



D.E.P.

JAN 08 1999

Florida Waste Environmental Services, Inc. Waste Management District Tampa

January 8, 1999

Mr. Roger Evans
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Telexed; (813)-744-6125

**Re: Florida Waste Environmental Services, Inc.
Used-Oil Processing Operating Application #76517-HO06-001
Request for 3rd Extension—1 year**

Dear Mr. Evans:

Florida Waste Environmental Services, Inc (d.b.a. as STAR*BD Environmental) requests an extension in submitting responses to your *First Notice of Deficiency* dated February 13, 1998 until successful completion of the aboveground storage tank farm when final as-built construction plans will be available for permit submittal purposes. FWES has obtained numerous Hillsborough County Planning & Development (Building) Permits, SWFWMD Permit, EPA Industrial Stormwater Permit, Fire Marshall Permit, and Hillsborough County Environmental Protection Commission (EPC) plans approval for construction of an aboveground Storage Tank Farm pursuant *FAC Chapter 62-762 & NFPA 30*. The proposed construction plans as approved by the Hillsborough County EPC have been submitted to the FDEP in the first submittal. However, the *final as-builts* may vary pending on new regulatory upgrades required for storage tanks and the final inspection punch list by the County.

FWES is not processing or intends to process used-oil at this time but is still operating as a Used-Oil and Oil Filter Transporter and Transfer Facility. FWES intends to dedicate one 20,000-gallon storage tank for used-oil storage without treatment. Two (2) tanks are to be dedicated for Petroleum Contact Water storage and the remaining three tanks for oily-water storage particularly (bilge water) from the marine industry.

A portable-pilot industrial wastewater treatment system is being developed by STAR*BD Environmental for three DOD petroleum tank farm projects at military bases in 1999 under their site-specific NPDES permits. STAR*BD Environmental will use this opportunity to finalize the process design construction plans as requested in the Notice of Deficiency.

Enclosed are 8 1/2 x 11" page site diagrams (not to scale) to conceptualize locations and process flow. Final blueprint plans will be submitted after Storage Tank Farm construction is completed and the process schematic details are finalized. The heated oil tank has been disallowed by the Fire Marshall due to the presence of flammable substances in the waste stream unless constructed within a building containment. A water main will be available on St. Paul Street in 150 days to allow connection satisfying the Fire Marshall's water demand requirements pursuant NFPA 30/70 Codes.

