Figure 1 – Overall Layout of the tank

FLATBED: 8’ X 17’

TANKS:
Outside dimensions:
Width = 70”
Length = 150”
Height = 42”
Front of tank to cab: 42”
Back of tank to end of flatbed:12”

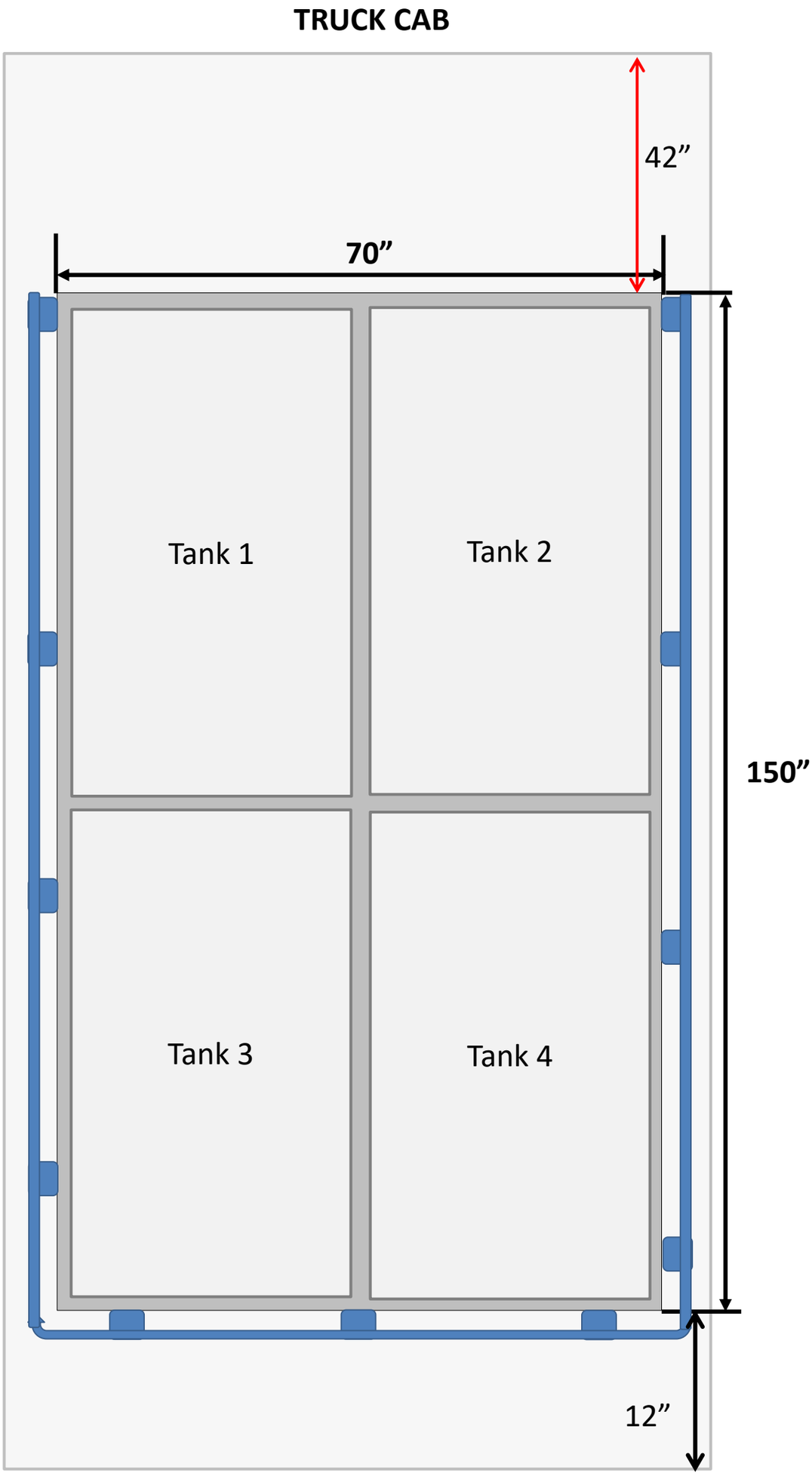


Figure 2. Individual tank dimensions

FLATBED: (Customer Owned)
8’ X 17’ (96” X 204”)
TANK: Exterior dimensions:
Width = 70”
Length = 150”
Height = 42”

Interior tank dimensions:
32” wide x 73” long X 41”high, with 35” to overlflow hole.

