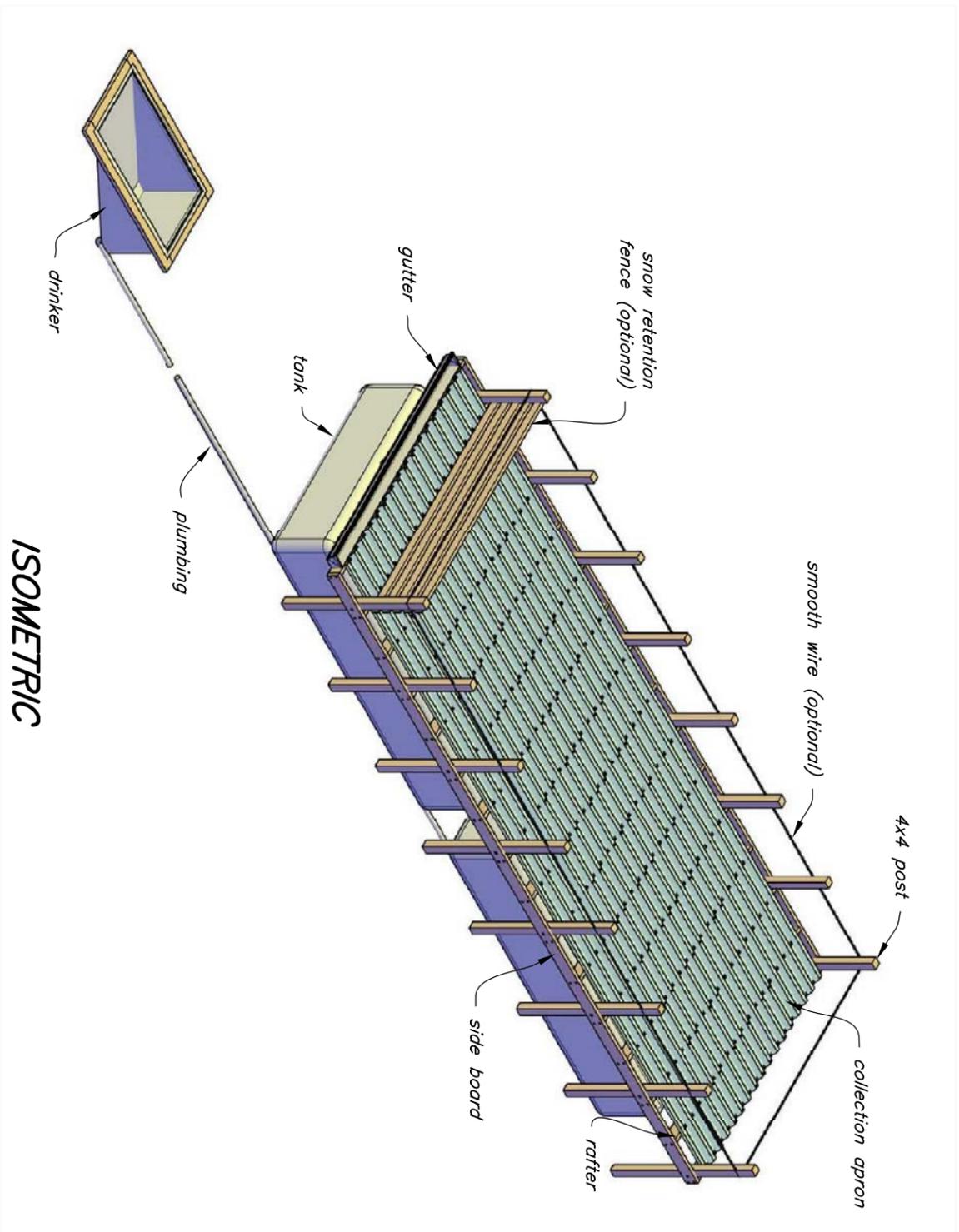


# SELF-LEVELING SYSTEM WITH WOOD POST SUPPORTS



ISOMETRIC

## MINIMUM TANK/DRINKER SPECIFICATIONS

TANK SHALL BE FABRICATED FROM MATERIAL MEETING THE FOLLOWING SPECIFICATIONS:

1. High impact resistant polyethylene or fiberglass material
2. UV Stable
3. Rust Resistant
4. Non-toxic
5. Crack resistant during freezing temperature

