

**LLANO SURVEYING
& MAPPING, L.L.C.**

FRED L. THOMPSON & ASSOC.
111 W. Main St.
Llano, TX 78645
(325) 247-4510
www.surveying.com
Firm Registration #: 100932-00



UNDULATED PNT FROM
WHICH A 58' I.R. FND
OPPOSITE P.C. STA 376+31.1
BEARS N61°19'27" W 473.54'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	3869.17'	600.35'	599.75'	N 35°10'01" W	8°53'25"
C2	5173.26'	599.37'	599.03'	N 32°34'06" W	6°38'18"

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	DELTA ANGLE
(C1)	5173.26'	599.92'	599.59'	06°38'40"

TEXAS R.M. HIGHWAY NO. 1431

(60° R.O.W. 118/618 B.C.D.R.)
(530°05'00" E 546.60') (530°05'00" E)

5' U.E. ALONG ALL PROP. LINES (CAB. 1, SL. 174C B.C.P.R.)
S 51°19'02" E 546.08' 0.57512"

LINE	BEARING	DISTANCE
L1	N 35°12'47" W	51.43'
L2	N 34°05'31" W	49.94'
L3	N 34°58'43" W	69.54'
L4	N 32°44'18" W	36.17'
L5	N 33°09'23" W	40.88'
L6	N 35°05'04" W	39.84'
L7	N 35°47'05" W	122.96'
L8	N 39°06'33" W	183.03'
L9	N 50°23'17" E	14.44'
L10	S 59°16'42" W	4.60'

SCALE: 1"=50'
BASIS OF BEARING IS STATE
PLANE COORDINATE SYSTEM
TEXAS CENTRAL ZONE
(4203) MAD83
DISTANCE ARE GRID
C.S.F.=0.998964537



S 51°19'02" E 498.94'
S 51°19'02" E 546.08'

TRACT FIVE
HARTLEY SUBDIVISION
CAB. 1, SL. 174D
B.C.O.P.R.

- LEGEND**
- 1" IRON ROD FOUND
 - 1/2" IRON ROD SET W/ ALUM. CAP "LAND SURVEYING" CAPPED IRON ROD FOUND
 - 60D NAIL FOUND
 - COTTON SPINDLE SET
 - TYPE FOOT ROW MONUMENT
 - CALCULATED POINT
 - UTILITY POLE
 - CHAIN LINK FENCE
 - ELEC. LINES
 - TELE. LINES
 - RECORD INFORMATION
 - UTILITY EASEMENT
 - P.O.B. POINT OF BEGINNING

TRACT SIX
HARTLEY SUBDIVISION
CAB. 1, SL. 174C & 174D
B.C.O.P.R.

2.665 AC.
(2.508 AC.)

MBR HOLDINGS, LTD
TRACT 1
1218/243 L.C.O.P.R.

WILLIAM SIMMONS

NOTE 1:
CALC. PNT ON THE E. SIDE
OF THE FNC. FROM WHICH
A CHAIN LINK FP BEARS
N67°03'26" W 0.88'

NOTE 2:
ALL UTILITIES AND IMPROVEMENTS
ARE NOT SHOWN HEREON.

NOTE 3:
PHYSICAL ADDRESS: 13902 RM HIGHWAY 1431, KINGSLAND, TX 78639
LEGAL DESCRIPTION: TRACT SIX (6), HARTLEY SUBDIVISION, OF RECORD
IN CABINET 1, SLIDE 174C, BURNET COUNTY PLAT RECORDS (B.C.P.R.),
BURNET COUNTY, TEXAS, TOGETHER WITH A METES AND BOUNDS
SURVEY AND PART OF S&K, AS FOUND ON THE GROUND, ATTACHED
HEREIN AND MADE PART HEREOF, AND YC DRAFTED: 03/27/2025.
BY: JAA & LMC JOB#: 25031801

NOTE 4:
SUBJECT TO:
L.C.R.A. INUNDATION EASEMENT: 107/467 B.C.D.R. (BURNET
COUNTY DEED RECORDS)
BURNET COUNTY SUBDIVISION REGULATIONS OF RECORD

NOTE 5:
NOT SUBJECT TO: CHANNEL EASEMENTS TO THE STATE OF TEXAS;
116/365, 118/618, & 118/621 B.C.D.R.

NOTE 6:
TITLE SURVEY
GFF#: 9998-25-54948CM
TITLE CO.: PATTEN TITLE CO.
OWNER: MBR HOLDINGS, LTD
BUYER: R. SCOTT WESTLUND

NOTE 7:
FLOOD INFORMATION:
THE SUBJECT PROPERTY DEPICTED
HEREON LIES PARTIALLY WITHIN
A SPECIAL FLOOD HAZARD
AREA, AND IS DESIGNATED
AS SHOWING FEMA'S FLOOD
INSURANCE RATE MAP NO.
4805300450R
EFFECTIVE DATE: MARCH 15, 2012

NOTE 8:
SCENIC LOOP
1/50c & 50d. B.C.P.R.