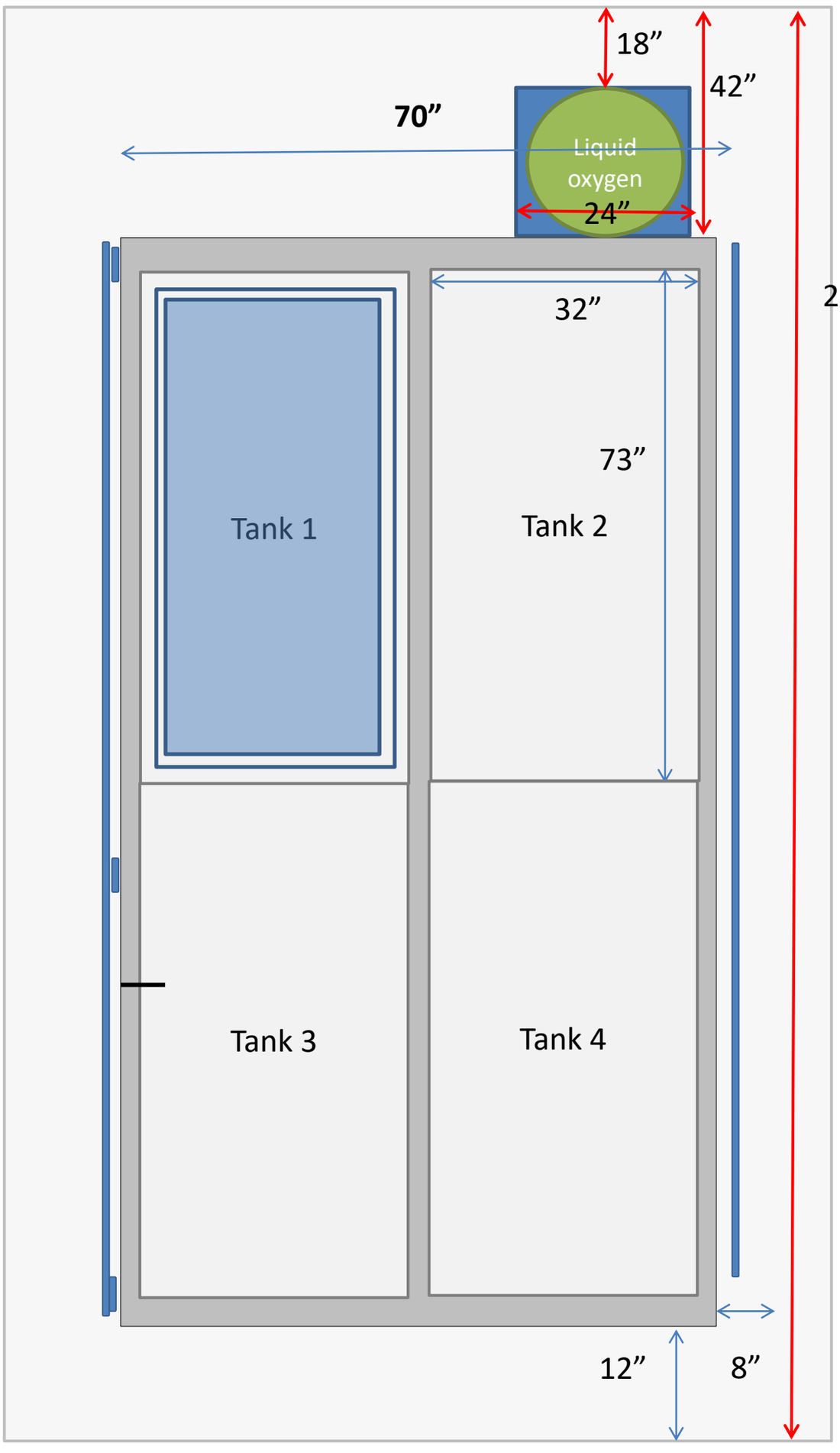


Figure 3. Tank lids and tank opening dimensions

Lid – Width: 24”x Length: 60”

4” from front of tank to front lid
6” between tank lid and center wall
8” back tank lid to back of tanks, space needed to accommodate slide gate handle to drain tank to rear

Tanks ID:
Width= 32.0”
Length = 72.0”
Height = 38”
2” walls, lids, and floor filled with foam

TANK OPENING
Width: 24”
Length: 60”
– allows for lip on top of tank for lid to sit on (see picture Figure 7)

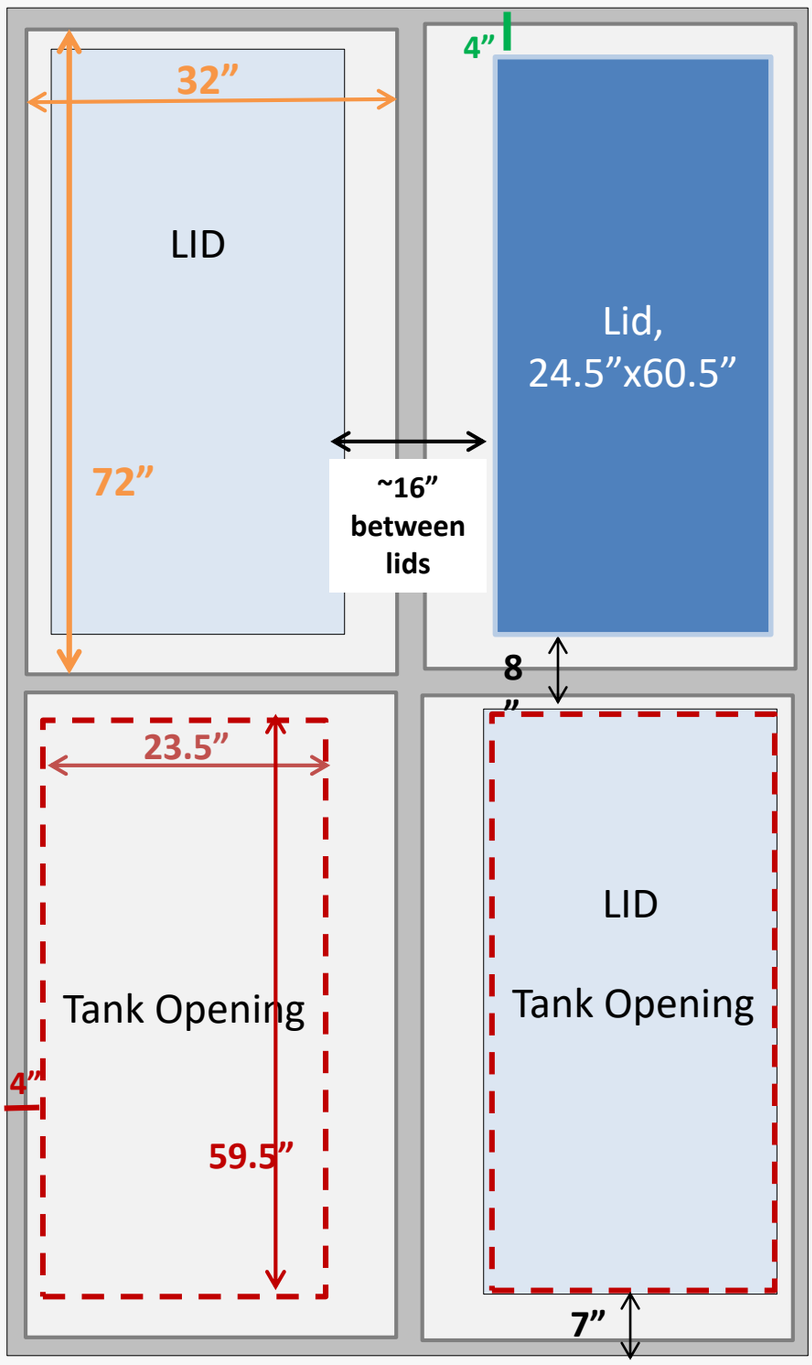


FIGURE 4 – Design of truck tank lids

Truck lids – lip placed on top of tank top, lid should have a seal to hold water in tank and fit snugly over the tank opening. The slide gate handle should be recessed as shown in the photo but should be placed close to the side of the tank. The handle should be easily grasped from above. It is important that the slide gate seals well enough that water does not leak quickly from the tank.

