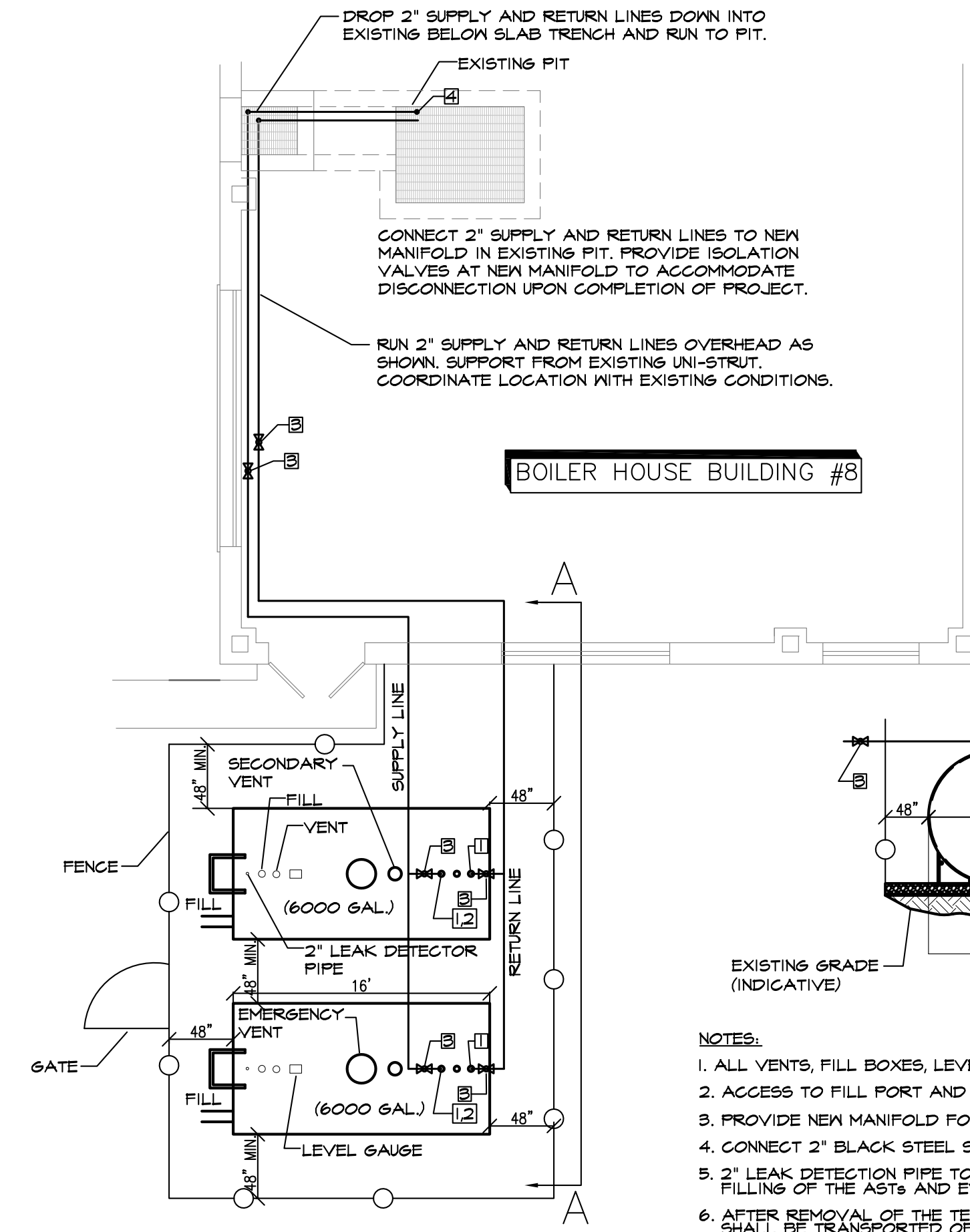
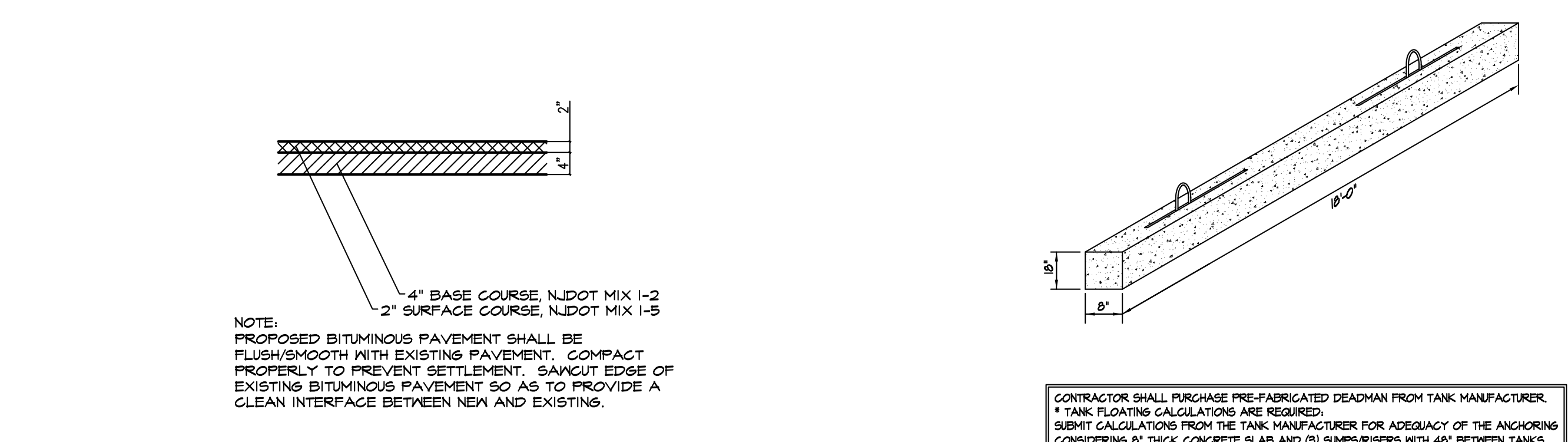


