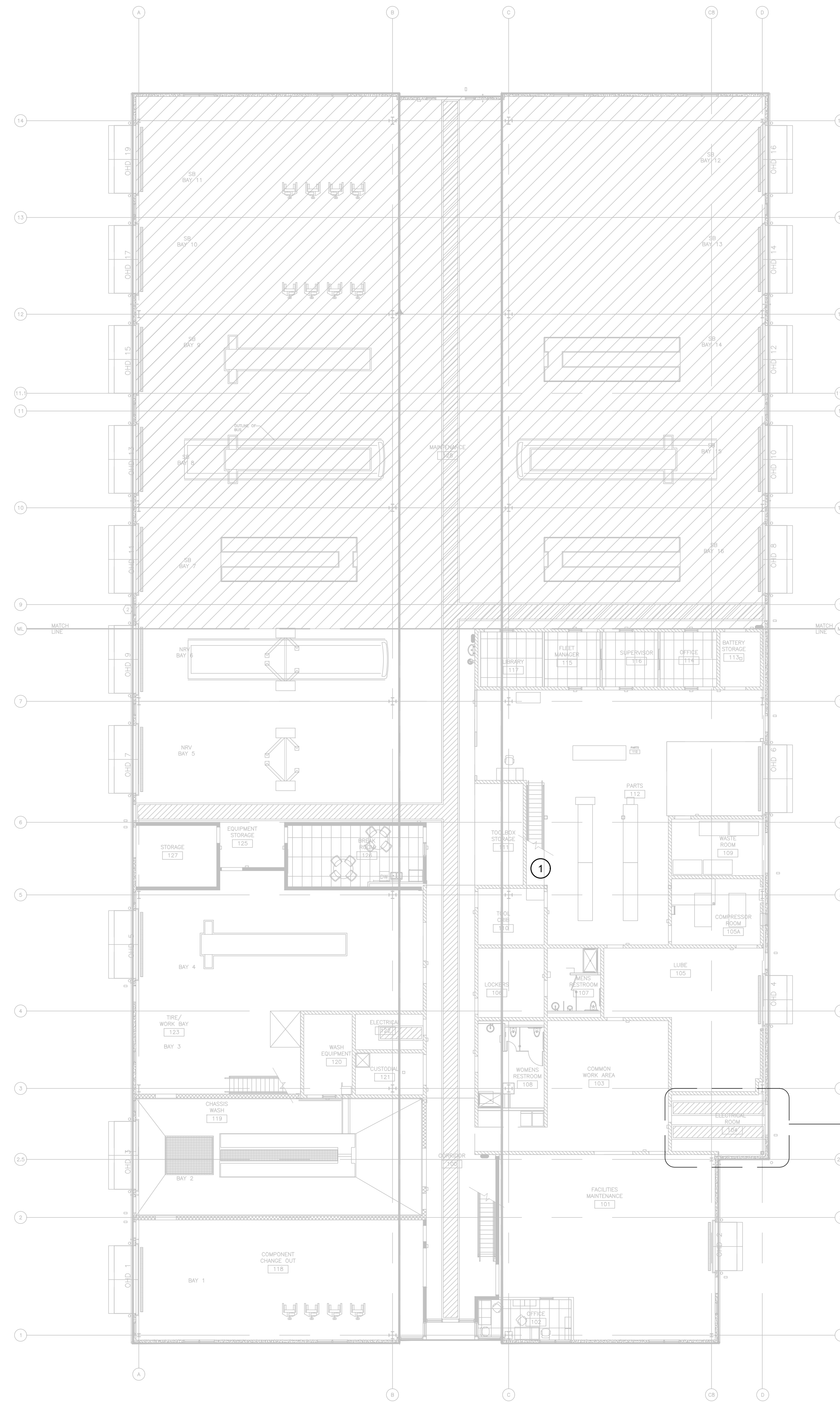
NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE AND CAMANO - ELECTRICAL**  
**GENERAL NOTES AND LEGEND**

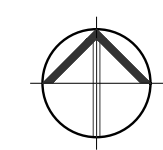
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SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.	<b>E1.0</b>

THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.

Path: P:\Pro2021\210701 Island Transit WO #03 Solar Installation\Drawings\01 Working Drawings\E1.1 - MAIN BASE - MAINTENANCE BUILDING PLAN.dwg Plot date: Dec 11, 2021-06:39:11am CAD User: jic.  
 Xref Filename: | xtb\_34x22 - main base | TWE - NEW LOGO ONLY (REVIT) | A2.2-2.4-FloorPlans | x-plan-maint | x-grid-maint | JUC Wash PE |



1  
E1.2

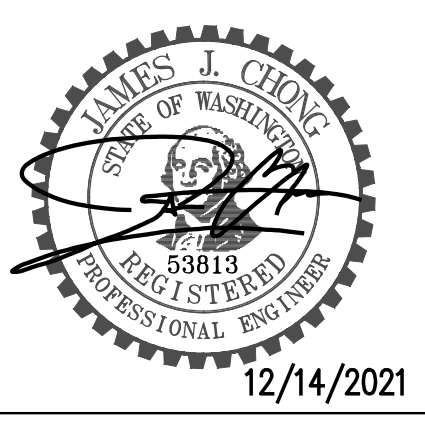
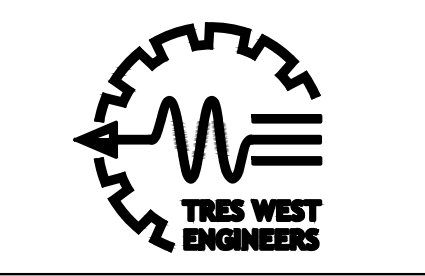
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E1.1 **MAIN BASE - MAINTENANCE BUILDING PLAN**  
SCALE: 1/16"=1'-0"  
0 8' 16' 32'

THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.

**PLAN NOTES**  
 1 APPROXIMATE LOCATION OF SERVER SPACE BENEATH STAIRS IN PARTS 112. COORDINATE EXACT LOCATION WITH OWNER FOR INVERTER CAT6 CABLE AND CONDUIT. SEE SHEET E1.7 FOR ADDITIONAL INFORMATION.



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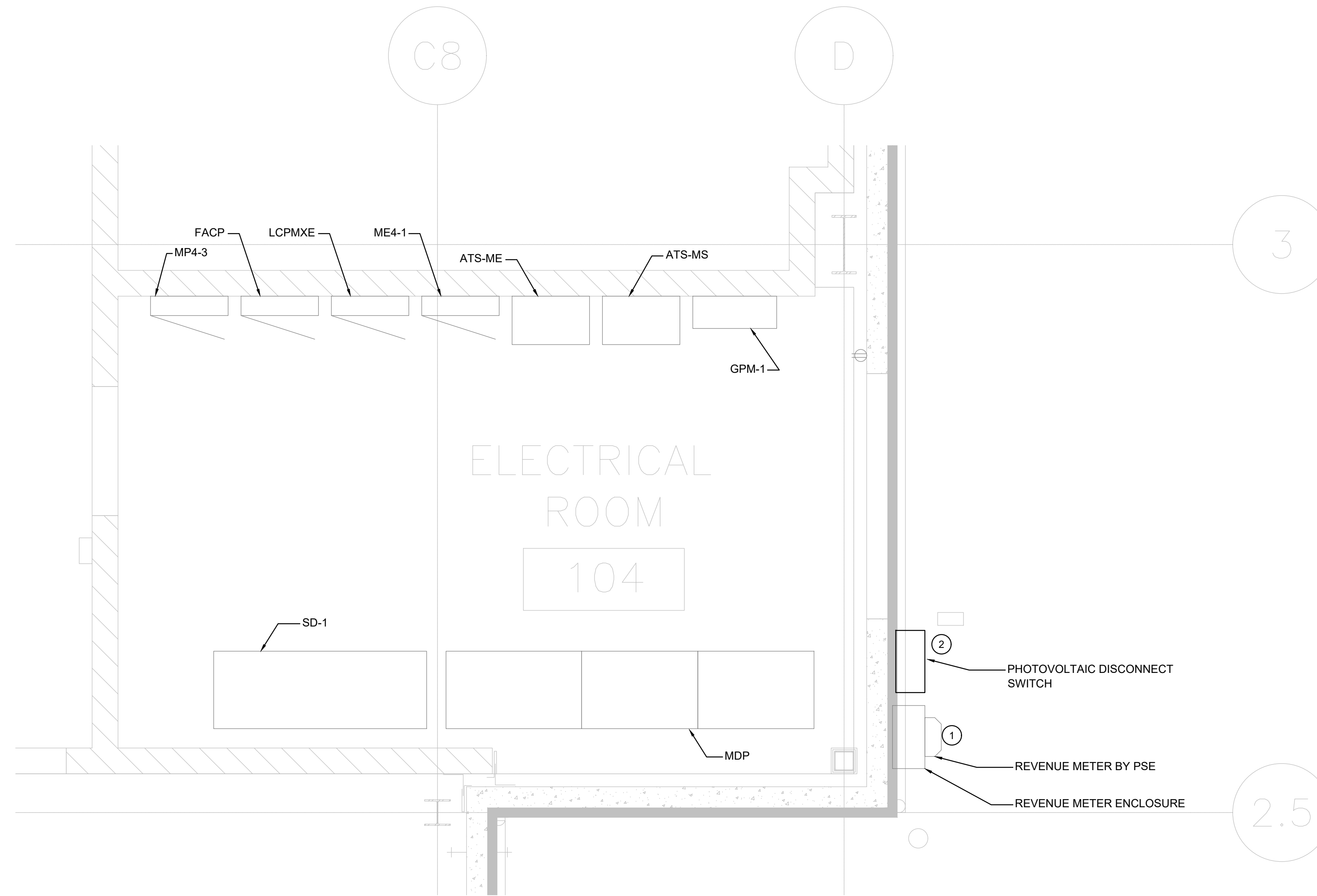
**ISLAND TRANSIT SOLAR INSTALLATION:  
 MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - MAINTENANCE BUILDING PLAN**

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.	

