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STRUCTURAL GENERAL NOTES — APPLICABLE TO ALL CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS
    A. DESIGN SCOPE BY PSE CONSULTING ENGINEERS, INC. (PSE):
                                                                                                                                                                      G. SHIPPING / CARGO CONTAINER SPECIFICATION:
        1. Design Shown on drawings by PSE is for the following items.
                                                                                                                                                                          1. The shipping / cargo container(s) shall be:
           a. Foundation and framing.
        2. Design Shown on PSE drawings does not include: finishes, architectural items, windows, doors, moisture barriers, water proofing, mechanical units,
            plumbing, or electrical items.
    B. GENERAL REQUIREMENT:
         1. Furnish all labor, materials, and equipment necessary to complete the work shown or inferred by these drawings.
        2. Where construction details are not shown or noted for any part of the work, such details shall be the same as for similar work shown on the
        3. Notes and details on the drawings take precedence over the general notes and typical details in case of conflict.
        4. Provide manufacturer's approved product evaluation reports (ICBO reports) and a list of all proposed substitutions to the Engineer for review
                                                                                                                                                                           2. Prior to construction/modification, Client / Owner / Contractor shall:
           and written approval before fabrication.
         5. Pipes, ducts, sleeves, chases, etc. shall not be placed in slabs, beams, or walls unless specifically shown or noted nor shall any structural
           member be cut for pipe, ducts, etc., unless specifically shown. Obtain prior written approval for installation of any additional holes, ducts, etc.
        6. Locate and protect underground or concealed conduit, plumbing or other utilities where new work is being performed.
         7. The contract drawings and specifications represent the finished structure and do not indicate methods, procedures or sequence of
           construction. The contractor shall take necessary precautions to maintain and insure the integrity of the new and any existing structures
           during construction. The design stresses shall not be exceeded during construction based on the age of each element . Neither the owner nor
           Architect/Engineer will enforce safety measure regulations. Contractor shall design, construct and maintain all safety devices, including shoring
           and bracing for the new and any existing structures and shall be solely responsible for conforming to all local, state and federal safety and
           health standards, laws and regulations. Observation visits to the site by the engineer shall not include inspection of the above items.
        8. Obtain prior written approval for any changes to the drawings.
        9. The contractor shall review and compare the structural drawings with all other Construction Documents, such as Architectural, Mechanical and
           Electrical drawings, specifications, etc. Do not scale drawings. The contractor shall verify dimensions, elevations and all information. Report, in
           writing, any inconsistencies, errors, or omissions to the Architect/Engineer of record before proceeding with the work.
        10. All existing constructions shown are schematic only. Contractor is responsible to verify actual conditions and allow for them in his bid. Notify
             the Architect/Engineer, in writing, in case of any discrepancy between actual conditions and what is shown on the structural drawings before
             proceeding with the work.
         11. See Architectural, Mechanical, Electrical and other drawings for embedded items.
        12. Camber shall be provided for all members with 30 feet or more of span. Check beam table and contact the Structural Engineer for the
             amount of camber.
        13. Shop drawings:
             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.
                  -Glued-Laminated members, drawings to conform to AITC.
                 -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
        14. Submit seismic anchorage calculations stamped by a licensed Professional Engineer for all equipment and components weighing more than
        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.
        17. Any substitutions for structural members, hardware or details shall be reviewed by the Architect and Structural Engineer. Such review will be
             billed on a time and 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.
    C. CODE AND LOADS:
          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.
                                                                                                                                                                             EMBED EMBEDMENT
                                                                                                                                                                           EN EDGE NAIL
EOR ENGINEER OF RECORD
          a. Floor Live Load = 40 psf.
                                                       b. Floor Dead Load = 15 psf.
          c. Roof Live Load = n/a psf.
                                                       d. Roof Dead load = 15 psf.
          e. Ground Snow Load, Pg = 76.8psf.
