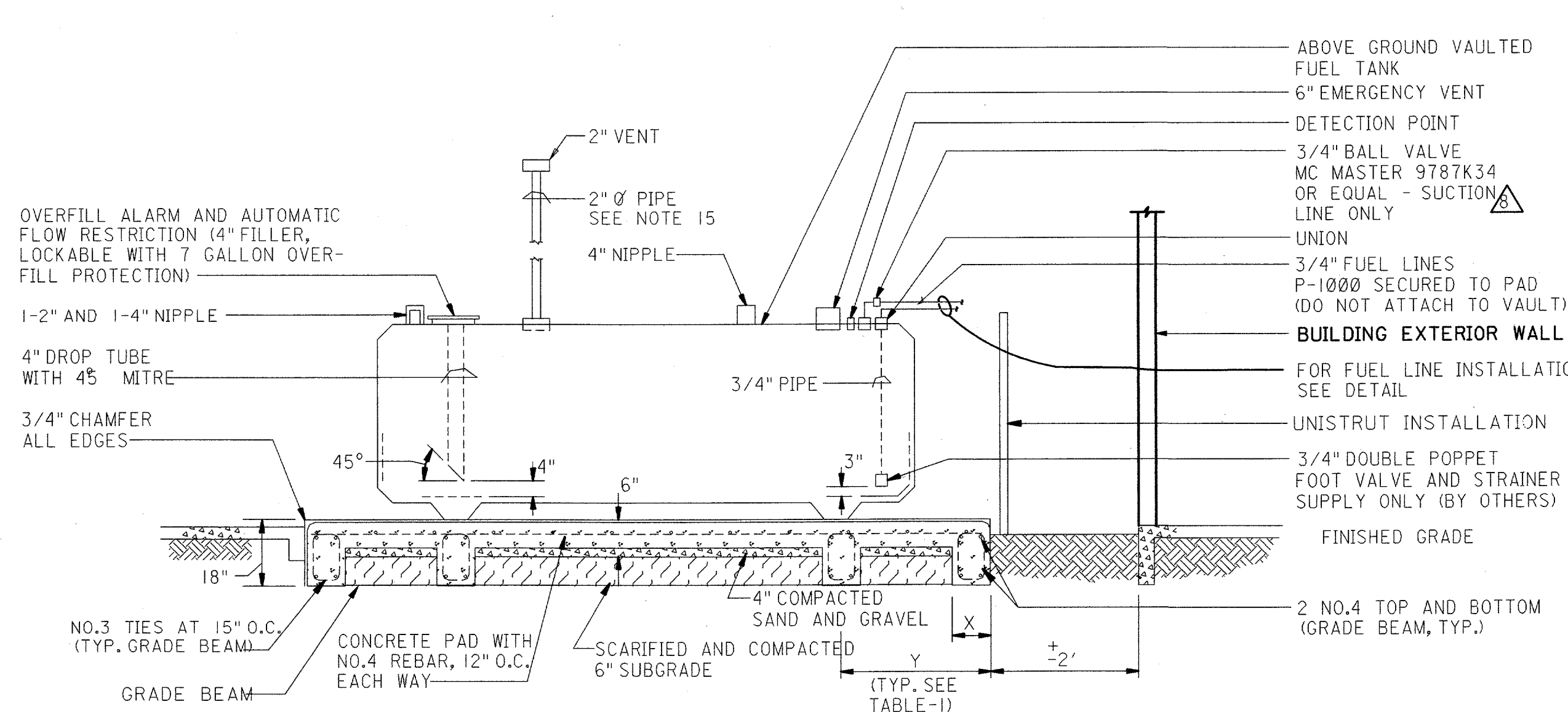
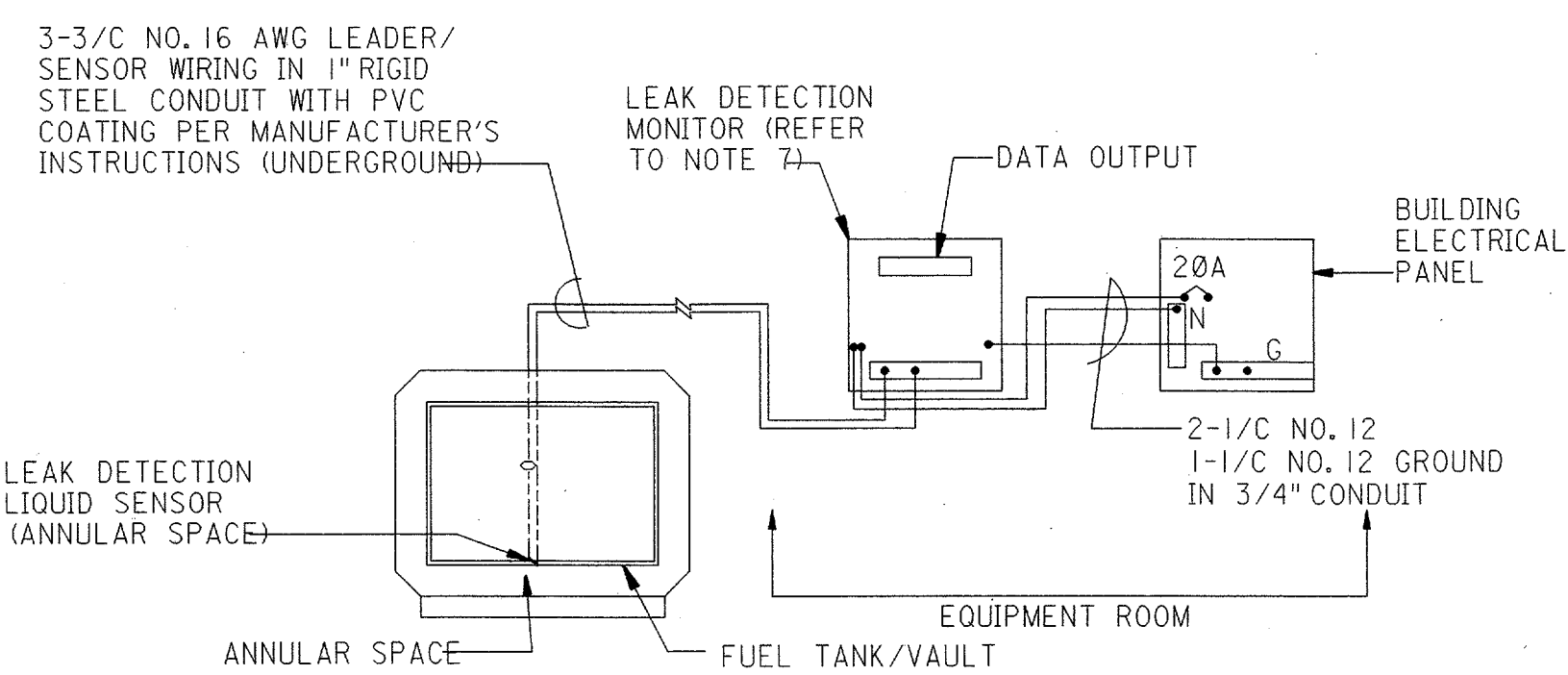