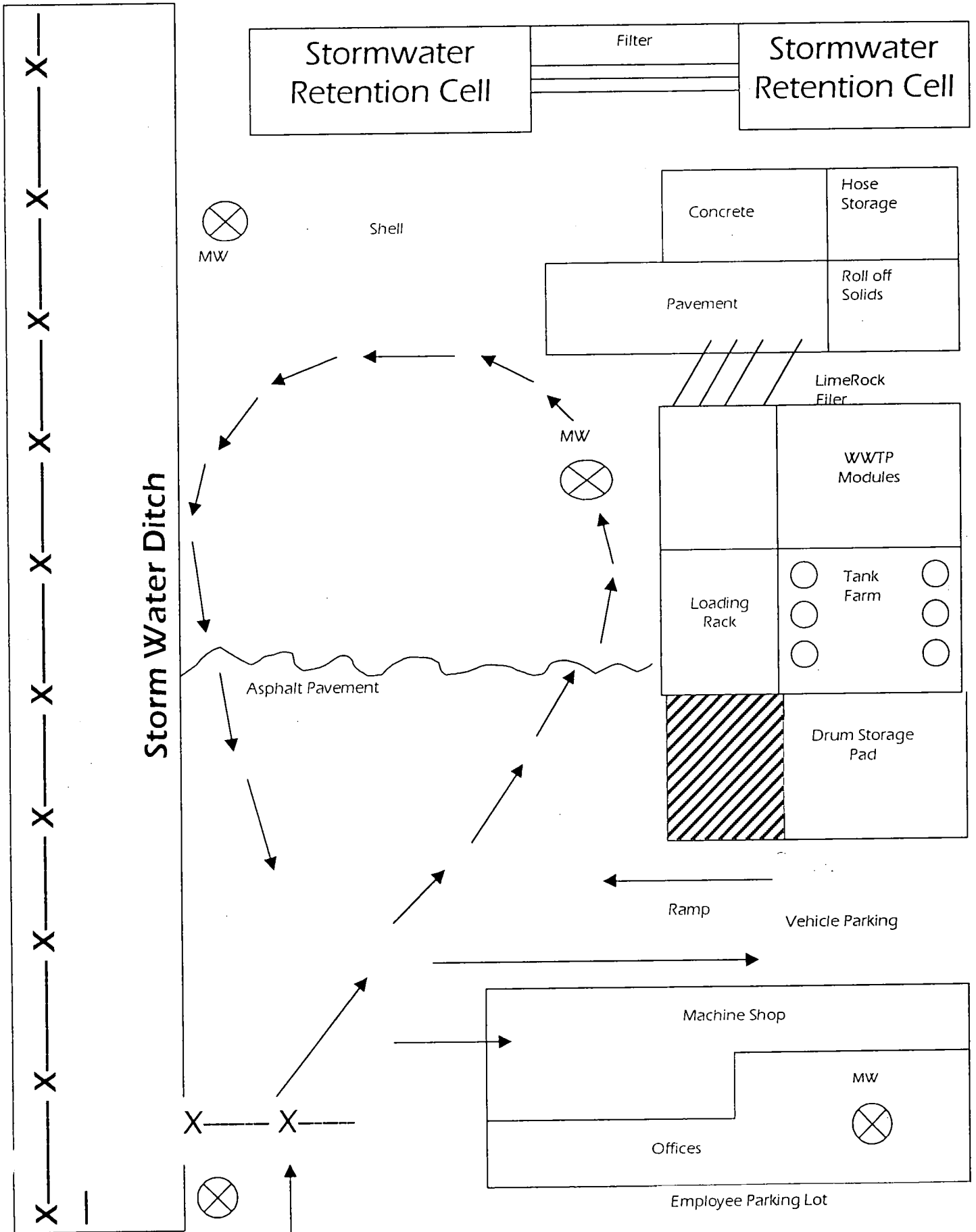
Sincerely,

Fran Braksma, CEO


Thomas A. Brislin, Environmental Engineer

TRAFFIC FLOW

OutFall



Storm Water Ditch

Stormwater Retention Cell

Filter

Stormwater Retention Cell

MW

Shell

Concrete

Hose Storage

Pavement

Roll off Solids

LimeRock Filter

MW

