

# RESOLUTION OF THE CITY COUNCIL

*No.* 119

*Approved* March 10, 2000

WHEREAS, White Fuel Co. (hereinafter "White Fuel") is the owner of a gasoline station located at 9 Hylstead Street, Providence, Rhode Island; and

WHEREAS, White Fuel seeks to add and to replace certain underground storage tanks, to enlarge storage capacity to 16,000 gallons, and to undertake other construction in order to modernize the station and to meet federally mandated vapor recovery regulations,

NOW, THEREFORE, BE IT RESOLVED That White Fuel is authorized to remove, replace and enlarge the underground gasoline storage and to undertake the construction of a vapor recovery system and the improvements listed in its application of December, 1999, provided, however:

1. That all construction is undertaken consistent with the plans presented to the City Council Committee on Public Works and the Department of Inspection and Standards as those plans may be modified by the City Council Committee on Public Works and the Department of Inspection and Standards.

2. White Fuel shall perform any remediation of environmental damage at or originating at the situs of the station which is necessary so as to satisfy the legal requirements of any governmental body or agency.

3. In the event that the construction requires obstruction or displacement of the public way, White Fuel shall execute an indemnification and hold harmless agreement satisfactory to the City Solicitor and shall provide insurance also satisfactory to the City Solicitor (or, if self-insured, a certificate of financial responsibility) in an amount of not less than one hundred thousand dollars (\$100,000.00) listing the City of Providence, its agents, officers, servants, employees, and assigns as additional named insureds. Such policy shall be acceptable to the City Solicitor.

4. White Fuel does agree that by undertaking any construction pursuant to this Resolution, all statements or representation(s) are made a part of this Resolution and any authorization granted hereunder are

IN CITY COUNCIL  
DEC 16 1999  
FIRST READING  
REFERRED TO COMMITTEE ON  
PUBLIC WORKS  
\_\_\_\_\_  
CLERK

THE COMMITTEE ON  
~~Public Works~~  
- Recommends Public Hearing held  
Craig Bestwick  
Jan 24, 2000  
Clerk

THE COMMITTEE ON  
PUBLIC WORKS  
Approves Passage of  
The Within Resolution  
Craig Bestwick  
Feb. 14, 2000 Clerk



specifically conditioned upon compliance with said statements and representation(s).

5. Such other conditions as His Honor, the Mayor; and the City Solicitor may impose thereon.

IN CITY COUNCIL  
MAR 3 2000  
READ AND PASSED

  
PRES.

CLERK

APPROVED

MAR 10 2000

  
MAYOR

**APPLICATION FOR  
FUEL DISPENSING PERMIT**

-----

Permit No. \_\_\_\_\_ By \_\_\_\_\_ Date \_\_\_\_\_

To the Director of the Department of Inspection & Standards:

1. 2nd Building District 10th Ward
2. Street Location 9 Hylestead Street
3. Plat 54 Lot 885
4. Owner White Fuel Co.
5. New \_\_\_\_\_ Existing X
6. Number of Buildings One
7. Number of Curb Cuts Two (2) Width Existing
8. Drawings Accompanying Application Yes
9. Number of Pumps Now on Premises Two (2)
10. Number of Additional Pumps Two (2) To be replaced
11. Total Pumps on Lot Two (2)
12. Capacity of Tanks (existing) 15,000 (to be replaced)
13. Capacity of Additional Tanks 16,000 To be installed
14. Total Capacity on Lot 16,000 Gallons
15. Is Fuel or Oil to Be Sold? Yes
16. Zoning District M-1
17. Estimated Cost \_\_\_\_\_

Approved: John Portingtas  
Commissioner of Public Safety

Approved: Lucene J. Iesta  
Traffic Engineer

Approved: [Signature] - 12/02/99  
Director of Public Works

Approved: Ramzi J. Jasy  
Director of the Department of  
Inspection and Standards

REMARKS

Remove existing tanks, replace  
with new 3 compartment 16,000 gallon  
tank, replace 2 existing pumps with  
2 new pumps.

[Signature]  
Owner's Name

12 Hylestead St. Paw. R. Source  
Address

\_\_\_\_\_  
Agent's Name

\_\_\_\_\_  
Agent's Address

401 467-6510  
Telephone Number

**APPLICATION FOR  
FUEL DISPENSING PERMIT**

-----

Permit No. \_\_\_\_\_ By \_\_\_\_\_ Date \_\_\_\_\_

To the Director of the Department of Inspection & Standards:

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7. Number of Curb Cuts Two (2) Width Existing  
8. Drawings Accompanying Application Yes  
9. Number of Pumps Now on Premises Two (2)  
10. Number of Additional Pumps Two (2) To be replaced  
11. Total Pumps on Lot Two (2)  
12. Capacity of Tanks (existing) 15,000 (to be replaced)  
13. Capacity of Additional Tanks 16,000 To be installed  
14. Total Capacity on Lot 16,000 Gallons  
15. Is Fuel or Oil to Be Sold? Yes  
16. Zoning District M-1  
17. Estimated Cost \_\_\_\_\_

Approved: John Portington  
Commissioner of Public Safety

Approved: Diene J. Iesta  
Traffic Engineer

Approved: [Signature] - 12/02/99  
Director of Public Works

Approved: Ramzi J. Jwy  
Director of the Department of  
Inspection and Standards

**REMARKS**

Remove existing tanks, replace  
with new 3 compartment 16,000 gallon  
tank, replace 2 existing pumps with  
2 new pumps.

Curtis Gower  
Owner's Name

12 Hylestead St. P.O. Box 15000  
Address

Agent's Name

Agent's Address

401 467-6510  
Telephone Number

**FILED**

DEC 14 11 35 AM '99

DEPT. OF PUBLIC WORKS  
PROVIDENCE, R.I.