**E1.1**

E1.1 - MAIN BASE - MAINTENANCE BUILDING PLAN.dwg  
12/14/2021 1:11

Path: P:\Pro\2021\210701 Island Transit WO #03 Solar Installation\Drawings\01 Working Drawings\E1.2 - MAIN BASE - ENLARGED ELECTRICAL ROOMS.dwg Plot date: Dec 11, 2021-06:39:17am CAD User: jjc.  
 Xref Filename: | x-main base site | xtb 34x22 - main base | TWE - NEW LOGO ONLY (REVIT) | A2.2-2.4-FloorPlans | x-plan-maint | x-grid-maint | JUC Wash PE |



 **1**  
 E1.2 **MAINTENANCE BUILDING MAIN ELECTRICAL ROOM**  
 SCALE: 1/2"=1'-0"  


THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.

**GENERAL NOTES**

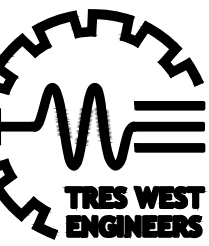
1. ALL LABELS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC ARTICLE 690. ALL LABELING SHALL BE CAPITALIZED ON ENGRAVED PHENOLIC NAMEPLATES WITH RAISED OR CUT-LETTERING THAT IS A MINIMUM OF 3/8" HIGH.

**PLAN NOTES**

1. COORDINATE METER REPLACEMENT FOR NET METERING WITH LOCAL UTILITY.
2. PROVIDE LOCKABLE DISCONNECT SWITCH TO ISOLATE ENTIRE GENERATING SYSTEM. DISCONNECT SWITCH SHALL BE COLOCATED WITH ELECTRIC SERVICE METER. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO WORK.



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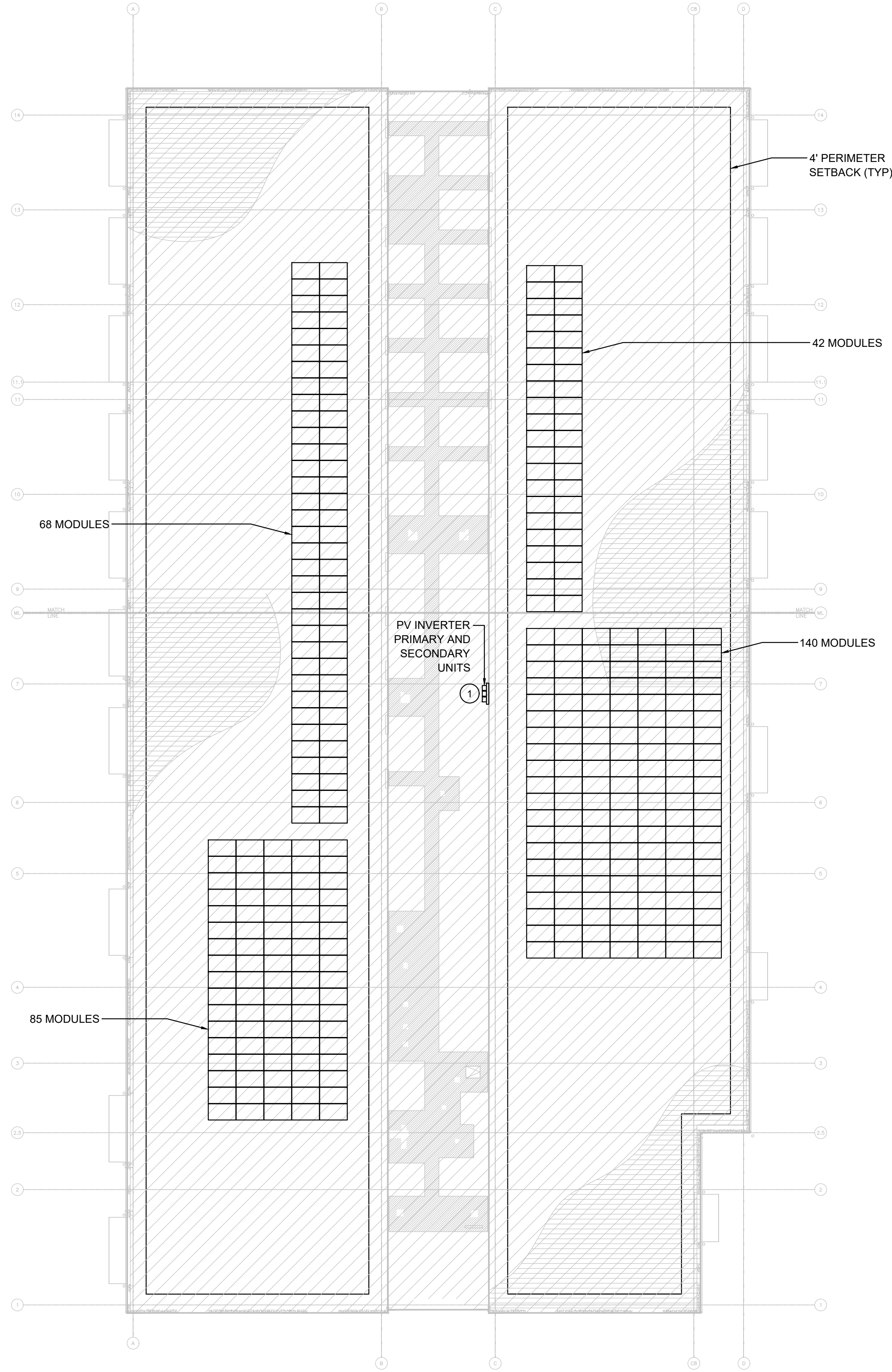
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	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - ENLARGED ELECTRICAL ROOMS**

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.	

**E1.2**

E1.2 - MAIN BASE - ENLARGED ELECTRICAL ROOMS.rvt  
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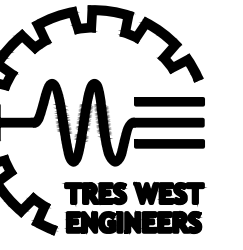


**GENERAL NOTES**

- COORDINATE FINAL LAYOUT WITH EXISTING ROOFTOP EQUIPMENT.
- INSTALLATION SHALL COMPLY WITH 2018 INTERNATIONAL FIRE CODE SECTION 1204 AND 2018 WASHINGTON STATE FIRE CODE SECTION 1204.1.
- SEE SHEETS E1.7 FOR ADDITIONAL INFORMATION.
- PAINT, PATCH, AND SEAL ALL PENETRATIONS TO MATCH EXISTING CONDITIONS AS REQUIRED.

**PLAN NOTES**

- PROVIDE UNISTRUT RACK FOR PHOTOVOLTAIC INVERTERS. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.



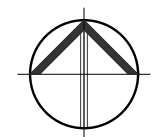
NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - MAINTENANCE BUILDING ROOF PLAN**

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.	