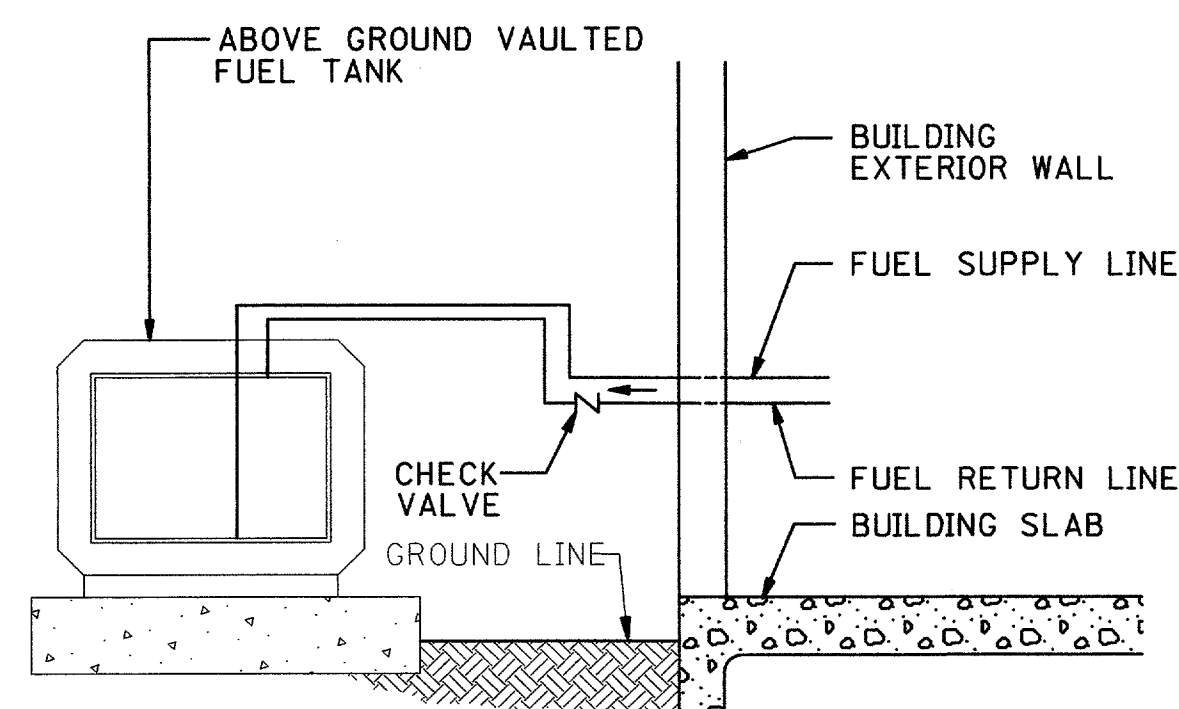
FUEL TANK GENERAL INSTALLATION
NOT TO SCALE