**FILED**  
DEC 14 11 35 AM '99  
DEPT. OF PUBLIC WORKS  
PROVIDENCE, R.I.

**THE COMMITTEE ON**

Public Works  
**Recommends** Public Hearing

Claire E. Bestwick  
Jan. 24, 2000 Clerk

**THE COMMITTEE ON**

Public Works  
**Recommends** Approval

Claire E. Bestwick  
Feb. 14, 2000 Clerk

**IN CITY COUNCIL**

**DEC 16 1999**

**FIRST READING**

**REFERRED TO COMMITTEE ON  
PUBLIC WORKS**

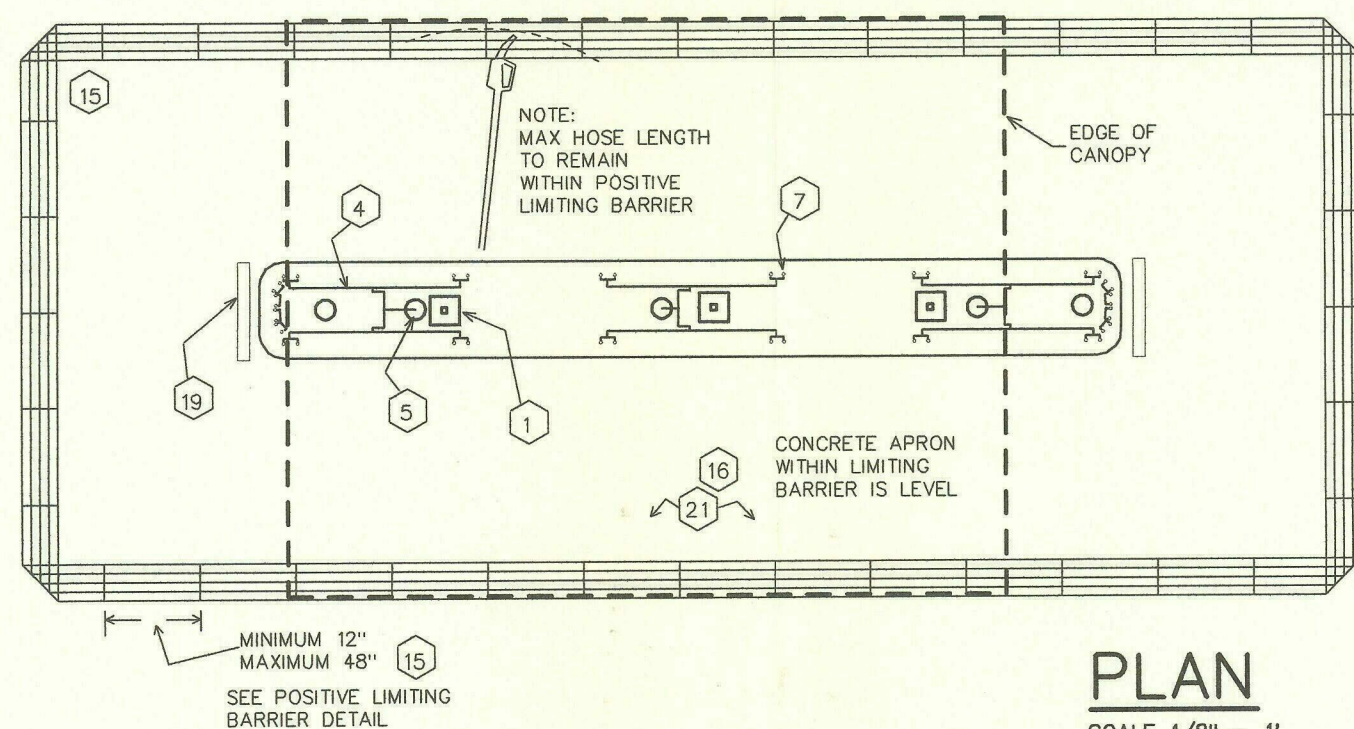
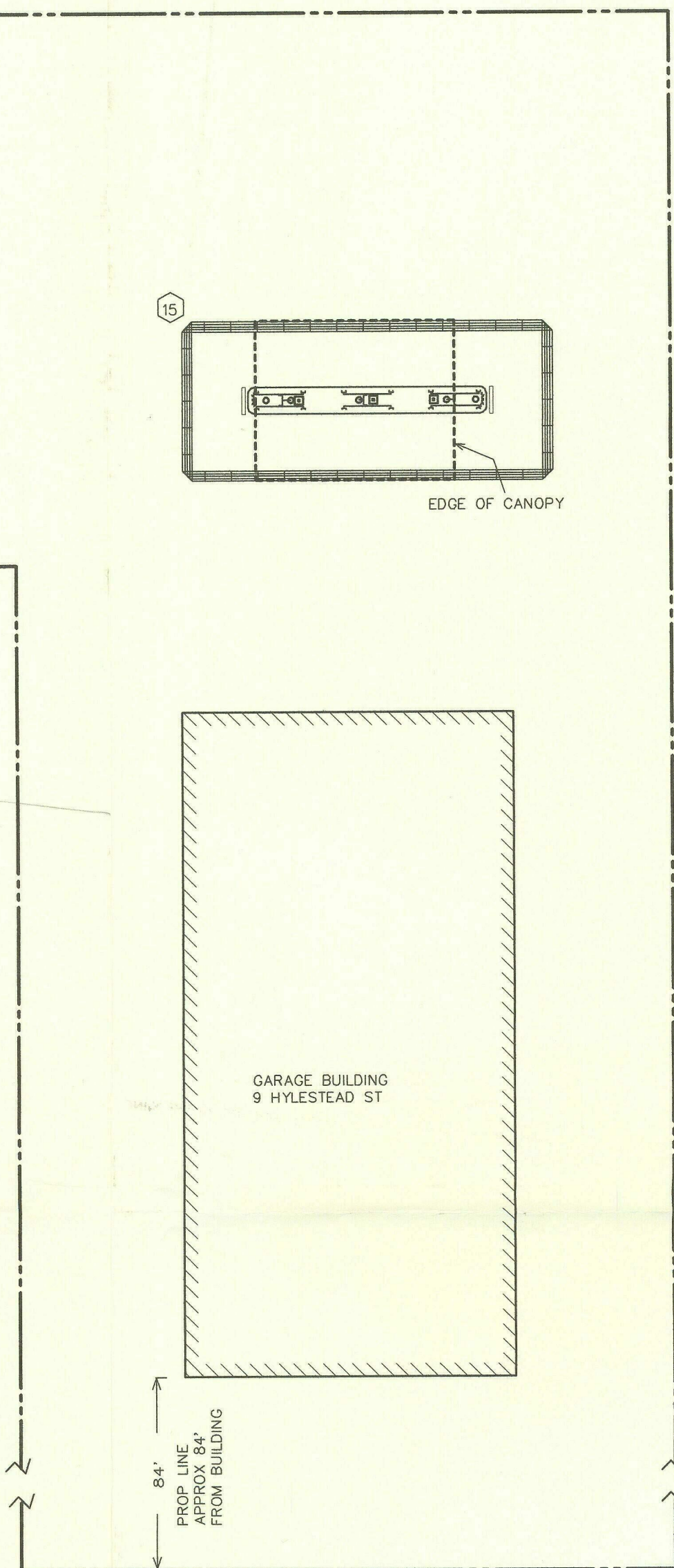
Michael R. Clement CLERK  
*MC*