FIGURE 5– Tank Lid closures, hinges, and gas springs

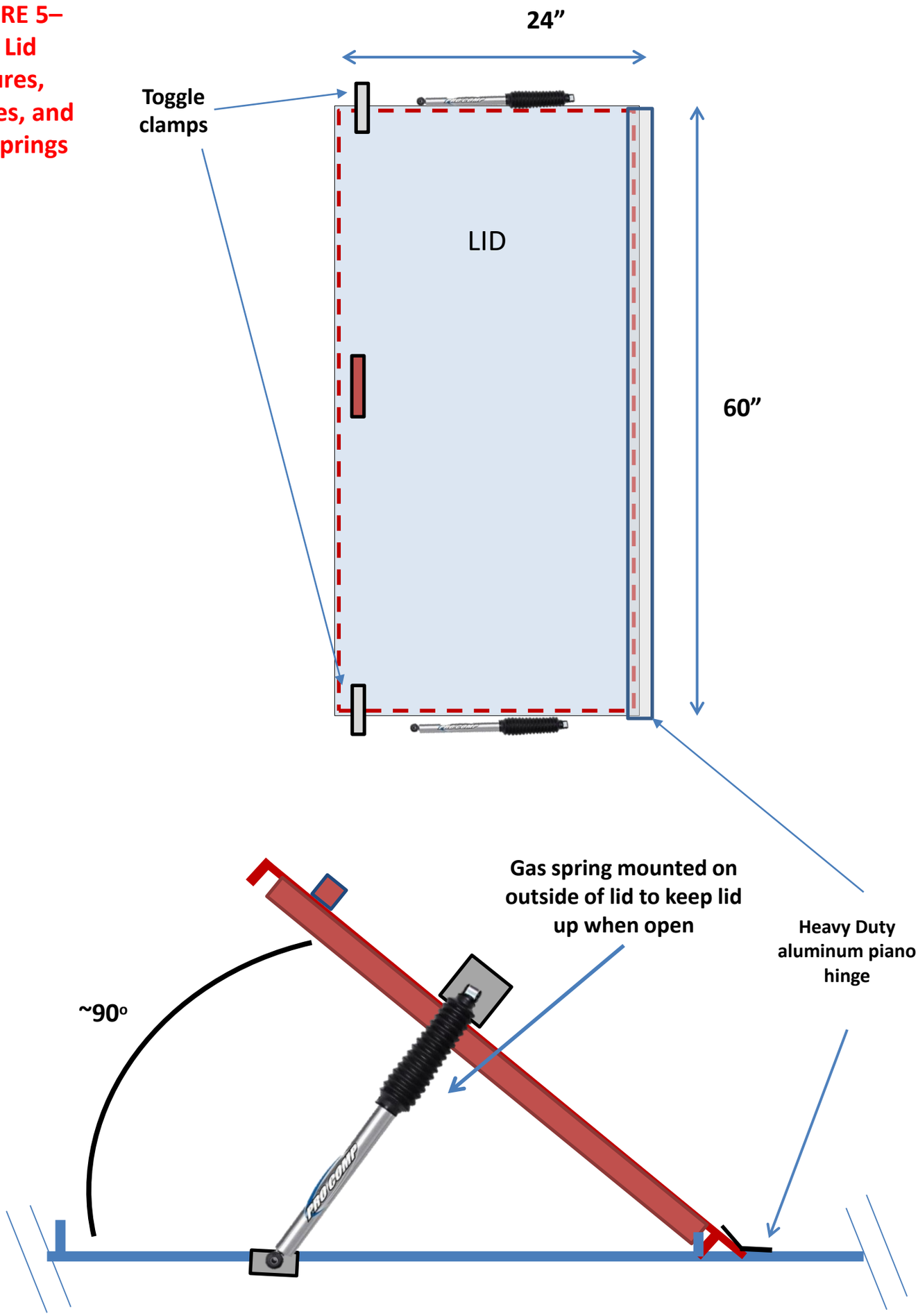
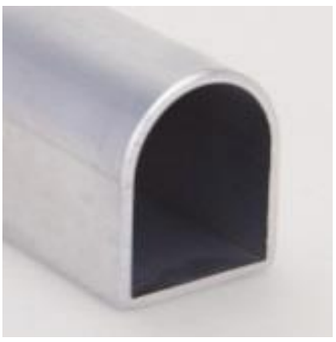


Figure 6 – safety railing

Railing – continuous around sides and back of tank
Side walls to inside of railing: 2 ½”
Side walls to outside of railing: 4”
Constructed of 1 ½” D shaped aluminum tube



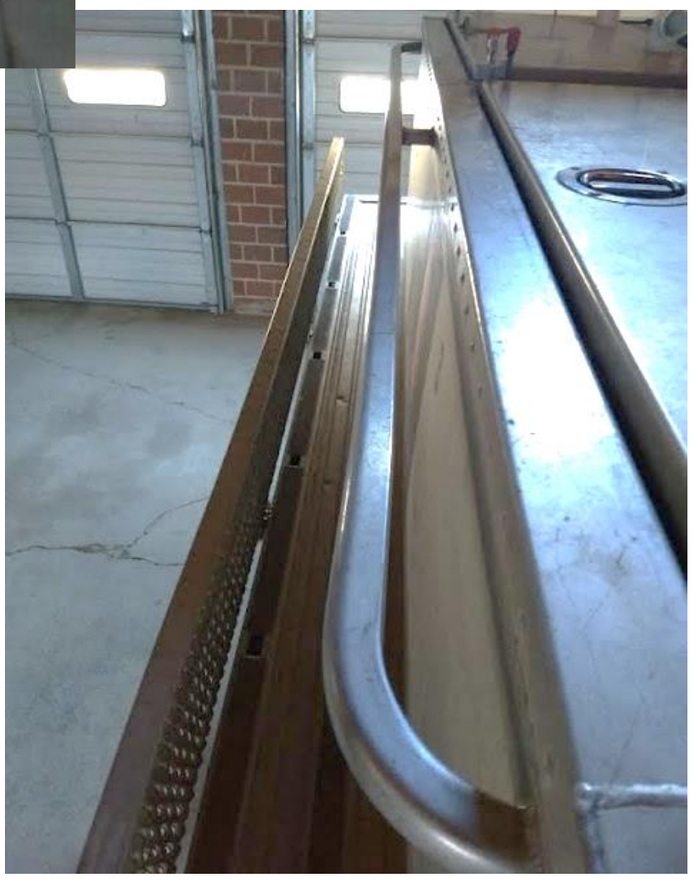
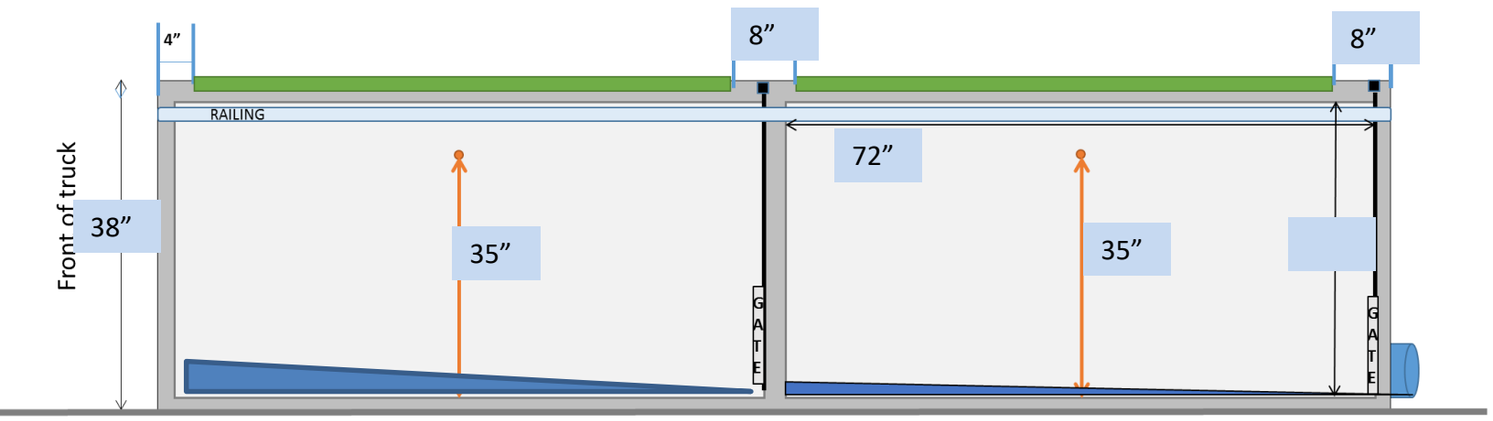