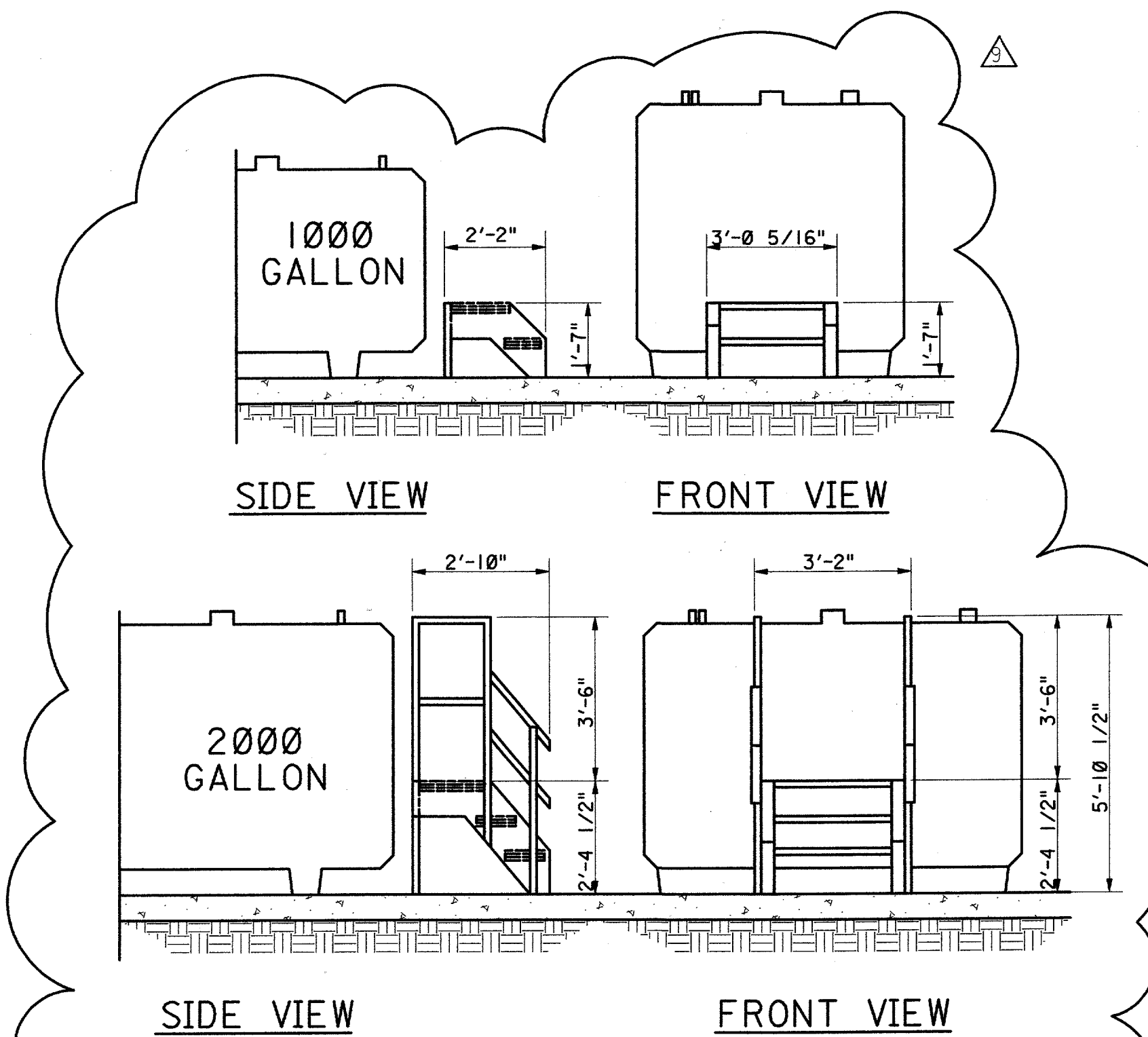
FUEL STORAGE TANK ELEVATION
NOT TO SCALE