                                                       f. Flat Roof snow load = 53.8 psf.
           g. Snow Exposure Factor, Ce = 1.0
                                                       h. Snow Load Importance Factor, Is = 1.0
           i. Thermal Factor, Ct = 1.0
                                                        j. Ultimate Wind Speed (3 second gust) = 105 mph
          k. Wind Importance Factor, lw = 1.0
                                                       I. Wind Exposure = C
          m. Internal Pressure Coefficient = 0.85
                                                       n. Components and Cladding studs = 38 psf
                                                       p. Site Class = D
          o. Seismic Importance Factor, le = 1.0
          q. Ss = 0.582
                                                       r. S1 = 0.102
          s. Sms = 0.777
                                                       t. Sm1 = 0.244
          u. Sds = 0.518
                                                       v. Sd1 = 0.163
          w. Seismic Design Category = D
                                                       x. Basic Seismic Force Resisting System = Metal Sheathed Shipping Container
          y. Design Base Shear = 0.259 * W
                                                       z. Approximate Fundamental Period, T = 0.104
          aa. Response Modification Factor, R = 2.0 bb. Analysis Procedure Used = Equivalent Lateral Force Procedure
    D. INSPECTION:
         The owner shall employ one or more qualified Inspectors to provide inspections during construction in according 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:
              b. Reinforcement placement, prior to closing the forms and delivery of concrete.
                . 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.
              a. 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.
    E. TESTING:
         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.
              c. Mortar shall be tested in accordance with UBC standard 21-16.
              d. Grout shall be tested in accordance with UBC standard 21-18.
             e. All other material used in this project as required by the Engineer.
             f. A copy of test results shall be sent to the Engineer of Record.
    F. STRUCTURAL STEEL:
         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
                                                                       Steel, Typ
                                                                                            Yeild Strength
                                            W-shape
                                                                      A 992
                                                                      A 36
                                            Angles
                                            Rectangular Tube, HSS A 500, Gr.C
                                            Round Tube, HSS
                                                                     A 500, Gr.C
                                                                      A53, Gr.B
                                            \frac{1}{2}"ø -\frac{3}{4}"ø Bolts
LGS Stud < 18ga
                                                                                             120/105
                                                                      A 325
                                                                      A 570 Gr. 33
                                                                    A 607 Gr. 5
                                             Container/Module Tube Corten/A242
Container/Module Channel Corten/A242
                                             Container/Module Panel Corten/A242
          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, "Framed Beam Connections." Bolts shall be 3/4 inch. diameter ASTM A325, load indicator bolts. All bolts shall be tightened to the
             minimum tension specified in the specification 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 drawings whichever is more restricting or stringent.
          7. All openings in metal deck to have 4" X 4" X 1/4" 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