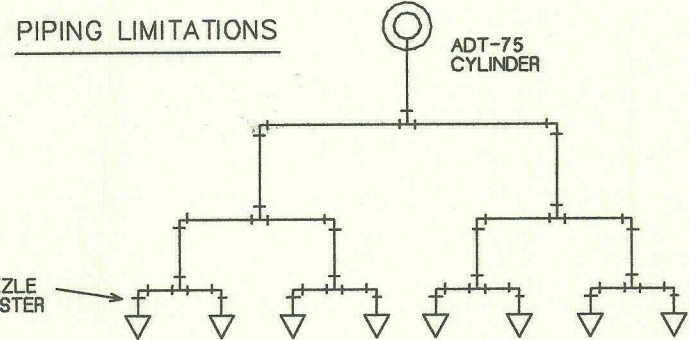
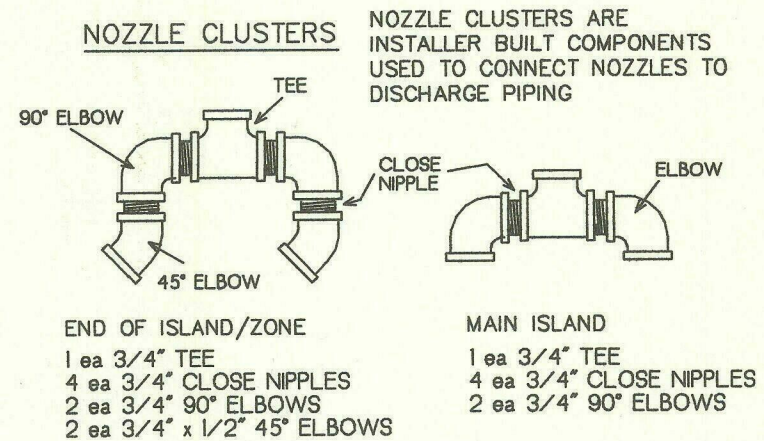
BLUNDELL STREET

THURBERS AVENUE

HYLESTEAD STREET

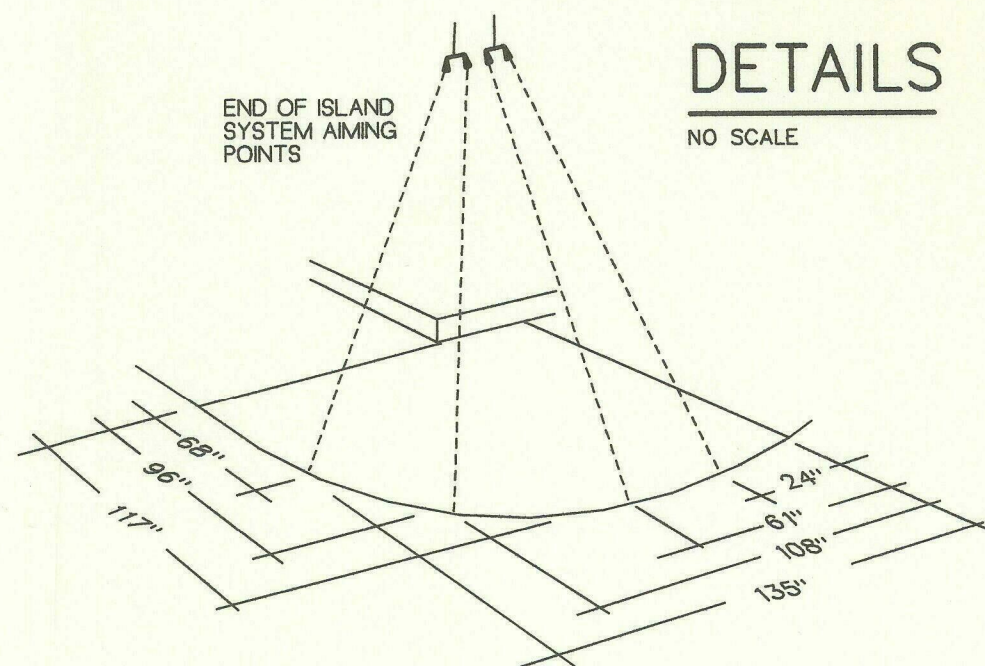
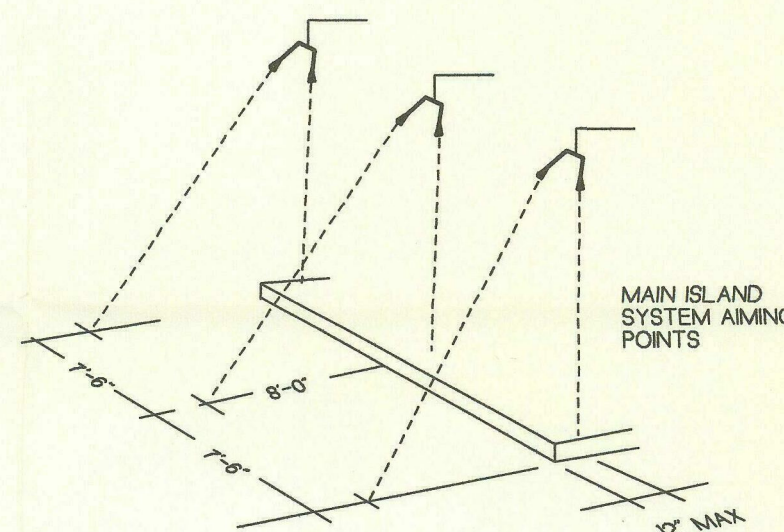


PLAN  
SCALE 1/8" = 1'

