

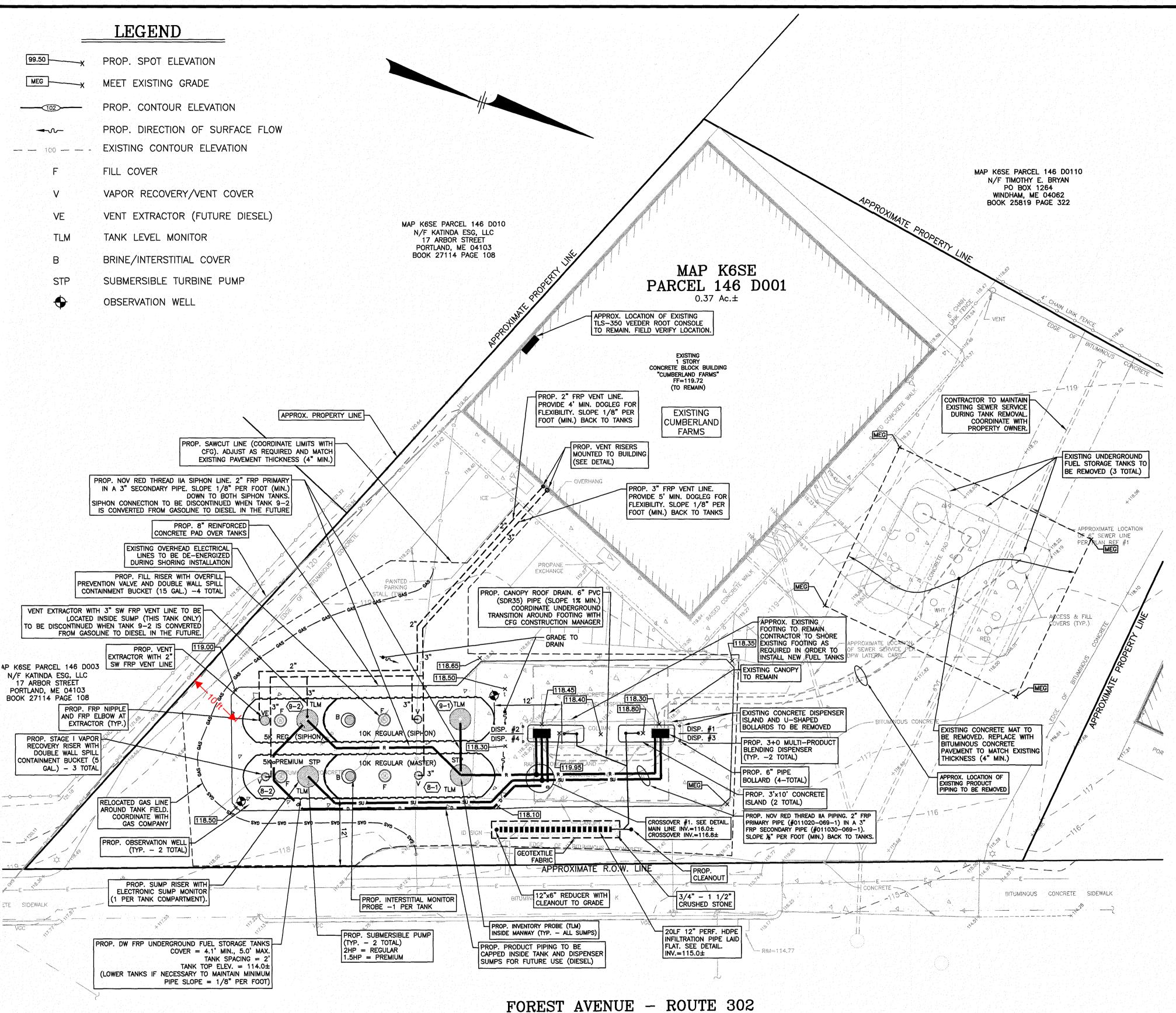
EXISTING	UST	LEGEND)
 			-

TANK#	CONTENT	CAPACITY	MATERIAL	INSTALLED	INTENT
(5-1)	REG. UNL.	8,000 gallons	dwfg	5-1-87	to be removed
(6-1)	PREM. UNL.	8,000 gallons	_dwfg_	5-1-87	to be removed
(7-1)	REG. UNL.	8,000 gallons	dwfg	5-1-87	to be removed

PROPOSED UST LEGEND

TANK#	<u>CONTEN</u> T	CAPACITY	MATERIAL	INSTALLED
8-1	REG. UNL.	10,000 galions	dwfg	proposed
(8−2)	SUPER UNL.	5,000 gallons	dwfg	proposed
9-1	REG. UNL.	10,000 gallons	dwfg	proposed
<u>(9−2</u>)*	REG. UNL.	5,000 gallons	dwfg	proposed