          9. Grout for base plates shall be nonmetallic, non-shrinkage cementitious grout having a minimum 3-days compressive strength of 4000 PSI.
          10. Reference specifications for additional requirements.
```

c) C d) I 3. Dime befo	<ul> <li>Free of hazardous materic</li> <li>Fully fastened to containe</li> <li>If existing plywood floor single</li> <li>or ¼" steel plate with equal possible, provide manufacture</li> <li>ensions provided may be the rore construction.</li> </ul>	sheathin formed, als, liquid r floor j heathing uivalent er drawii	ng is:  delaminated, or showing any other ds, and/or stains, or shall be end oists per original construction.  needs to be replaced, inform PS or better fastening to container f	capsulate E prior floor jois	ed. to replacing with equivalent pre sts.	essure/p	preservative treated OSB
H. ABBRE	EVIATIONS:						
AB ADDL ALT APA  ARCH B BLKG BN BOF CBC CJ	ANCHOR BOLT ADDITIONAL ALTERNATE AMERICAN PLYWOOD ASSOCIATION ARCHITECTURAL BOTTOM BLOCKING BOUNDARY NAIL BOTTOM OF FOOTING CALIFORNIA BUILDING CODE CONSTRUCTION JOINT OR CONTROL JOINT	EQ ES EW FA FD FEN FF FN FS FTG GALV GC	EQUAL EACH SIDE EACH WAY FRAMING ANCHOR FROST DEPTH FLOOR EDGE NAILING FINISHED FLOOR FIELD/INTERMEDIATE NAILING FAR SIDE FOOTING GALVANIZED GENERAL CONTRACTOR	LL MATL MAX MB MFR MIN. MTL NO. NS NTS OC OD	LIVE LOAD MATERIAL MAXIMUM MACHINE BOLT MANUFACTURER MINIMUM METAL NUMBER NEAR SIDE NOT TO SCALE ON CENTER OUTSIDE DIAMETER OREGON ONE & TWO FAMILY	STD STGR	RAFTERS STRUCTURAL GENERAL NOTES SEPARATION SIMILAR SHEAR NAIL SNOW LOAD SPECIFICATION STANDARD STANDARD STAGGER STIFFENERS TOP TOP & BOTTOM
CL CLR CONN CONT DBL DIM DL DO DWG DWL	CENTER LINE CLEAR CONNECTION CONTINUOUS DOUBLE DIMENSION DEAD LOAD DITTO (REPEAT) DRAWING DOWEL	GIR GLB GR HDR HGR	GEOTECHNICAL INVESTIGATION REPORT GLUED LAMINATED BEAM GRADE HEADER HANGER HORIZONTAL HORIZONTALLY SLOTTED HOLES	OH OSB OSSC OSV OTOB PERP PL	DWELLING SPECIALTY CODE OPPOSITE HAND ORIENTED STRAND BOARD OREGON STRUCTURAL SPECIALTY CODE ON SITE VERIFY OUT TO OUT OF BEARING PERPENDICULAR PLATE	TD TG THK TN TOB TOF TOW TYP UBC	TYPICAL DETAILS TONGUE & GROOVE THICKNESS/THICK TOENAIL TOP OF BEAM TOP OF FOOTING TOP OF WALL TYPICAL UNIFORM BUILDING CODE
E E	EXISTING	ID	INSIDE DIAMETER	PLF PSE	POUND PER LINEAR FOOT PSE, INC.	UON VERT	UNLESS OTHERWISE NOTED VERTICAL

WD WOOD

W/ WITH

W/O WITHOUT

VSH VERTICAL SLOTTED HOLES

WEN WALL EDGE NAILING

WWF WELDED WIRE FABRIC

PRESSURE TREATED

PLATE WASHER

REN ROOF EDGE NAILING

REINF REINFORCEMENT

REF REFERENCE

d) Certified for compliance to the Rules for Certification of Cargo Containers and the International Convention for Safe Containers (CSC) for use

continuously welded together. This steel, also used for the side and end walls has a minimum yeild strength of 50ksi and tensile of 70ksi.

as shipping containers by the American Bureau of Shipping (ABS) or other approved Certified Inspection and Testing Agency (CITA).

f) Walls and roof are continuously welded around its entire periphery and is itself made from sheets of corrugated 14ga. Cor-Ten steel also

a) Undamaged (Free of rust, dents, cracks, et cetera that affect the structural integrity of the container)

c) Design and tested according to the International Organization for Standardization (ISO) specifications.

a) Provide pictures of high/good quality to PSE showing the following of each container:

INTERIOR

LGST LIGHT GAUGE STEEL,

COLD-FORMED STEEL

JOINT

LDGR LEDGER

b) Visually inspect all existing welds for consistency and undamaged.

e) Container shall have a CSC safety approval placard (CSC Plate) and CITA logo prior to any modification.

b) Made from steel.

All four sides

Under framing

— Bottom Rails

Top Rails

CSC Plate

Interior

EACH

EACH FACE

ELEVATION

Roof

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

PSE Consulting Engineers, Inc.

www.structure1.com Klamath Falls Office 250 Main Klamath Falls, Oregon 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!

onstruction Types: ht Gauge Steel, Straw Bal nboo, Log, Timber/Wood, ructural Insulated Panels/SI Masonry, Steel, Concrete, Modular Homes/Factory Built tousing (FBH ), ICF, Shippina ontainers, and many more! mmercial or Residential. Green/Sustainable!