**E1.3**

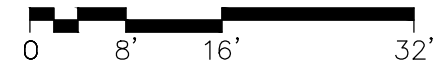
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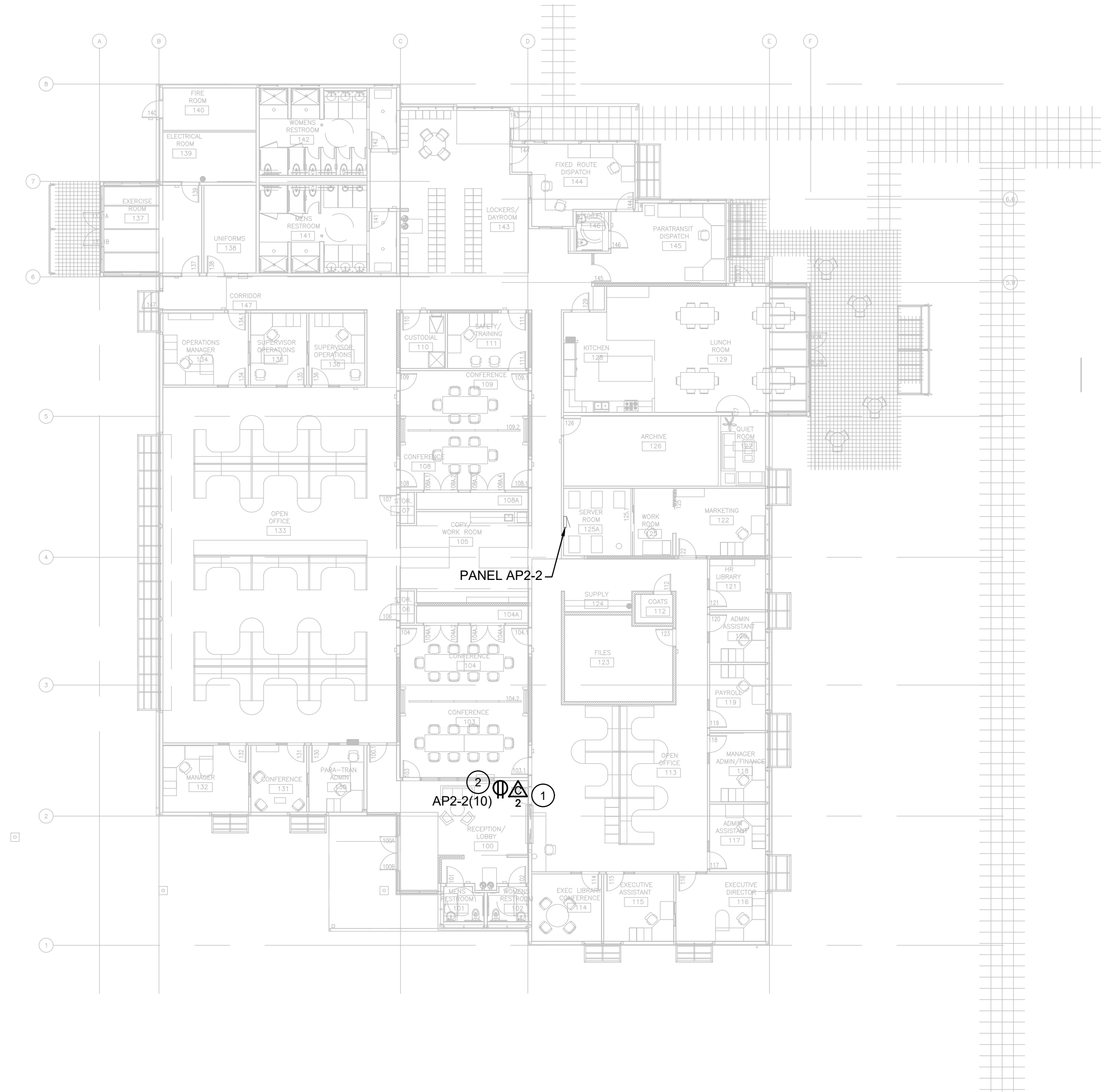


1  
E1.3

**MAIN BASE - MAINTENANCE BUILDING ROOF PLAN**

SCALE: 1/16"=1'-0"





**PLAN NOTES**

- ① PROVIDE 1" C WITH CAT6 CABLE TO SERVER ROOM 125A. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- ② PROVIDE DUPLEX RECESSED CLOCK RECEPTACLE FOR MONITOR DISPLAY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING MONITOR DISPLAY, MOUNTING HARDWARE, AND ALL APPURTENANCES AS REQUIRED FOR COMPLETE OPERATION OF SOLAR MONITORING FOR PUBLIC DISPLAY. BASIS OF BID SHALL BE 32" QLED 4K SMART TV WITH BUILT-IN CONNECTIVITY INCLUDING AT A MINIMUM ETHERNET, WIFI, 2xUSB, 2xHDMI CONNECTIONS. CONTRACTOR SHALL COORDINATE FINAL DISPLAY OPTIONS WITH OWNER PRIOR TO PROCUREMENT AND COORDINATE EXACT LOCATION OF MONITOR WITH OWNER PRIOR TO ROUGH-IN.
- ③ RE-USE EXISTING 20A/1P SPARE BREAKER FOR MONITOR DISPLAY.

PANEL		LOCATION: SERVER ROOM 125A					208/120 VOLT		225 AMP BUS RATING		SCCR: EXISTING	
AP2-2		SERVING:					3 PHASE		100 AMP MAIN BREAKER		AFC:	
		FED FROM:					4 WIRE				MOUNTING SURFACE	
CKT	LOAD DESCRIPTION	TYPE	KVA	A/P	PHASE	A/P	KVA	TYPE	LOAD DESCRIPTION	CKT		
1	RCPT - CONFERENCE RM 108, 109	R	0.720	20/1	A	20/1	1.500	R	RCPT - MICROWAVE RM 105	2		
3	RCPT - CONFERENCE RM 108, 109	R	0.720	20/1	B	20/1	0.700	R	RCPT - SMALL FRIDGE RM 105	4		
5	RCPT - ARCHIVE RM 126	R	0.900	20/1	C	20/1	1.000	R	INSTAHOT WATER RM 105	6		
7	RCPT - MARKETING RM 122	R	0.720	20/1	A	20/1	0.360	R	RCPT - RM 101, 102 - RESTROOMS	8		
9	MTRIZED CLERESTORY WINDOWS	M	0.720	20/1	B	20/1	<b>0.180</b>	R	RCPT - RECEPTION RM 100 TV	10	③	
11	SPARE	S	-	20/1	C	20/1	-	S	SPARE	12		
13	RCPT - FILES RM 123	R	0.720	20/1	A	20/1	-	S	SPARE	14		
15	RCPT - LIBRARY RM 119	R	0.720	20/1	B	20/1	-	S	SPARE	16		
17	RCPT - OPEN OFFICE RM 113	R	0.720	20/1	C	20/1	-	S	SPARE	18		
19	RCPT - RECEPTION LOBBY RM 100	R	0.540	20/1	A	20/1	-	S	SPARE	20		
21	RCPT - RM 120, 121	R	1.080	20/1	B	20/1	-	S	SPARE	22		
23	RCPT - HOUSEKEEPING RM 112, 124	R	0.900	20/1	C	20/1	-	S	SPARE	24		
25	RCPT - RM 115	R	0.900	20/1	A	20/1	-	S	SPARE	26		
27	RCPT - RM 117	R	0.900	20/1	B	20/1	-	S	SPARE	28		
29	RCPT - WORKROOM 105	R	0.360	20/1	C	20/1	-	S	SPARE	30		
31	RCPT - WORKROOM 105	R	0.540	20/1	A	20/1	-	S	SPARE	32		
33	RCPT - PARA-TRAIN ADMIN RM 130	R	0.900	20/1	B	20/1	-	S	SPARE	34		
35	RCPT - CONFERENCE RM 131	R	0.540	20/1	C	20/1	-	S	SPARE	36		
37	SPARE	S	-	20/1	A	30/3	0.000	D	TVSS	38		
39	SPARE	S	-	20/1	B	-	-	-	-	40		
41	SPARE	S	-	20/1	C	-	-	-	-	42		
<b>PHASE LOAD</b>		PHASE A=	<b>6.00</b>	KVA	PHASE B=	<b>5.92</b>	KVA	PHASE C=	<b>4.42</b>	KVA		
<b>LOAD TYPE</b>	L	R	M	H	WH	EV	D	A	K	LM	<b>TOTAL LOADS</b>	
<b>CONN. LOAD</b>	0.00	15.62	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.72	<b>16.34 KVA</b>	
<b>CALC. LOAD</b>	0.00	12.81	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.18	<b>13.71 KVA</b>	
<b>38.06 AMP</b>												
<b>REQUIRED OPTIONS:</b>												
<b>NOTES: NEW WORK IN BOLD.</b>												

② EXISTING PANELBOARD AP2-2  
 SCALE: NONE

① MAIN BASE - ADMIN BUILDING PLAN  
 SCALE: 1/16"=1'-0"  
 0 8' 16' 32'

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NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - ADMIN BUILDING PLAN**