NOTE 9:
TRACT FOUR
HARTLEY SUBDIVISION
CAB. 1, SL. 174D
B.C.O.P.R.

NOTE 10:
SURVEY NO. 121

NOTE 11:
SURVEY NO. 777

NOTE 12:
ABST. NO. 777

NOTE 13:
P.O.B.

NOTE 14:
I.R. FND

NOTE 15:
CALC. PNT INSIDE
OF BLDG. 1/2" I.R. SET (NO
CAP) FOR REFERENCE
BEARS N52°35'07" W 6.04'

NOTE 16:
1027' PASS THE
CHAIN LINK FNC

NOTE 17:
@ 11.70' PASS A
CHAIN LINK FNC

NOTE 18:
100.00'

NOTE 19:
599.16' 42" W

NOTE 20:
S 59°16'42" W

NOTE 21:
S 37°08'57" W 141.75'

NOTE 22:
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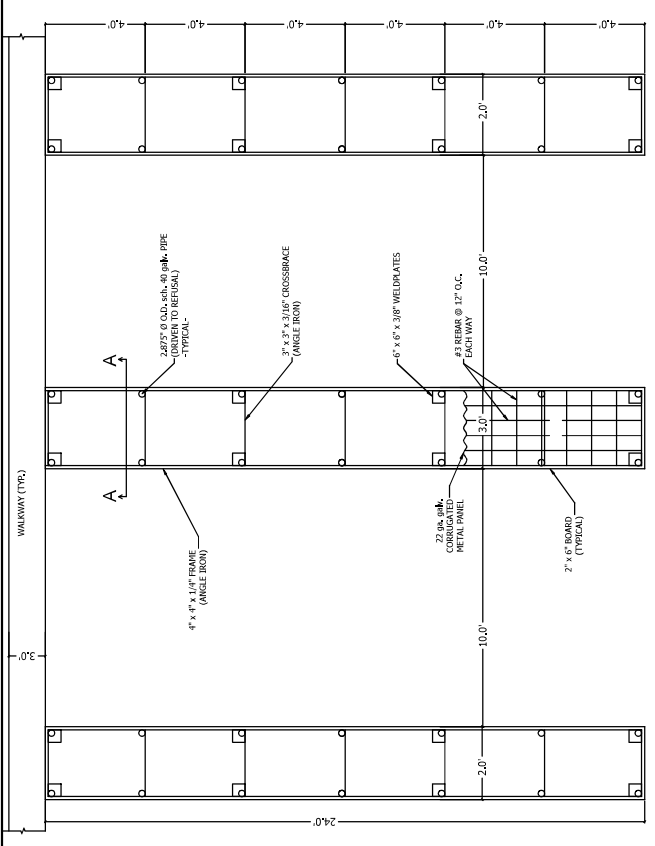
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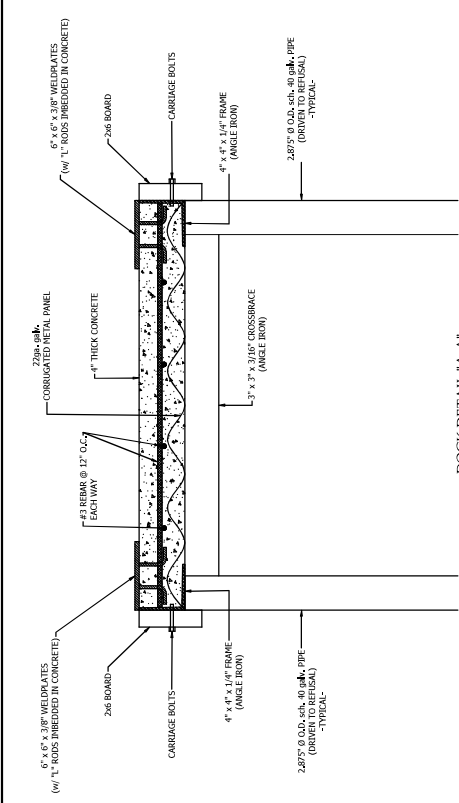
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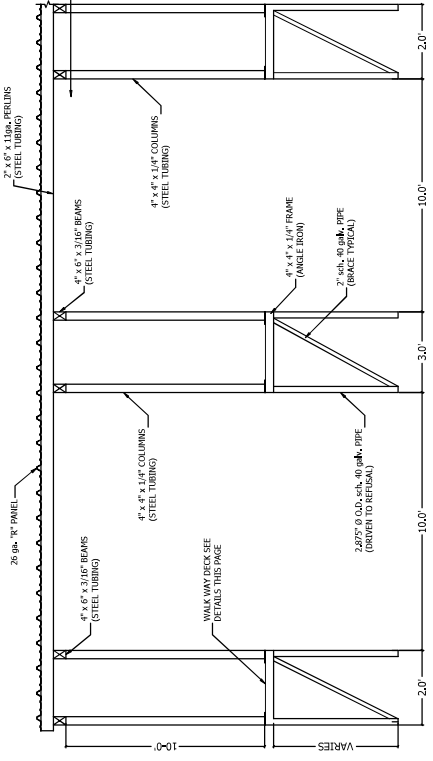
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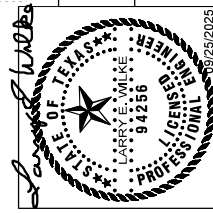
DOCK DETAIL
NOT TO SCALE



