

A. DESIGN SCOPE BY PSE CONSULTING ENGINEERS, INC. (PSE):

- a) Shop drawings shall be submitted in the form of two copies.
- b) Prior to submittals, the general contractor shall review all submittals for conformance with the Construction Documents and shall stamp submittals as being "Reviewed for Conformance".
- c) Any detail on the shop drawing that deviates from the Construction Documents shall be marked with the note "This is a change".
- d) Shop drawing submittals processed by the Structural Engineer are not Change Orders.
- e) Shop drawings shall be submitted to the Architect/Engineer prior to fabrication and construction regarding all structural items including:
 - Concrete and masonry reinforcement, drawings shall conform to ACI 315 and ACI 318.
 - Structural steel, drawings to conform to AISC.
 - Girded-laminated members, drawings to conform to AISC.
 - Prefabricated wood joists and trusses, drawings to conform to ICBO product evaluation report.
 - Wood trusses, drawings to conform to UBC.
- f) Shop drawings or calculations submitted for review that require re-submittal for re-review, as determined by the Structural Engineer, shall be billed hourly to the general contractor. Re-review will not proceed without written approval from the general contractor for additional engineering services.
14. Submit seismic anchorage calculations stamped by a licensed Professional Engineer for all equipment and components weighing more than 150 lb.
15. Submit structural drawings signed and sealed by a professional Engineer licensed in the State where the project is located for any structural member needed for this project that is not designed by P.S.E.
16. Any substitutions for structural members, hardware or details shall be reviewed by the Architect and Structural Engineer. Such review will be based on a timely materials basis to the General Contractor, with no guarantee that the substitution will be allowed.
18. All communication shall be in writing. No verbal communications, decisions, instructions or approvals shall be valid.

1. All design, material and construction work for this project shall conform to the Colorado State Building Codes based on the 2021 International Building Code (IBC).
2. Design parameters.

- D. INSPECTION:

The owner shall employ one or more qualified inspectors to provide inspections during construction in accordance with section 1701 of the above code. The Inspector shall be certified by the building official to perform the type of inspection specified. Inspection shall be provided for:

- a. Foundation excavation.
- b. Reinforcement placement, prior to closing the forms and delivery of concrete.
- c. Concrete placement.
- d. Bolts installed in concrete and masonry, prior to and during the placement of concrete around bolts.
- e. Structural Steel.
- f. Field welding.
- g. High-strength bolting.
- h. During preparation and taking of test specimens.
- i. See other sections of these notes for more required inspections.

Note: All discrepancies shall be brought to the immediate attention of the contractor for correction; then if not corrected, to the building official and to the Engineer in writing. The inspector shall furnish an inspection report to the building official and to the Engineer/Architect of Record.

The owner/contractor shall retain an independent testing laboratory to test the quality of:

a. Soil or fill material supporting footings and slab-on-grade.

- d. Soil or fill material supporting footings and slab on grade.
- e. Concrete.
- f. Mortar shall be tested in accordance with UBC standard 21-16.
- g. Grout shall be tested in accordance with UBC standard 21-18.
- h. All other material used in this project as required by the Engineer.
- i. A copy of test results shall be sent to the Engineer of Record.

1. Unless noted otherwise on plans, all structural steel shall be per Table 2-3 of AISC Manual of Steel Construction, Thirteenth Edition, as shown below:

On-Site Fabrication

| Shape | Steel, Type | Yield Strength F _y , ksi |
|---|--------------|--|
| W-shape | A 992 | 50-65 |
| Angles | A 36 | 36 |
| Rectangular Tube, HSS | A 500, Gr.C | 50 |
| Round Tube, HSS | A 500, Gr.C | 46 |
| Pipe | A53, Gr.B | 35 |
| Plate | A 36 | 36 |
| $\frac{1}{2}$ " - $\frac{3}{4}$ " Bolts | A 325 | 120/105 |
| L6S Stud < 18ga | A 570 Gr. 33 | 33 |
| L6S Stud > 18 ga | A 570 Gr. 55 | 55 |
| Container/Module Tube | Corten/A242 | 50 |
| Container/Module Channel | Corten/A242 | 50 |
| Container/Module Plate | Corten/A242 | 50 |