## SITE PREPARATION AND TANK INSTALLATION INSTRUCTIONS:

1. For self-leveling systems, all tanks and drinkers must be level with each other. Use self-leveling systems if possible, as it reduces maintenance problems and costs.
2. Project site shall be as flat as possible for ease of construction. Avoid areas with depressions. If tanks are empty or partially empty during heavy rains and flooding occurs, tanks may float.
3. Excavate site to the appropriate depth and width of tank and provide necessary trenching for piping and piping appurtenances. Clear site of rocks and other sharp objects.
4. Install all necessary plumbing under and around tank. Insure all fittings are properly installed to prevent leaking. Provide silicone caulking around joints as necessary for additional protection.
5. Consideration shall be given to providing overflow protection at sites where volume of precipitation may exceed storage volume of tank(s).
6. Overflow protection shall be designed and installed as needed, to protect against the potential for erosion.
7. Place the tank/cistern into the excavated area. Make sure the tank sits level in the hole and is evenly supported by the ground. Use a carpenter's level to check for level. Install the tank so the lip is above the surface of the ground by 2 inches to allow for a good fit of the tank's top.
8. Place the lid on the tank before backfilling and compacting soil around the tank. Place compacted soil around lid edge sloping away from the tank lid to provide a seal around the cistern on all sides.
9. Install wooden posts a minimum of 2' into ground. Temporarily support collection apron to desired angle and position. Attach collection apron to posts with 1/2", 6" long, ASTM A307 galvanized steel bolts. Make sure the corrugations or roofing material run perpendicular to the gutter location.
10. Pre-drill the gutter to accommodate the galvanized spacers and nails. Cut a 6-inch notch in the center of the gutter and bend the back of the notched section to form a tongue to provide drainage into the tank, or drill hole in the center of the gutter and install downspout.
11. Rake out any excess soil and remove all trash from site.
12. OPTIONAL: To increase water harvesting efficiency, attach 2x boards to top of 4x4 post with (2) #9 wood screws to retain snow pack. To be used only on aprons with 4x4 timber anchor support.

This drawing to be used in conjunction with Oregon NRCS Practice Standard 636, Wildlife Guzzler Job Sheet.