DOCK DETAIL "A-A"
SECTION VIEW
NOT TO SCALE

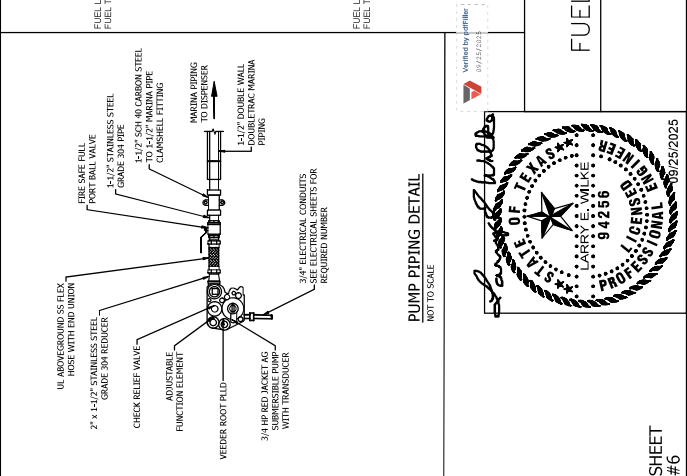
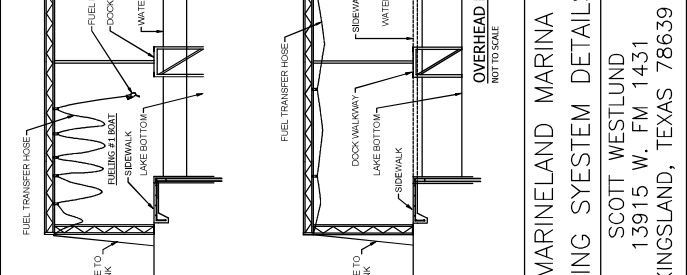
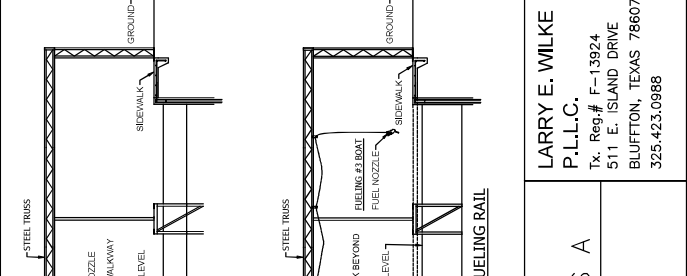
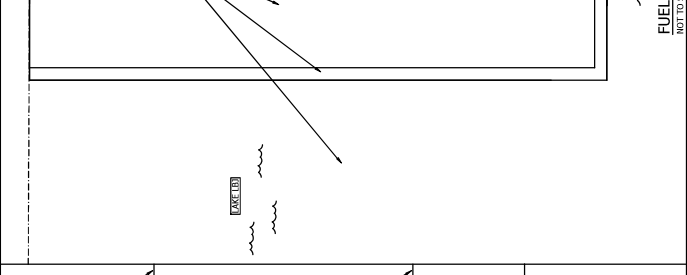