*TO BE PIPED FOR FUTURE DIESEL CONVERSION



SITE NOTES:

THIS IS AN EXISTING UST FACILITY (MAINE DEP FACILITY #12130). THE INTENT OF THIS PLAN IS TO SHOW THE INSTALLATION OF TWO NEW UNDERGROUND FUEL STORAGE TANKS, PRODUCT PIPING, VENT PIPING AND DISPENSER ISLANDS. EXISTING BOUNDARY, SITE LAYOUT, GRADING AND UTILITY INFORMATION AS SHOWN ON THIS PLAN WAS TAKEN FROM AN ACTUAL FIELD SURVEY AS PERFORMED BY THIS OFFICE.

GENERAL UST SYSTEM NOTES:

THE UNDERGROUND STORAGE SYSTEM WILL BE TESTED BY THE CERTIFIED TANK INSTALLER PRIOR TO BACKFILLING AS FOLLOWS:

A. PRODUCT PIPING & SIPHON LINE (NOV-RED THREAD IIA)
THE FOLLOWING TESTS SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

PRIMARY LINE:
VISUALLY INSPECT ALL JOINTS FOR PROPER INSERTION AND ADHESIVE CURE PRIOR TO PRESSURIZING THE SYSTEM. A GAP BETWEEN
THE ADHESIVE BEAD AND THE FITTING SHOULDER INDICATES THAT THE POSSIBILITY OF JOINT FAILURE EXISTS. MAKE ANY NECESSARY
REPAIRS BEFORE PRESSURIZING THE PIPING SYSTEM. CHECK THE INTEGRITY OF THE JOINTS BY PRESSURIZING THE SYSTEM TO 25 PSIG
AND HOLDING THE PRESSURE FOR A MINIMUM OF ONE MINUTE. SOAP ALL JOINTS TO TEST FOR LEAKS. IF THERE ARE NO LEAKS,
RAISE THE LINE PRESSURE IN THE SYSTEM TO A MAXIMUM OF 50 PSIG. AGAIN, HOLD THE PRESSURE FOR AT LEAST ONE HOUR AND
SOAP ALL JOINTS TO CHECK FOR LEAKS. AFTER THE PIPING HAS PASSED THE 50 PSIG PRESSURE TEST, REDUCE THE PRESSURE TO
25 PSIG AND MAINTAIN UNTIL ALL PAVING HAS BEEN COMPLETED.

SECONDARY LINE:
PERFORM AN AIR TEST AT 10 PSIG AND MAINTAIN THE PRESSURE FOR A MINIMUM PERIOD OF ONE HOUR, OR LONG ENOUGH TO SOAF ALL JOINTS, BEFORE BACKFILL. THE CONTRACTOR SHALL MAINTAIN THE REQUIRED PRESSURE FOR A MINIMUM OF 2 HOURS AFTER THE BACKFILL PROCESS HAS BEEN COMPLETED. THE RESULTS OF THIS POST BACKFILL TEST SHALL BE CERTIFIED BY THE INSTALLER AND RESULTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS OF THE TEST.

B. TANKS (CSI)
EACH NEW TANK SHALL BE PRECISION TIGHTNESS TESTED AT 5 PSIG FOR 30 MINUTES BY A QUALIFIED TECHNICIAN IN ACCORDANCE WITH THE CONTAINMENT SOLUTIONS INSTALLATION INSTRUCTIONS AND STATE REGULATIONS.

C. VENT PIPING (NOV-RED THREAD IIA)
THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

VISUALLY INSPECT ALL JOINTS FOR PROPER INSERTION AND ADHESIVE CURE PRIOR TO PRESSURIZING THE SYSTEM. A GAP BETWEEN THE ADHESIVE BEAD AND THE FITTING SHOULDER INDICATES THAT THE POSSIBILITY OF JOINT FAILURE EXISTS. MAKE ANY NECESSARY REPAIRS BEFORE PRESSURIZING THE PIPING SYSTEM. CHECK THE INTEGRITY OF THE JOINTS BY PRESSURIZING THE SYSTEM TO 25 PSIG AND HOLDING THE PRESSURE FOR A MINIMUM OF ONE MINUTE. SOAP ALL JOINTS TO TEST FOR LEAKS. IF THERE ARE NO LEAKS, RAISE THE LINE PRESSURE IN THE SYSTEM TO A MAXIMUM OF 50 PSIG. AGAIN, HOLD THE PRESSURE FOR AT LEAST ONE HOUR AND SOAP ALL JOINTS TO CHECK FOR LEAKS. AFTER THE PIPING HAS PASSED THE 50 PSIG PRESSURE TEST, REDUCE THE PRESSURE TO 25 PSIG AND MAINTAIN UNTIL ALL PAVING HAS BEEN COMPLETED.