## DESIGN PARAMETERS

BIG GAME WILDLIFE GUZZLER – LEVEL SYSTEM

JOB CLASS: \_\_\_\_\_

PRACTICE STANDARD: 636

\_\_\_\_\_ BASIN

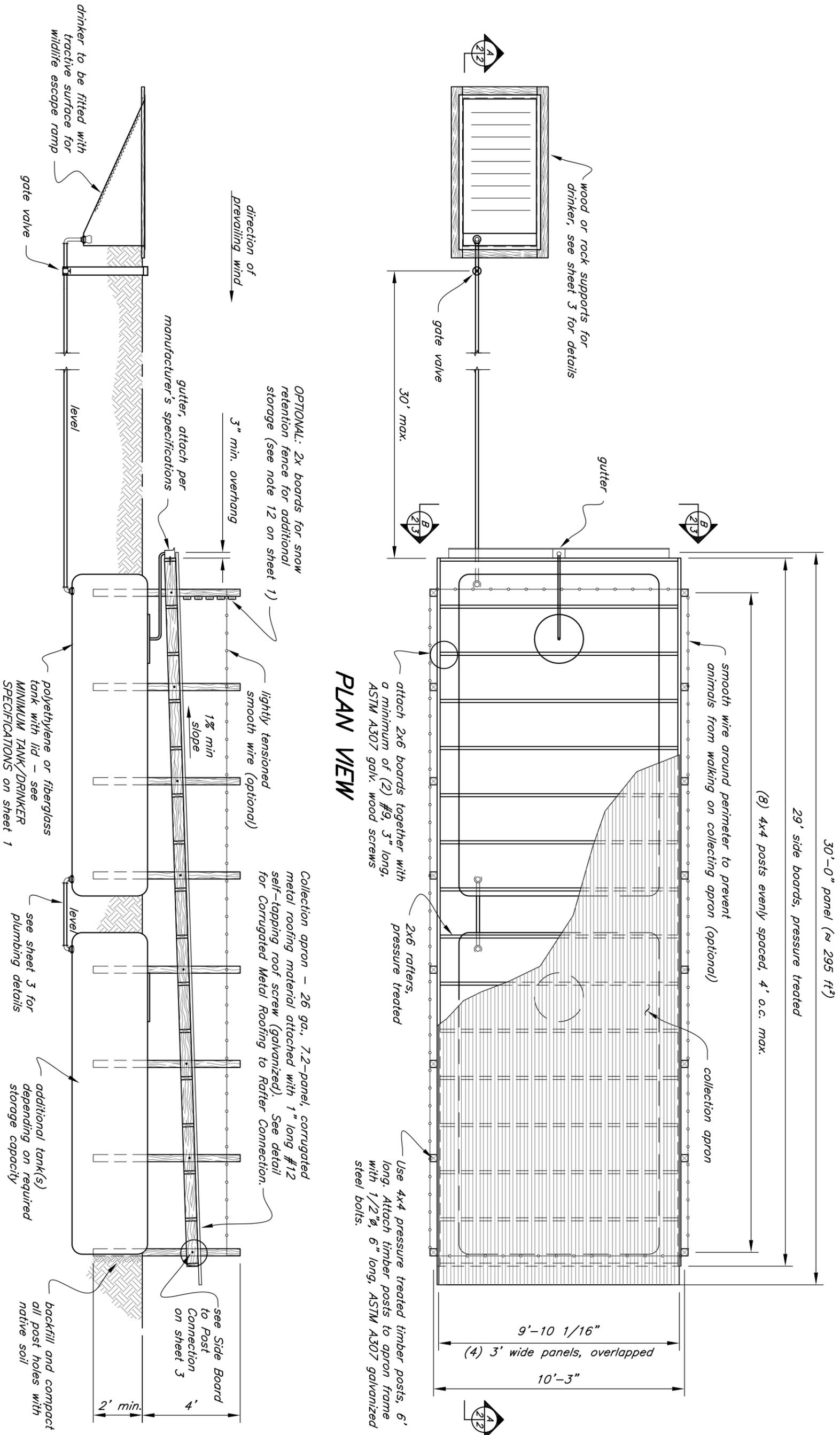
\_\_\_\_\_ COUNTY, OREGON



Natural Resources Conservation Service  
United States Department of Agriculture

	Date
Designed <u>T. Morales, PE</u>	<u>10/2011</u>
Drawn <u>K Yasumiishi</u>	<u>10/2011</u>
Checked _____	_____
Approved <u>David R. Shelton</u>	<u>10/2011</u>
Title <u>State Conservation Engineer</u>	

File Name  
or\_big\_guzzler\_level.dwg  
Drawing No.  
**4x4 POST**



**ELEVATION SECTION** A  
2/2

\* All dimensions for tanks are approximate and varying between manufacturer and model