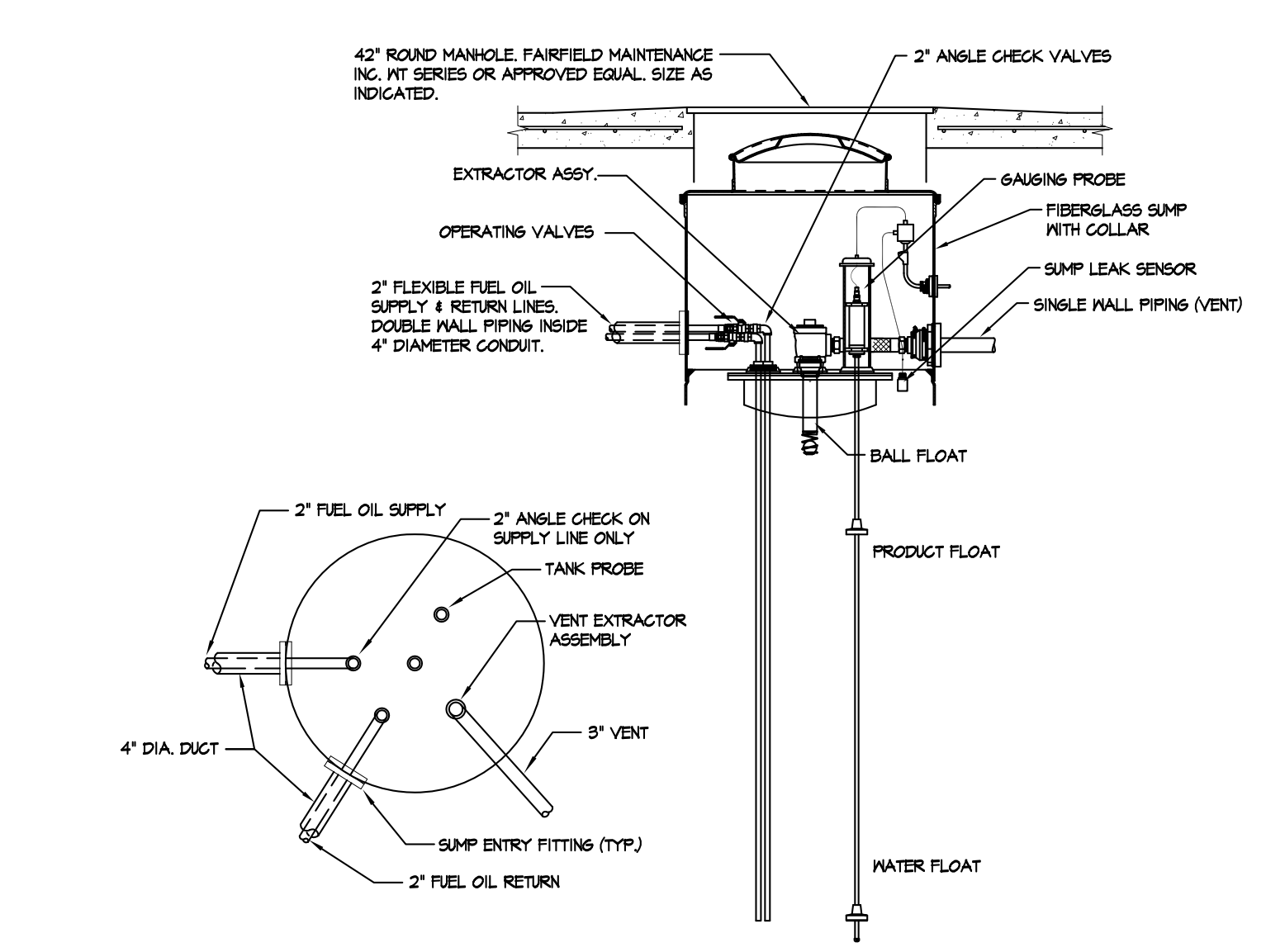
three eighths inch = one foot
one half inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot



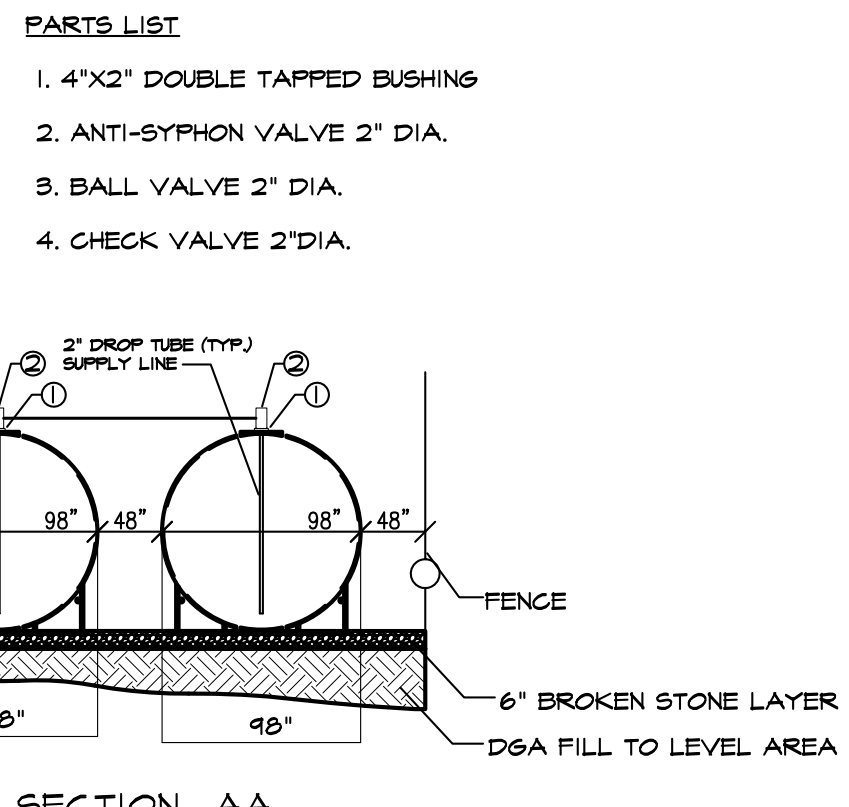
1 M101 NOT TO SCALE



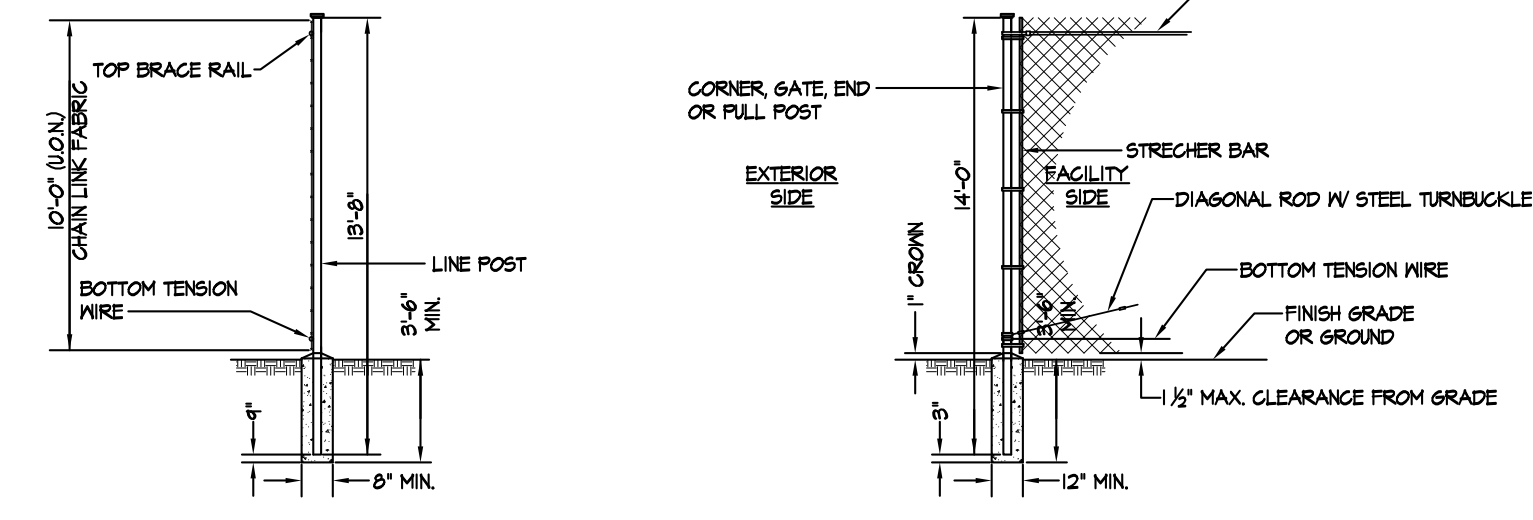
4 M101 NOT TO SCALE



8 M101 NOT TO SCALE



2 M101 NOT TO SCALE



6 M101 NOT TO SCALE

THE PROJECT SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

SCOPE OF WORK WILL INCLUDE PROVISION OF TWO 6000 GALLON CAPACITY STANDBY FUEL OIL STORAGE TANKS FOR THE DURATION OF THE PROJECT, REMOVAL OF (6) 25,000 GALLON SINGLE WALLED STEEL TANKS WHICH ARE LOCATED WITHIN A BELOW-GRADE CONCRETE VAULT, AND INSTALLATION OF AN UNDERGROUND STORAGE TANK (UST) SYSTEM COMPRISING OF (4) NEW 20,000 GALLON FIBERGLASS FUEL OIL STORAGE TANKS.

PROVISION OF TEMPORARY TANKS FOR STANDBY FUEL SUPPLY UP TO 12,000-GALLONS TO THE EXISTING BOILERS FOR A PERIOD OF FIVE MONTHS. THIS ITEM WILL INCLUDE:

1. FILLING AND LEVELING THE LOCATION DESIGNATED FOR TEMPORARY FUEL STORAGE TO DIMENSIONS REQUIRED TO FIT THE TANKS, FENCING AND ACCESS STAIRS. THIS AREA IS LOCATED IN THE EXTERIOR AREA ON THE SOUTHWESTERN SIDE OF THE BOILER HOUSE.
2. TRANSPORTATION TO SITE AND INSTALLATION OF TWO DOUBLE-WALLED OR DIKED TEMPORARY TANKS OF 6,000-GALLON CAPACITY.
3. INSTALLATION OF PIPING INCLUDING INTERCONNECTION TO THE EXISTING FUEL PIPING TO THE EXISTING BOILERS AT THE DESIGNATED LOCATION.
4. COMMISSIONING OF THE STAND-BY FUEL OIL SUPPLY SYSTEM BY TRANSFERRING FUEL OIL FROM THE EXISTING TANKS WITHIN THE CONCRETE VAULT AFTER THE TEMPORARY FUEL OIL SUPPLY SYSTEM IS COMMISSIONED.
5. THE SYSTEM IS TO REMAIN OPERATIONAL FOR A PERIOD OF FIVE MONTHS UNTIL THE NEW TANKS ARE OPERATIONAL.
6. DISMANTLING OF THE STAND-BY ARRANGEMENTS ONCE THE NEW UST SYSTEM IS FULLY COMMISSIONED INCLUDING RESTORATION OF THE ASPHALT DRIVEWAYS AND CURBINS.