WARNING: DO NOT AIR TEST LINES THAT HAVE CONTAINED HAZARDOUS, FLAMMABLE, OR COMBUSTIBLE LIQUIDS OR VAPORS UNLESS THEY ARE PURGED AND MADE SAFE BEFOREHAND. IF PURGING IS NOT FEASIBLE, AN INERT GAS SUCH AS NITROGEN OR HELIUM MAY BE USED TO PRESSURIZE THE PIPING.

D. DISPENSER SUMPS AND TANK SUMPS
THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

NEW TANK SUMPS (CSI):
HYDROSTATICALLY TESTING SUMPS IS REQUIRED TO ENSURE THAT ALL SUMP PENETRATIONS ARE TIGHT. THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION. THE NEW SUMPS SHALL BE HYDROSTATICALLY TESTED FOR TIGHTNESS AS FOLLOWS:

AFTER ALL SEAMS AND FITTINGS HAVE BEEN COMPLETED AND ALL PIPING AND CONDUITS HAVE BEEN INSTALLED;
 AT A LEVEL THAT IS WITHIN ONE INCH OF THE TOP OF THE SUMP;
 BY RECORDING THE LIQUID LEVEL MEASUREMENTS AT THE BEGINNING AND END OF THE TEST;
 FOR A MINIMUM OF 3 HOURS; AND
 WITH NO ADDITION OF LIQUID TO THE SUMP.

A PASSING HYDROSTATIC TEST SHALL HAVE NO LOSS OF LIQUID OR OBSERVED LEAKS AFTER THE COMPLETE DURATION OF THE

NEW DISPENSER SUMPS (BRAVO):
HYDROSTATICALLY TESTING SUMPS IS REQUIRED TO ENSURE THAT ALL SUMP PENETRATIONS ARE TIGHT. THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION. THE NEW SUMPS SHALL BE HYDROSTATICALLY TESTED FOR TIGHTNESS AS FOLLOWS:

1. AFTER ALL SEAMS AND FITTINGS HAVE BEEN COMPLETED AND ALL PIPING AND CONDUITS HAVE BEEN INSTALLED;
2. AT A LEVEL THAT IS WITHIN ONE INCH OF THE TOP OF THE SUMP;
3. BY RECORDING THE LIQUID LEVEL MEASUREMENTS AT THE BEGINNING AND END OF THE TEST;
4. FOR A MINIMUM OF 3 HOURS; AND
5. WITH NO ADDITION OF LIQUID TO THE SUMP.

A PASSING HYDROSTATIC TEST SHALL HAVE NO LOSS OF LIQUID OR OBSERVED LEAKS AFTER THE COMPLETE DURATION OF THE

E. SPILL CONTAINMENT EQUIPMENT (EMCO WHEATON)

THE FOLLOWING TESTS SHALL BE CERTIFIED BY THE INSTALLER AND RESULTS SHALL BE PROVIDED AT THE TIME OF BACKFILL INSPECTION. EMCO WHEATON DOUBLE SPILL CONTAINMENT MANHOLES ARE VACUUM TESTED, BOTH PRIMARY AND SECONDARY, PRIOR TO SHIPMENT. TO ENSURE THAT NO DAMAGE HAS INCURRED DURING SHIPMENT OR INSTALLATION, THE FOLLOWING TESTS ARE QUICK, ON—SITE

METHODS TO VERIFY THE INTEGRITY OF THE PRIMARY (E1) AND SECONDARY (E2) CONTAINMENTS. E1. PRIMARY HYDROSTATIC TESTING PROCEDURE:

1. FILL THE SPILL BUCKET WITH WATER UNTIL THE LEVEL IS 1" BELOW THE UPPER LIP OF THE SNOW PLOW RING. 2. AFTER 1 HOUR, IF THERE IS NO DETECTABLE DROP IN WATER LEVEL, THE SPILL BUCKET HAS PASSED THE TEST

E2. <u>SECONDARY INTEGRITY TEST (VACUUM):</u>
1. REMOVE THE GAUGE FROM THE INSPECTION PORT AND INSTALL THE TEST ADAPTER P/N 494343 (INCLUDED WITH THE VACUUM

ATTACH AIR PRESSURE SOURCE TO AIR PRESSURE REGULATOR ON VACUUM APPARATUS. 3. SLOWLY APPLY VACUUM OF 30" WC TO THE INTERSTITIAL SPACE; WAIT 30 SECONDS. REAPPLY 30" WC. 4. ENSURE SWITCH IS IN OFF (CENTER) POSITION, START TIMER AND RECORD REMAINING VACUUM AFTER 1 MINUTE.