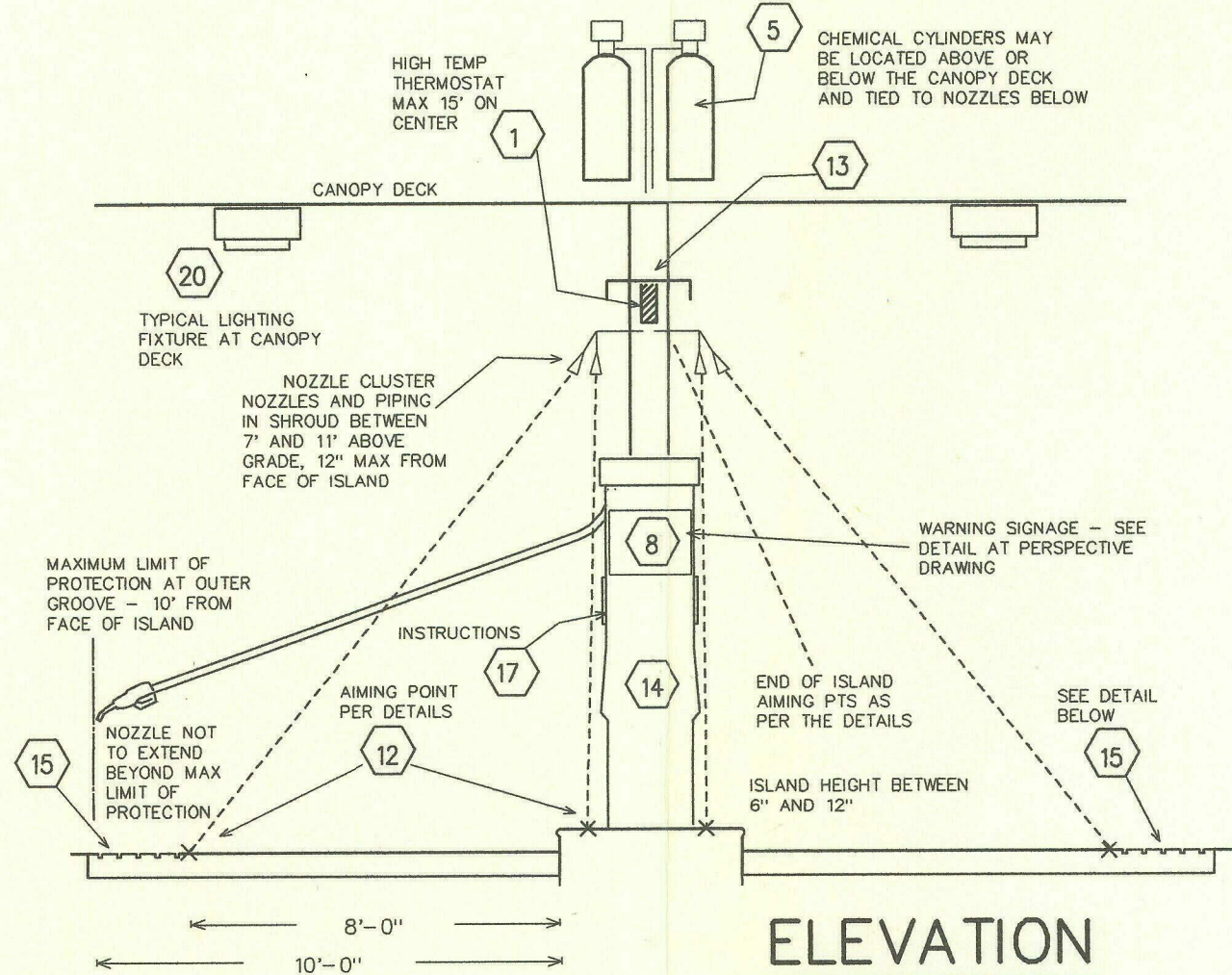


ADT-75 SYSTEM				
SECTION	MAX LENGTH	MAX ELBOWS	TEES ALLOWED	PIPE DIAM
CYL TO T1	25'	4	1	1"
T1 TO T2	12'	2	1	1"
T2 TO NOZZLE CLUSTER	12'	2	0	3/4"

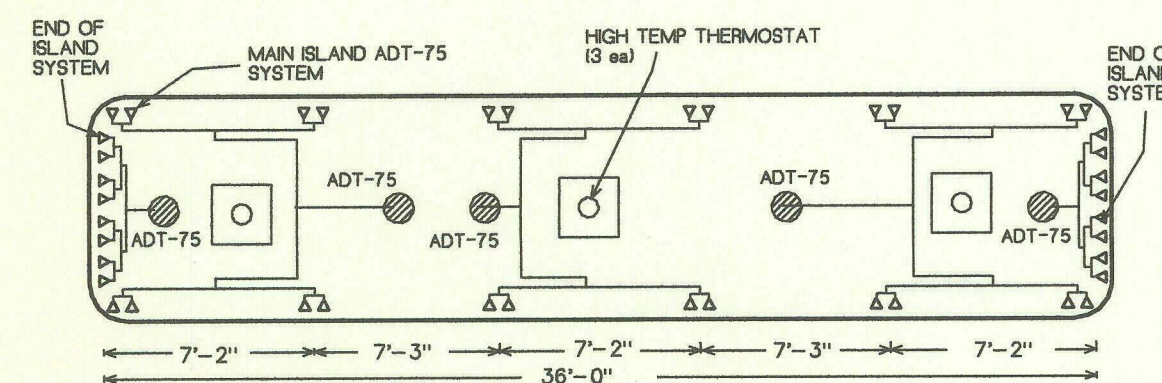
- NOTE:
1. THE ADT-35 MUST ALWAYS USE FOUR NOZZLES
  2. THE ADT-75 MUST ALWAYS USE EIGHT NOZZLES
  3. ALL SYSTEM PIPING MUST BE BALANCED. BALANCED PIPING IS THAT IN WHICH THE DIFFERENCE BETWEEN THE SHORTEST ACTUAL PIPE LENGTH FROM THE LAST TEE TO THE NOZZLE AND THE LONGEST ACTUAL PIPE LENGTH FROM THE LAST TEE TO THE NOZZLE DOES NOT EXCEED 10% OF THE LONGEST LAST TEE TO NOZZLE LENGTH. ADDITIONALLY, THE NUMBER AND TYPE OF FITTINGS ON EITHER SIDE OF A TEE MUST BE THE SAME.
  4. ALL SYSTEM PIPING MUST COMPLY WITH SECTION A-3-9.1 OF NFPA-17.



DETAILS  
NO SCALE



ELEVATION  
SCALE 1/4" = 1'