DRAWING NOT TO SCALE

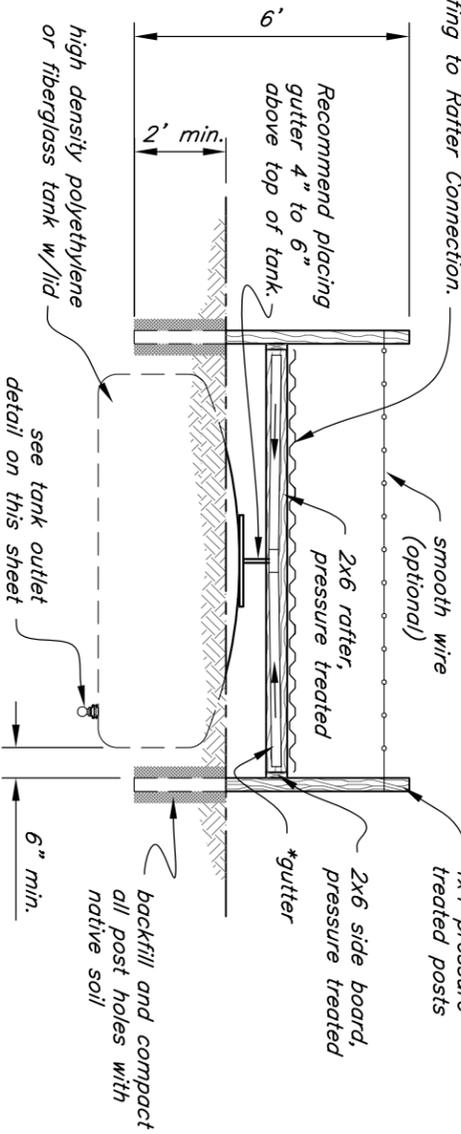


**LEVEL SYSTEM LAYOUT**  
**BIG GAME WILDLIFE GUZZLER – LEVEL SYSTEM**

JOB CLASS: \_\_\_\_\_ PRACTICE STANDARD: 636  
 \_\_\_\_\_ BASIN \_\_\_\_\_ COUNTY, OREGON

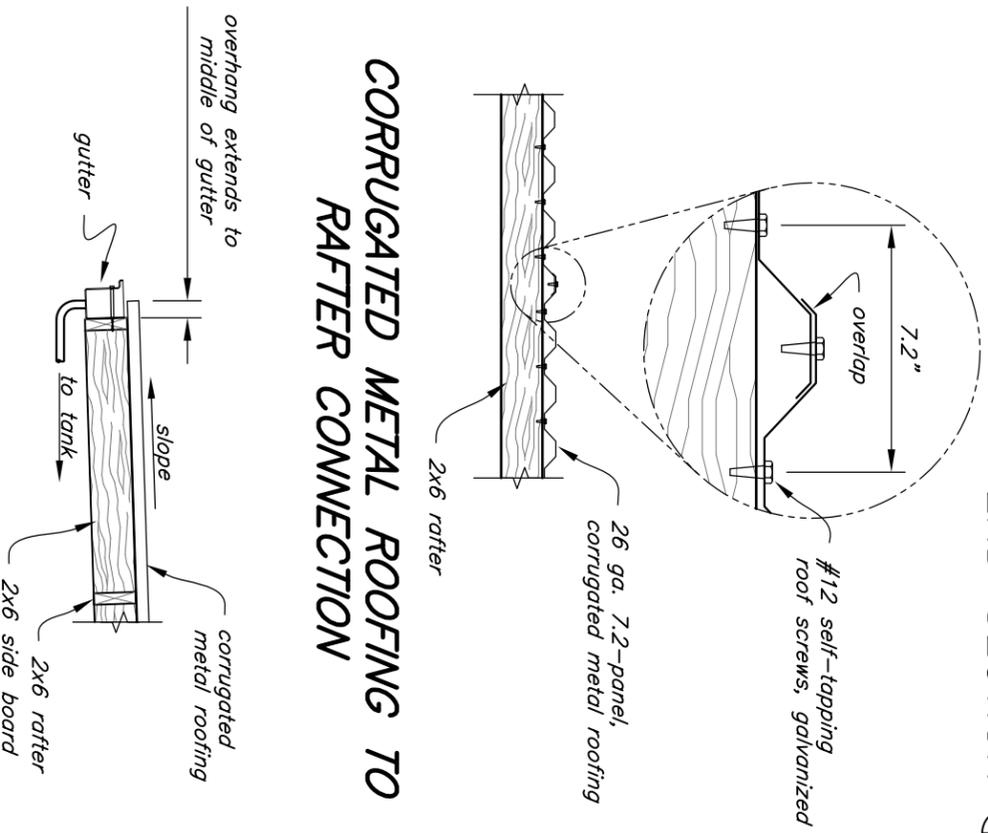
File Name	or_big_guzzler_level.dwg	Date	10/2011
Drawing No.	4x4 POST	Designed	T. Morales, PE
Sheet	2 of 3	Drawn	K Yasumiishi
		Checked	
		Approved	
		Title	

Collection apron - 26 ga., 7.2-panel, corrugated metal roofing material attached with 1" long #12 self-tapping roof screw (galvanized). See detail for Corrugated Metal Roofing to Rafter Connection.



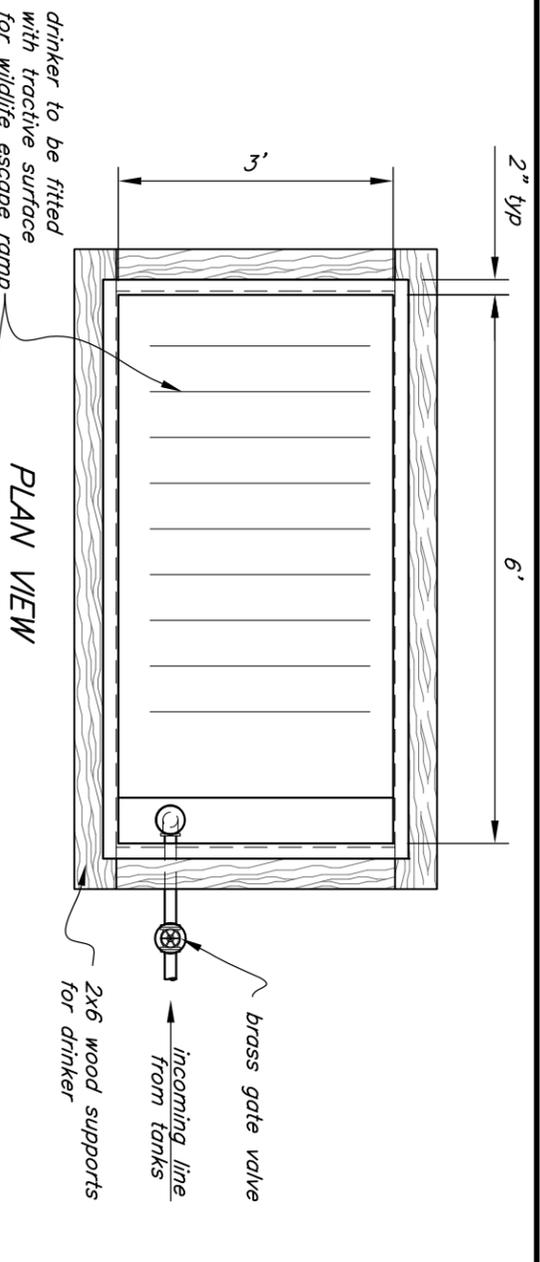
\* Gutter to drain to center of gutter and outlet to tank. Cut 6" opening on the gutter or drill 3" hole and install short 3" downspout. Center notch should be 1/2" lower than outside ends for adequate drainage. Cap outside ends.