Figure 7. Slope of tanks to discharge



Side view

- Railing: 4” from top of tank to top of railing
- Sloping floor for tanks– ~1.25” – 0.25” slope to back of tank
  - bottom of gate must be flush
  - Reinforce walls with 1 ½” x 1 ½” aluminum tube to prevent walls from flexing – can be placed on outside of
- Back camlocks – inside of bottom of camlocks must be flush with bottom of tanks

- 1” drain hole 35” from bottom of tank – prior to sloping. Install brass boat plugs attached with a short piece of ligh

Drain plugs

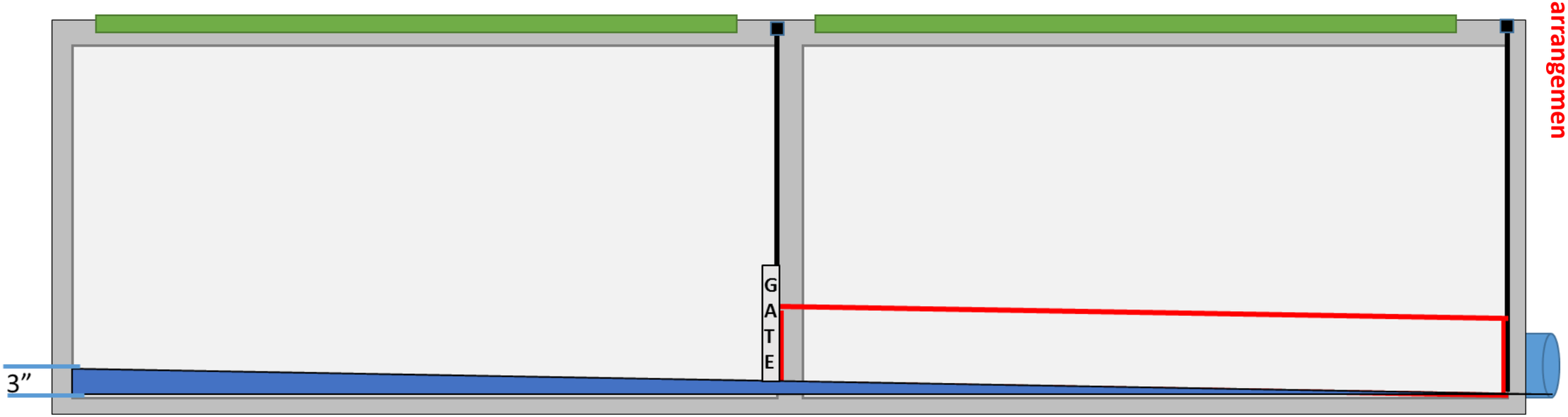
Figure 8. Rear of truck

Back view of discharge pipes. Pipe on the left discharges Tank 1, the next pipe Discharges Tank 3. The next pipe discharges Tank 4, the next pipe discharges Tank 2.

Each cap should have a short piece of vinyl covered stainless steel cable attaching it to the tank so it doesn't fall in the water during discharge.

A 36" discharge pipe fitted with female camlock should be mounted in the center of the tank. It should be fitted to a male camlock mounted on the bed.

Figure 9. drain pipe arrangemen



- Floor slope towards back of truck
- Front tanks –slope floor and tube running through back tank - ~3” at front of tank -0.25” to back of truck
- bottom of gate must be flush with floor/tube
- Back camlocks – inside of bottom of camlocks must be flush with bottom of tanks

Figure 10. Layout of discharge pipes.