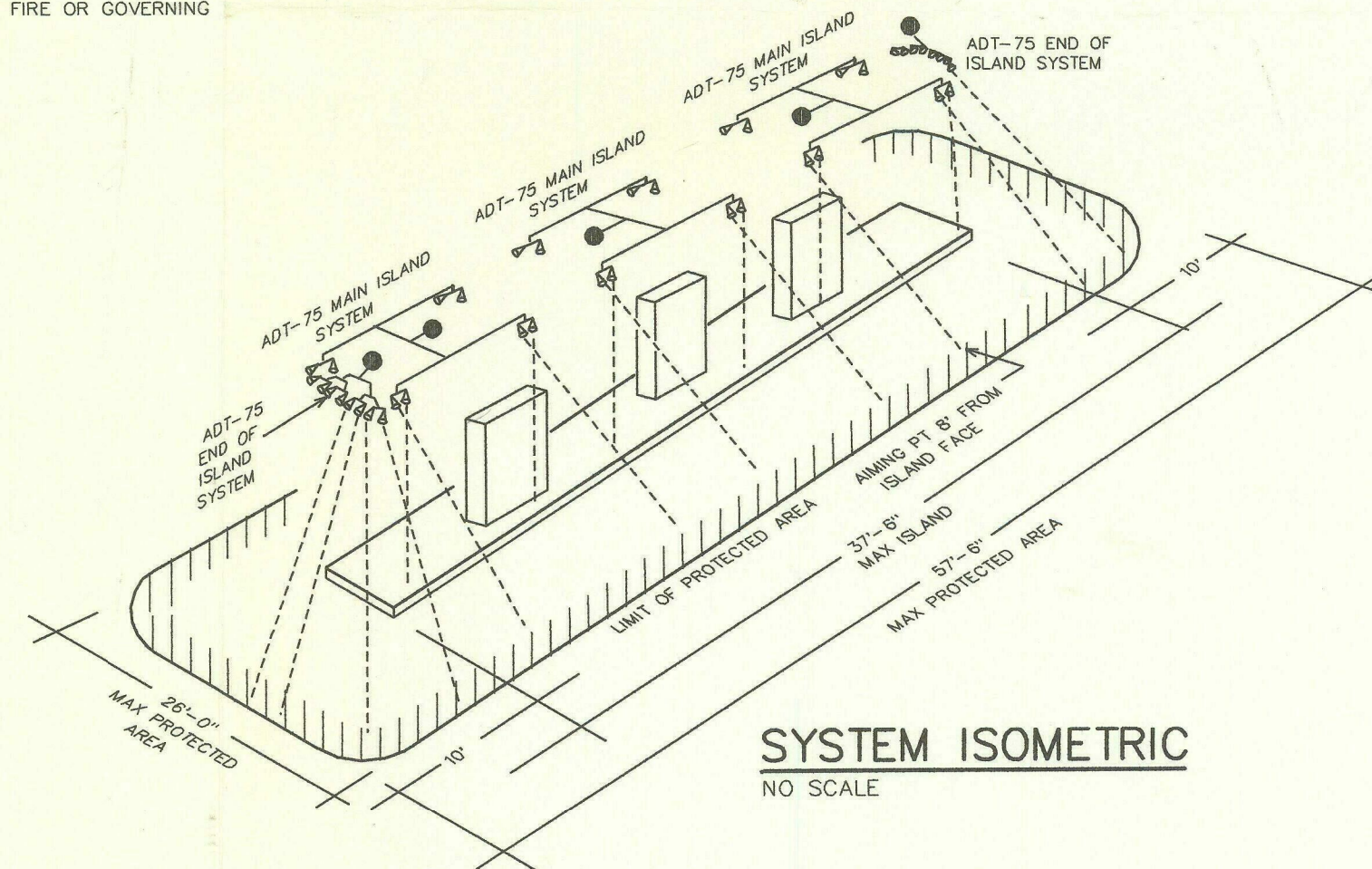


SYSTEM LAYOUT PLAN  
NO SCALE

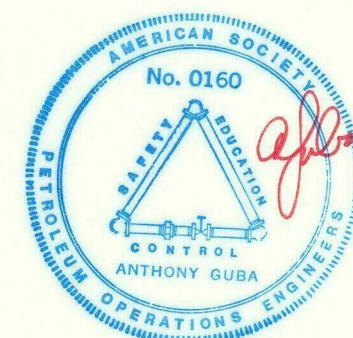
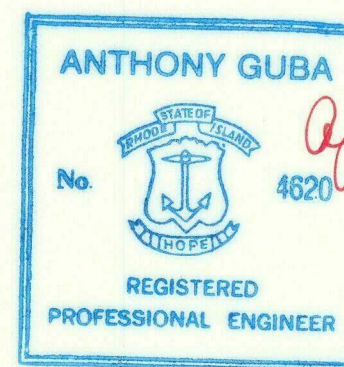