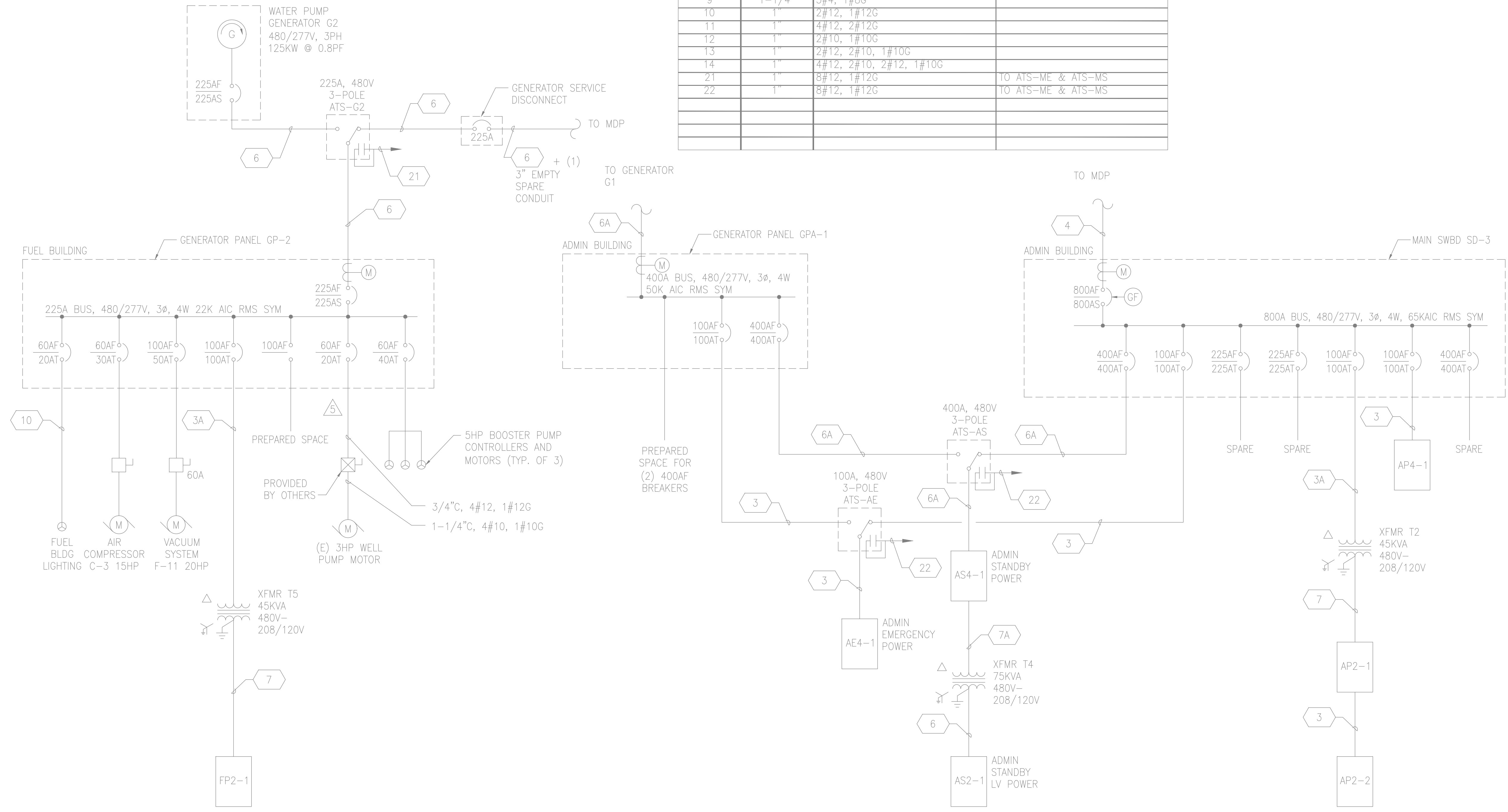
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 DATE: 12/14/2021  
 SHEET NO.

**E1.4**



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 Xref Filename: | xtb\_34x22 - main base | TWE - NEW LOGO ONLY (REVIT) | uJC Wash PE |

EXISTING CONDUIT AND WIRE SCHEDULE			
CONDUIT ID	CONDUIT SIZE	CONDUCTOR SIZE	COMMENTS
UTIL	(2) 4"	BY PSE	
1	(7) 3"	4#350, 1#250G (EA)	+ (1) EMPTY SPARE COND
2	(2) 3"	4#400, 1#170G (EA)	
3	1-1/2"	4#1, 1#8G	
3A	1-1/2"	3#1, 1#8G	
4	(3) 3"	4#300, 1#270G (EA)	+ (1) EMPTY SPARE COND
5	3"	4#350, 1#3G	
6	3"	4#250, 1#4G	
6A	(2) 2-1/2"	4#470, 1#3G (EA)	
6B	2"	3#470, 1#4G	
7	2"	4#170, 1#6G	
7A	2"	3#170, 1#6G	
8	2"	4#370, 1#4G	
9	1-1/4"	3#4, 1#8G	
10	1"	2#12, 1#12G	
11	1"	4#12, 2#12G	
12	1"	2#10, 1#10G	
13	1"	2#12, 2#10, 1#10G	
14	1"	4#12, 2#10, 2#12, 1#10G	
21	1"	8#12, 1#12G	TO AIS-ME & AIS-MS
22	1"	8#12, 1#12G	TO AIS-ME & AIS-MS



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**1** MAIN BASE - ONE LINE DIAGRAM  
 E1.6 SCALE: NONE

12/14/2021

NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - ONE LINE DIAGRAM**

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.	

**E1.6**

E1.6 - MAIN BASE - ONE LINE DIAGRAM.dwg 12/14/2021 1:11



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 Xref Filename: | xtb\_34x22 - main base | TWE - NEW LOGO ONLY (REVIT) | uJC\_Wash PE |

### PV Electrical Calculations

Site Conditions			Photovoltaic Interconnect	
ASHRAE Site:	Seattle		Service Main OCPD:	2000 A
Lowest Record Ambient:	Temperature (°F): 19	Temperature (°C): -7.22	Service Bus Rating:	2000 A
Average Record Ambient:	84	28.89	Largest Photovoltaic OCPD Allowed:	400 A
Highest 2% Record Ambient:	91	32.78	Photovoltaic Inverter OCPD:	150 A
			Interconnection:	Supply-Side Tap

Inverter	Output Voltage	Max Amps Out	Watts	Quantity of Inverters	Inverter OCPD	Max Amps Out Combined	Minimum OCPD Combined
SolarEdge SE100kUS	480 V	120 A	100,000	1	150 A	120 A	150 A
N/A							
N/A							

Module	Module Power (P <sub>max</sub> )	Max power current (I <sub>mp</sub> )	Max power voltage (V <sub>mp</sub> )	Open circuit voltage (V <sub>oc</sub> )	Short circuit current (I <sub>sc</sub> )	Temp. Coeff V <sub>oc</sub> (%/K)	Open circuit voltage (V <sub>oc</sub> ) adjusted:
SilFab SIL-370 HC	370 W	10.60 A	34.95 V	41.75 V	11.25 A	-0.280%	45.5 V

Optimizer	Max System Voltage	Max Power (P <sub>max</sub> )	Max Input Voltage (V <sub>oc</sub> )	Max Short circuit current (I <sub>sc</sub> )	Min String Length (Optimizers / Modules <sup>note1</sup> )	Max String Length (Optimizers / Modules <sup>note1</sup> )
SolarEdge P850	1000 V	850 W	125.0 V	14.1 A	14 / 27	30 / 60

note 1: Optimizers / Modules for dual input connectors only

PV Array Specs:		
Inverter:	SolarEdge SE100kUS	
Strings Per Inverter	Optimizers / String	PV Modules / String
Inverter Primary Unit:		
- 2 x Strings	18 P850 (2:1)	36
- 1 x String	20 P850 (2:1)	40
Inverter Secondary Unit 1:		
- 1 x String	18 P850 (2:1),	37
- 1 x String	1 P850 (1:1)	36
- 1 x String	18 P850 (2:1)	36
- 1 x String	19 P850 (2:1)	38
Inverter Secondary Unit 2:		
- 1 x String	18 P850 (2:1)	36
- 2 x Strings	19 P850 (2:1)	38

Maximum Input Voltage: 1000 VDC

Conductor Description:	Circuit Currents	Minimum Cond. Ampacity Before Derating	Minimum Cond. Ampacity After Derating <sup>note 4</sup>	Wire Type	Wire Material	Wire Gauge	Wire Ampacity @ 75°C
PV Source (Module to Optimizer <sup>note 1</sup> ):	14.1 A	17.6 A	24.2 A	PV Wire 1000V	CU	10	35 A
PV Output (Optimizer to Inverter <sup>note 2,3</sup> ):	14.1 A	17.6 A	24.2 A	PV Wire 1000V	CU	10	35 A
PV Output (Inverter to AC Disc):	120.0 A	150.0 A	125.0 A	THHN, THWN-2	CU	1/0	150 A

note 1: Current based on pair of wires between one Module and one Optimizer.  
 note 2: Current based on largest PV string  
 note 3: Each string will be connected directly to inverter.  
 note 4: Minimum conductor ampacity derating based off ambient temperature correction factor with 90° C wire. Additional derating shall be required for more than 3 current carrying conductors in a raceway or cable.

### GENERAL NOTES

- ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.
- COORDINATE LAYOUT WITH EXISTING ROOFTOP EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SUBMITTING INTERCONNECTION APPLICATION WITH LOCAL UTILITY AHEAD OF CONSTRUCTION.