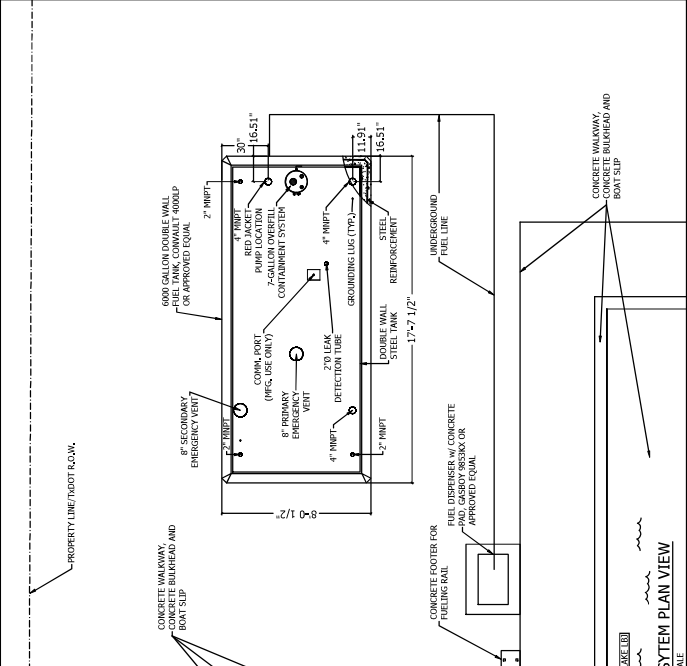
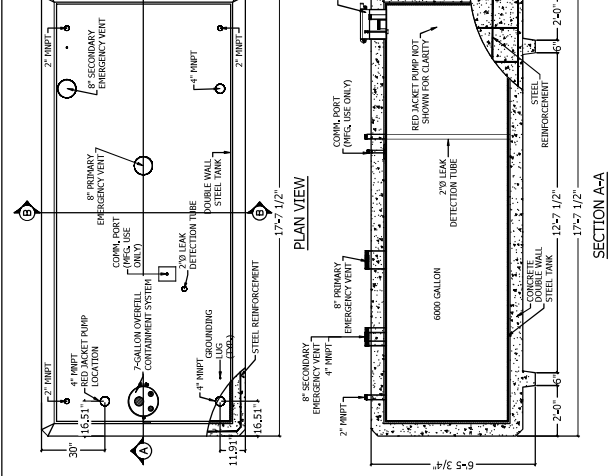
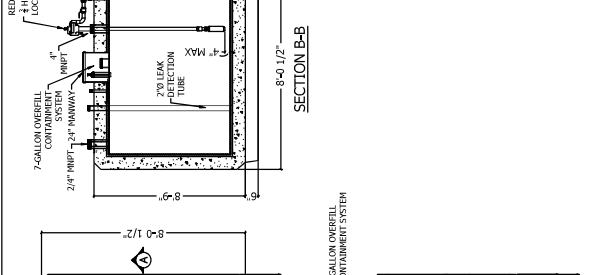
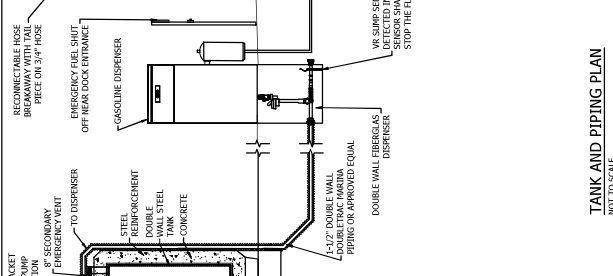
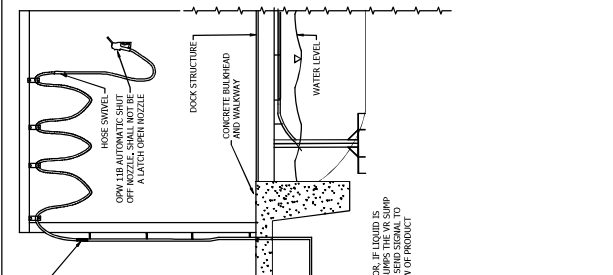
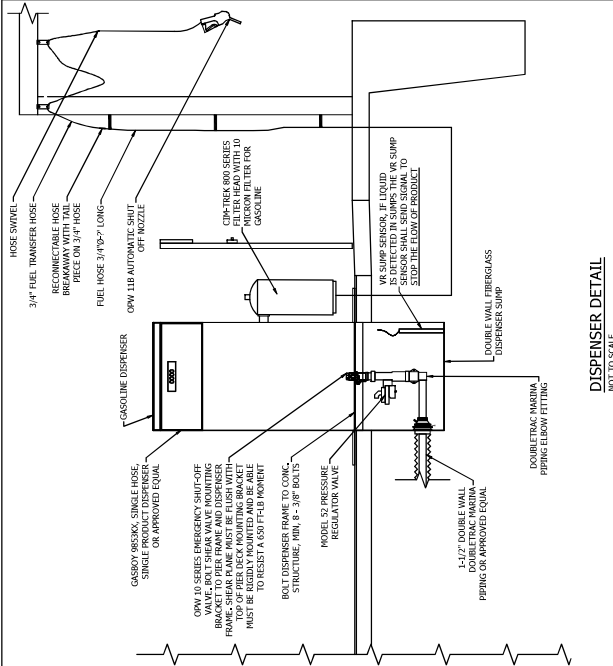