Project:

AquaWorks DBO, Inc. Shipping Container

38600 Main St. Milner CO 80487

Owner / Client: |AquaWorks DBO

2-1-2024

Expires 10/31/2025

DRAWN BY: M.R. DS. BY: M.R.D

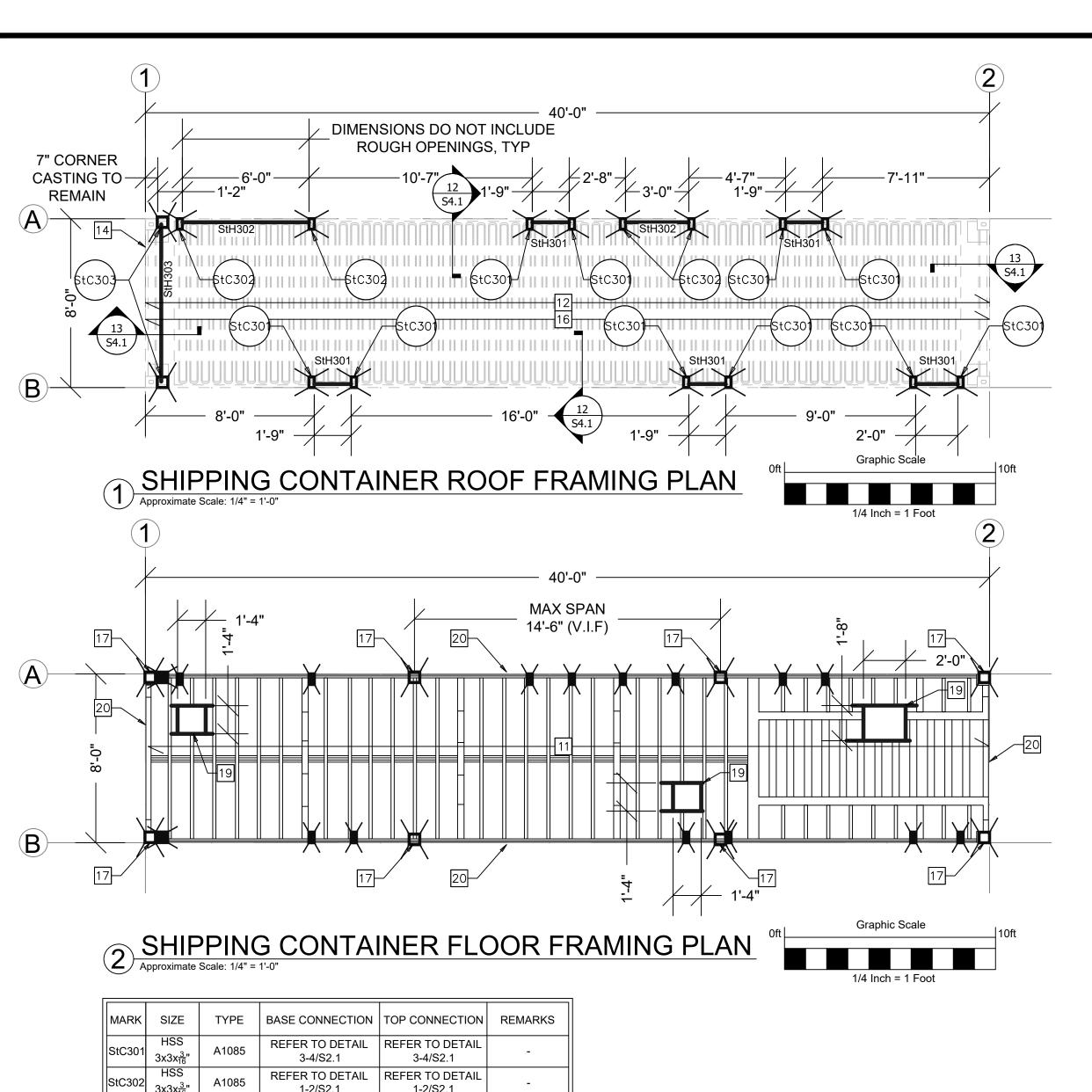
CHK BY: N.T. DATE: 2-02-2024

GENERAL

NOTES PAGE NO:

PROJECT #: AQUAWORKS DBC INC., 224-2002

Maverick

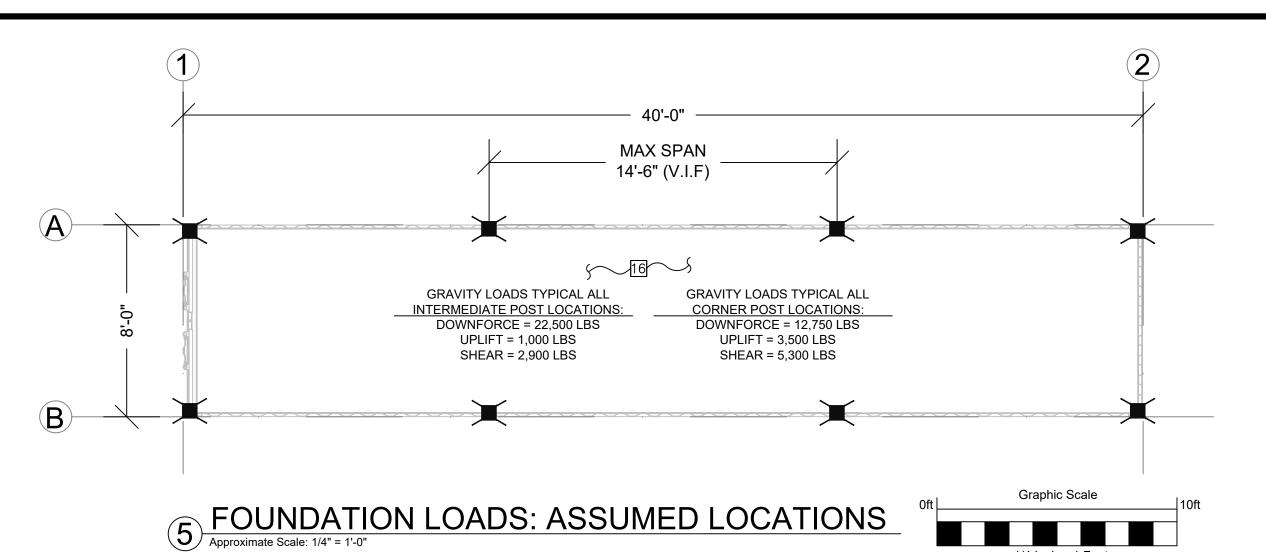


MARK	SIZE	TYPE	BASE CONNECTION	TOP CONNECTION	REMARKS
StC301	HSS 3x3x <sup>3</sup> / <sub>16</sub> "	A1085	REFER TO DETAIL 3-4/S2.1	REFER TO DETAIL 3-4/S2.1	-
StC302	HSS 3x3x <del>3</del> "	A1085	REFER TO DETAIL 1-2/S2.1	REFER TO DETAIL 1-2/S2.1	-
StC303	HSS 3x3x <del>3</del> "	A1085	REFER TO DETAIL 5-7/S2.1	REFER TO DETAIL 5-7/S2.1	-

## 3 STEEL COLUMN SCHEDULE (StC) N.T.S. COLUMN BELOW, SUPPORTING

MARK	MAX OPENING	COMBINATION	FRAME SIZE	REMARKS
StH301	UP TO 2'-0"	A1085	HSS 3x3x <sup>3</sup> / <sub>16</sub> "	REFER TO DETAIL 3-4/S2.1
StH302	UP TO 6'-0"	A1085	HSS 3x3x <sup>3</sup> / <sub>16</sub> "	REFER TO DETAIL 1-2/S2.1