### PLAN NOTES

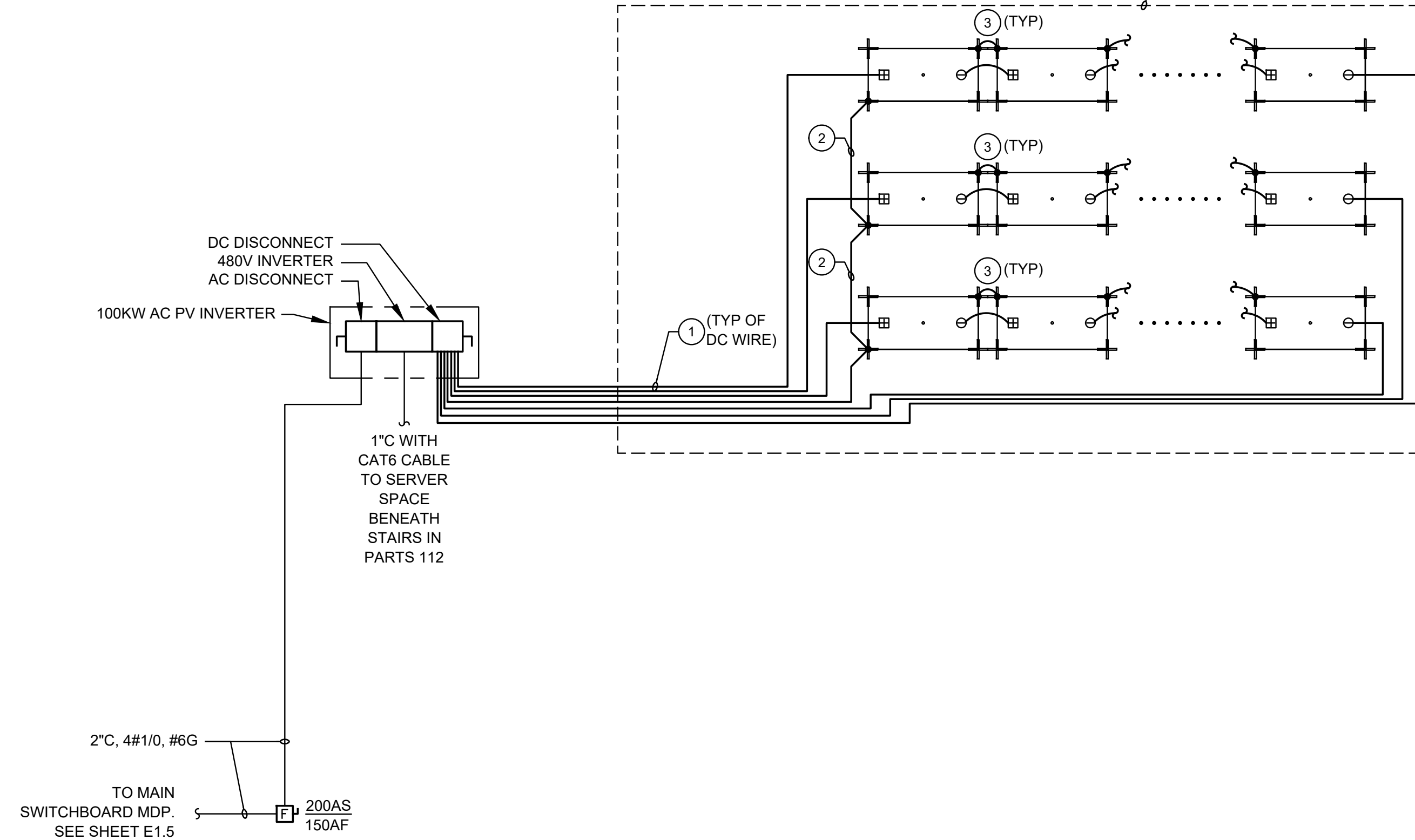
- PROVIDE 1000VDC PHOTOVOLTAIC WIRE WITH RED DC POSITIVE AND BLACK DC NEGATIVE WIRE.
- PROVIDE EQUIPMENT GROUNDING CONDUCTORS FROM INVERTER TO PHOTOVOLTAIC STRING ARRAYS PER NEC.
- GROUND PHOTOVOLTAIC MODULES TO ADJACENT MODULES PER NEC AND EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS.

TYPICAL PHOTOVOLTAIC MODULE STRING ARRAY.

124KW DC MAX OUTPUT POWER BASED ON (335) 370W PV MODULES, (168) SOLAREEDGE P850 POWER OPTIMIZERS, (1) SOLAREEDGE 100KUS 480V INVERTER.

PV MODULES SHALL BE CONNECTED IN SERIES TO POWER OPTIMIZERS.

TYPICAL PV MODULE STRINGS. SEE PV ELECTRICAL CALCULATIONS FOR ADDITIONAL INFORMATION.



**1**  
E1.7  
MAIN BASE - ONE LINE DIAGRAM  
SCALE: NONE

THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.



NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**MAIN BASE - ONE LINE DIAGRAM**

PROJECT NO.: 2100406  
 SCALE: AS SHOWN  
 DATE: 12/14/2021  
 SHEET NO.

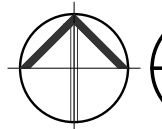


**E1.7**



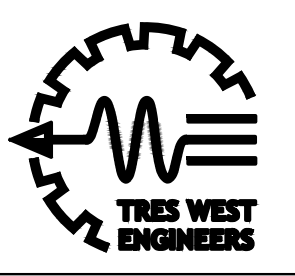
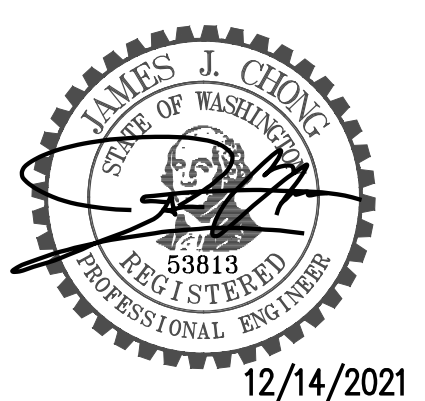
E1.7 - MAIN BASE - ONE LINE DIAGRAM.dwg 12/14/2021 1:11

Path: P:\Pro\2021\210701 Island Transit WO #03 Solar Installation\Drawings\01 Working Drawings\E2.1 - ISLAND TRANSIT - SITE PLAN.dwg Plot date: Dec 11, 2021-06:39:44am CAD User: jic.  
 Xref Filename: | xtb\_34x22 | x-camano island site | TWE - NEW LOGO ONLY (REVIT) | JJC Wash PE |



THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.