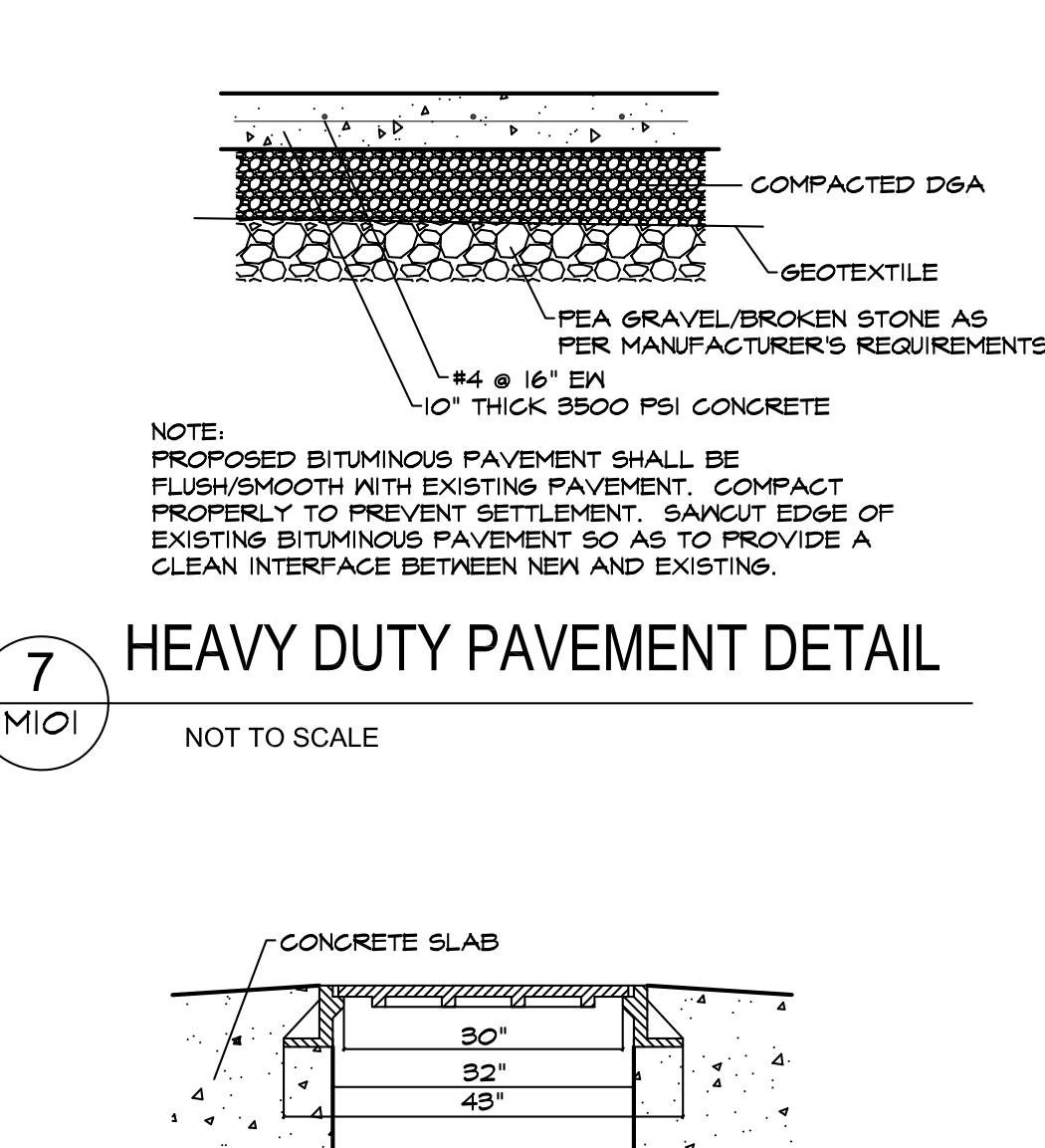
REMOVAL OF SIX 25,000-GALLON SINGLE-WALLED STEEL TANKS WHICH ARE LOCATED WITHIN A CONCRETE VAULT LOCATED IN THE EXTERIOR AREA ON THE NORTHWESTERN SIDE OF THE BOILER HOUSE. THIS ITEM WILL INCLUDE:

1. DISCONNECTING ALL UTILITIES INCLUDING ELECTRICAL POWER SUPPLY WITHIN THE UNDERGROUND VAULT.
2. ALL WORK INSIDE THE CONCRETE VAULT SHALL BE CONSIDERED CONFINED SPACE ENTRY UNTIL THE TOP SLAB IS REMOVED.
3. PUMPING OUT THE RESIDUAL PRODUCT FROM THE EXISTING TANKS.
4. REMOVAL OF ASPHALT FROM THE CONCRETE ROOF SLAB.
5. REMOVE CONCRETE ROOF SLAB OF THE VAULT TO EXPOSE THE EXISTING TANKS. THE SIDEWALLS AND BOTTOM SLAB OF THE CONCRETE VAULT TO REMAIN.
6. CLEAN OUT, REMOVE AND DISPOSE THE TANKS OFF-SITE.
7. DEMOLISH THE VERTICAL STEEL SUPPORT BEAMS, COLUMNS, COLUMN FOUNDATIONS AND TANK SADDLES IN THE AREA WHERE THE REPLACEMENT USTS ARE TO BE INSTALLED.

INSTALLATION OF AN UNDERGROUND STORAGE TANK SYSTEM COMPRISING OF FOUR 20,000-GALLON DOUBLE WALL FIBERGLASS TANKS. THIS ITEM WILL INCLUDE:

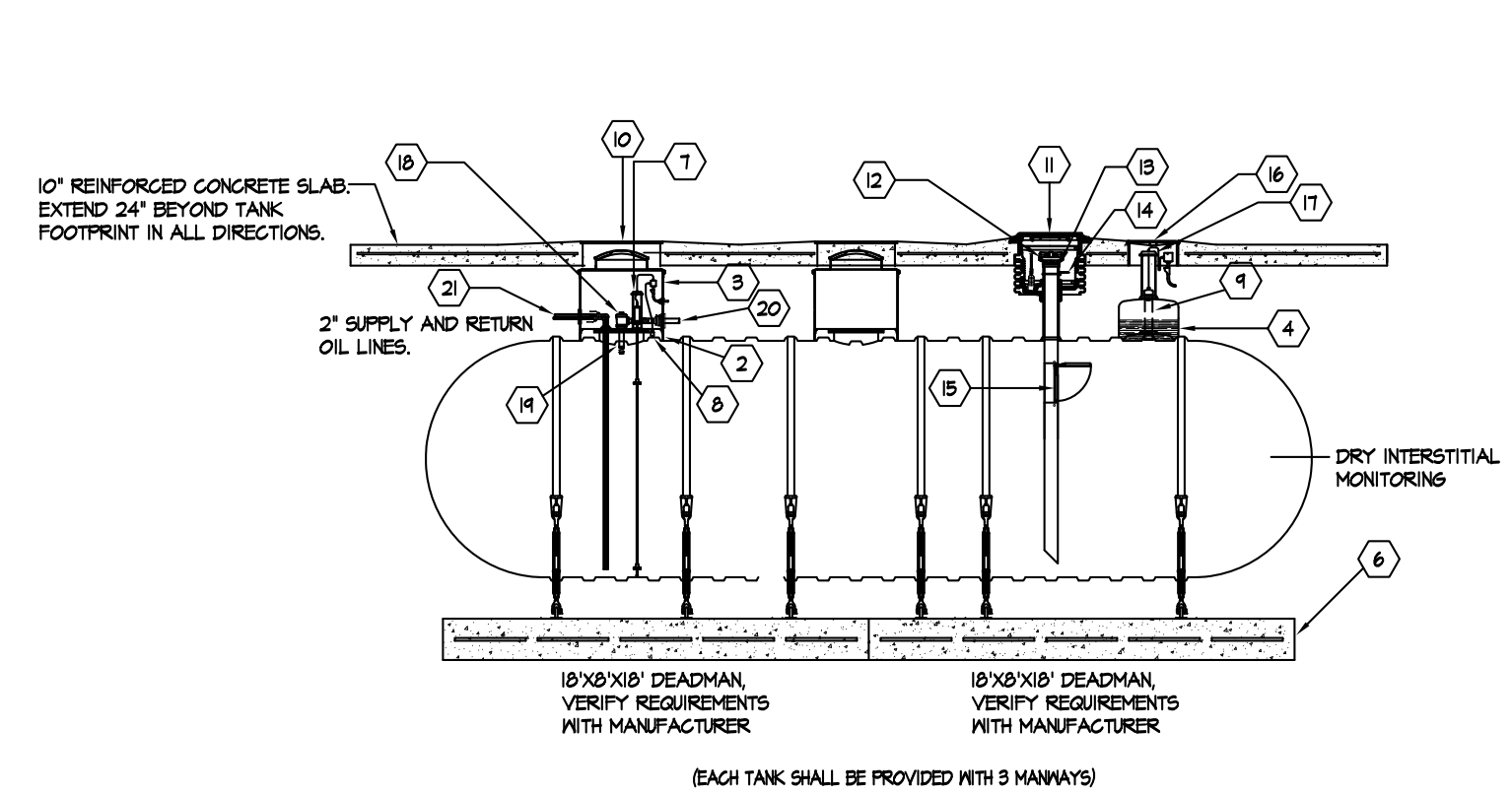
1. INSTALLATION OF PRECAST CONCRETE DEAD-MEN AS SPECIFIED BY TANK MANUFACTURER.
2. BACKFILLING WITHIN THE VAULT WITH CLEAN STONE TO FORM THE BEDDING FOR THE NEW TANKS AS SPECIFIED BY THE TANK MANUFACTURER.
3. INSTALLATION OF FOUR 20,000-GALLON TANKS AS SPECIFIED AND APPROVED BY THE ENGINEER.
4. INSTALLATION OF 2" DIAMETER OPN/VRT DOUBLE WALL PIPING WITHIN 4" DUCTING AS SPECIFIED AND APPROVED BY THE ENGINEER.
5. PROVISION OF THE TANK MONITORING PROBES AND SENSORS AS SPECIFIED AND APPROVED BY THE ENGINEER. THE TANKS AND PROBE WIRING WILL TERMINATE AT THE EXISTING INCON CONSOLE LOCATED WITHIN THE BOILER HOUSE.
6. COMMISSIONING OF THE SYSTEM ALONG WITH TRAINING FOR OPERATING PERSONNEL.