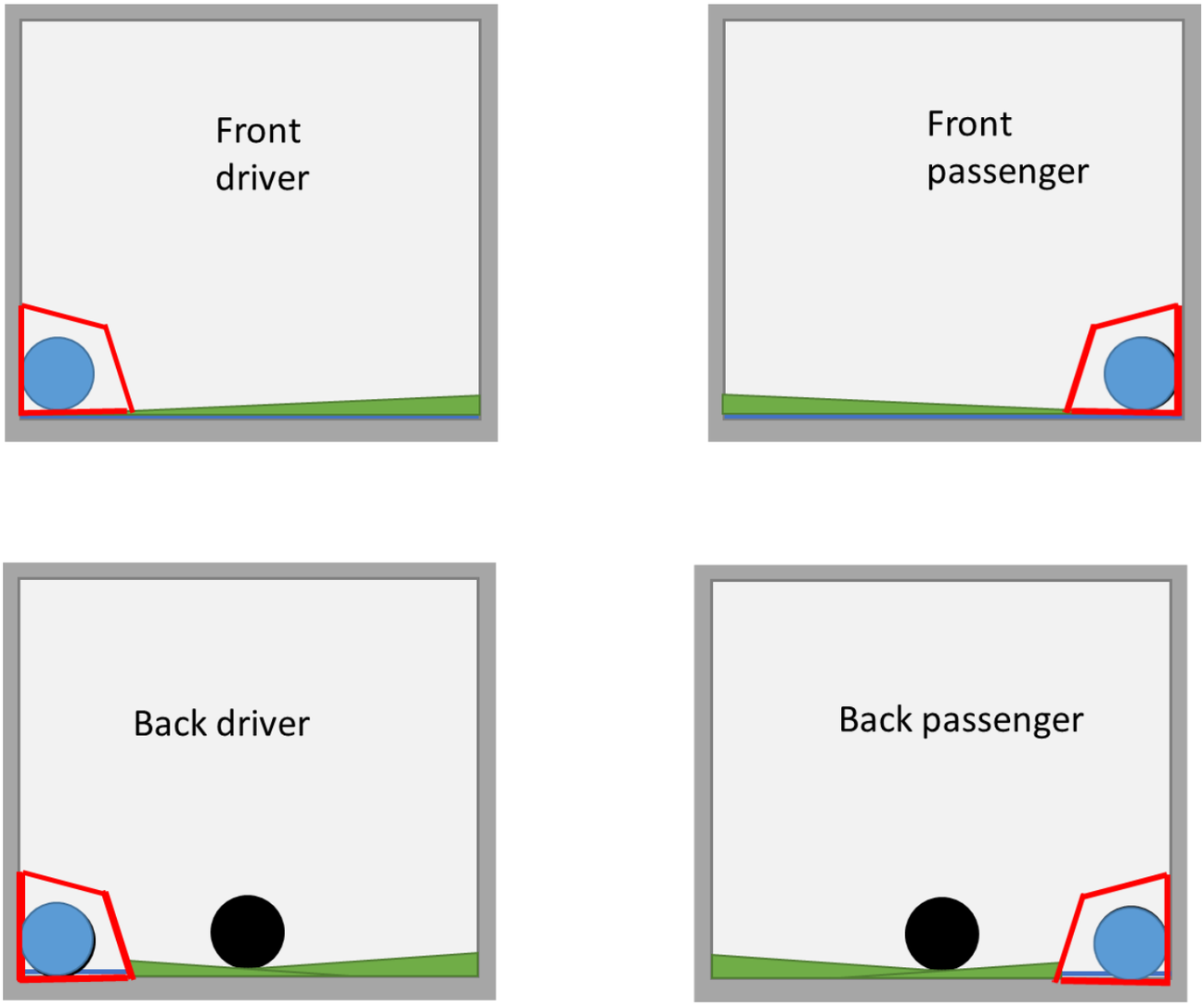


Figure 11. Overhead Of discharge pipes

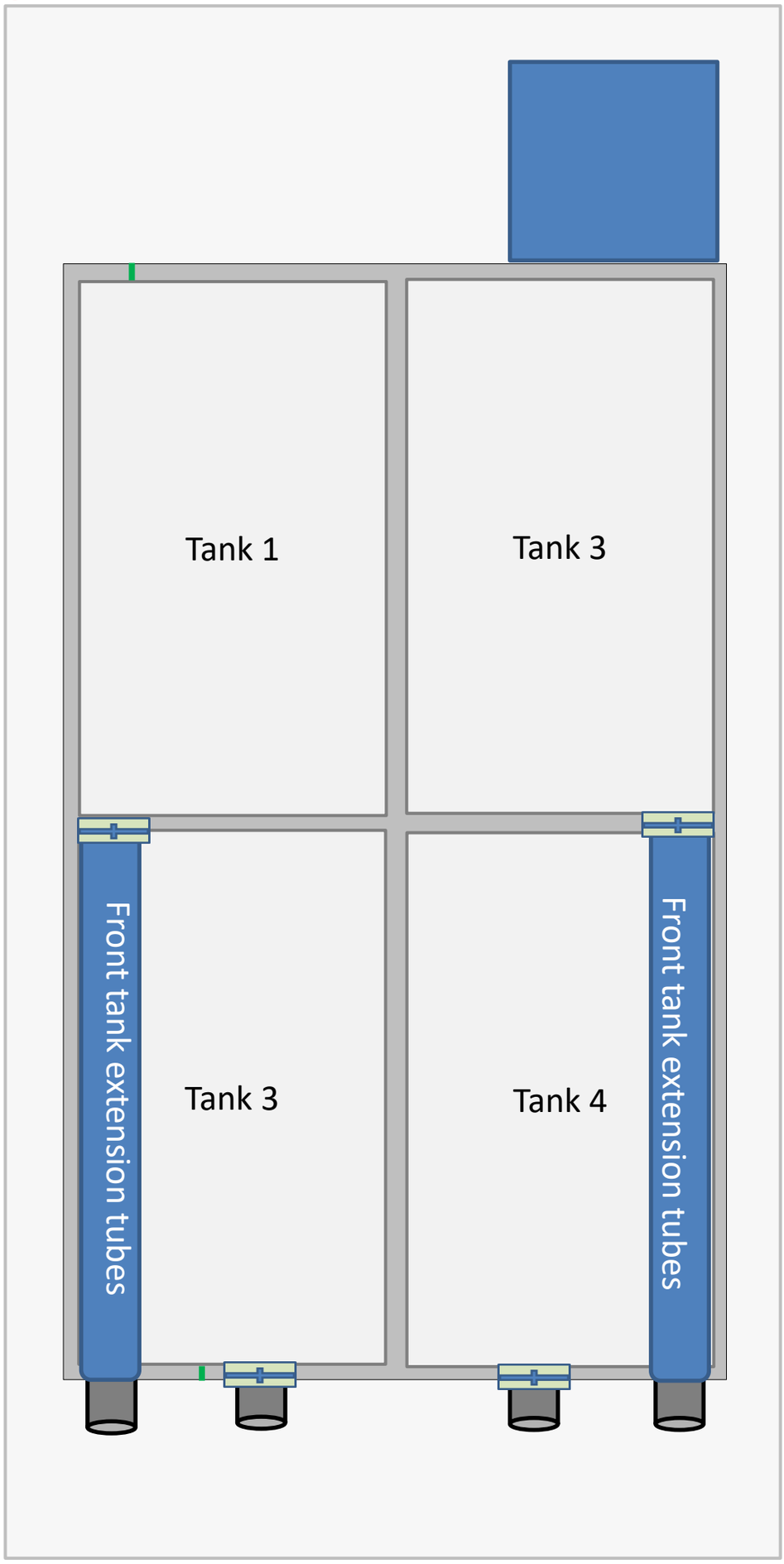


Figure 12. Size of discharge tubes

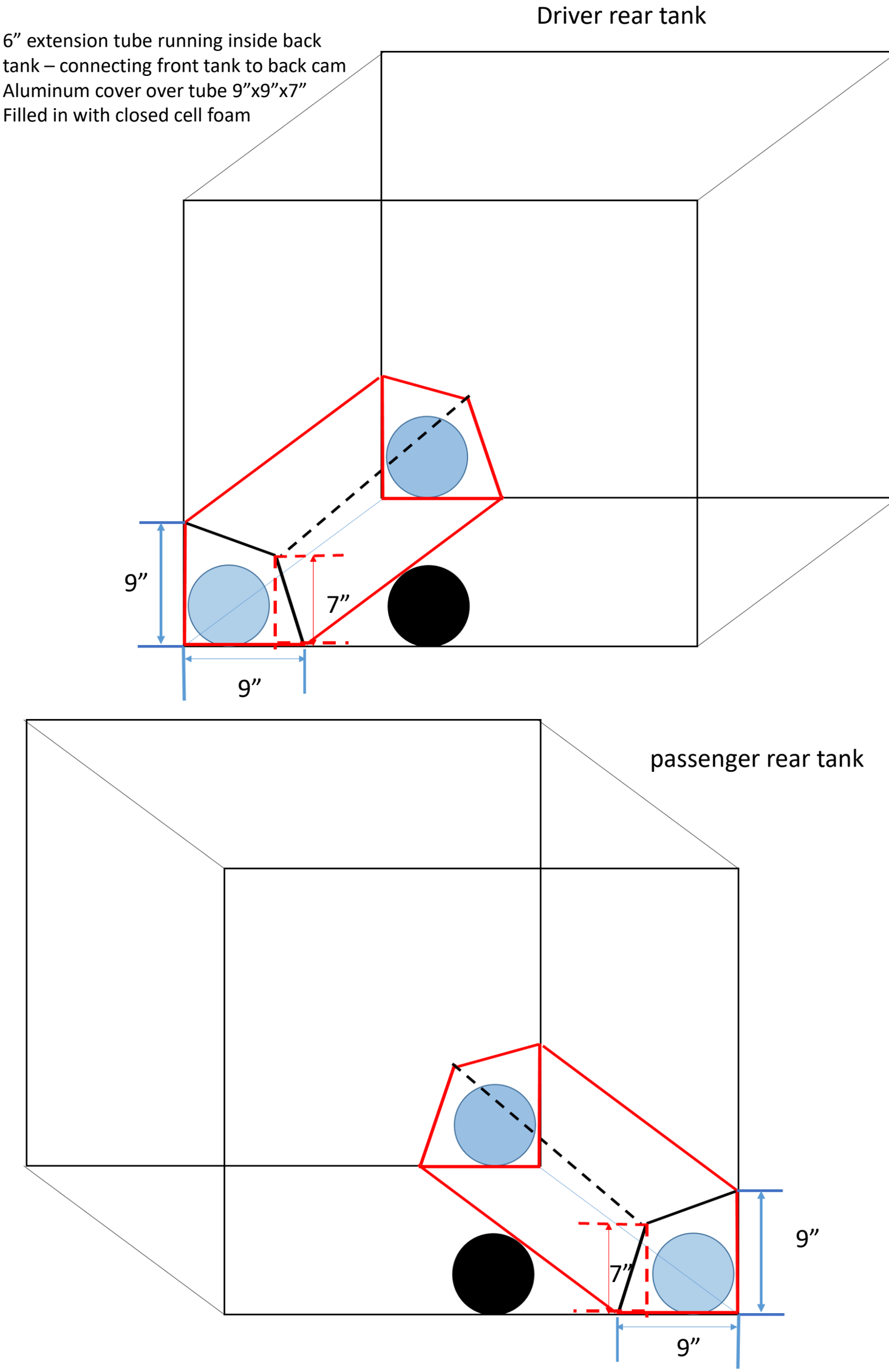
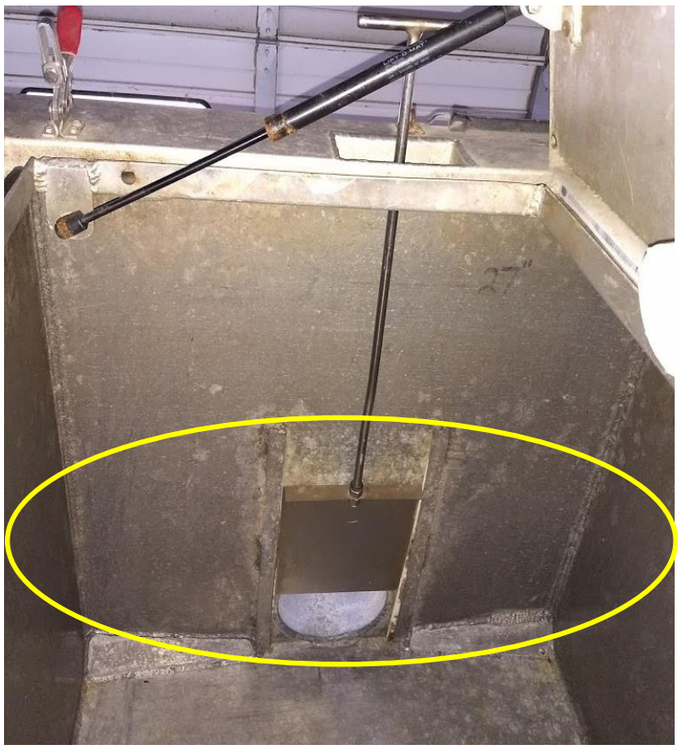


FIGURE 13. Closeup of slide gates and camlocks

Example of aluminum gate
All tanks – Stainless Stel or Aluminum handle to run all gates
All tanks - Slope floor towards gate
disregard position of shocks - we want shocks on outside of lids– these rust and fail*
disregard lip of tank lids in picture – new tanks – want lip on top of tank, not sunk down like these



6” camlock on outside of truck

Figure 14. Ram air vent details

3” aluminum Ram air inlets and outlets
Extend 2” above tanks
- Install 1/8” aluminum screen welded to bottom of inlets and outlets inside of tanks