DOCK DETAIL SECTION
NOT TO SCALE



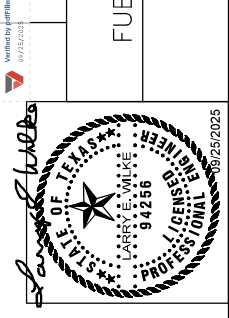
LARRY E. WILKE
P.L.L.C.
Tx. Reg.# F-13924
511 E. ISLAND DRIVE
BLUFFTON, TEXAS 78607
325.423.0988

MARINELAND MARINA
STRUCTURAL DETAILS A
SCOTT WESTLUND
13915 W. FM 1431
KINGSLAND, TEXAS 78639

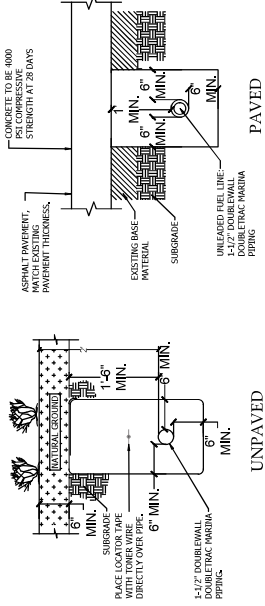


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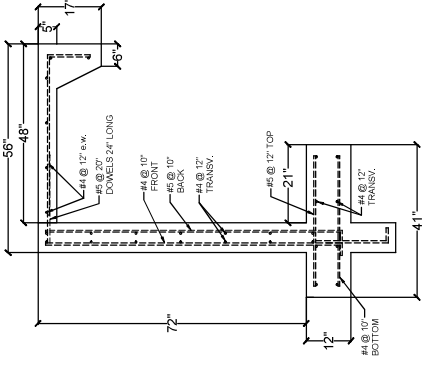
MARINELAND MARINA
FUELING SYSTEM DETAILS A
SCOTT WESTLUND
13915 W. FM 1431
KINGSLAND, TEXAS 78639



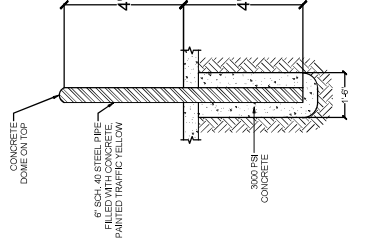
NOTE:
1. MARK TRUCK TO BE BACKFILLED WITH GRANULAR MATERIAL MEETING PIPE SPECIFICATIONS.



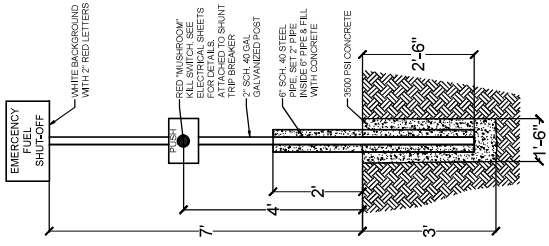
PIPE BURIAL DETAIL
NOT TO SCALE



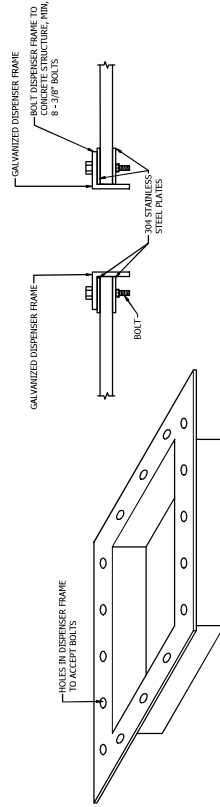
CONCRETE BULKHEAD & WALKWAY
NOT TO SCALE



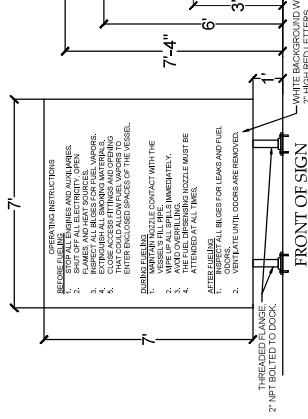
BOLLARD DETAIL
NOT TO SCALE



EMERGENCY SHUT-OFF SWITCH
NOT TO SCALE



DISPENSER FOUNDATION DETAIL
NOT TO SCALE

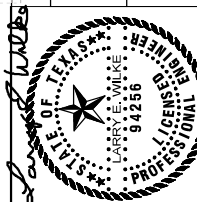


OPERATING INSTRUCTIONS SIGN DETAIL
NOT TO SCALE

12
F-2

LARRY E. WILKE
P.L.L.C.
Tx. Reg.# F-13924
511 E. ISLAND DRIVE
BLUFFTON, TEXAS 78607
325.423.0988

MARINELAND MARINA
FUELING SYSTEM DETAILS B
SCOTT WESTLUND
13915 W. FM 1431
KINGSLAND, TEXAS 78639



Marine Land – Above Ground Fuel Tank and Rendering

Concrete Pad for a 6000-Gallon Horizontal Fuel Tank. Horizontal fuel tanks of this capacity are typically cylindrical, with approximate dimensions of 8 feet (96 inches) in diameter and 16 feet (192 inches) in length, though slight variations exist depending on whether it's a single-wall or double-wall design.

The concrete pad (or foundation) supports the tank, often via two saddles placed near each end. Based on standard engineering guidelines for aboveground storage tanks (ASTs) compliant with UL-142 and similar codes, the foundation typically consists of two concrete piers (one for each saddle) rather than a single full-length slab, unless local codes or site conditions require otherwise. These piers distribute the tank's weight (empty weight around 11,000 lbs, plus up to ~48,000 lbs of fuel for diesel at 8 lbs/gallon).