TYPICAL WARNING SIGNAGE

NO SCALE  
SIGNAGE AS APPROVED BY LOCAL FIRE OR GOVERNING AUTHORITY

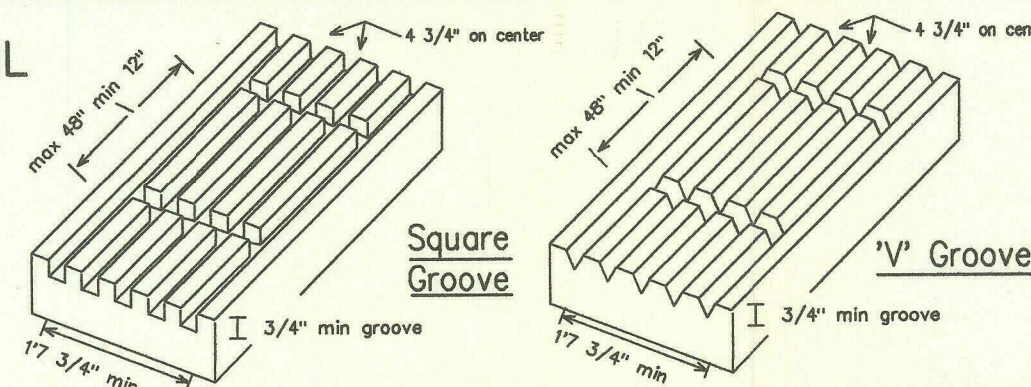


SYSTEM ISOMETRIC  
NO SCALE



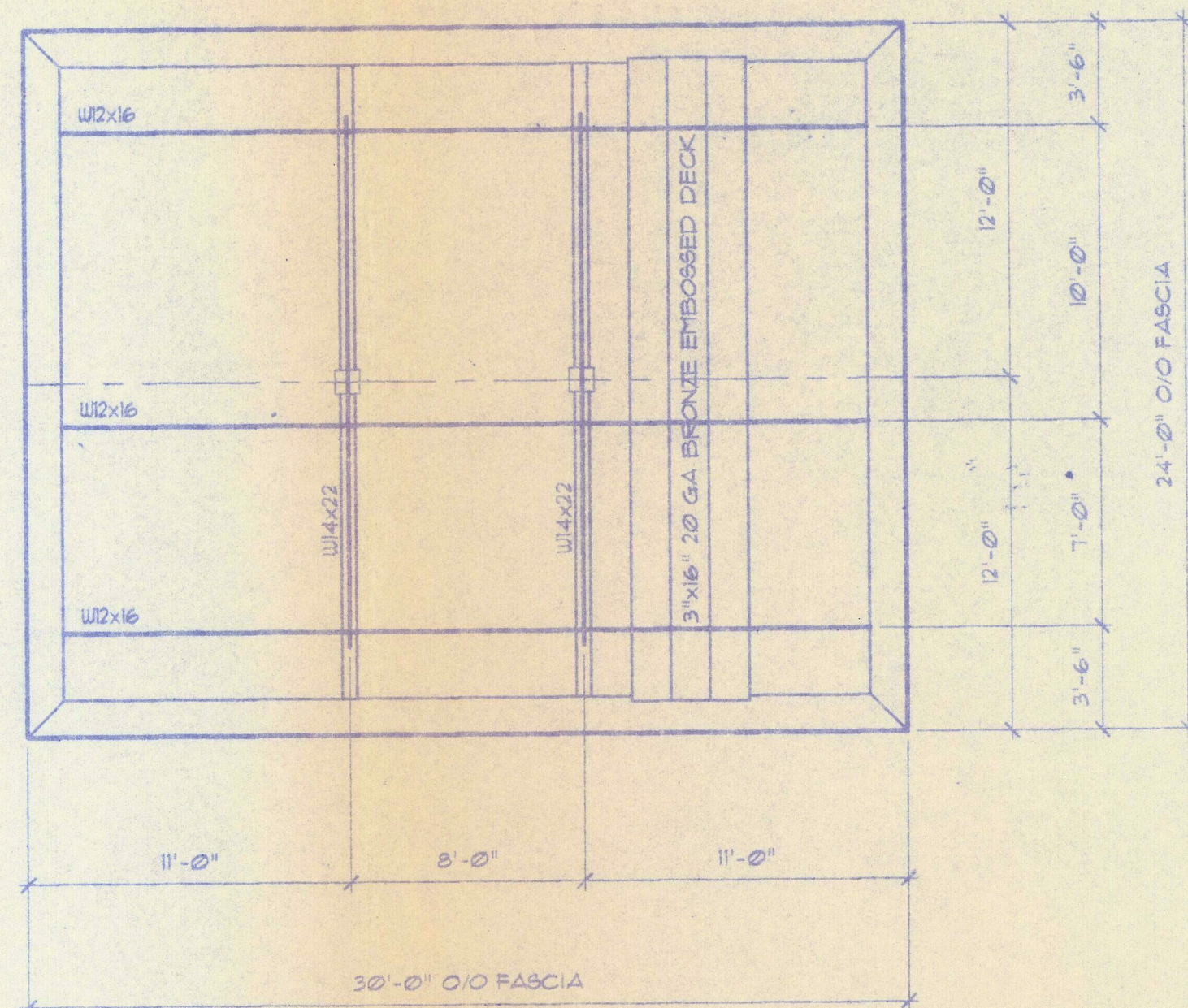
POSITIVE LIMITING BARRIER DETAIL

THE POSITIVE LIMITING BARRIER TO BE 5 CONTINUOUS SQUARE OR 'V' GROOVES 3/4" x 3/4" DEEP ON 4 3/4" CENTERS WITH CROSS INTERCONNECTING GROOVES WITH SQUARE OR 'V' GROOVES EQUALLY SPACED ON MIN. 12", MAX 48" CENTERS. THE OUTSIDE GROOVES TO BE LIMIT OF HAZARD PROTECTION AREA AND THE POTENTIAL SPILL AREA TO BE WITHIN THIS PROTECTION AREA. GROOVES MAY BE SAW CUT OR SCORED INTO CONCRETE MAT. GROOVES MUST BE KEPT CLEAN AT ALL TIMES

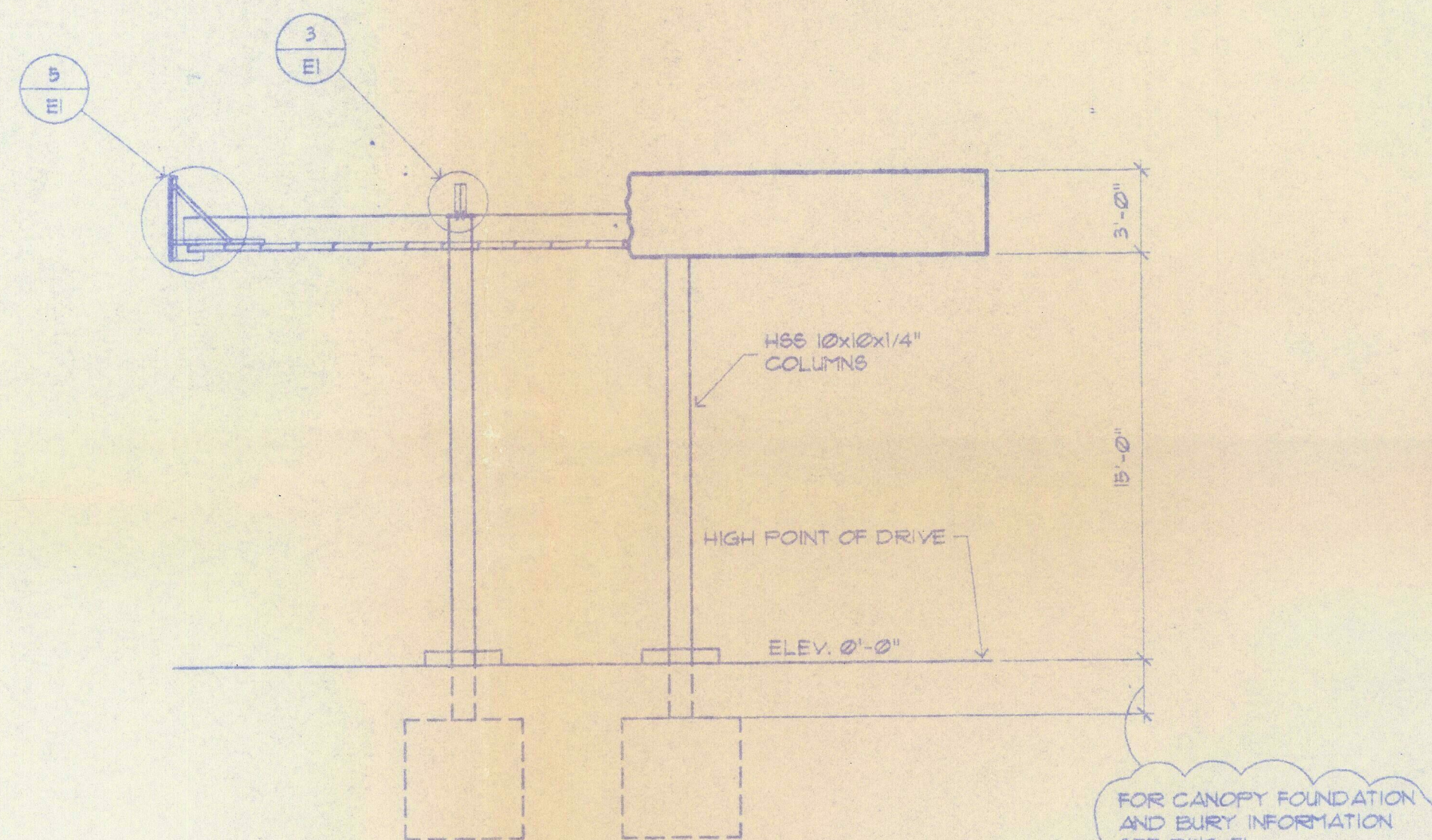


LOCATION		WHITE FUEL COMPANY 9 HYLESTEAD STREET PROVIDENCE, RHODE ISLAND 02905	
SYSTEM		SELF SERVE FIRE SUPPRESSION PLAN PYROCHEM "ATTENDANT" ULEX 3437 (MEETS UL-1254)	
INSTALLER	ABLE FIRE PROTECTION	CONTRACT	
SCALE	AS INDICATED	Designed and Prepared by Anthony Guba, PE 5 River Bend Circle, Exeter, NH 603-778-1817 9341	
DATE	3 DECEMBER 1999		



