



321'-5-1/2" (OUTSIDE TO OUTSIDE)

150'-9" (CONSTR. JOINT TO EAST OUTSIDE WALL)

OUTSIDE BLDG WALL

170'-8" (OUTSIDE WALL TO OUTSIDE WALL)

12" EAST WALL (TYP)

1'-0" (TYP W & E WALLS)
3'-3" FTG (TYP, U.N.O.)

T/FTG EL. 19.08'
T/FTG EL. 17.08'
T/FTG EL. 16.08'
T/FTG EL. 15.08'

103'-7 1/2"

PERSONNEL DOOR

T/FTG EL. 14.58'
T/FTG EL. 14.08'

PARTIAL FOUNDATION PLAN

SCALE: 1" = 10'-0"

CONCRETE NOTES:

- Concrete Specification (Default). Concrete Work shall conform to the requirements of ACI 301-99 "Standard Specifications for Structural Concrete except as modified below. Contractor shall have a copy of ACI 301-99 on site.
- Concrete Shall meet the following requirements:

Location	Compr. Stren	% Air	Slump (Plan/MRW/R)	Notes & Additives
Footings	3000 psi	5%-7%	6" / 10"	
Walls	3500 psi	5%-7%	3 1/2" / 5 1/2"	Mid-Range Water Reducer (MRWR)
Floor	3500 psi	2 1/2%-3 1/2%	3 1/2" / 5 1/2"	MRWR as req'd, Dregon Concrete Mix Design for Rubb VI, 2002 UCO Sealer-Hardener
- Concrete Supply. Concrete shall be supplied by MDT-approved commercial batching plant(s) or other, if pre-approved by the Engineer.
- Contractor shall engage the services of an approved Concrete Testing Agency to perform compliance tests on fresh and hardened Concrete in accordance with ASTM C31 & C39, respectively. Sampling, Air content, and Slump tests shall be performed in accordance with appropriate ASTM standards.
- Unless otherwise directed, one test cylinder shall be broken at 7 days, and two cylinders at 28 days, from each sampled truckload. The fourth cylinder shall be held in reserve at the testing laboratory for possible further testing at the discretion of the Engineer, for the duration of the project. Sample the first, last, and intermediate truckloads (15 % min), randomly selected by the Engineer.
- Engineer may direct improvements in the concrete mix design (for no additional compensation to the Contractor) on the basis of early concrete placement 7-day compressive strength tests, or other test results. Improvements shall be made in all subsequent concrete.
- Forms: Plywood-faced or Steel-faced, smooth finish quality, free of wood-grain and form-panel joint lines. Forms shall be securely interconnected so as not to become mis-aligned during concrete placement. Forms shall be adequately cross-tied to resist concrete pressures without form-panel distortions or excessive deflections between ties. Formwork must be secured and braced so as to remain plumb and maintain horizontal alignments during concrete placement. Chamfer forms (3/4" x 3/4") at exposed corners and exposed edges, except as otherwise detailed.
- Imbedded Form Ties shall include a 3/8" minimum break-back that will be filled with portland-cement grout (or mortar, as appropriate), immediately after form removal.
- Hardened Concrete Tolerances:
 - Footings: 1"± on width, height, and top elevation.
 - Walls: 1/8"± on width (thickness) and top elevation, 1/16"± per foot on plumbness, 3/16"± per 10' on horizontal alignment at top of wall.
- Slab-On-Grade: 1/8"± per 10' on top finished surface
- Reinforcing Bars: Grade 60 deformed bars (ASTM A615).
- Smooth Dowels: ASTM A307, A36, or better.
- Bars Splices shall be avoided to the extent possible. Minimum lap-splice lengths shall be 36 bar diameters for plain bars, unless otherwise noted.
- Concrete Shrinkage Prep (Slabs). Install a double application of approved bond-breaker on all concrete (wet-hardened) contact surfaces immediately prior to placement, install 3/8 inch compressible joint along contact surfaces in way of concrete shrinkage movements (consult with Engineer). Do not connect slab to adjoacent structures except as detailed or directed.
- Concrete placed within formed boundaries or designated construction joints shall be placed in a continuous operation. All concrete shall meet maximum slump (and other) requirements and be installed without excessive dropping or other segregation-producing methods. All concrete will be consolidated using appropriately-sized, mechanical, high-frequency, internal vibrators.
- Place, finish, and cure slab-on-grade concrete using only generally-accepted, good-practice methods and operations, particularly with respect to the timing of critical finishing techniques. Except as otherwise specified or detailed on the Plans, follow the recommendations of ACI 302.1R "Guide for Concrete Floor and Slab Construction". The slab-on-grade is classified as a Class 5 (ACI 302.1R), single-course, industrial floor, with a float and hard-steel trowel finish.
- Footing forms may be removed after 24 hours provided the footing is immediately backfilled to the top of the footing. Wall forms may be removed after 48 hours of placement provided an approved chemical curing agent is immediately applied to exposed surfaces, or the surfaces are kept continuously wet by approved water-curing methods; otherwise, wall forms shall remain in place at least 7 days after concrete placement.
- Saw-cut Joints (Slabs). Saw-cut joints where indicated, and as detailed, within 6 hours of concrete placement. Fill Saw-cut joints with an approved epoxy after 28 days (min.) cure time.
- The Slab-on-Grade surface shall be water-cured by keeping the concrete continuously wet with fresh water for at least 7 days after concrete placement.
- No vehicular loads will be allowed on the Slab-on-Grade within 7 days of concrete placement, and only light (passenger) vehicle will be allowed on the slab within 7 days thereafter (14 days of concrete placement).
- Additives. Dose, Mix, Apply, and otherwise install Concrete Admixtures, Sealers, Hardeners, Curing Agents, etc. in strict compliance with the respective manufacturer's recommendations.

REV	DATE	DESCRIPTION
4	4/27/05	FOR CONSTRUCTION
3	2/21/05	REVISIONS - CLIENT REQUEST
2	2/16/05	CONSTRUCTION BID SET
1	1/14/05	PERMIT PLAN

WORK

MERRILL MARINE TERMINAL
RUBB BUILDING VII

DRAWING: PARTIAL FOUNDATION PLAN (EAST)

SCALE: AS SHOWN	SHEET: S3 OF 8
DATE: 6/24/04	
DRAWN: BDM	JOB: 407
DESIGN: RC	

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