- Typical pier dimensions (per pier, for an 8-foot diameter tank):
 - Width: 3 feet (36 inches)
 - Length: 10 feet (120 inches, which is tank diameter + 1 foot margin on each side)
 - Thickness: 12 inches
- Reinforcing: #6 rebar at 24 inches on center (O.C.), with $f'c = 2,000$ PSI concrete strength.
- Anchor bolts: 2 per pier, typically 0.75–1.125 inches in diameter (depending on seismic zone), with 5–6 inches embedment.
- Spacing: Piers are positioned to align with the tank saddles, usually 10–12 feet apart center-to-center, leaving the middle of the tank spanned.

These dimensions are minimums from Steel Tank Institute guidelines and may vary by seismic zone (e.g., slightly larger in Zone 4)

If a full continuous slab is used instead (common for integrated containment or uneven soil), it should extend at least 1–2 feet beyond the tank's footprint on all sides, resulting in approximately 18–20 feet long x 10–12 feet wide x 12 inches thick, with similar reinforcing. Always consult local building codes, soil bearing capacity (minimum 2,000 PSF assumed), and a structural engineer, as additional loads like piping or traffic may require adjustments.

Spill Containment Walls. For aboveground fuel tanks over 1,320 gallons, EPA SPCC regulations generally require secondary containment to prevent spills from reaching the environment

For a single 6000-gallon tank, the containment must hold at least 100% of the tank's volume plus freeboard for precipitation (often designed to 110% as a safety factor, equating to ~6,600 gallons or ~882 cubic feet). Containment is typically a diked area (berm or walls) around the tank, often with the concrete pad serving as the floor. Walls can be concrete, steel, or earthen, but concrete is common for durability. Double-wall tanks may satisfy containment without external walls, but assuming a single-wall tank here.

- Typical dike/wall dimensions (for 110% containment, based on manufacturer specs):
 - Length: 20 feet 6 inches
 - Width: 10 feet 10 inches
 - Wall height: 4 feet
- Capacity note: This provides ~110% containment volume, accounting for the tank's displacement within the dike.
- Material and design: Walls should be impervious (e.g., reinforced concrete with sealant), sloped for drainage if needed, and include access ramps or stairs for maintenance. For concrete walls, thickness might be 6–12 inches with rebar, depending on height.

If you use lower walls (e.g., 2 feet high for easier access), the base area must increase (e.g., ~25 feet x 18 feet) to maintain volume. Designs must comply with NFPA 30, UL-142, and local fire codes, which may mandate fire-rated materials or minimum distances to buildings (e.g., 15–25 feet for tanks >6,000 gallons)

Professional engineering review and permits are essential, as requirements vary by location, fuel type, and environmental factors.



RSW Property Development LLC, Marine Land, Spill Control Plan

1. Management Approval and Certification, RSW Property Development, Marine Land, certify that this plan complies with HLMO Technical Manual requirements, including Section 5.1(b), and commit to its full implementation with necessary resources for personnel, equipment, and materials.

- Signature: Jody Bowen
- Date: 12/22/25

2. Facility Description

- Location: The marina is on Lake LBJ, a reservoir managed by the Lower Colorado River Authority (LCRA). The site is adjacent to navigable waters, with the fuel dispenser located on the land centered in the middle dug-in courtesy slip.
- Operations: Boat fueling via one dispenser with two nozzles connected to a 6,000-gallon horizontal AST. The AST is UL-142 compliant, elevated on saddles over a concrete pad, with double-walled piping to the dispenser.
- Site Diagram: (Attach or describe: Sketch showing AST location, dispenser on dock, secondary containment dike, drainage patterns, spill flow paths to containment, emergency shut-off locations, and distance to water body. Note wind exposure and any breakwaters.)
- Hours of Operation: during the lake season (March through September, the marina will be open from 8 am to 6 pm with attendant, closed on Mondays.
- Total Fuel Storage Capacity: 6,000 gallons (one AST).

3. Fuel Storage and Dispensing Inventory

Component Type	Capacity/Details	Location	Safety Features
Tank 1	Aboveground Horizontal Steel Tank (UL-142) 6,000 gallons; Diesel/Gasoline	Marina Shoreline Area	Overfill prevention (high-level alarm, automatic shutoff), solenoid/quick-throw/gate valves, secondary containment dike (110% capacity + freeboard)

Dispenser	Fuel Dispenser	Hose max 50 ft (with safety break valve if >50 ft); No latch-open devices	On Dock	Automatic shutoff nozzles, strain relief, reel/rack storage; Impervious curbing/pad for minor spills
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- Notes: Tanks and dispensers designed to prevent leaks; piping above ground where possible, with valves locked when unattended. No storage within 10 feet of building openings.