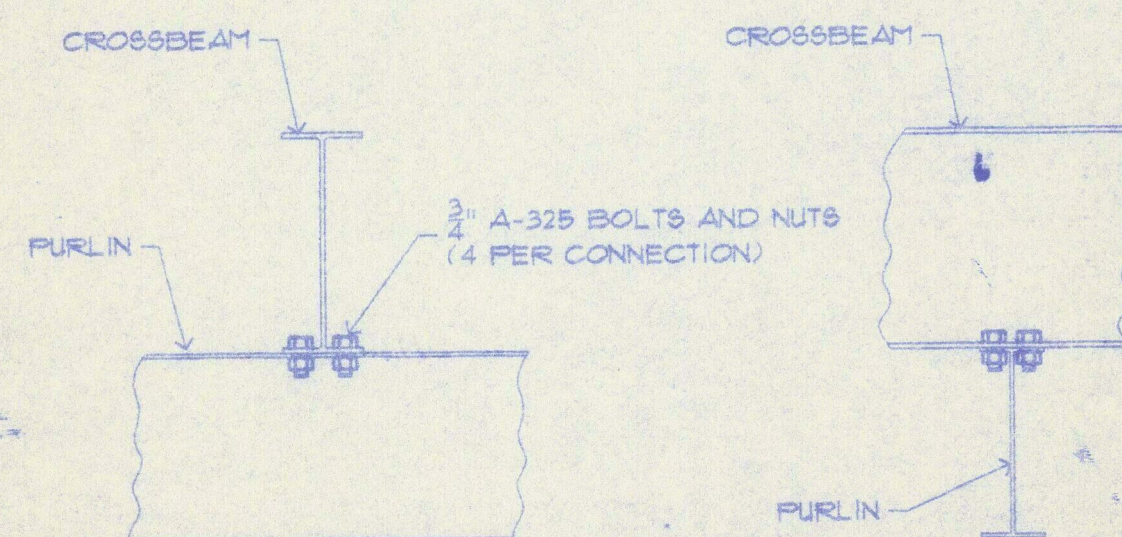


FRAMING PLAN  
SCALE: 3/16" = 1'-0"

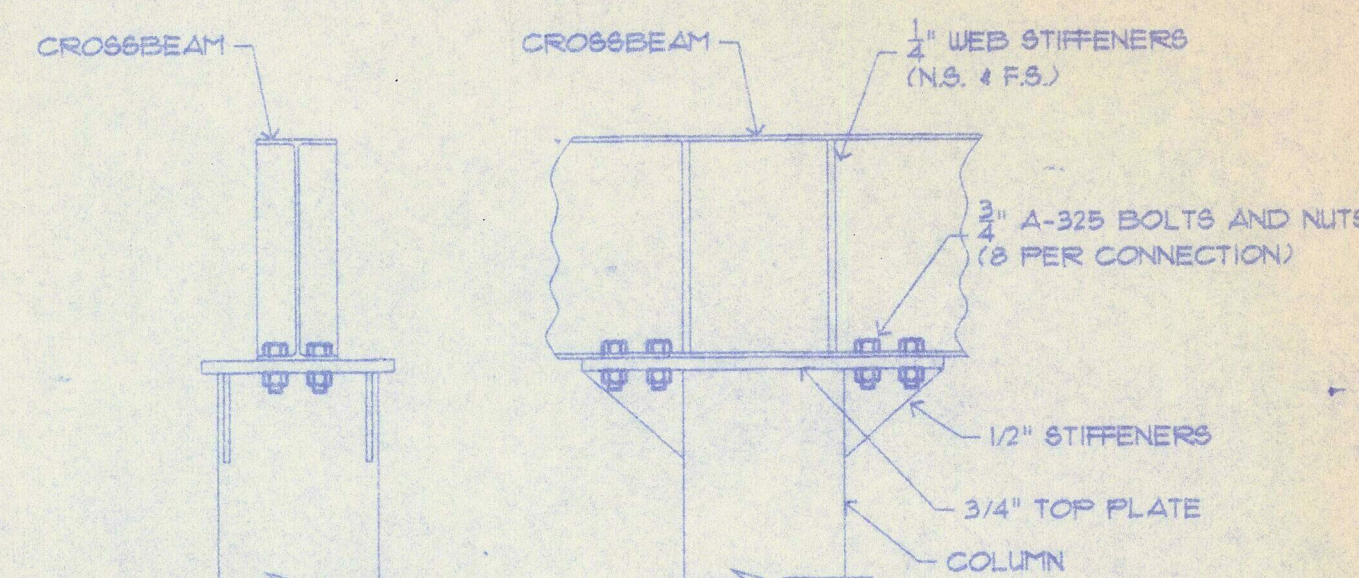


FRONT ELEVATION  
SCALE: 3/16" = 1'-0"