WWTP Modules

Loading Rack

Tank Farm

Asphalt Pavement

Drum Storage Pad

Ramp

Vehicle Parking

Machine Shop

MW

Offices

Employee Parking Lot

FWES

MW

Figure B-1

St. Paul Street

FIRE & SPILL CONTROL EQUIPMENT

OutFall

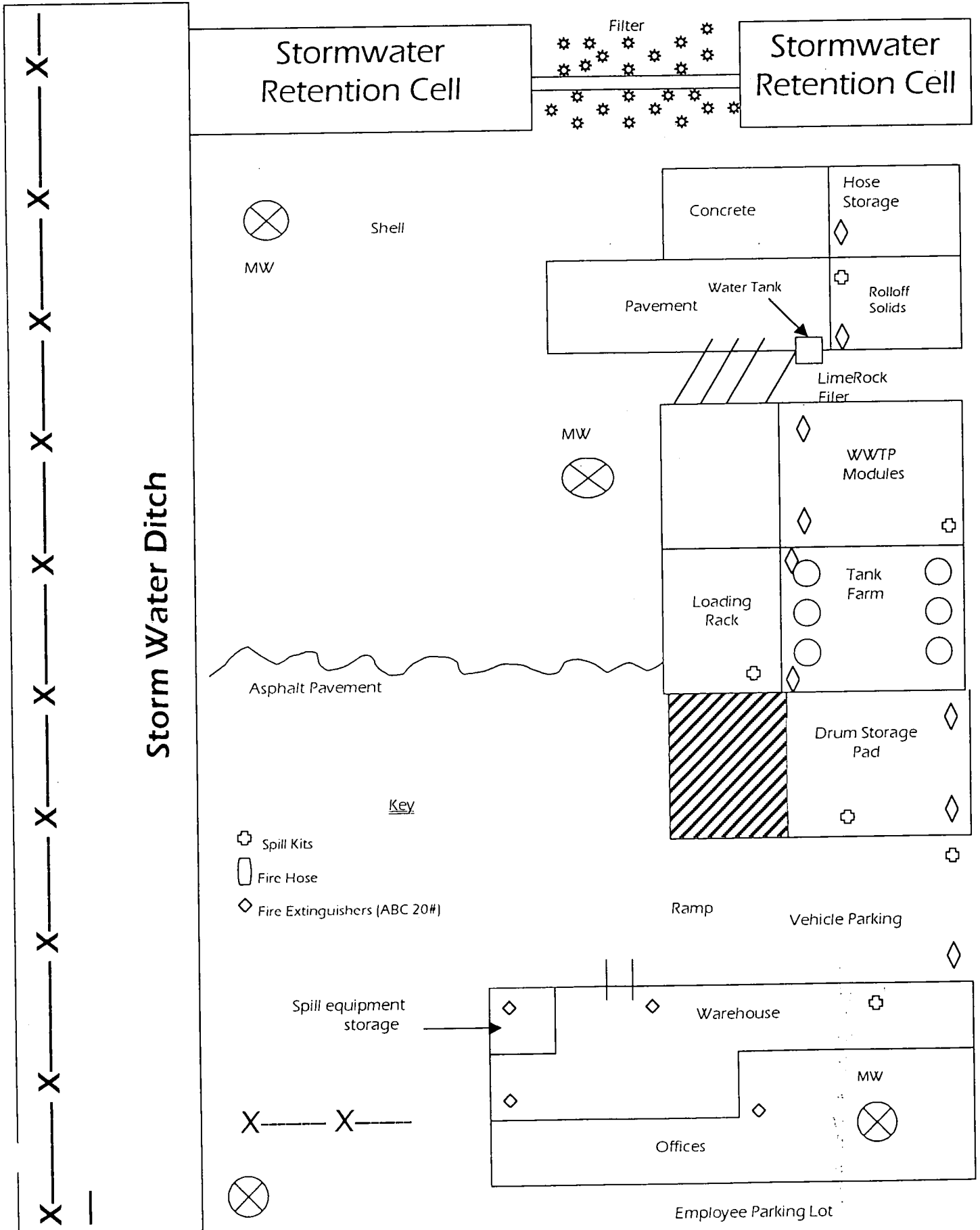
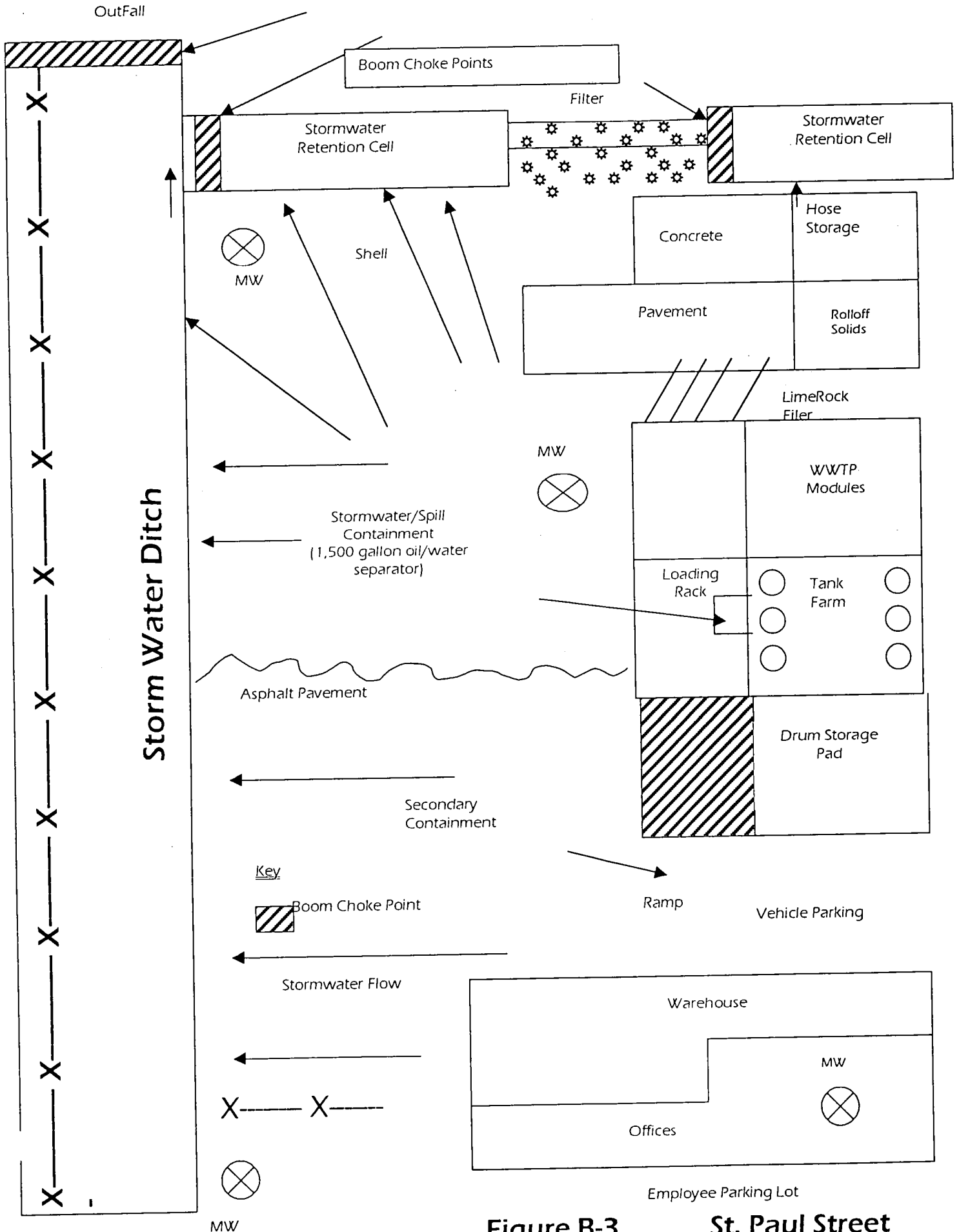