4. Spill Prediction and Potential Failures and Potential scenarios per HLMO BMPs:

Failure Mode	Potential Volume (Gallons)	Flow Direction	Prevention Measures
Tank Overfill	Up to 6,000	To dike or dock curbing	Supervised deliveries, alarms, gauge checks
Tank Leak/Rupture	Up to 6,000	Contained in dike	Integrity testing, corrosion protection
Dispenser/Hose Failure	Up to 50	To dock curbing/booms	Breakaway couplings, supervised fueling, no-smoking signs
Piping Leak	Up to 100	Along pipe to containment	Double-walled piping, visual inspections

- Spill Paths: Directed to impervious containment; no direct discharge to lake. Minimize exposure to wind/waves via site design.

5. Pollution Control and Containment Measures

- Secondary Containment: Impervious dike around AST (e.g., concrete, sized to 110% of 6,000 gallons + precipitation freeboard). Dock dispenser area with curbing, berms, or barriers to contain spills; use absorbent booms/pads for water surface protection.
- BMPs: Impervious surfaces for fueling areas; drip pans under dispensers; oil-absorbing materials in bilges; labeled waste containers for oils/fuels; recycling programs for absorbents.
- Equipment: Spill kits (absorbents, booms, pads, PPE) at dock and AST; fire extinguishers (min 80-B:C rating) within 100 feet of tanks/dispensers per NFPA 30.

6. Inspections, Maintenance, and Records

- Inspection Schedule:
 - Daily: Visual checks of tanks, dispensers, piping, and containment for leaks/staining.
 - Weekly: Spill kit inventory, valve positions, hose integrity.
 - Monthly: Containment structure checks, dye tests if applicable.
 - Annually: Tank integrity test (e.g., ultrasonic); full plan review.
- Maintenance: Immediate repairs for leaks; reorder spill materials post-use; lock valves when unattended.
- Records: Keep logs for 3 years (inspections, maintenance, fuel inventory, drainage events). Use forms for documentation.

7. Personnel Training and Drills

- Training Program: Annual training for all fuel-handling staff on plan contents, spill prevention, proper fueling (e.g., engine off, no smoking, ventilate), emergency shutdown, and kit use. New hires trained within 2 weeks.
- Drills: Conduct spill response simulations annually; document participation.
- Coordinator: Gary Gabriel oversees training.
- Records: Log dates, attendees, topics.

8. Security and Good Housekeeping

- Measures: Fenced AST area, locked valves/ports, lighting, "NO SMOKING"/"SHUT OFF ELECTRICITY" signs, emergency shut-off switches.
- Purpose: Prevent unauthorized access/vandalism; promote clean operations to avoid runoff pollution.

9. Spill Response Procedures

- Immediate Actions:
 1. Stop the source (shut valves, emergency switch).
 2. Warn/evacuate if needed; deploy booms/pads to contain on water/land.
 3. Clean up with absorbents/vacuums; dispose wastes properly (labeled containers, recycling).

4. Restore area (e.g., revegetate if soil affected).

- Large Spills: If enters water or exceeds reportable quantity, activate full response.
- Evacuation: To designated area of Marine Land, parking lot; call 911 for fire/explosion risk.

10. Reporting and Notification

- Internal: Report spills to coordinator immediately.
- External:
 - LCRA Water Surface Management (800-776-5272, ext. 2024).
 - National Response Center (800-424-8802) for EPA-reportable spills (>25 gallons to water).
 - TCEQ Spill Hotline (800-832-8224) for state-reportable quantities (e.g., sheen on water).
- Follow-up: Document cause, actions, corrections; amend plan if needed.

11. Emergency Contacts

Contact	Phone Number
Facility Coordinator	325-280-5500, Jody Bowers
Fire/Police/EMS	911
LCRA Water Surface Management	800-776-5272, ext. 2024
National Response Center	800-424-8802
TCEQ Spill Hotline	800-832-8224
Cleanup Contractor	888-674-9598, CG Environmental

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Marineland Marina, Kingsland Texas

Water Quality Analysis Statement

October 9, 2025

OCT 10 2025

WATER SURFACE
MANAGEMENT

The marina has been designed to implement best management practices (BMP); to minimize impacts on water quality. The BMPs have been used in design will be implemented in the management of the Marineland Marina. Seven specific impacts will be discussed as they pertain to operation of the marina as listed in HLMO Section 5.1(b).