2. Fabrication and erection shall be in accordance with the American Institute of Steel Construction (AISC).
3. All beam connections shall be bolted or shop welded as detailed on the drawing or designed by fabricator per AISC Manual of Steel Construction allowable Stress Design, "Frame Beam Connections." Bolts shall be 3/4 inch diameter ASTM A325, load indicating bolts. All bolts shall be tightened to the minimum tension specified for structural joints using A325 or A490 bolts.
4. All welding shall conform to the current American Welding Society (AWS) Specifications and be performed by certified welders.
5. Column anchor bolts shall have minimum yield strength of 36 KSI.
6. Metal deck shall be the type as indicated on the drawings. The deck shall be welded to the supporting members per manufacturer's recommendations or as indicated on the drawing whichever is more restrictive or stringent.
7. All openings in metal deck to have 4" x 4" x 3/4" angle frames set between joists.
8. All structural steel and bar joists shall have one shop coat of rust inhibitor primer paint conforming to specification. Field touch up all unpainted areas and weld areas.
9. Grout for base plates shall be nonshrinkage, non-sulfur cementitious grout having a minimum 3-days compressive strength of 4000 PSI.
10. Reference specifications for additional requirements.

1. The shipping / cargo container(s) shall be:

- a) Undamaged (Free of rust, dents, cracks, etc. cetera that affect the structural integrity of the container).
- b) Made from steel.
- c) Design and tested according to the International Organization for Standardization (ISO) specifications.
- d) Certified for compliance to the Rules for Certification of Cargo Containers and the International Convention for Safe Containers (CSC) for use as shipping containers by the American Bureau of Shipping (ABS) or other approved Certification Inspection and Testing Agency (CITA).
- e) Container shall have a CSC safety approval placard (CSC Plate) and CITA logo prior to any modification.
- 9) Welds and roof are continuously welded around its entire periphery and is itself made from sheets of corrugated 14ga. Cor-Ten steel also continuously welded together. This steel, also used for the side and end walls has a minimum yield strength of 50ksi and tensile of 70ksi.
2. Prior to construction/modification, Client / Owner / Contractor shall:
 - a) Provide pictures of high/good quality to PSE showing the following of each container:
 - All four sides
 - Roof
 - Under framing
 - Top Rails
 - Bottom Rails
 - Interior
 - CSC Plate
 - b) Visually inspect all existing welds for consistency and undamaged.
 - c) Confirm existing plywood floor sheathing is:
 - Not damaged, cracked, deformed, delaminated, or showing any other signs that structural integrity has been compromised
 - Free of hazardous materials, liquids, and/or stains, or shall be encapsulated.
 - Fully fastened to container floor joists per original construction.
 - If existing plywood floor sheathing needs to be replaced, inform PSE prior to replacing with equivalent pressure/preservative treated OSB or 2" steel plate with equivalent or better fastening to container floor joists.
 - d) If possible, provide manufacturer drawings of container to PSE.
3. Dimensions provided may be the nominal dimensions of the container. Contractor/fabricator, owner, and/or architect to verify actual dimension before construction.