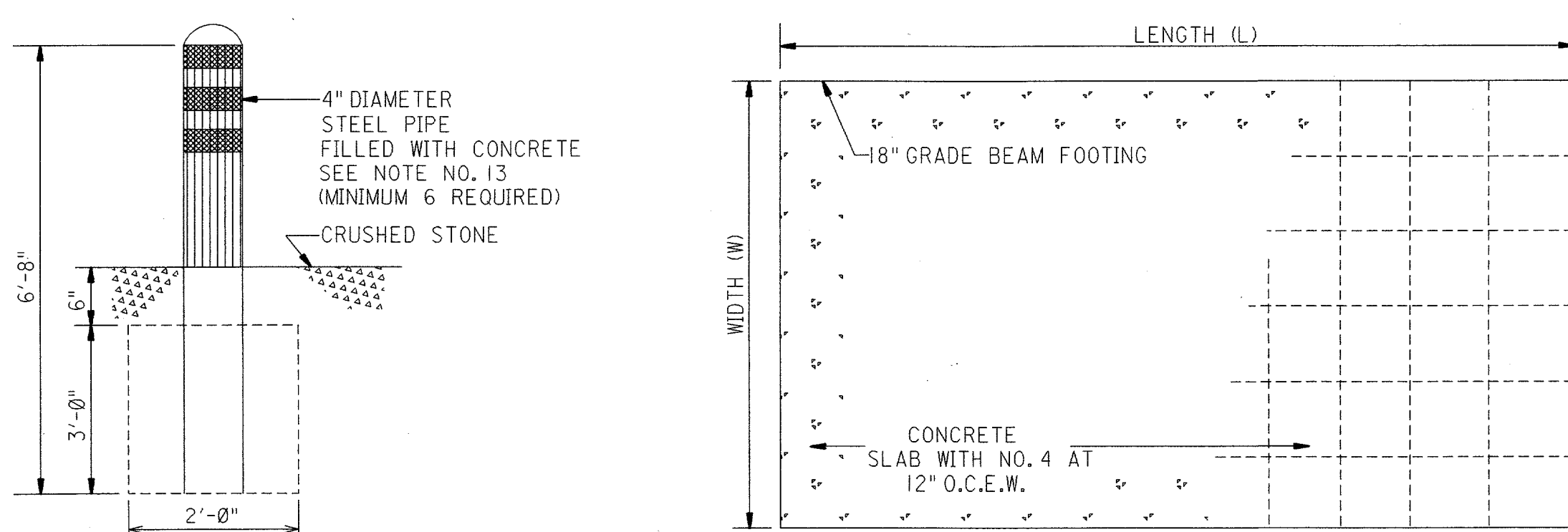
LEAK DETECTION WIRING DIAGRAM
NOT TO SCALE