5. IF THE REMAINING VACUUM AFTER 1 MINUTE IS 26" WC (1.9" MERCURY) OR GREATER, BOTH THE PRIMARY AND THE SECONDARY CONTAINMENT VESSELS ARE TIGHT.
6. IF THE TEST FAILS, REPEAT THE TEST. IF THE TEST FAILS A SECOND TIME, THEN PERFORM PRESSURE TEST.

. REPLACE COMPONENTS OR REPAIR AS NECESSARY 8. REINSTALL GAUGE (OR PUSH BUTTON TEST PORT ASSEMBLY, IF CM SENSOR MODEL)

E3. SECONDARY INTEGRITY TEST (PRESSURE): (ONLY IF VACUUM TEST FAILS)

1. ATTACH EMCO WHEATON 494343 INSPECTION TUBE TEST ADAPTER IN INSPECTION PORT. 2. PRESSURIZE THE SECONDARY CONTAINMENT INTERSTITIAL SPACE TO 30" WC. WAIT 30 SECONDS FOR THE PRESSURE TO STABILIZE. THE PRESSURE SUPPLY MUST THEN BE TURNED OFF (USING A BALL VALVE) TO ISOLATE THE PRESSURIZED INTERSTITIAL SPACE. RECORD THE PRESSURE, THEN WAIT ONE MINUTE AND RECORD THE PRESSURE AGAIN. THE PRESSURE

DECAY SHOULD BE LESS THAN 4" WC IN ONE MINUTE. 3. IF THE UNIT DOES NOT PASS THE PRESSURE DECAY TEST, PRESSURIZE THE INTERSTITIAL SPACE TO 30" WC IN ORDER TO ASSIST IN LOCATING THE PROBLEM AREA. 4. APPLY SOAP SOLUTION TO RIM AND BOLTS, AROUND BASE OF GAUGE TUBE AND FLANGE BASE. OBSERVE FOR LEAKAGE.

5. IF LEAKAGE/BUBBLES APPEAR IN ANY OF THESE AREAS, CHECK THE TORQUE VALUE ON BOLTS AND RETEST. IF LEAKS PERSIST, REMOVE GASKETS. CLEAN, REASSEMBLE AND RETEST.

F. OVERFILL PREVENTION VALVE - EVR CERTIFIED (EMCO WHEATON 1100EVR GUARDIAN)

F1. ONCE THE SEAL—ALL SEALANT HAS CURED FOR A MINIMUM OF 24 HOURS AND BEFORE INSTALLING THE A1100EVR OVERFILL PREVENTION VALVE INTO THE UNDERGROUND STORAGE TANK, A LEAK TIGHTNESS INTEGRITY TEST MUST BE PERFORMED.
F2. BEGIN BY SEALING BOTH ENDS OF THE A1100EVR OVERFILL PREVENTION VALVE WITH INFLATABLE PLUMBER'S PLUGS. APPLY A MAXIMUM PRESSURE OF 2 INCHES OF WATER COLUMN. SHOULD THE LEAK RATE EXCEED THE ALLOWABLE LIMIT OF 0.17 CFH, LOCATE THE LEAK POINT BY SPRAYING SOAP SOLUTION ALONG THE OUTSIDE OF THE A1100EVR OVERFILL PREVENTION VALVE.
F3. DO NOT EXCEED THE MAXIMUM PRESSURE OF 2 INCHES OF WATER COLUMN. THIS WILL DAMAGE THE A1100 OVERFILL PREVENTION VALVE AND RESULT IN VOIDING THE WARRANTY.

. THE CONTRACTOR SHALL CALL DIGSAFE AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.

S. ALL CONSTRUCTION AND EQUIPMENT MUST CONFORM TO THE APPLICABLE REGULATIONS AND CODES OF THE MUNIC:PALITY, MAINE DEP, AND THE NFPA.

. CONTRACTOR SHALL PROVIDE AT LEAST 5 DAYS ADVANCE NOTICE TO THE ENGINEER TO INSPECT THE INSTALLATION PRIOR TO FINAL

. CONTRACTOR TO VERIFY WITH OWNER THE PRODUCT PIPING LAYOUT AS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.

5. CONTRACTOR SHALL ADJUST GRADES AS REQUIRED OVER THE TANK MAT TO ENSURE THAT STORMWATER RUNOFF SHEDS AWAY FROM ALL SURFACE MANHOLES.