Figure B-2

St. Paul Street

STORM WATER DRAINAGE CONTROL BARRIERS



FWES 5218

Figure B-3 St. Paul Street

EVACUATION ROUTES

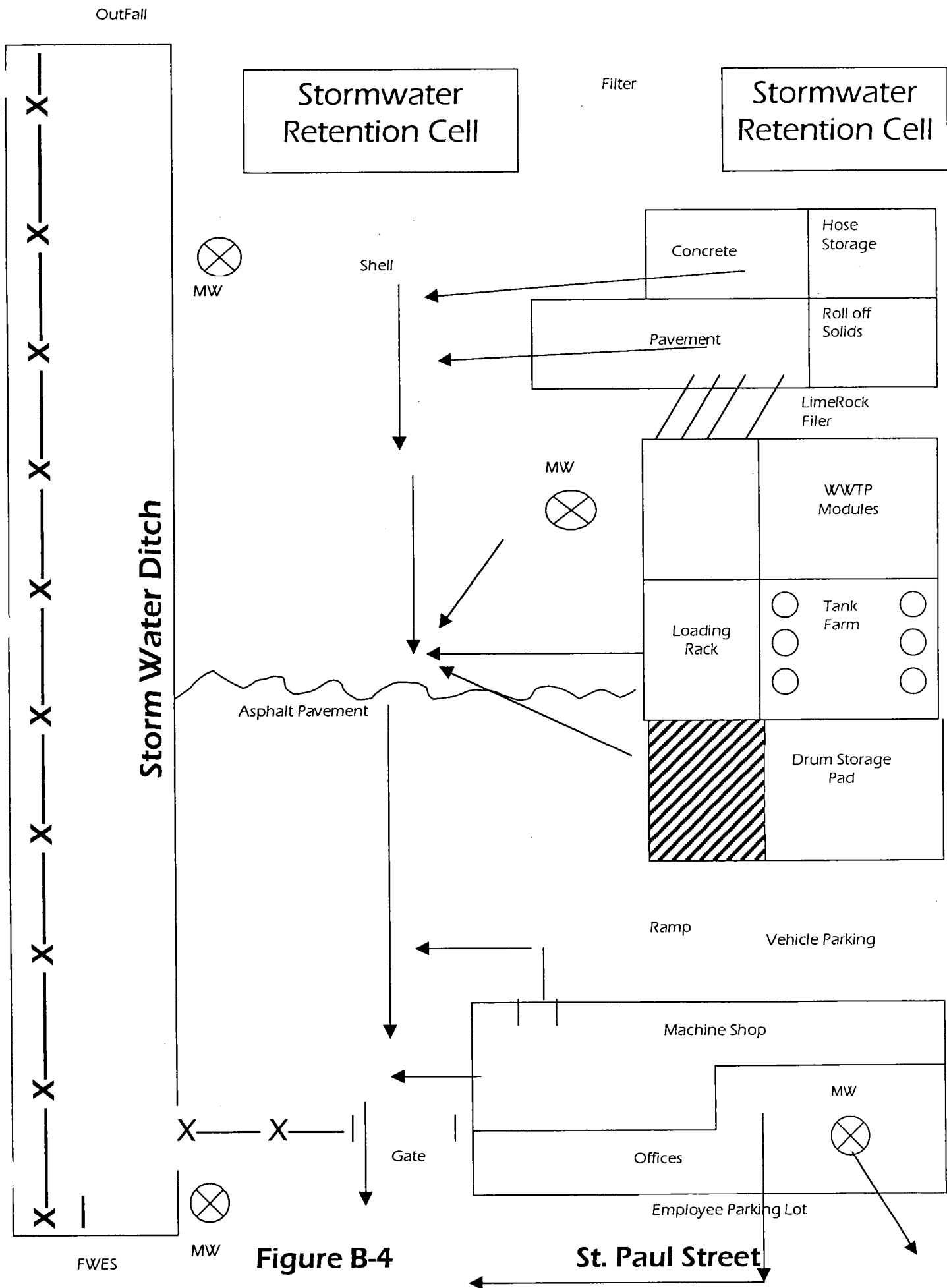


Figure B-4

2.2.2 Process System Specifications

Figure 2-3 depicts the General Flow Diagram explained below:

1. Grit Separation Module (M-1)

The Grit Separation Module will have the capacity of flow throughput of approximately 100 GPM (One hundred gallons per minute.) The reason for this higher flow than the operating system throughput of Thirty (30) gallons per minute(gpm) is to facilitate the off-loading of trucks where a 6,000-gallon tanker will be able to be off-loaded within an hour. A smaller system of 30 gpm would require 3.3 hours to offload. The 100 gpm. Grit Separation will allow a faster turnaround for the tanker fleet and thus will be able to haul more in a typical day and spend less time waiting to unload.

Following the Grit Separation Module, tank storage of 40,000 gallons (2-20,000 gallon tanks). Initially, this should be sufficient. However, it may be required in the future to add additional oily/water storage tanks.

These storage tanks have a dual purpose besides being holding tanks to supply the oil-water separation system. These tanks can be heated to 180°F with acid for emulsification breaking. The oil will be allowed to separate within these tanks initially and with the appropriate controls, the bulk oil may be drawn from the tops and transferred directly to the oil storage tank. While the water will be transferred through the oily-water separation system.

The Grit Separation System will have the capacity to filter to 120 mesh –finer filtration is available. However, the filtered solids tend to be wetter with the finer filtration. (Finer particles and silts tend to hold onto more water making the filtered solids wetter.)

When filtering heavy oils and solids, the finer filtration elements tend to blind and don't allow the water and oil to pass through the elements.

2. Oil-Water Separation Module (M-2)

The oily-water will be received from the oil-water storage tanks into the oil-water separation level-control quiet-tank.

The level-control quiet-tank will supply the oil-water separation system with oily-water in the event the level-control quiet-tank is filled with oil. The separation system will shut down and the oil will be transferred to the oil storage tanks until sufficient water enters the level-control quiet-tank from the oily-water storage tanks at which point the oil-water separation system will initiate operations.

From the level-control quiet-tank, the oily-water enters the primary separator. The oil removed in the primary separator is transferred to the primary separator oil accumulator. The water is transferred to the dissolved air floatation. The water enters dissolved air flotation through the scrubbing chamber where the water is mixed with air. The air bubbles, oil and water exit through the coalescing chamber. The oil and air bubbles are transferred to the DAF accumulator.

3. Fine Particulate & Suspended Solids Filtration Module (M-3)

The water enters this filtration module from the first stage water storage tanks. The water may also enter this filtration system directly from the oil-water storage tanks. High levels of suspended solids and fine particulate may cause high COD and BOD levels. The water may be returned to the oil-water separation system, transferred to the carbon system or may be discharged from this module. This filtration module may also be used for recycling machine coolants and other products.