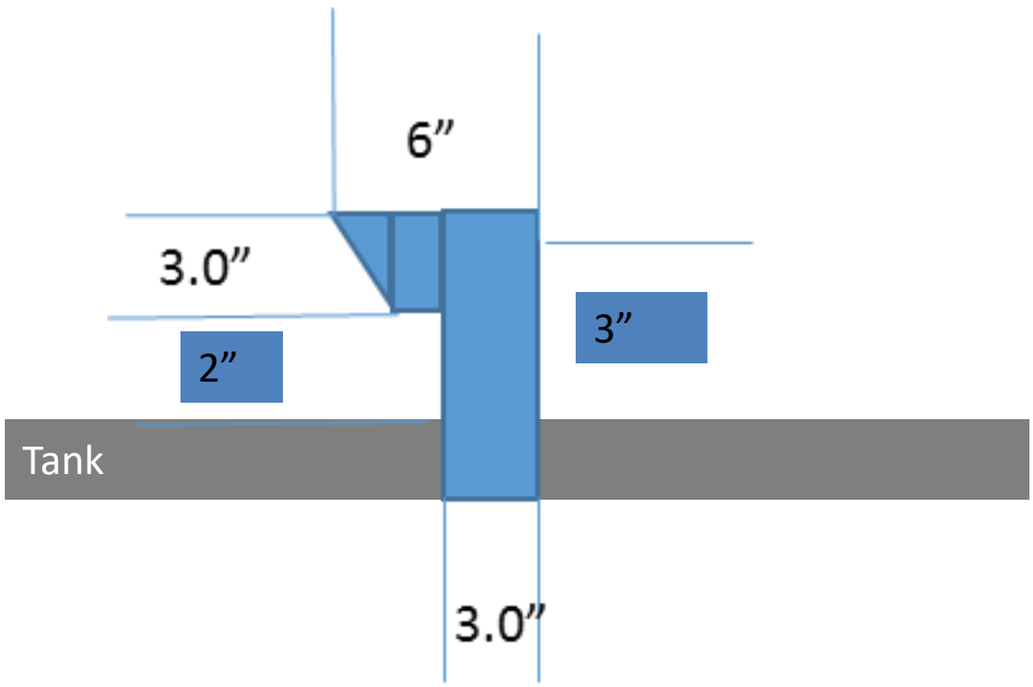


Figure 15. Layout of top of tank

Layout for 12V aerators, RAM air vents and exhausts, electrical boxes, and oxygen lines