- 1) Boat Sewage:
The marina will not provide sewage collection or treatment of boat sewage.
- 2) Solid Waste Collection and Disposal:
Solid waste and litter will be collected in marked covered containers. Individual waste containers will be emptied daily into a dumpster provided by local trash collection companies. Dumpsters will be emptied weekly on a contract basis.
- 3) Litter and Debris Collection and Disposal:
Daily operation maintenance will include cleanup of shoreline and marina property of all the litter and debris that missed the individual waste containers. Cleanup will include wasted or abandoned material left on the docks and in the parking lots.
- 4) Impact to Freshwater Exchange and Water Circulation Action of the Cove:
The design location of the docks and relocation of the boat ramp removed a piece of land that created dead water at the original boat docks. The revised cove is open water from the TxDOT bridge through to the railroad bridge and into the main water body of the lake.
- 5) Hazardous or Toxic Material Storage and Pollution Precautions:
Hazardous and toxic usable or disposable materials shall be stored or contained in labeled containers for liquids such as waste oil, gasoline, anti-freeze, diesel, kerosene, mineral spirits, etc., all containers shall be housed in a no-spill secondary enclosure. Signs will be installed to inform marina patrons of proper disposal of waste hazardous materials. Marina will provide on-site sale and service of new batteries and recycling services.
- 6) Marina Fuel Station Operations and Pollution Prevention:
Day-to-day operations at the fuel dock demand more than just opening valves and collecting payments. Every fuel transfer carries the potential for error, which is why consistent protocols will be in place to maintaining fuel dock safety. Before any fueling begins, staff should complete a visual inspection of all hoses, nozzles, and emergency shutoffs. Signs of wear, loose fittings, or blocked vents

should prompt immediate maintenance. The marina storage tank will have monitored levels with an automatic tank gauge (ATG) which supports both leak detection and inventory control. ATG systems detect leaks, monitor levels, and even trigger alerts for spill prevention. During fueling, one staff member will remain present at all times. A laminated pre-fueling checklist is posted at the pump and distributed via a QR code or a mobile app can guide staff and customers through safe procedures:

- a. Engines off
- b. No smoking nearby
- c. All passengers safely seated
- d. Fueling nozzle held firmly (latch-open devices are prohibited)
- e. Absorbent pads placed under fuel cap vents

After fueling, nozzles are properly returned, caps are secured, and the area is cleaned of drips to ensure fuel dock safety and effective spill prevention.

Training and Certification for Fuel Dock Staff:

Personnel are the marina's first line of defense. Fuel dock staff will have regular, documented training to enhance fuel dock safety and reduce liability while also increasing guest trust.

Staff will understand fuel system operation, alarms, and emergencies. All fuel dock staff will be trained in:

Using spill kits and absorbents

Operating Class B fire extinguishers

Following fueling protocols and dock etiquette

Contacting emergency services

Regular spill prevention drills (e.g., nozzle drops or hose ruptures) reinforce readiness. Record dates, participants, and scenario outcomes in training logs for both internal reviews and regulatory inspections.

Marina will provide proper personal protective equipment (PPE) such as fuel resistant gloves, goggles, and aprons further minimizes spill risks, especially during busy or high-pressure fueling periods.

Emergency Preparedness and Spill Response Readiness

Even with proper procedures, accidents can and do happen. The Marina will maintain a response plan that's not only written down but regularly rehearsed.

The marina will maintain a well-stocked spill response kit at the fuel dock, including absorbent booms, pads, gloves, containment socks, and disposal bags. Kits will be clearly labeled, easily accessible, and routinely inspected to ensure all materials are dry, intact, and usable.

The Marina will keep a Spill Prevention, Control, and Countermeasure (SPCC) plan on file. This plan outlines what to do in the event of a spill, including emergency shutoff procedures, reporting contacts, and site-specific risks. The Marina assigns a spill response leader during each shift to ensure accountability and avoids hesitation when minutes matter. Staff will review who to contact, such as local fire and environmental authorities, and practice spill drills quarterly or after any staff turnover.

Guest Education and Signage

Marina guests, especially new or infrequent boaters, may not be familiar with proper fueling etiquette. Clear, visible signage at the fuel dock is provided to prevent mistakes. These signs should:

Remind guests to turn off engines and extinguish open flames

Instruct on proper nozzle use and avoiding "topping off" tanks

Indicate where spill kits or fire extinguishers are located

Reinforce the importance of remaining at the pump during fueling

To enhance safety culture, the marina includes fueling reminders in guest check-in packets or rental agreements, such as: "Stay with your boat while fueling," or "Notify staff immediately in the event of any fuel on the water." Digital options, such as QR codes that link to short instructional videos, will supplement in-person instruction for transient or self-service guests.

These proactive efforts not only reduce environmental risk, but they also demonstrate the marina's commitment to compliance and professionalism, something boaters take note of when recommending or returning to your facility.

7) Boat Cleaning:

All boat owners will be required to remove their boats from the water to clean and wash exterior hull, remove or repair paint, or hull scraping, either by self-cleaning or by commercial boat cleaning operations.

Standard LCRA non-point regulations will be in effect to control runoff from parking lot and buildings on the property through the Highlands Lakes Watershed Ordinance (HLWO). The stormwater management systems will have BMPs to reduce sediment migration, minimize erosion and protect water quality. During construction silt fences and silt booms will be used for erosion control. Permanent control systems will include vegetated filter strips, water quality basin, and/or biofiltration systems.