4. Organic Removal Module (M-4)

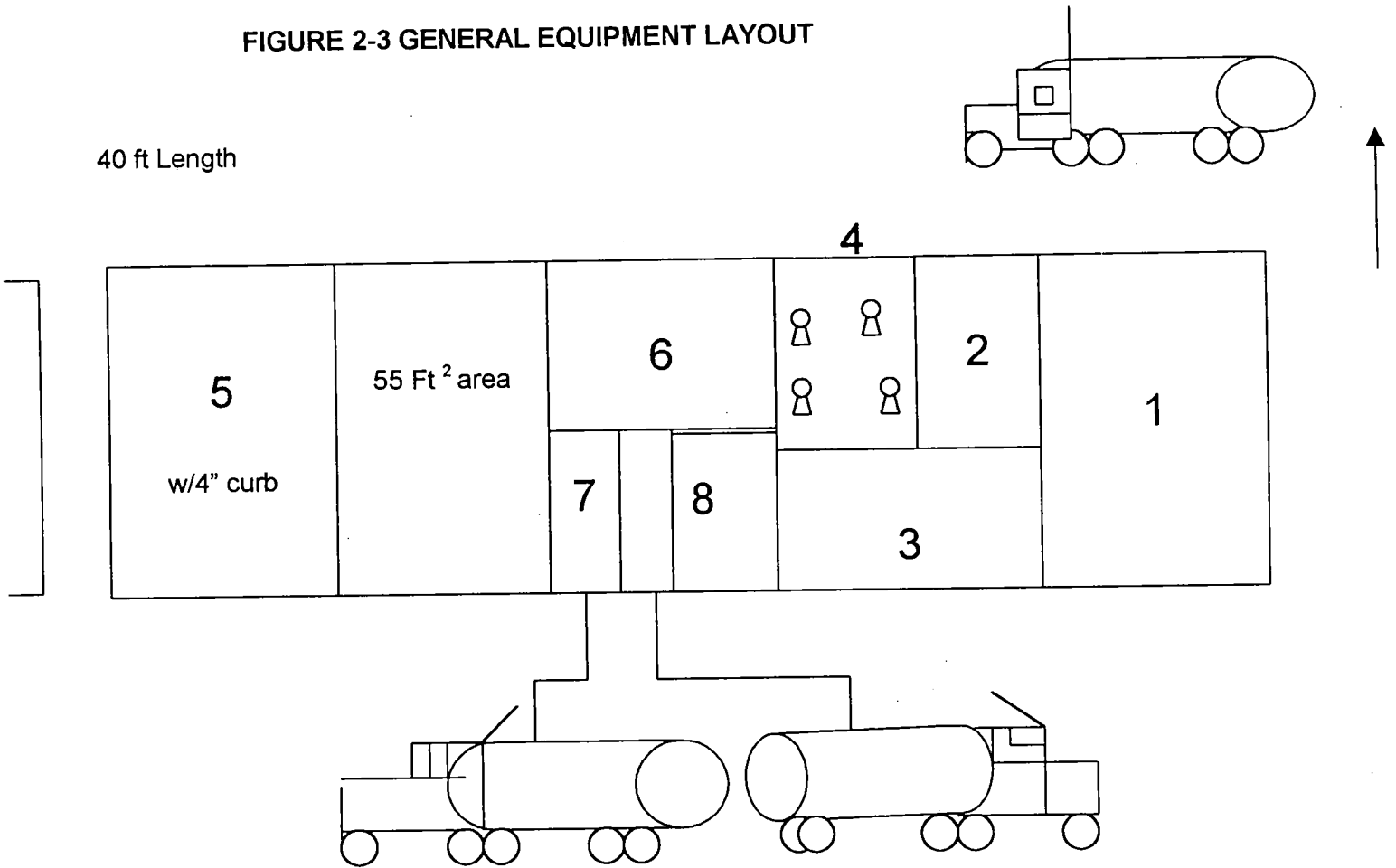
The water may enter this module from the 1st stage water storage tanks or from the fine particulate and suspended solids filtration system. This module's primary purpose is to absorb any dissolved hydrocarbons. Absorption of other elements and compounds will also occur.

The water from this module will be transferred to discharge or to the clean water holding tanks. The clean water holding tanks will be the last stage in the system where final water treatment may be accomplished.

5. Oil Reclaim Module (M-5)

The oil pumped from oil-water separation system (M2) will be stored in T-3 and T-4 oil storage tanks. If necessary, these tanks can be heated to 180°F by acid addition and propane heaters utilized emulsion ability.