5 M101 NOT TO SCALE



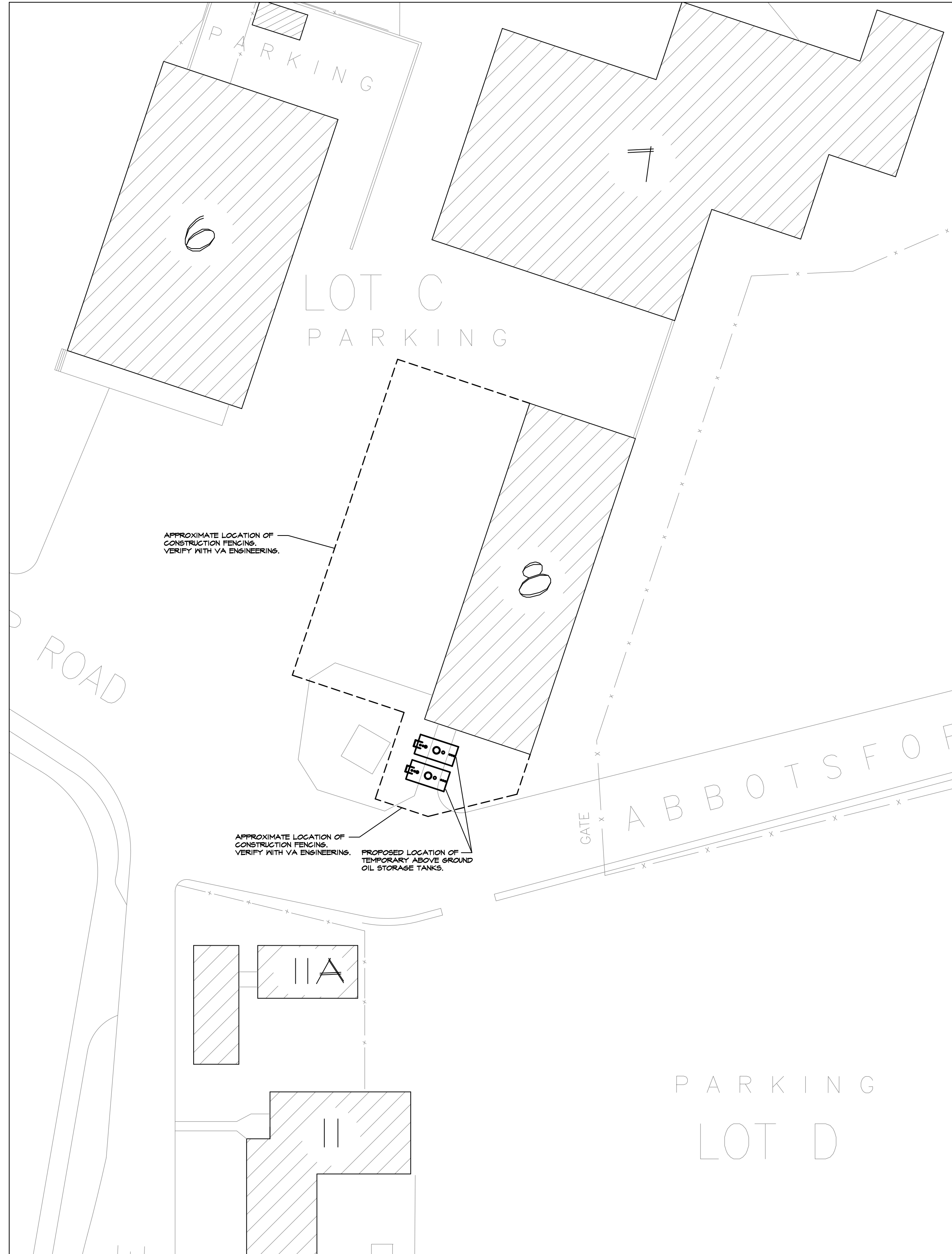
7 M101 NOT TO SCALE

9 M101 NOT TO SCALE



3 M101 NOT TO SCALE

PARTS LIST	
NO.	DESCRIPTION
1	DOUBLE WALL FIBERGLASS STORAGE TANK
2	42" FIBERGLASS ATTACHED COLLAR RISER
3	42" WATER TIGHT FIBERGLASS ATTACHED COLLAR RISER
4	HYDROSTATIC MONITORING SYSTEM
5	FIBERGLASS HOLD DOWN STRAP W/ TURNBUCKLE ASSY.
6	PRECAST DEADMAN - BY TANK MFG.
7	LEVEL PROBE
8	DISTINGUISHING LEAK SENSOR
9	HYDROSTATIC MONITORING SENSOR
10	42" LARGE ROUND MANHOLE
11	FIFTEEN GALLON SPILL FILL MANHOLE W/ LEVER TYPE HANDLE
12	FILL CAP
13	FILL ADAPTER
14	PRODUCT LABEL MARKER
15	OVERFILL PREVENTION VALVE
16	MONITORING MANHOLE
17	4" SENSOR CAP
18	EXTRACTOR ASSEMBLY
19	BALL FLOAT
20	SINGLE WALL VENT PIPING
21	2" DIA. FLEX PRODUCT PIPING



10 M101 SCALE: 1" = 30'

100% FINAL SUBMISSION

Revisions:	Date
100% Final Submission	5-23-12
100% Design Review Submission	5-15-12
95% Design Review Submission	4-26-12
65% Design Review Submission	3-30-12

CONSULTANTS:

LAWRENCE J. MUSE, P.E.
N.J. LICENSE GE28246

ARCHITECT/ENGINEERS:
LJM ENGINEERING GROUP
439 Route 46 East
Rockaway, New Jersey 07866
Phone: (973) 586-3004
E-Mail: office@ljmengineering.com
Fax: (973) 586-3009

Drawing Title
NOTES AND DETAILS
Approved: Project Director

Project Title
BOILER PLANT STORAGE TANK REPLACEMENT
385 TREMONT AVENUE
EAST ORANGE, NJ 07018
Location
East Orange Campus
Date
May 15, 2012
Checked
LJM
Drawn
CLM

Project Number
561-10-139
Building Number
8
Drawing Number
M101
Dwg. 2 of 4

Office of
Construction
and Facilities
Management
Department of
Veterans Affairs