StH303	UP TO 8'-0"	A1085	HSS 3x3x <sup>3</sup> / <sub>16</sub> "	REFER TO DETAIL 5-7/S2.1

STEEL HEADER SCHEDULE (StH)
N.T.S.



DESIGN DATA:	
ROOF DESIGN LOADS:	
GROUND SNOW LOAD:	76.8 PSF
ROOF SNOW LOAD:	53.8 PSF
ROOF LIVE LOAD:	n/a
ROOF DEAD LOAD:	10 PSF
CEILING DEAD LOAD:	5 PSF
FLOOR DESIGN LOADS:	
FLOOR DEAD LOAD:	15 PSF
FLOOR LIVE LOAD:	40 PSF
LIVE LOAD OCCUPANCY:	MEP ROOM
WIND DESIGN LOADS:	
ULTIMATE (3-SEC GUST)	105 MPH
EXPOSURE CATEGORY:	С
SEISMIC DESIGN LOADS:	
Ss	0.582
S1	0.102
SEISMIC DESIGN CATEGORY	D
le	1

LEGEND:

DISCONTINUOUS 2x6 DF-L #2 @ 16" O.C. SHEAR WALL AND/OR LOAD BEARING WALL SUPPORTING/BELOW THIS FLOOR/ROOF.

DISCONTINUOUS 2x6 DF-L #2 @ 16" O.C. SHEAR WALL AND/OR LOAD BEARING WALL ABOVE THIS FLOOR/ROOF.

DISCONTINUOUS COLUMN SUPPORTING THIS FLOOR/ROOF.

STUB, SHORT,POST.

INDICATES SHEET NOTES.

INDICATES COLUMN MARK, REFER TO COLUMN SCHEDULE.

n NUMERICAL VALUE, 1, 2, 3 ETC.

SHEET NOTES:

REFER TO S1 FOR STRUCTURAL GENERAL NOTES AND TO ROOF DETAIL SHEETS FOR CONSTRUCTION DETAILS.