FIGURE 2-3 GENERAL EQUIPMENT LAYOUT

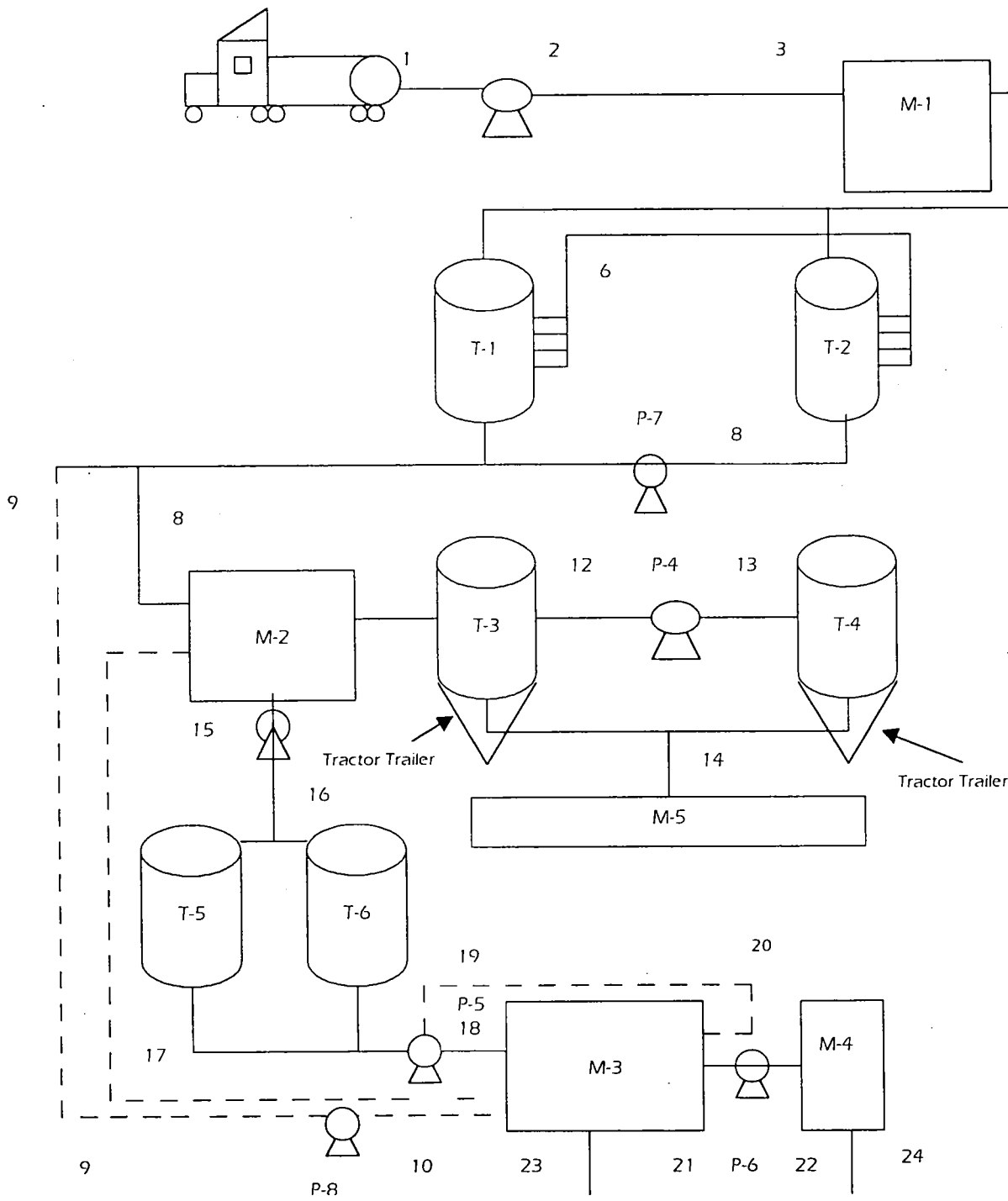


The overall size is only an initial guideline. Actual unit may vary in length after pilot plant trial.

General Flow Diagram

- | | | |
|--------------------------------|-----|---|
| 1. Grit Separation Module | P-1 | Truck-Off Loading Pump |
| 2. Level-Control Quiet-Tank | P-2 | Oily-Water Supply Pump |
| 3. Oil-Water Separation Module | P-3 | Water Storage Tank Supply Pump |
| 4. Pumps | P-4 | Oil Storage Tank Supply Pump |
| 5. Filtration | P-5 | Fine Particulate and Suspended Solids Filtration Module Supply Pump |
| 6. Organics Removal System | P-6 | Carbon Module Supply Pump |
| 7. Water Storage | P-7 | Oil Storage Supply Pump |
| 8. Oil Storage | P-8 | Fine Particulate and Supply Pump to Tanker |
| 9. Solids Container (roll-off) | | |