. FLEXIBLE ENTRY BOOTS ARE TO BE USED ON THE SIPHON LINE ONLY. CONTRACTOR SHALL NOTE THAT ANY BOSTIK SEALANT SHALL ONLY BE APPLIED TO THE EXTERIOR OF THE SUMP ENCLOSURE AS DIRECTED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. B. ALL NEW TANK RISERS SHALL BE COATED WITH 1/8" MIN. FIBERGLASS COATING OR 1/8" EPOXY RESIN COATING. THE USE OF PVC 1/8"

MIL PIPE WRAP IS NOT PERMITTED. . ALL PIPING SYSTEMS SHALL PROVIDE FLEXIBILITY FOR MOVEMENT AT THE TANK END, DISPENSER END, AND AT PIPING DIRECTION CHANGES TO RELIEVE STRESS. CONTRACTOR TO PROVIDE FLEXIBILITY ON ALL FIBERGLASS LINES BY PROVIDING 4' MIN. DOGLEG FOR 2" DIA. PIPE, 5' MIN. DOGLEG FOR 3" DIA. PIPE, AND 5'-6" MIN. DOGLEG FOR 4" DIA. PIPE. CHANGES IN DIRECTION NOT ATTACHED TO

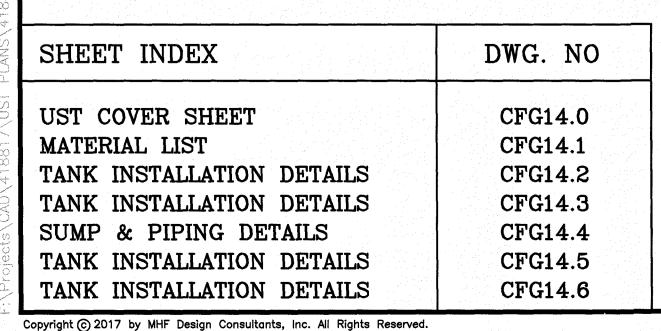
RIGID CONNECTION SHALL NOT HAVE A STRAIGHT RUN OF LESS THAN 4' ON ONE SIDE OF THE CONNECTION. O. PER NFPA 30A (2015) 6.7, EMERGENCY ELECTRICAL DISCONNECTS ARE REQUIRED FOR FUEL DISPENSING SYSTEMS. SUCH DEVICES OR DISCONNECTS SHALL BE INSTALLED IN APPROVED LOCATIONS BUT NOT LESS THAN 20' OR MORE THAN 100' FROM THE FUEL DISPENSING DEVICES THEY SERVE. (SEE SHEET CFG14.6 FOR DETAIL)

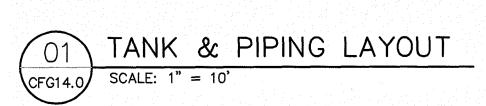
PLAN REFERENCES:

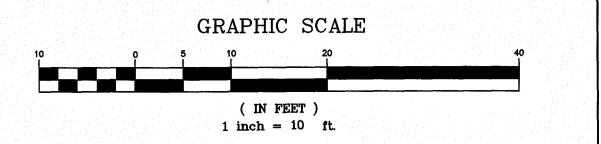
44 Stiles Road, Suite One

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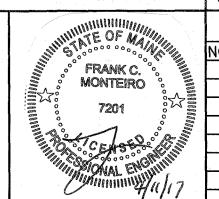
"SITE PLAN, 1132-1144 FOREST AVENUE", PORTLAND, MAINE, PREPARED FOR CUMBERLAND FARMS, 777 DEDHAM STREET, CANTON, MASS. 02021, DATED SEPT. 10, 2003, SCALE: 1"=20'











		gn Consultants, Inc.	ENGINEERS • PLANNERS • SURVEYOR www.mhfdesign.com
	RE'	VISIONS	V# 0492
DATE	REV. BY.	DESCRIPTION	Store# 5570
			Gas Station# 180
			MEDEP Facility

1136 FOREST AVENUE Salem, New Hampshire 03079 (603) 893-0720 PLANNERS • SURVEYORS mhfdesign.com CSI - DOUBLE WALL FIBERGLASS TANK INSTALLATION FOR: V# 0492

Store# 5570 Station# 1805 CUMBERLAND FARMS, INC. DATE: APRIL 11, 2017 100 Crossing Boulevard FILE: Framingham, MA 01702 4188TP.DWG

> UST COVER SHEET CFG14.0

MHF PROJECT NO. 418817 SHEET 1 OF 7

DRAWN BY: DSA