### CORRUGATED METAL ROOFING TO RAFTER CONNECTION



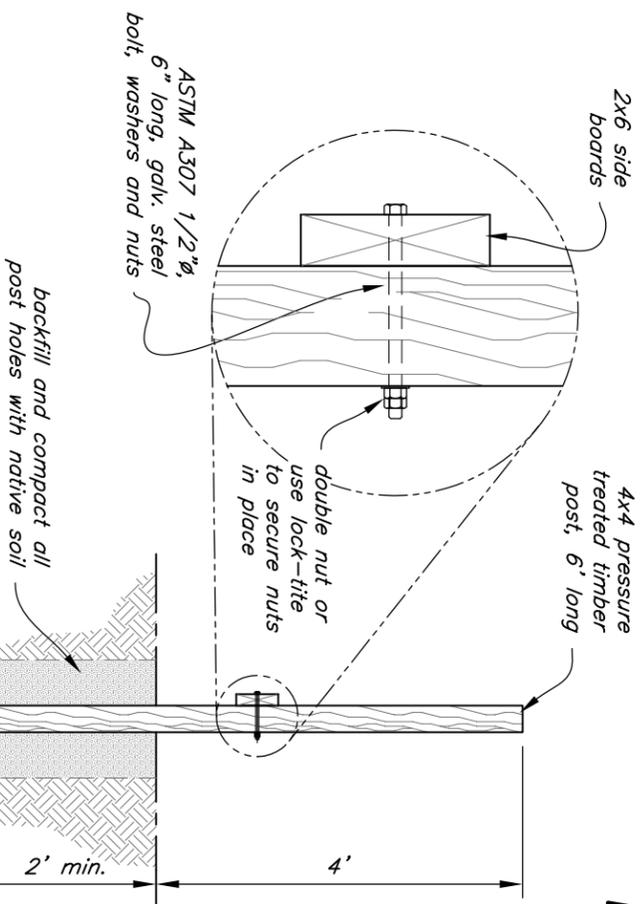
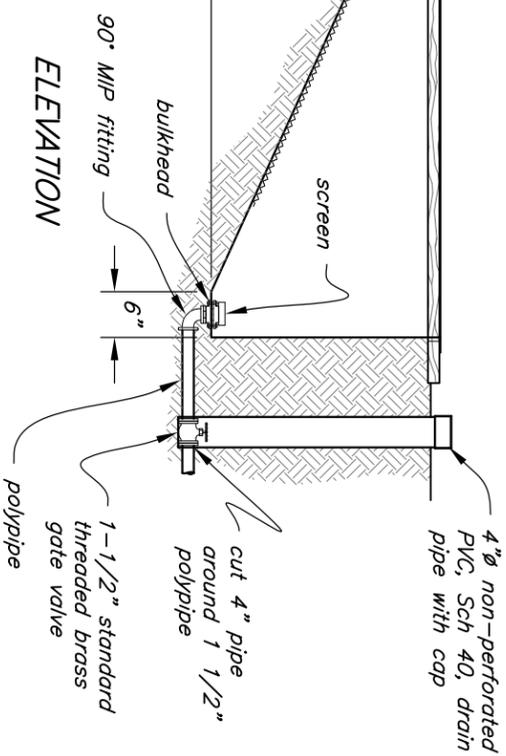
### GUTTER TO RAFTER CONNECTION

Attach gutter per manufacturer's specifications.



### WALK-DOWN DRINKER

#### ELEVATION



### SIDE BOARD TO POST CONNECTION

### TANK OUTLET PLUMBING DETAIL