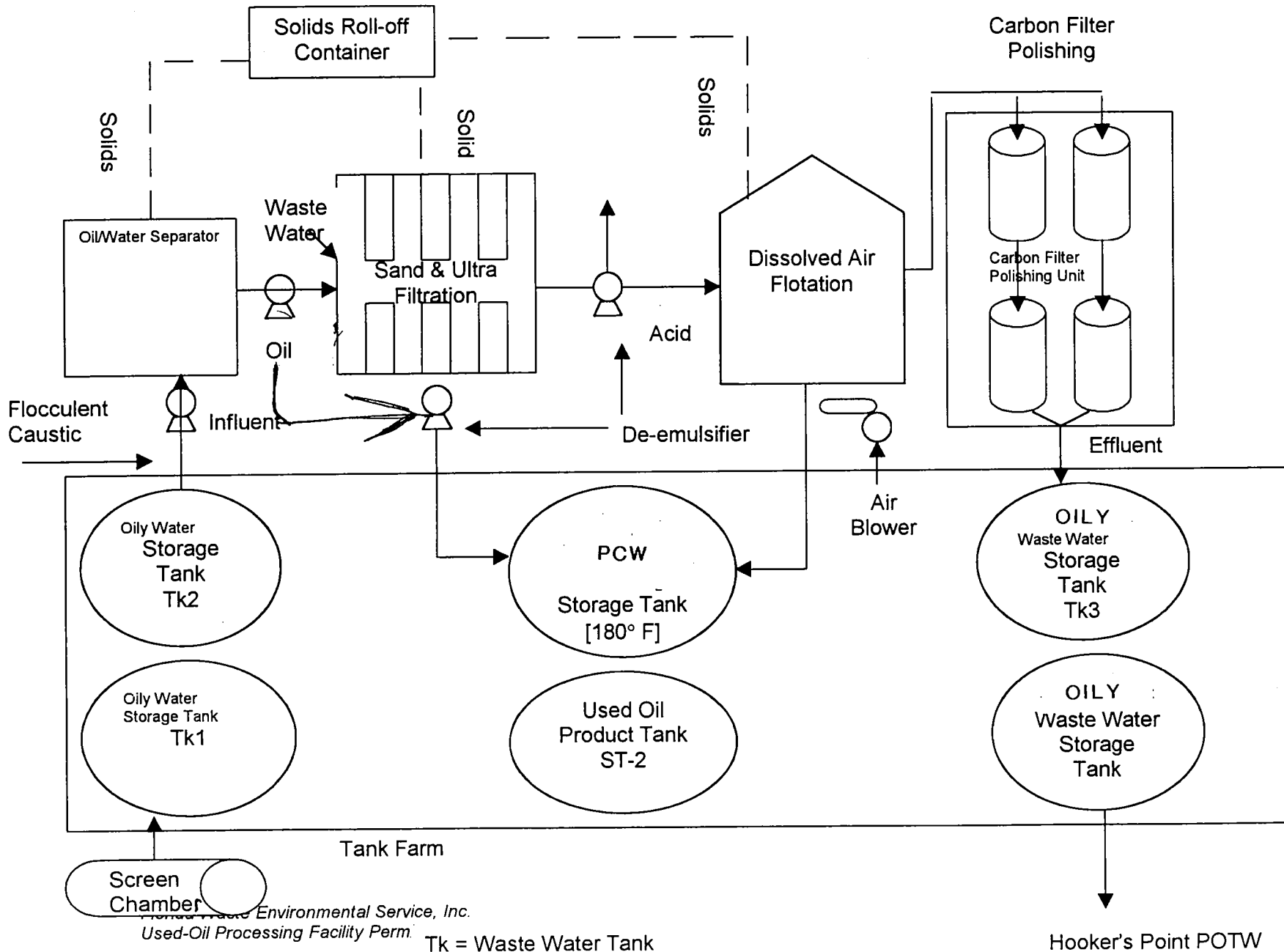
GENERAL FLOW DIAGRAM



1. Truck unloading station to off-loading pump (P-1)
2. Off-loading pump (P-1) to large debris strainer (V-1)
3. Large debris strainer (V-1) to grit separation module (M-1).
4. Grit separation module (M-1) to oily-water supply pump (P-2)
5. Oily-water supply pump (P-2) to oily-water storage tanks (T-1, T-2, T-3)
6. Oily-water storage tanks ((T-1, T-2) to oil storage supply pump (P-7).
7. Oil storage supply pump (P-7) to oil storage tanks (T-3, T-4)
8. Oily-water storage tanks (T-1, T-2) to oil-water separator module (M-2)
9. Oily-water storage tanks (T-1, T-2) to fine particulate and suspended solids filtration module supply pump (P-8).
10. Fine particulate and suspended solids filtration module supply pump (P-8) to fine particulate and suspended solids filtration module (M-3)
11. Fine particulate and suspended solids filtration module (M-3) to oil-water separation module (M-2).
12. Oil-water separation module (M-2) to oil storage tank supply pump (P-4).
13. Oil storage tank supply pump (P-4) to oil storage tanks (T-3, T-4)
14. Oil Storage tanks (T-3, T-4) to oil reclaim module (M-5).
15. Oil-water separation module (M-2) to water storage tanks supply pump (P-3)
16. Water storage tanks supply pump (P-3) to water storage tanks (T-5, T-6)
17. Water storage tanks (T-5, T-6) to fine particulate and suspended solids filtration module supply pump (P-5) to tanker.
18. Fine particulate and suspended solids filtration module (M-3) to carbon module supply pump (P-8).
19. Carbon module supply pump (P-8) to carbon module (M-4)
20. Fine particulate and suspended solids filtration module (M-3) to discharge point.

PILOT PLANT
 TO BE DETERMINED

PROCESS SCHEMATIC



Dimensions:

HxLxW

Piping Diagram

Manufacturer of Equipment

Volumes

Pumps (Sizes and Type)

Blower (cfm)

Tk = Waste Water Tank