Figure 16. Layout of tank plumbing

Aerator, Oxygen lines, vent and
LED light bracket and placement

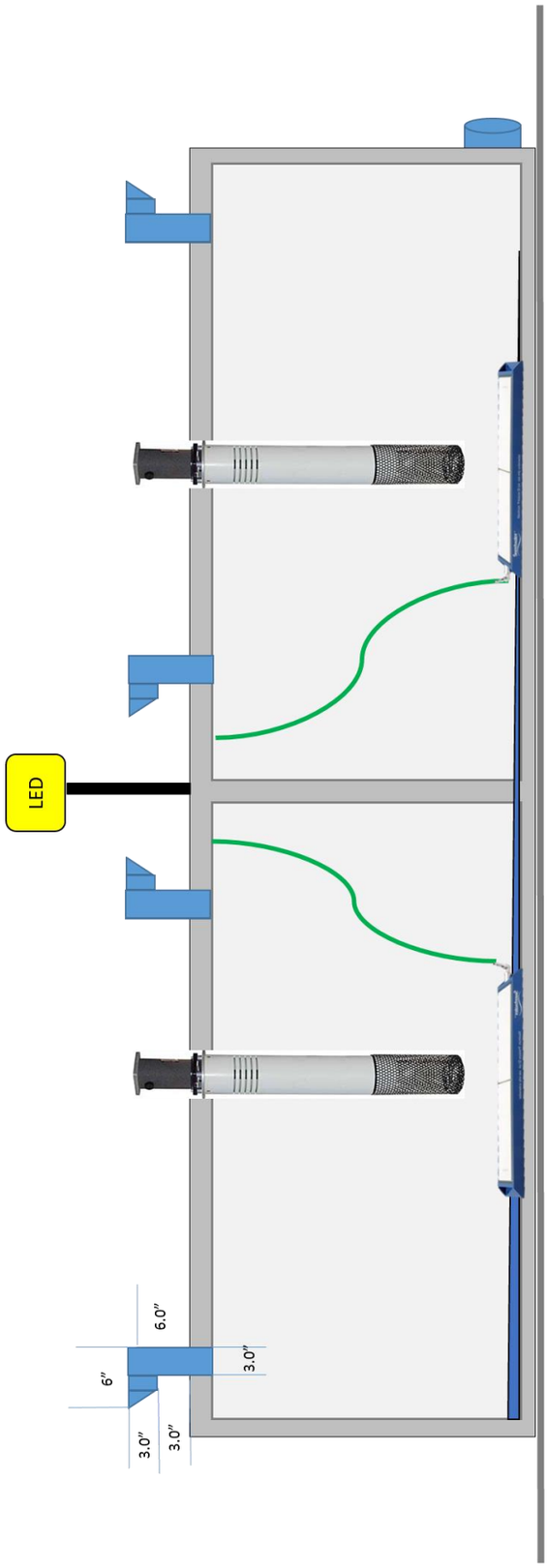


Figure 17. Layout of top of tank plumbing

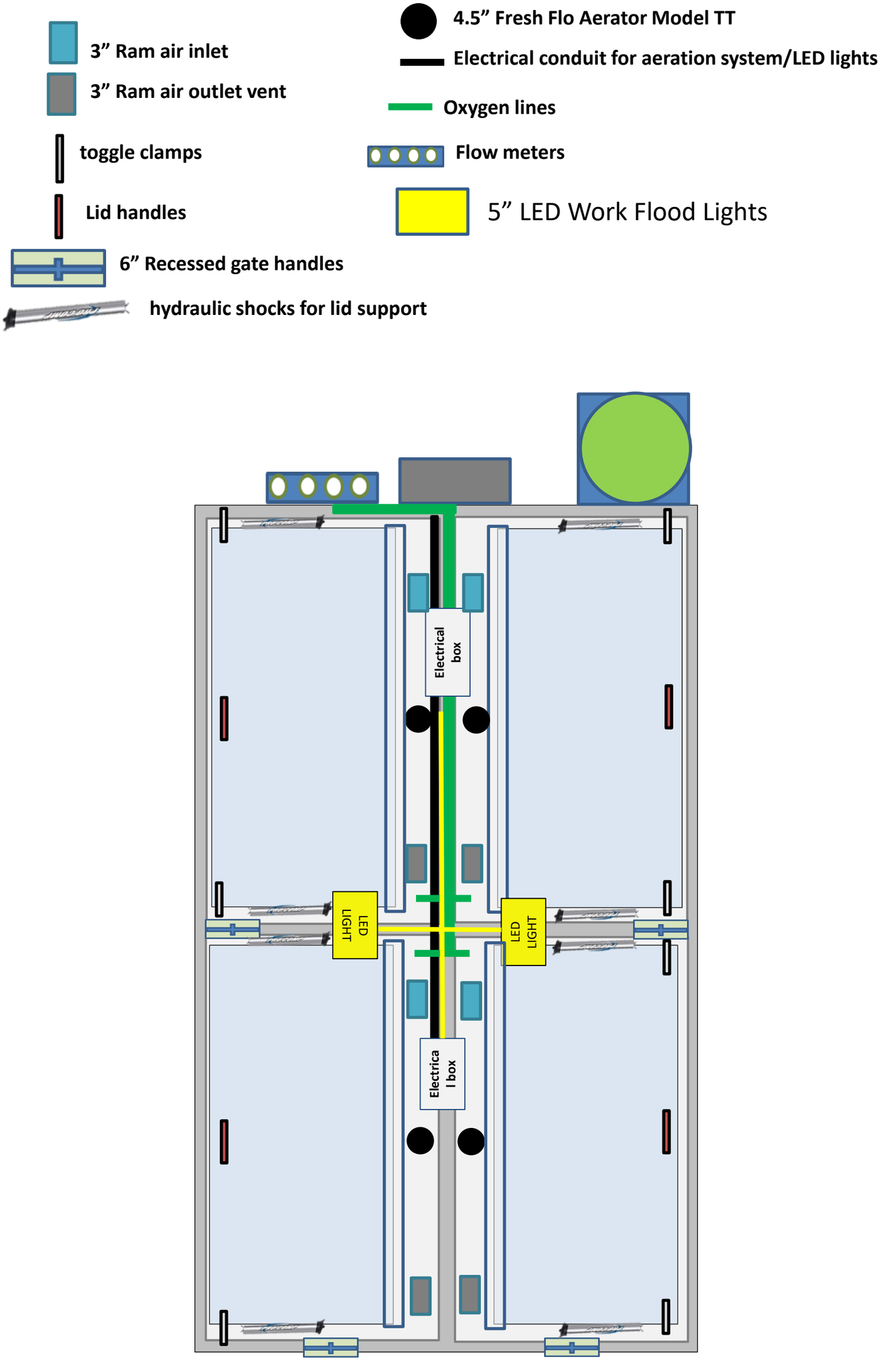
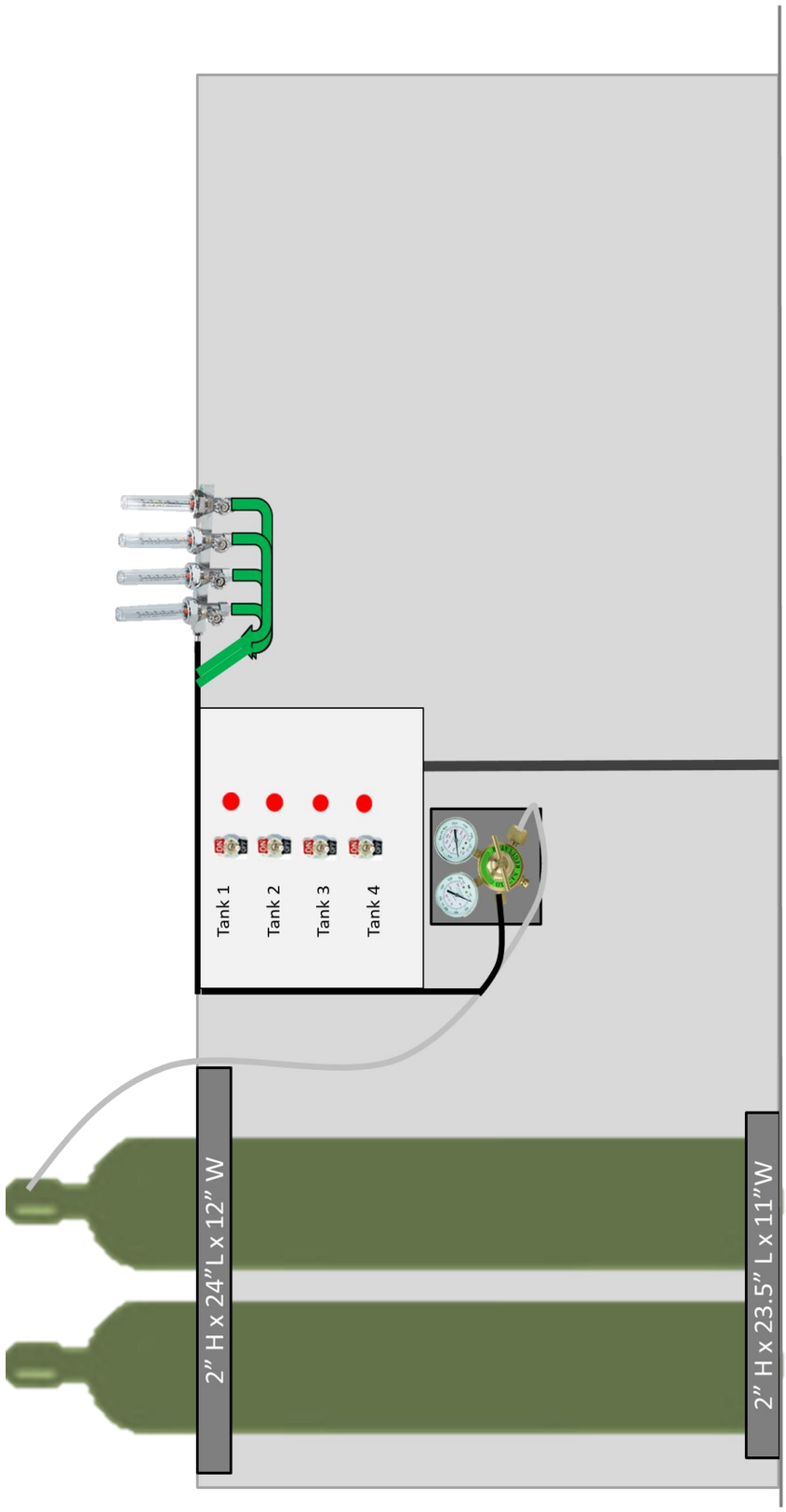


Figure 18. Front of tank plumbing layout



The oxygen supply to this fish tank will not be compressed oxygen tanks. Instead it will be a short liquid oxygen tank owned by the customer. The connections will be the same as shown in this illustration.

Figure 19. Wiring and oxygen

Oxygen flow meter brackets and fresh flow switches
Conduit to electrical boxes and through flatbed to truck engine

Figure 20. Examples of LED light brackets

Examples of:
- Conduit to electrical boxes
- Oxygen lines from flow meters to oxygen diffusers
- LED light bracket

disregard RAM vent location on lids – we want them on each side of aeration system – as shown in figure 14