ABOVE GROUND PIPING INSTALLATION
NOT TO SCALE



1000 AND 2000 GALLON TANKS WITH MILTON STAIRS
NOT TO SCALE (MILTON STAIRS COME UNASSEMBLED)



GUARD POST DETAIL
NOT TO SCALE

SLAB DETAIL
NOT TO SCALE

NOMINAL TANK CAPACITY	APPROXIMATE SHIPPING WEIGHT	CONCRETE PAD x LENGTH (L) (MIN.)	CONCRETE PAD x WIDTH (W) (MIN.)	FOOTING WIDTH (X)	FOOTING INSET (Y)	CONCRETE 28 DAY COMPRESSIVE STRENGTH (psi)
500 GAL.	12,500	12'-0"	6'-0"	1'-0"	1'-3"	4500
1000 GAL.	20,000	12'-0"	7'-0"	1'-0"	2'-3"	4500
2000 GAL.	30,000	12'-0"	9'-0"	1'-0"	2'-6"	4500
4000 GAL.	48,000	14'-0"	10'-0"	1'-0"	3'-6"	5000

TABLE-1 "FOUNDATION DATA"

REV.	DATE	DESCRIPTION	DFTG.	CHECKED	FACILITY/IST
1.	8-21-94	FUEL LINE SECONDARY CONTAINMENT	JRW	EF	
2.	4-2-94	ADDED DAY TANK NOTES	PJC	EF	
3.	3-9-94	REMOVED DAY TANK NOTES	MJF	JP	
4.	11-17-94	UPDATE OF ABOVE GROUND TO UNDERGROUND TRANSITION.	RKM	AS.	
03-29-95		GENERAL REVISIONS	RKM	J.M.P.	
06-01-95		REVISE NOTE 1 AND NOTE 16.	MJK	J.P.	
03-22-96		UPDATED REVISION.	LTM	A.S.	
08-22-96		REMOVE BALL VALVE FROM RETURN LINES	RWD	J.N.	
09-09-96		ADD MILTON STAIR STANDARD, UPDATE TABLE DATA, AND NOTE REVISIONS.	KS	J.A.D.	