| | | | | | | | |
|------|--------------------------|-------|--|-------|-------------------------|-------|------------------------|
| AB | ANCHOR BOLT | EQ | EQUAL | LL | LIVE LOAD | RFT | RAFTERS |
| ADD | ADDITIONAL | ES | EACH SIDE | MATL | MATERIAL | SGN | STRUCTURAL GENERAL |
| ALT | ALTERNATE | EW | EACH WAY | MAX | MAXIMUM | | NOTES |
| APA | APARTMENT PLYWOOD | FA | FRAMING ANCHOR | MB | MACHINING BOLT | SEP | SEPARATION |
| | ASSOCIATION | FD | FOOT DEPTH | MFR | MANUFACTURER | SIM | SIMILAR |
| ARCH | ARCHITECTURAL | FEN | FLOOR EDGE NAILING | MIN. | MINIMUM | SN | SNAIL NAIL |
| BTM | BOTTOM | FF | FISHED FLOOR | MTL | METAL | SLD | SLIDING |
| BCK | BLOCKING | FI | FIELD/INTERMEDIATE | N | NUMBER | SPEC | SPECIFICATION |
| BND | BOUNDARY NAIL | NS | NAILING | NR | NEAR SIDE | STD | STANDARD |
| BSP | BOTTOM OF FOOTING | NTS | NOT TO SCALE | STG | STAGGER | STG | STAGGER |
| CBC | CALIFORNIA BUILDING CODE | FTG | FOOTING | ON | ON CENTER | STIFF | STIFFENERS |
| CL | CONSTRUCTION JOINT | GALV | GALVANIZED | OD | OUTSIDE DIAMETER | T | TOP |
| CON | CONCRETE JOINT | GEN | GENERAL CONTRACTOR | OSB | OSB SHEET & TWO FAMILY | TB | TOP & BOTTOM |
| CJ | CENTER LINE | GR | GEOTECHNICAL INVESTIGATION | QDSC | DWELLING SPECIALTY CODE | T | TOPICAL DETAILS |
| CL | CLEAR | RPT | REPORT | OH | OPPOSITE HAND | TG | TONGUE & GROOVE |
| CONN | CONNECTION | GLB | GLUED LAMINATED BEAM | SHB | SHEAR BOARD | TG | TONGUE & GROOVE |
| CONT | CONTINUOUS | GR | GRADE | OSSC | ORGANIC STRUCTURAL | TENAL | TENSILE |
| DBL | DOUBLE | HR | HEADER | | SPECIALTY CODE | T | TOP OF BEAM |
| DM | DIMENSION | HGR | HANGER | OSV | ON SITE VERIFY | T | TOP OF FOOTING |
| DL | DEAD LOAD | HORIZ | HORIZONTAL | OTOB | OUT TO OUT OF BEARING | TOW | TOP OF WALL |
| DM | DITTO (REPEAT) | HSH | HORIZONTALLY SLOPED HOLES | PERP | PERPENDICULAR | TP | TOP OF PLATE |
| DWG | DRAWING | ICBO | INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS | PLF | POUND PER LINEAR FOOT | UON | UNLESS OTHERWISE NOTED |
| DWL | DOWEL | INT | INTERIOR | PSE | PSE, INC. | VERT | VERTICAL |
| E | EXISTING | INT | INTERIOR | PR | PRESSURE TREATED | VSH | VERTICAL SLOTTED HOLES |
| EA | EACH FACE | JT | JOINT | PW | PLATE WASHER | W | WOOD |
| EL | ELEVATION | LDGR | LEDGER | REF | REFERENCE | WEN | WELD EDGE NAILING |
| EMBD | EMBEDDED | LGST | LIGHT GAUGE STEEL | RNF | ROOF EDGE NAILING | WFF | WELDED WIRE FABRIC |
| EN | EDGE NAIL | LGST | LONG-FORMED STEEL | REINF | REINFORCEMENT | W/ | WITH |

| | |
|-------|------------------------|
| RFT | RAFTERS |
| SEP | SEPARATION |
| SIN | SIMILAR |
| SML | SHEAR NAIL |
| SNL | SNOW LOAD |
| SPEC | SPECIFICATION |
| STD | STANDARD |
| STG | STAGGER |
| STIFF | STIFFENERS |
| T | TOP |
| TB | TOP & BOTTOM |
| TD | TYPICAL DETAILS |
| TH | THICKNESS |
| THK | THICKNESS/THICK |
| TN | TOENAIL |
| TOP | TOP OF BEAM |
| TOF | TOP OF FOOTING |
| TOW | TOP OF WALL |
| TY | TYPICAL |
| UBC | UNIFORM BUILDING CODE |
| UNL | UNLESS OTHERWISE NOTED |
| VSH | VERTICAL SLOTTED HOLES |
| W | WOOD |
| WEN | WALL EDGE NAILING |
| WHF | WELDED WIRE FABRIC |
| WTH | WITH |
| W/O | WITHOUT |

PSE Consulting
Engineers, Inc.

www.structure1.com
Klamath Falls Office
250 Main
Klamath Falls, Oregon
97601
Phone: (541) 850-6300
Fax: (541) 850-6233
info@structure1.com

Medford Office
836 Mason Way
Medford OR. 97501
Phone: (541) 858-8500
Fax: (541) 776-4663
infomd@structure1.com

Licensed in
48 States!

Construction Types:
Light Gauge Steel, Straw Bale
Bamboo, Log, Timber/Wood,
Structural Insulated Panels/SI
Masonry, Steel, Concrete,
Modular Homes/Factory Built
Housing (FBH), ICF, Shipping
Containers, and many more!
Commercial or Residential,
And Green/Sustainable!

Project:

AquaWorks
DBO, Inc.
Shipping
Container

22158 CR 12,
Phippsburg, CO

Owner / Client:
AquaWorks DBC
Inc.

**Expires 10/31/2025**[illegible]

DRAWN BY: M.R.D.

DS. BY: M.R.D

CHK BY: N.T.

DATE: 2-02-2024

TITLE:
GENERAL
NOTES

PAGE NO:

S1A

PROJECT #:
AQUAWORKS DBC
INC. 224-2001

| SHEET INDEX: | |
|--------------|--------------------------|
| S1 | GENERAL STRUCTURAL NOTES |
| S2 | CONTAINER FLOOR PLANS |
| S2.1 | CONTAINER DETAILS |

