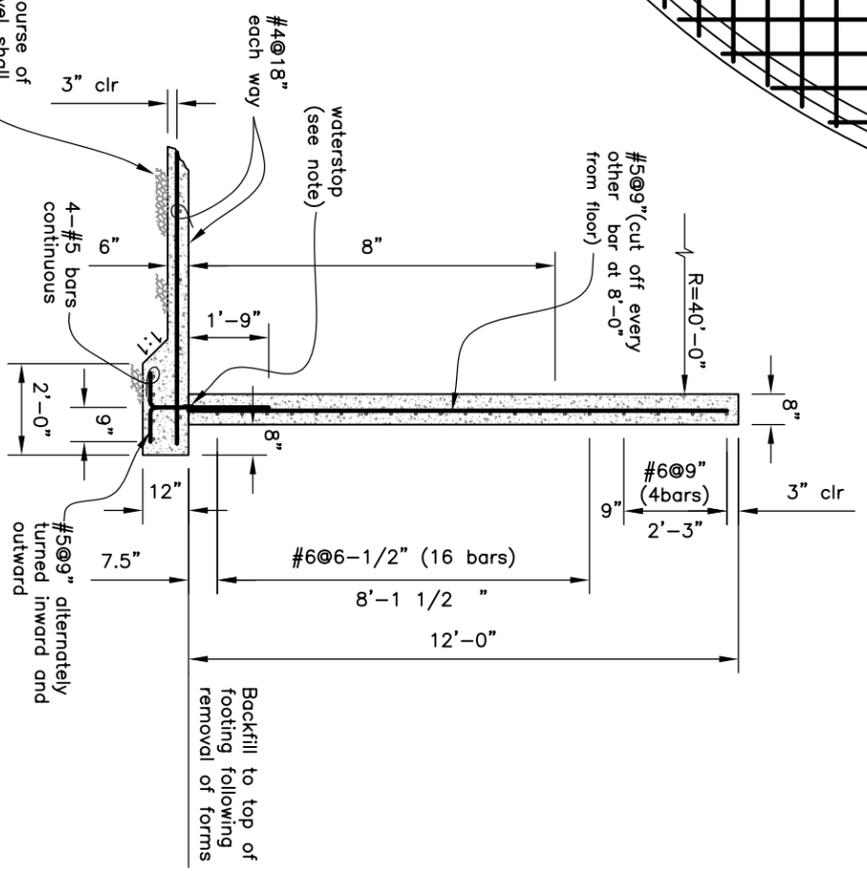


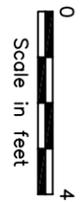
QUARTER PLAN OF FLOOR STEEL



A 3" leveling course of compacted gravel shall be provided under the slab and footing.



TYPICAL WALL SECTION



LAP SPlice LENGTHS

bar size	lap length
#4	17"
#5	22"
#6	34"

All laps in the horizontal wall steel shall be staggered at least one lap length.

ESTIMATED QUANTITIES

Item	Volume (cy)
Concrete (to neat lines)	109.9
Floor & Footing Walls	75.1
Total	185.0

Steel Reinforcement (including splices)	Length (ft)	Weight (lbs)
Bar No. 4	7,702	5,145
5	5,556	5,795
6	5,926	8,900

CONCRETE SPECIFICATIONS

- The concrete shall have a minimum compressive strength at 28 days of 3000 psi. Minimum cement content shall be 6 bags/cy and maximum net water content shall be 5.2 gal/bag. The slump shall be 2 to 4 inches and the air content shall be 5 to 8% of the volume of concrete.
- Forms shall be mortar tight, substantial and unyielding and shall be constructed so that the finished concrete will conform to the specified dimensions. Metal ties within the forms shall be equipped with a device that permits their removal to a depth of at least 1 inch without injury to the concrete.
- The concrete shall be deposited as closely as possible to its final position in the forms and around all reinforcement. Immediately after placement the concrete shall be consolidated by vibrating.
- Waterstops shall be held firmly in correct position as the concrete is placed.
- Unless otherwise shown, the concrete cover over reinforcement shall be 3" for concrete cast against earth or gravel and 2" for concrete cast against forms.
- Adjustments to the reinforcing steel around embedded fittings shall be approved in advance by the Engineer.
- Forms shall not be removed before 24 hours after placement of concrete.
- Holes produced by the removal of form ties, cone bolts, etc., shall be cleaned, wetted, and filled with dry pack mortar.
- Construction joints shall be left rough and shall be thoroughly cleaned and wetted prior to placing the subsequent lift of concrete. Construction joints shall be moist cured without curing compound, or curing compound shall be removed by sand blasting or high pressure washing.
- Concrete shall be prevented from drying for a curing period of at least 7 days after it is placed. The slab and footings shall be kept continuously moist for the entire period or until curing compound is applied. Moisture shall be maintained by sprinkling, flooding, covering with plastic sheeting, continuously moistened canvas, cloth mats, straw, or other approved material. The walls shall be thoroughly wetted immediately after forms are removed and shall be kept wet until patching and repairs are made. After patching and repairs are made, curing compound may be applied in lieu of wetting. Curing compound shall meet the requirements of ASTM C 309, Type 2.
- Concrete shall not be dropped more than 5 feet vertically unless suitable equipment is used to prevent segregation.
- Concrete shall be protected from freezing for the first 72 hours after placement.

DESIGN AND CONSTRUCTION NOTES

- Waterstops shall be a non-metallic waterstop of vinyl chloride polymer or copolymer 5" wide, 3/16-inch thick, double-bulbed shaped, or similar. If wall is poured in more than one lift, a waterstop shall be used at each construction joint.
- Foundation is to be field investigated to determine adequacy to support structure. Footing bearing pressure used in design is 1010 psf.
- Reinforcing steel shall meet the requirements of ASTM A 615, Grade 60. The vertical reinforcing steel in the wall shall be centered in the section.
- The structure is designed for an internal hydrostatic load of 65 psf/ft of depth and an external wind load (net) of 10 psf.
- Warning signs, ladders, ropes, bars, rails, and other devices shall be provided as appropriate to insure the safety of people operating pumping equipment, etc.
- Frost heave potential should be considered on a site-by-site basis. Additional free-draining rock or other protection methods should be provided as needed.
- If backfill is to be placed against this structure, it shall be done in accordance with Oregon Backfill Detail Drawing (filename: or_awn_above_circular_backfill.dwg).
- Design folder is available at:
 USDA - NRCS
 1201 NE Lloyd Blvd., Suite 900
 Portland, Oregon 97232
 Attn: State Conservation Engineer

STANDARDIZED DESIGNS

Must Be Adopted To The Specific Site

Practice Code _____ Job Class _____

Designed	Ben Doerge	Date	11/98
Drawn	LLK / KLY		1/99
Checked	Ben Doerge		9/2000
Approved	Dave Dishman		9/2000
Title	State Conservation Engineer		

WASTE STORAGE TANK
 ABOVE GROUND CIRCULAR CONCRETE
 12' HIGH X 80' DIA. - 60,319 Cu Ft.



File Name
or_awn_above_12h80dia.dwg
Drawing No.