- NOTES:**
- ABOVE GROUND VAULTED FUEL TANK SHALL INCLUDE THE FOLLOWING FEATURES (AS A MINIMUM); 3/16" STEEL PLATE PRIMARY TANK WITH 30 YEAR WARRANTY AND UL-142 LISTED, SECONDARY CONTAINMENT OF 30 MIL POLYETHYLENE GEOMEMBRANE LINER WITH A LAYER OF POLYETHYLENE INSULATION, ENCASED IN A 6" THICK, PRECAST, 3000 PSI MONOLITHIC CONCRETE VAULT WITH 6" X 10" WIRE MESH. MAXIMUM HEIGHT NOT TO EXCEED 6'-0". TANK SHALL HAVE AN OVERFILL ALARM AT 90% AUTOMATIC FLOW SHUT OFF AT 95% AND A 7 GALLON OVERFILL PROTECTION. EXTERIOR OF VAULT SHALL BE PAINTED WITH A 2-PART, WATER BASE, TANK SHALL HAVE UL LISTING LABEL DISPLAYED ON EXTERIOR SURFACE VAULT SHALL BE PRECAST CONCRETE WITH SUPPORT LEGS. SUGGESTED SOURCE: CONVAULT OR EQUAL.
 - PIPE LINE AND ELECTRICAL LAYOUT AT A/G TANK DETERMINED BY CLIENT.
 - ALL PIPE SHALL BE BLACK IRON, SCH 40. FITTING SHALL BE MALLEABLE IRON AND APPROVED FOR USE WITH FUEL OILS. ALL MATERIALS FURNISHED SHALL BE APPROVED FOR USE WITH FUEL OIL STORAGE BY THE STATE FIRE MARSHAL.
 - CONTRACTOR SHALL REGISTER THE TANK SYSTEM WITH THE APPLICABLE STATE ENVIRONMENTAL AGENCY, THE LOCAL FIRE MARSHAL, AND THE TANK MANUFACTURER.
 - CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TANK FITTINGS, VENTS SIGNS, ETC. CONTRACTOR SHALL PROVIDE A FUEL LEVEL GAUGE STICK CALIBRATED IN GALLONS EVERY 1/8 INCH OF FURNISHED TANK DEPTH UPON THE SATISFACTORY COMPLETION OF ALL AIR AND SOAP TESTS AND AT THE APPROVAL OF THE R.E., THE CONTRACTOR SHALL FILL THE TANK WITH NO. 2 DIESEL FUEL. NOTE: DUE TO DIESEL'S THERMIC EXPANSION, TANK SHALL BE FILLED TO A MINIMUM CAPACITY OF 95% PER TNRCC.
 - PIPES SHALL BE TESTED WITH AN INTERNAL PRESSURE OF 5 PSI PRIOR TO FILLING THE TANK.
 - ENVIRONMENTAL MONITOR SHALL BE CAPABLE OF LIQUID LEAK DETECTION AND TANK FUEL LEVEL SENSING WITH REMOTE DATA TRANSMISSION CAPABILITY AND PRINTED OUTPUT. THE MONITOR SHALL HAVE (1) LIQUID LEAK DETECTION SENSORS, BUT SHALL BE CAPABLE OF HANDLING 4 MINIMUM LIQUID LEAK DETECTION SENSORS. AND SHALL BE ABLE TO DIFFERENTIATE BETWEEN WATER AND HYDROCARBONS AS MANUFACTURED BY ARIZONA INSTRUMENT "TLM 830", 830P, PNEUMATOR "LDE 700 P", VEEDOR-ROOT "TLS-3501" OR EQUAL. INSTALL LEAK DETECTION MONITOR IN SPACE WHICH IS CLOSE TO A TELEPHONE AND IS PREFERABLY AIR CONDITIONED. ALL SENSOR CIRCUITRY AT AST SHALL BE INSTALLED IN LIQUID TIGHT CONDUIT SYSTEM.
 - BOND AND GROUND FUEL TANK AND CONDUIT LINES TO A 3/4"-10' GROUND ROD AND/OR SITE COUNTERPOISE SYSTEM.
 - EXACT PLACEMENT OF CONNECTIONS MAY VARY SLIGHTLY FROM THIS DRAWING.
 - CONTRACTOR SHALL INSTALL FIRE-SAFE 3/4" BALL VALVES, MCMASTER-CARR NO. 4784R64 OR EQUAL ON BOTH FUEL LINES NEAR ENGINE-GENERATOR.
 - FABRICATE AND INSTALL UNISTRUT SUPPORTS FOR EXPOSED 1" RSC. DO NOT ATTACH UNISTRUT SUPPORTS TO FUEL TANK.
 - ALL ABOVEGROUND EXTERIOR FUEL LINE PIPING SHALL BE PAINTED WITH ANTI-CORROSIVE PAINT.
 - GUARDS POST SHALL BE PLACED 2' FROM PAD AND 4' O.C. EACH POST SHALL BE IDENTIFIED WITH REFLECTIVE COATINGS. SEE R.E. FOR APPROVED COLORS.
 - INSTALL LOCKABLE VALVES TO PREVENT TAMPERING. THE INSTALLATION CONTRACTOR SHALL PROVIDE LOCKABLE CAPS ON ALL SPARE INLET NIPPLES.
 - THE HEIGHT OF TANK VENT SHALL BE A MINIMUM OF 12'-0" AND/OR 2'-0" ABOVE ADJACENT ROOF LINE WHEN TANK IS 5'-0" FROM BUILDING LINE. IF TANK EXCEEDS 5'-0" DISTANCE TO THE BUILDING LINE, THEN THE TANK VENT HEIGHT FROM TOP OF TANK SHALL BE 8'-0".
 - THE CONTRACTOR SHALL ASSEMBLE AND INSTALL MILTON STAIRS FOR CONVAULT TANKS. COORDINATE WITH RE/CONTR. FOR EXACT LOCATION. ALL SYSTEMS SHALL BE INSTALLED WITH CAREFUL CONSIDERATION OF REFUELING PROCEDURES.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGION
FORT WORTH, TEXAS

ABOVE GROUND FUEL TANK VAULT

SUBMITTED ORIGINAL SIGNED BY:
ERBEY FERNANDEZ

APPROVED ORIGINAL SIGNED BY:
JOHNNIE L. WHITE

PROGRAM IMPLEMENTATION ENGINEER
SUPERVISOR OF SECTION, ASW-457

DESIGNED: FERNANDEZ
ISSUED BY: DATE: 8-21-92

REVIEWED:
ORG. DFT. CMC/KS 09-24-96
AIRWAY FACILITIES DIVISION
DRAWING NUMBER:
SWSD-UST-M07-09