**CAMANO SATELLITE - SITE PLAN**  
 SCALE: 3/32"=1'-0"  


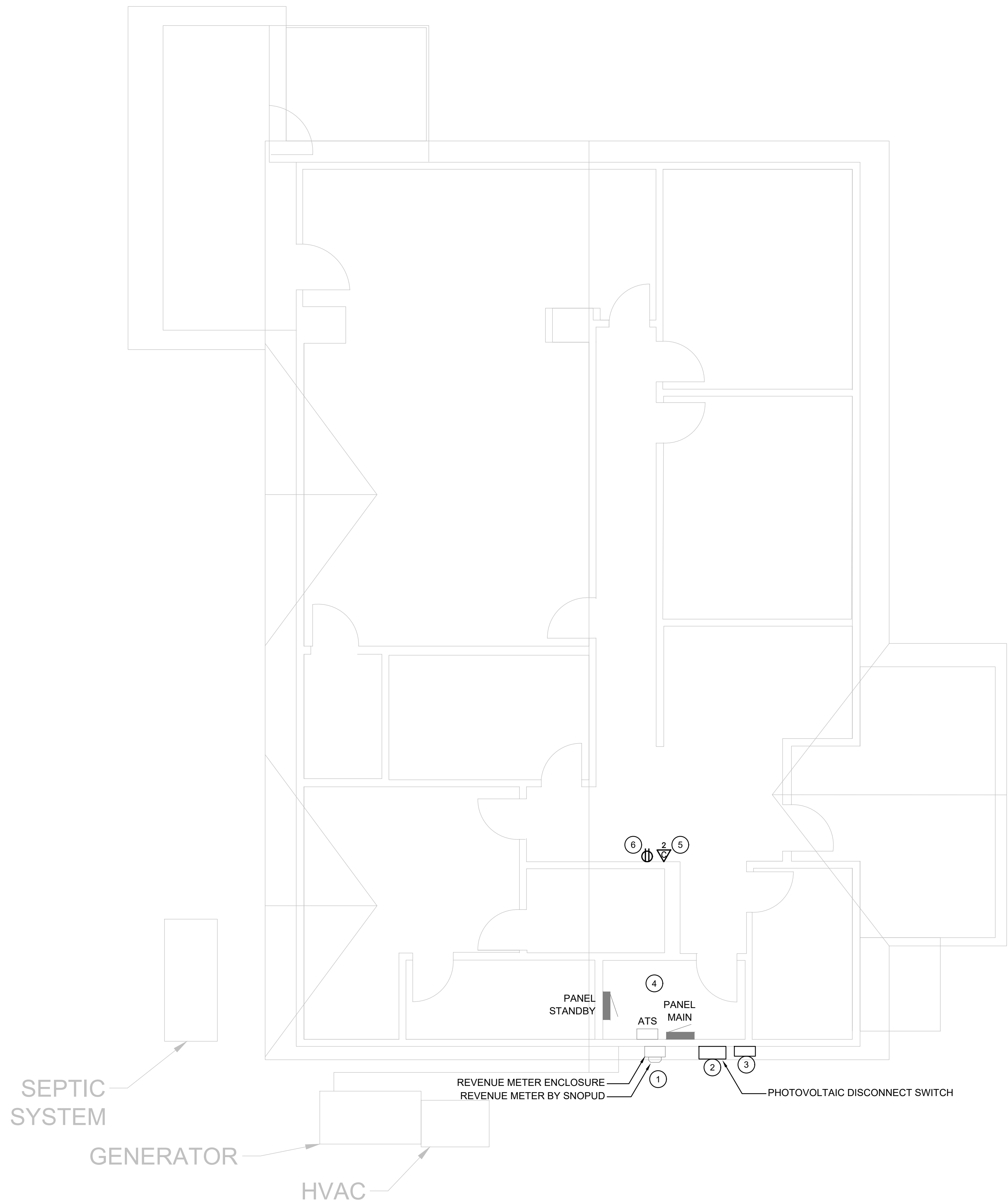





NO.	DATE	REVISION
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**ISLAND TRANSIT SOLAR INSTALLATION:**  
**MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
**CAMANO SATELLITE - SITE PLAN**

PROJECT NO.: 2100406
SCALE: AS SHOWN
DATE: 12/14/2021
SHEET NO. <span style="font-size: 2em; font-weight: bold;">E2.1</span>

E2.1 - ISLAND TRANSIT - SITE PLAN.dwg 12/14/2021 1:11



**GENERAL NOTES**

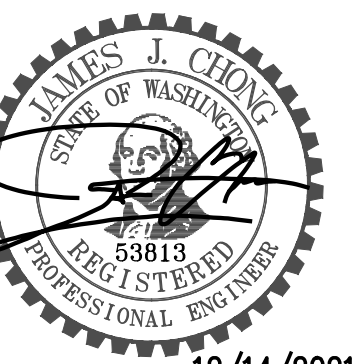
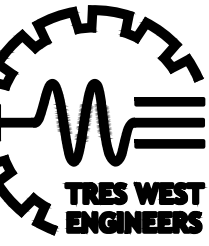
1. ALL LABELS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC ARTICLE 690. ALL LABELING SHALL BE CAPITALIZED ON ENGRAVED PHENOLIC NAMEPLATES WITH RAISED OR CUT-LETTERING THAT IS A MINIMUM OF 3/8" HIGH.

**PLAN NOTES**

1. FIELD VERIFY LOCATION OF UTILITY METER. COORDINATE METER REPLACEMENT FOR NET METERING WITH LOCAL UTILITY.
2. PROVIDE LOCKABLE DISCONNECT SWITCH TO ISOLATE ENTIRE GENERATING SYSTEM. DISCONNECT SWITCH SHALL BE COLOCATED WITH ELECTRIC SERVICE METER. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO WORK.
3. PHOTOVOLTAIC INVERTER. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO WORK.
4. FIELD VERIFY EXACT LOCATION OF ALL EQUIPMENT IN ELECTRICAL CLOSET PRIOR TO WORK.
5. PROVIDE 1" C WITH CAT6 CABLE TO ELECTRICAL CLOSET 112. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
6. PROVIDE DUPLEX RECESSED CLOCK RECEPTACLE FOR MONITOR DISPLAY. EXTEND CIRCUIT FROM NEAREST CORRIDOR CONVENIENCE RECEPTACLE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING MONITOR DISPLAY, MOUNTING HARDWARE, AND ALL APPURTENANCES AS REQUIRED FOR COMPLETE OPERATION OF SOLAR MONITORING FOR PUBLIC DISPLAY. BASIS OF BID SHALL BE 32" QLED 4K SMART TV WITH BUILT-IN CONNECTIVITY INCLUDING AT A MINIMUM ETHERNET, WIFI, 2xUSB, 2xHDMI CONNECTIONS. CONTRACTOR SHALL COORDINATE FINAL DISPLAY OPTIONS WITH OWNER PRIOR TO PROCUREMENT AND COORDINATE EXACT LOCATION OF MONITOR WITH OWNER PRIOR TO ROUGH-IN.



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12/14/2021

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**ISLAND TRANSIT SOLAR INSTALLATION:  
 MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
 CAMANO SATELLITE - BUILDING PLAN

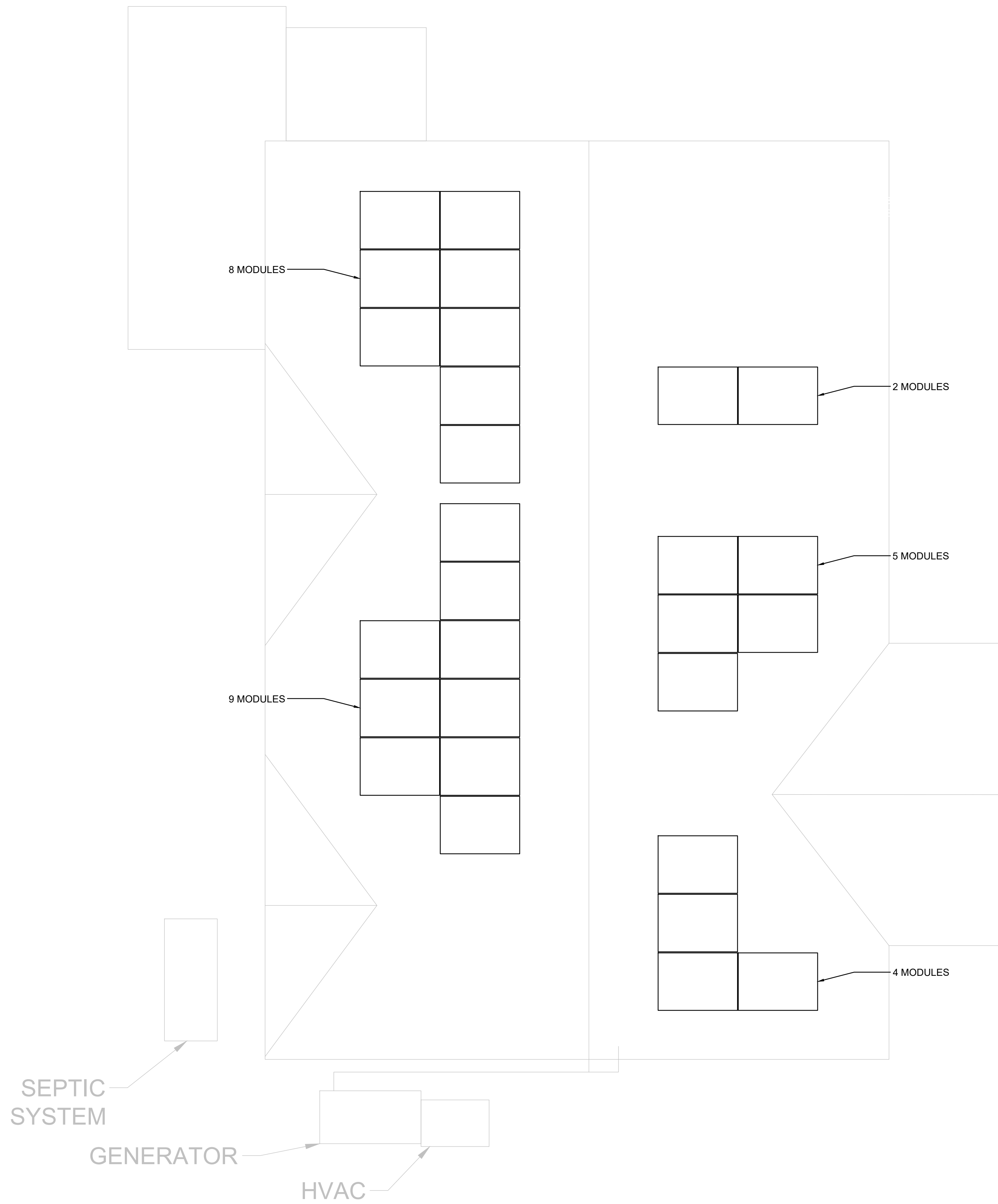
PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.:	

**E2.2**

THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.