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. DO NOT

SCALE DRAWINGS. PROVIDE MULTIPLE STUDS UNDER BEAMS OR TRUSSES TO MATCH WIDTH OF SUPPORTED MEMBER, TYP. STUDS SHALL BE CONTINUED

IN LOWER FLOORS AND/OR CRAWL SPACE TO FOOTING, TYP. ROOF DRAINAGE SHALL BE DIRECTED AWAY FROM FOUNDATION.

PROVIDE SOLID BLOCKING UNDER POSTS AND MULTIPLE STUDS TO TRANSFER LOADS TO POSTS/STUDS BELOW.

LAY FLOOR AND ROOF STRUCTURAL PANELS WITH THE LONG DIMENSION AT RIGHT ANGLE TO SUPPORTS AND CONTINUOUS OVER TWO OR MORE SPANS.

LIMIT LIVE LOAD DEFLECTION TO SPAN OVER 480 FOR RAFTERS, JOISTS, BEAMS.

FLOOR SHEATHING SHALL BE 3/4" OR MORE THICK APA T&G PLYWOOD OR OSB WITH 48"/24" SPAN RATING. USE 8d @ 4" O.C. (BN) AT EXTERIOR WALLS AND INTERIOR SHEAR WALLS. 8d @ 6" O.C. (FEN) ALONG PANEL EDGES AND 8d @ 10" O.C. AT INTERMEDIATE SUPPORTS, UON. MINIMUM PENETRATION IS 1 5/8" INTO FRAMING. USE GLUE.

FIELD GLUE FLOORS TO ALL SUPPORTS AND T&G EDGES PER APA, AFG-01. FRAMING SHALL BE FREE OF SURFACE MOISTURE AND DEBRIS PRIOR TO GLUING.

IF HEAVY EQUIPMENT (WEIGHING OVER 500LBS) IS PLACED OVER FINISHED FLOOR CONTACT EOR FOR REVIEW PRIOR TO INSTALLATION.

EXISTING CONTAINER FLOOR BEAMS/RAILS, JOISTS & FLOORING TO REMAIN UNMODIFIED U.N.O

EXISTING CONTAINER ROOF TO REMAIN UNMODIFIED U.N.O

3 CENTER FOOTING UNDER POSTS AND WALLS UNLESS OTHERWISE NOTED ON PLANS AND/OR DETAILS.

15 LINE OF SHIPPING CONTAINER ABOVE

6 CONTRACTOR'S CHOICE: 2x4 DF-L #1 CEILING JOIST @ 12" O.C. WITH 2x BLOCKING AT HALFWAY POINT AND WOOD SHIM ABOVE @ 1/3RD POINTS. REFER TO DETAIL 12/S2.1 FOR CONNECTION TO TOP RAIL OR 2x4 DF-L #1 RAFTER @ 12" O.C. WITH 2x BLOCKING AT HALFWAY POINT. REFER TO DETAIL 13/S2.1 FOR CONNECTION TO TOP RAIL

7 CONTRACTOR TO ATTACH SHIPPING CONTAINER TO FOUNDATION BY OTHERS WITH BASE PLATE AS PER 8-9/S2.1 AT CORNERS AND MAXIMUM 14'-6" O.C. ALONG BOTTOM RAIL.

REINFORCE BOTTOM RAIL ALONG THIS LINE AS PER DETAIL 11/S2.1

G CONTRACTOR SHALL VERIFY OPENING IN FLOOR. FLOOR OPENING SHALL BE REINFORCED WITH (2)  $L4x4x_4^{-1}$  A36 ANGLE BETWEEN EXISTING FRAMING MEMBERS AND (2) 4"x4" A36 FLAT PLATE BETWEEN NEW 'L'-ANGLE

TOUNDATION NOT BY PSE. OWNER/CONTRACTOR TO HIRE LOCAL LICENSED ENGINEER OR PSE TO DESIGN FOUNDATION TO SUPPORT SHIPPING CONTAINER. CONTACT PSE FOR ADDITIONAL INFORMATION.

PSE Consulting Engineers, Inc.

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

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

info@structure1.com

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t Gauge Steel, Straw Bal boo, Log, Timber/Wood, uctural Insulated Panels/SIF sonry, Steel, Concrete, dular Homes/Factory Built ısıng ( FBH ), ICF, Shippina ntainers, and many more! nmercial or Residential. Green/Sustamable!

Project:

AquaWorks DBO, Inc. Shipping Container

38600 Main St., Milner CO 80487

Owner / Client: AquaWorks DBO, Inc.