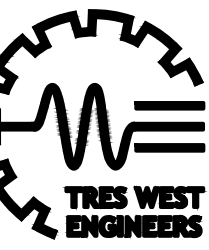
**1**  
**E2.2** **CAMANO SATELLITE - BUILDING PLAN**  
 SCALE: 1/4"=1'-0"  
 0 2' 4' 8'

Path: P:\Pro\2021\210701 Island Transit WO #03 Solar Installation\Drawings\01 Working Drawings\E2.3 - ISLAND TRANSIT - ROOF PLAN.dwg Plot date: Dec 11, 2021-06:39:51am CAD User: jic.  
 Xref Filename: | x-camano island site | xtb 34x22 - Satellite | TWE - NEW LOGO ONLY (REVIT) | JJC Wash PE |



**GENERAL NOTES**

1. COORDINATE FINAL LAYOUT WITH EXISTING ROOFTOP EQUIPMENT.
2. INSTALLATION SHALL COMPLY WITH 2018 INTERNATIONAL FIRE CODE SECTION 1204 AND 2018 WASHINGTON STATE FIRE CODE SECTION 1204.1.
3. SEE SHEETS E2.4 FOR ADDITIONAL INFORMATION.
4. PAINT, PATCH, AND SEAL ALL PENETRATIONS TO MATCH EXISTING CONDITIONS AS REQUIRED.



NO.	DATE	REVISION
	12/14/2021	100% ISSUE FOR BID

**ISLAND TRANSIT SOLAR INSTALLATION:  
 MAIN BASE AND CAMANO SATELLITE**  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
 CAMANO SATELLITE - ROOF PLAN

PROJECT NO.:	2100406
SCALE:	AS SHOWN
DATE:	12/14/2021
SHEET NO.:	

**E2.3**

THIS DRAWING WAS PRODUCED FROM AS-BUILT DRAWINGS AND MAY NOT REPRESENT AN ACCURATE AS-BUILT CONDITION. DISCREPANCIES MAY BE ENCOUNTERED, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.

**1**  
**E2.3** **CAMANO SATELLITE - ROOF PLAN**  
 SCALE: 1/4"=1'-0"  
 0 2' 4' 8'

E2.3 - ISLAND TRANSIT - ROOF PLAN.dwg 12/14/2021 1:11

Path: P:\Pro\2021\210701 Island Transit WO #03 Solar Installation\Drawings\01 Working Drawings\E2.4 - ISLAND TRANSIT - ONE LINE DIAGRAM.dwg Plot date: Dec 11, 2021-06:39:55am CAD User: jic.  
 Xref Filename: | xtb\_34x22 - Satellite | TWE - NEW LOGO ONLY (REVIT) | JIC Wash PE |

### PV Electrical Calculations

Site Conditions			Photovoltaic Interconnect	
ASHRAE Site:	Seattle		Service Main OCPD:	400 A
Lowest Record Ambient:	19	-7.22	Service Bus Rating:	400 A
Average Record Ambient:	84	28.89	Largest Photovoltaic OCPD Allowed:	80 A
Highest 2% Record Ambient:	91	32.78	Photovoltaic Inverter OCPD:	40 A
			Interconnection:	Breaker

Inverter	Output Voltage	Max Amps Out	Watts	Quantity of Inverters	Inverter OCPD	Max Amps Out Combined	Minimum OCPD Combined
SolarEdge SE7600H-US	240 V	32 A	7,600	1	40 A	32 A	40 A
N/A							
N/A							

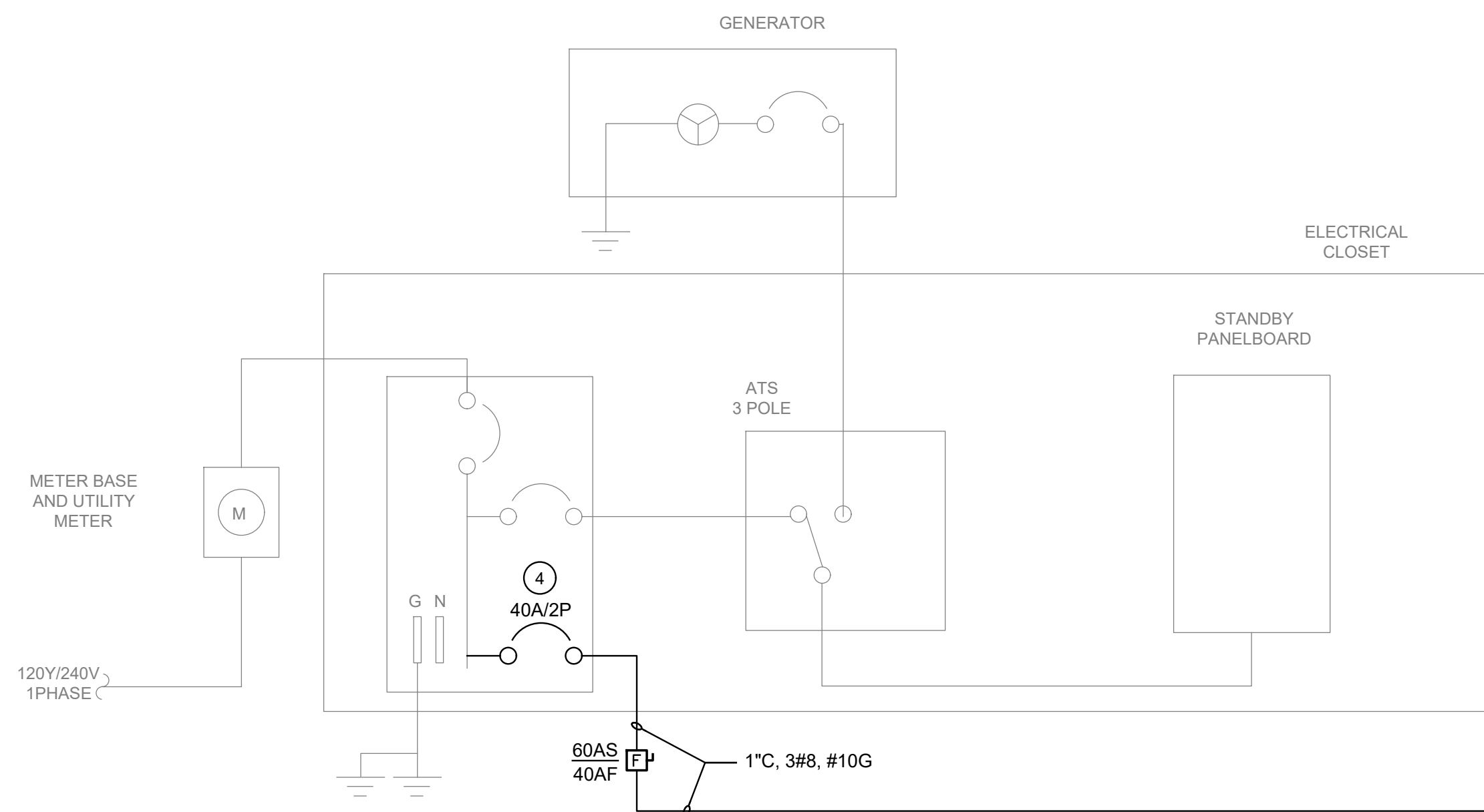
Module	Module Power (P <sub>max</sub> )	Max power current (I <sub>mp</sub> )	Max power voltage (V <sub>mp</sub> )	Open circuit voltage (V <sub>oc</sub> )	Short circuit current (I <sub>sc</sub> )	Temp. Coeff V <sub>oc</sub> (%/K)	Open circuit voltage (V <sub>oc</sub> ) adjusted:
SilFab SIL-370 HC	370 W	10.60 A	34.95 V	41.75 V	11.25 A	-0.280%	45.5 V

Optimizer	Max System Voltage	Max Power (P <sub>DC</sub> )	Max Input Voltage (V <sub>DC</sub> )	Max Short circuit current (I <sub>sc</sub> ) (Optimizers)	Min String Length (Optimizers)	Max String Length
SolarEdge P401	1000 V	400 W	60.0 V	11.75 A	8	25

PV Array Specs:			Maximum Input Voltage: 480 VDC
Inverter:	SolarEdge SE7600H-US		
Strings Per Inverter	Optimizers / String	PV Modules / String	
Inverter:			
- 1 x String	11 P401	11	
- 1 x String	17 P401	17	

Conductor Description:	Circuit Currents	Minimum Cond. Ampacity Before Derating	Minimum Cond. Ampacity After Derating <sup>note 4</sup>	Wire Type	Wire Material	Wire Gauge	Wire Ampacity @ 75°C
PV Source (Module to Optimizer <sup>note 1</sup> ):	14.1 A	17.6 A	24.2 A	PV Wire 1000V	CU	10	35 A
PV Output (Optimizer to Inverter <sup>note 2,3</sup> ):	14.1 A	17.6 A	24.2 A	PV Wire 1000V	CU	10	35 A
PV Output (Inverter to AC Disc):	32.0 A	40.0 A	33.3 A	THHN, THWN-2	CU	8	50 A

note 1: Current based on pair of wires between one Module and one Optimizer.  
 note 2: Current based on largest PV string  
 note 3: Each string will be connected directly to inverter.  
 note 4: Minimum conductor ampacity derating based off ambient temperature correction factor with 90°C wire. Additional derating shall be required for more than 3 current carrying conductors in a raceway or cable.



**1**  
E2.4 CAMANO SATELLITE - ONE LINE DIAGRAM  
SCALE: NONE

### GENERAL NOTES

- ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.
- COORDINATE LAYOUT WITH EXISTING ROOFTOP EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SUBMITTING INTERCONNECTION APPLICATION WITH LOCAL UTILITY AHEAD OF CONSTRUCTION.

### PLAN NOTES

- PROVIDE 1000VDC PHOTOVOLTAIC WIRE WITH RED DC POSITIVE AND BLACK DC NEGATIVE WIRE.
- PROVIDE EQUIPMENT GROUNDING CONDUCTORS FROM INVERTER TO PHOTOVOLTAIC STRING ARRAYS PER NEC.
- GROUND PHOTOVOLTAIC MODULES TO ADJACENT MODULES PER NEC AND EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS.
- PROVIDE REVERSE-FED CIRCUIT BREAKER FOR PHOTOVOLTAIC SYSTEM. BREAKER TYPE SHALL MATCH PANELBOARD MANUFACTURER. BREAKER AIC SHALL MATCH OR EXCEED PANELBOARD RATING. PHOTOVOLTAIC SYSTEM SHALL BE CONNECTED TO THE BREAKER FURTHEST FROM THE MAIN BREAKER. CONTRACTOR SHALL RE-ARRANGE CIRCUITS AS REQUIRED. SEE DETAIL 2, EXISTING MAIN PANELBOARD SCHEDULE. PROVIDE PERMANENT WARNING LABEL ADJACENT TO BACK-FED BREAKER FROM INVERTER STATING "WARNING: POWER SOURCE OUTPUT CONNECTION - DO NOT RELOCATE THIS OVERCURRENT DEVICE."

PANEL	LOCATION:	VOLT	BUS RATING	SCCR:
MAIN	ELECTRICAL CLOSET 112	240/120	400 AMP	EXISTING
	SERVING:	1 PHASE	400 AMP MAIN BREAKER	AF:
	FED FROM: UTILITY	3 WIRE		MOUNTING SURFACE

CKT	LOAD DESCRIPTION	TYPE	KVA	A/P	PHASE	A/P	KVA	TYPE	LOAD DESCRIPTION	CKT
1	FURNACE	D	0.000	/2	A	/2	0.000	D	FURNACE	2
3	-	-	-	-	B	-	-	-	-	4
5	FURNACE	D	0.000	/2	A	/2	0.000	D	FURNACE	6
7	-	-	-	-	B	-	-	-	-	8
9	FURNACE	D	0.000	/2	A	/2	0.000	D	HOT WATER HEATER	10
11	-	-	-	-	B	-	-	-	-	12
13	SPARE	S	-	/1	A	/2	0.000	D	DRYER	14
15	VOICE / DATA OUTLET	D	0.000	/1	B	-	-	-	-	16
17	SPACE	S	-	-	A	/1	0.000	D	WASHER / LAUNDRY OUTLET	18
19	SPACE	S	-	-	B	-	-	S	SPACE	20
21	SPACE	S	-	-	A	-	-	S	SPACE	22
23	SPACE	S	-	-	B	-	-	S	SPACE	24
25	SPACE	S	-	-	A	-	-	S	SPACE	26
27	UNKNOWN CIRCUIT	D	0.000	/1	B	/1	0.000	D	UNKNOWN CIRCUIT	28
29	UNKNOWN CIRCUIT	D	0.000	/1	A	/1	0.000	D	UNKNOWN CIRCUIT	30
31	UNKNOWN CIRCUIT	D	0.000	/1	B	/1	0.000	D	UNKNOWN CIRCUIT	32
33	UNKNOWN CIRCUIT	D	0.000	/2	A	/1	0.000	D	UNKNOWN CIRCUIT	34
35	-	-	-	-	B	/2	0.000	P	SUBFEED PANEL	36
37	SPACE	S	-	-	A	-	-	-	-	38
39	SPACE	S	-	-	B	/2	0.000	P	SUBFEED PANEL	40
41	UNKNOWN CIRCUIT	D	0.000	/1	A	-	-	-	-	42

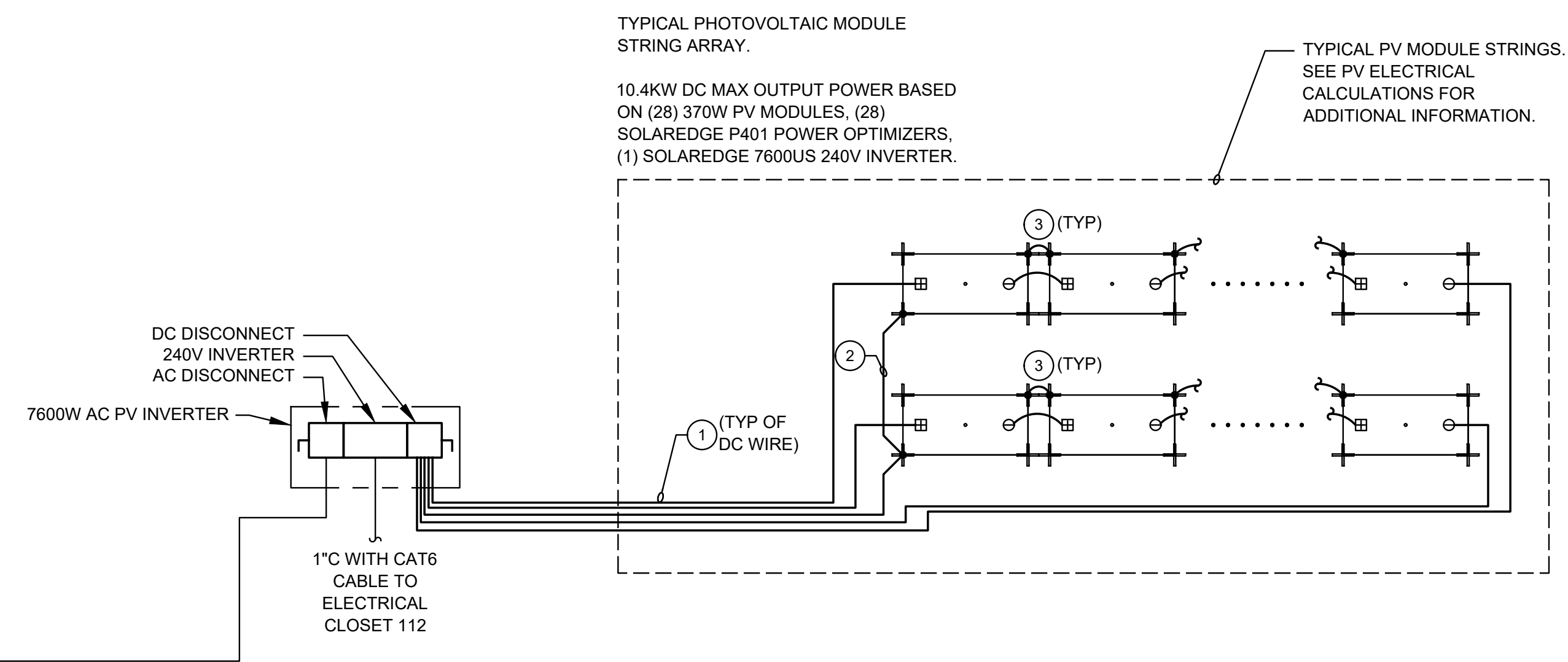
PHASE LOAD		PHASE A=		KVA		PHASE B=		KVA	
L	R	M	H	WH	EV	D	A	K	LM
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONN. LOAD		0.00		0.00		0.00		0.00	
CALC. LOAD		0.00		0.00		0.00		0.00	
		0.00 KVA		0.00 AMP					

REQUIRED OPTIONS:

NOTES: CONTRACTOR TO FIELD VERIFY EXISTING BREAKER SIZES AS NEEDED.  
 LOADS TO BE VERIFIED AS NEEDED.

**2**  
E2.4 EXISTING MAIN PANELBOARD  
SCALE: NONE



**1**  
E2.4 CAMANO SATELLITE - ONE LINE DIAGRAM  
SCALE: NONE

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 MAIN BASE AND CAMANO SATELLITE  
 19758 State Route 20, Coupeville, WA  
 174 Can Ku Road, Camano Island, WA  
 CAMANO SATELLITE - ONE LINE DIAGRAM

PROJECT NO.: 2100406  
 SCALE: AS SHOWN  
 DATE: 12/14/2021  
 SHEET NO.

**E2.4**

E2.4 - ISLAND TRANSIT - ONE LINE DIAGRAM.dwg 12/14/2021 1:11