3-1-2024

Expires 10/31/2025

DRAWN BY: M.R.I

DS. BY: M.R.D

CHK BY: N.T. DATE: 2-02-2024

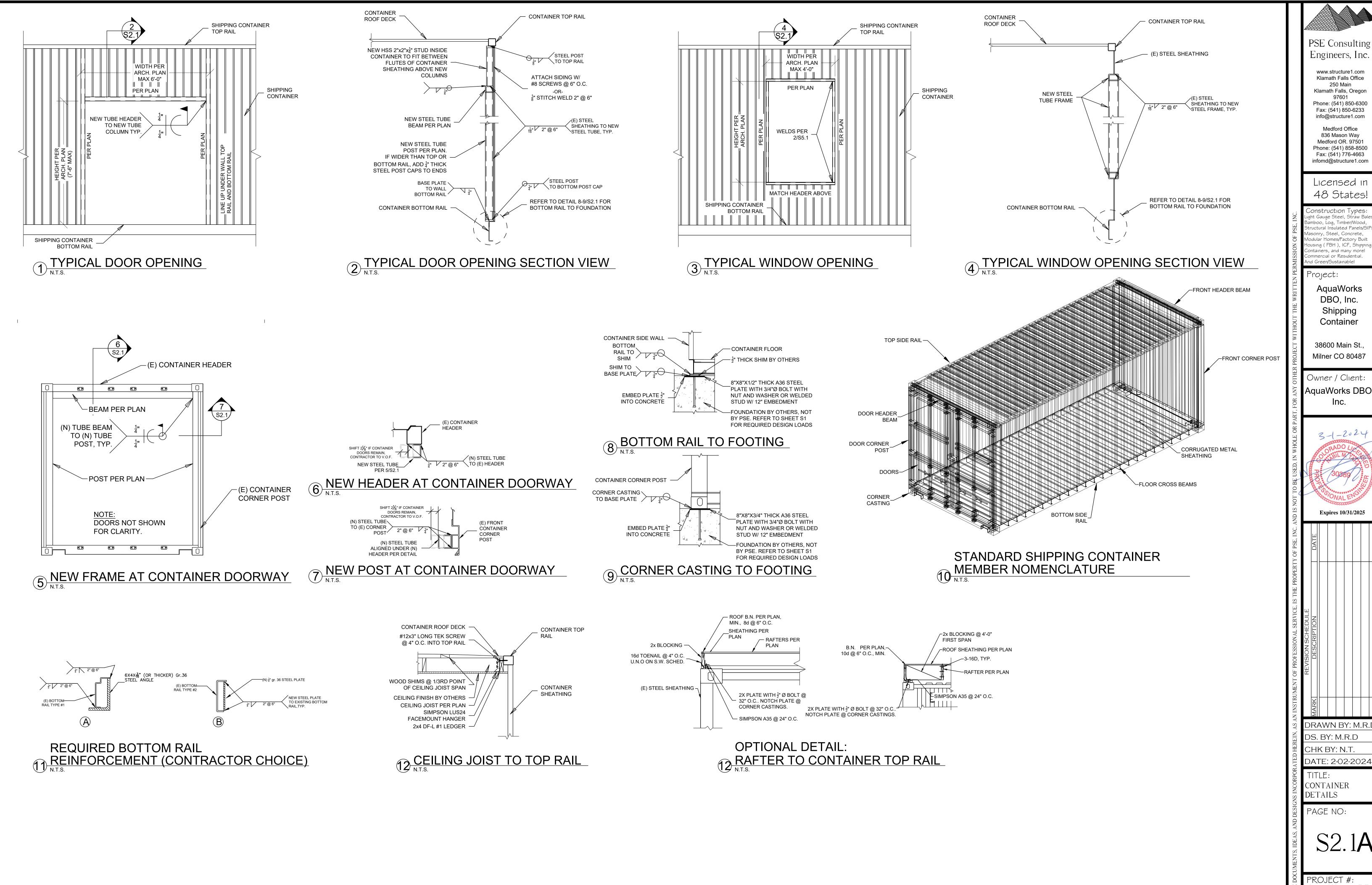
CONTAINER FLOOR PLANS

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Structural details for this project are for illustration only. They are not drawn to scale unless noted otherwise. Contractor must verify all dimensions before fabrication or construction. Do not scale drawings

Maverick



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AQUAWORKS DBO INC., 224-2002

97601

Inc.

2/22/2024 1:18 PM