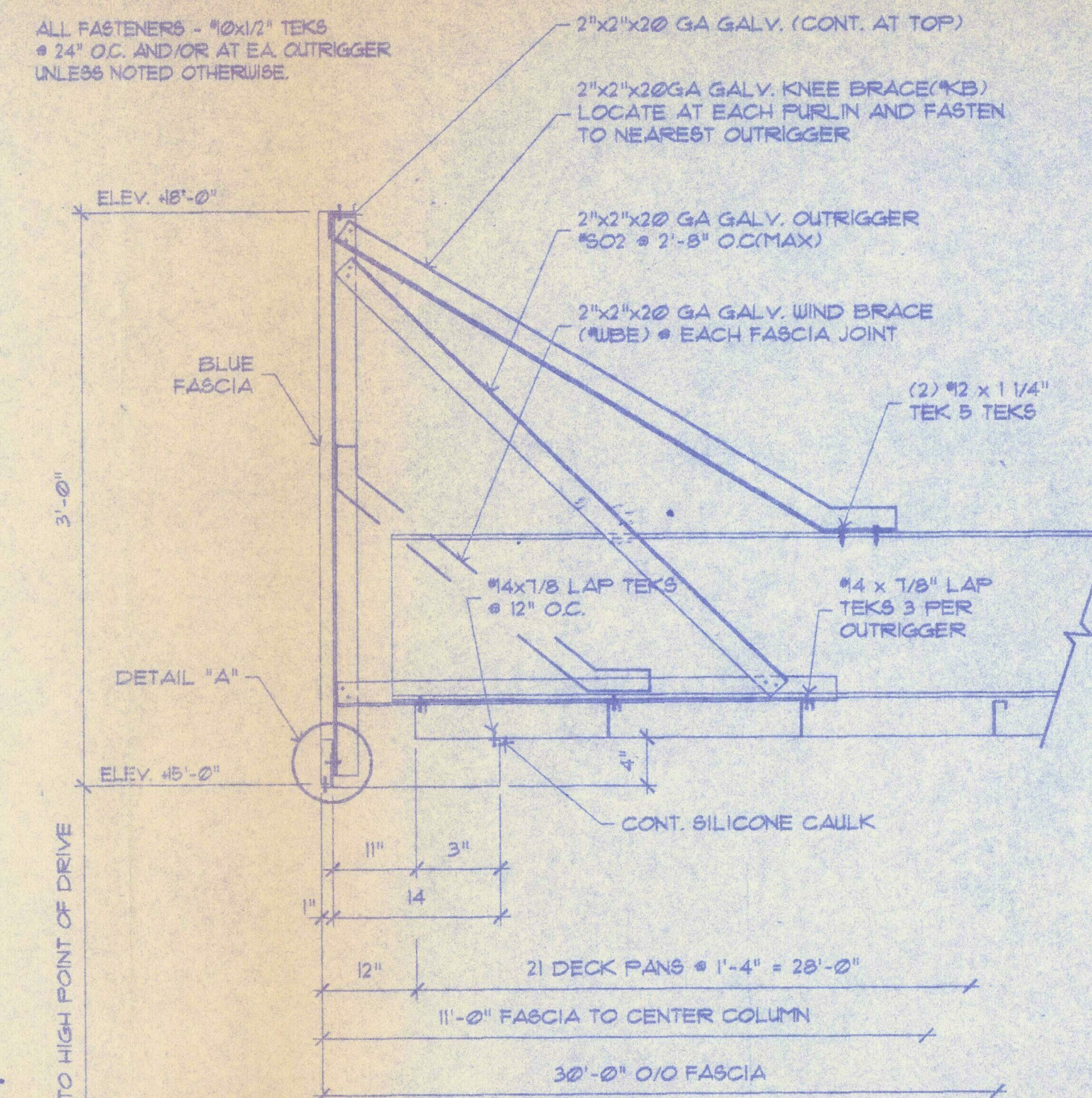
**STEEL NOTES**  
1. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST AISC SPECIFICATIONS. DESIGN, FABRICATION AND ERECTION OF COLD FORMED STEEL SECTIONS SHALL CONFORM TO THE LATEST AISI SPECIFICATIONS.  
2. STRUCTURAL MATERIALS:  
WIDE FLANGE SECTIONS - ASTM A572 GRADE 50 (FY = 50 KSI)  
ANGLES / CHANNELS - ASTM A36 (FY = 36 KSI)  
HOLLOW STRUCTURAL SECTIONS (TUBE) - ASTM A500 GRADE B (FY = 46 KSI)  
PLATE - ASTM A36 (FY = 36 KSI)  
ROOF DECK - ASTM A653, GRADE 40 (FY = 40 KSI), GALVANIZED (G60) WITH BAKED ENAMEL FINISH  
STRUCTURAL BOLTS - ASTM A325  
ANCHOR BOLTS - ASTM A36 (FY = 36 KSI)  
3. WELDING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH LATEST AWS / AWS D11 (WITH E70XX ELECTRODES).  
4. FIELD CONNECTIONS SHALL BE BOLTED CONNECTIONS UNLESS SPECIFIED ON DRAWING.  
5. ALL STRUCTURAL BOLTED CONNECTIONS SHALL USE ASTM A325 BOLTS. BOLTS SHALL BE TIGHTENED BY THE TURN-OF-THE-NUT METHOD AS FOLLOWS (PER AISC SPECIFICATIONS):  
A. ALL BOLTS SHALL BE BROUGHT TO A SNUG TIGHTNESS, DEFINED AS THE TIGHTNESS ATTAINED BY THE FULL EFFORT OF A MAN USING AN ORDINARY 9/16" WRENCH.  
B. ALL BOLTS IN THE CONNECTION SHALL THEN BE TIGHTENED ADDITIONALLY BY A NUT OR BOLT ROTATION (THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH) OF THE FOLLOWING:  
BOLT LENGTH UP TO AND INCLUDING 4 DIAMETERS - 1/3 TURN  
BOLT LENGTH OVER 4 AND LESS THAN 8 DIAMETERS - 1/2 TURN  
6. STRUCTURAL STEEL SHALL BE SHOP COATED WITH A RED-OXIDE RUST INHIBITIVE PRIMER. FIELD TOUCH-UP, FINISH PAINTING, AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER (UNLESS OTHERWISE SPECIFIED).  
7. DESIGN LOADS SHALL MEET (AS A MINIMUM) ALL LOCAL BUILDING CODE REQUIREMENTS.  
**ROOF LIVE LOAD = 30 PSF**  
**FLAT ROOF SNOW LOAD = 30 PSF**  
BASED ON GROUND SNOWLOAD = 30 PSF  
**WIND LOADS:**  
LATERAL = 25 PSF  
UPLIFT = 20 PSF  
BASED ON 90 MPH WIND SPEED (ASCE 7-05 - EXPOSURE "C")  
**DEAD LOADS:**  
DECK / GUTTER / LIGHTS = 5 PSF  
FASCIA = 5 TO 15 PLF (PER DESIGN)  
STRUCTURAL STEEL = SELF WT  
CONCRETE = 145 PCF



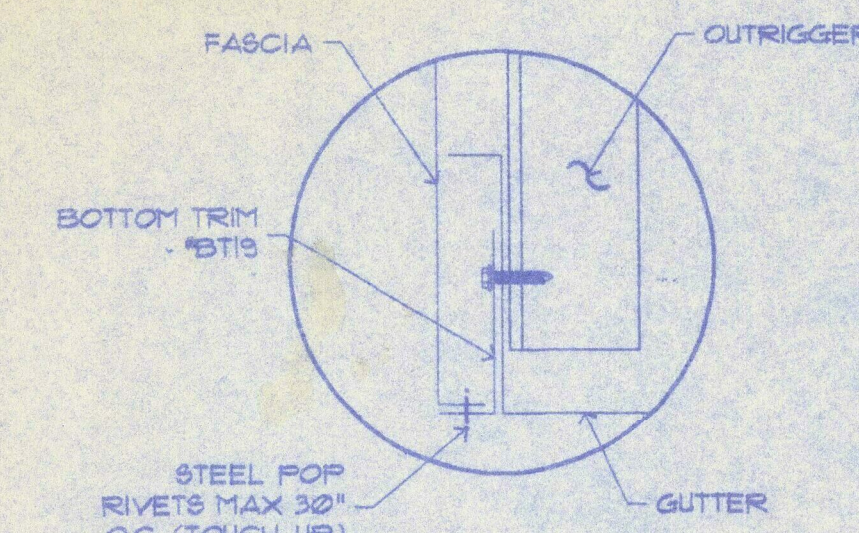
4 TYP. CROSSBEAM TO PURLIN CONNECTION  
EI



3 TYP. CROSSBEAM TO COLUMN CONNECTION  
EI



5 SECTION  
EI SCALE: 1" = 1'-0"



DETAIL A

LAWRENCE R. PILON, PE  
108 CLIFF NELSON ROAD  
KINGSTON, GA 30145  
LICENSE # 12657

THESE PLANS ARE SUBJECT TO  
• FEDERAL COPYRIGHT LAWS •  
ANY USE OF SAME WITHOUT THE  
EXPRESS WRITTEN PERMISSION OF  
STEELTEC, LLC, IS PROHIBITED

A FOR PERMITS		LRF		10/20/99	
ISSUE	DESCRIPTION	BY	CHK.	DATE	
REVISIONS:					
<b>STEELTEC, LLC</b> 210 PAULDING LANE DALLAS, GEORGIA 30132 (770)-505-5917					
LAWRENCE R. PILON		SITE:			
No. 6859		PROVIDENCE, RI			
REGISTERED PROFESSIONAL ENGINEER STRUCTURAL		FOR: J.W. KENNEDY		JOB NO. 93CP016000	
		24'0" X 30'0"			
		TITLE: FRAMING PLAN AND ELEVATIONS		DWG. NO. EI OF 1	





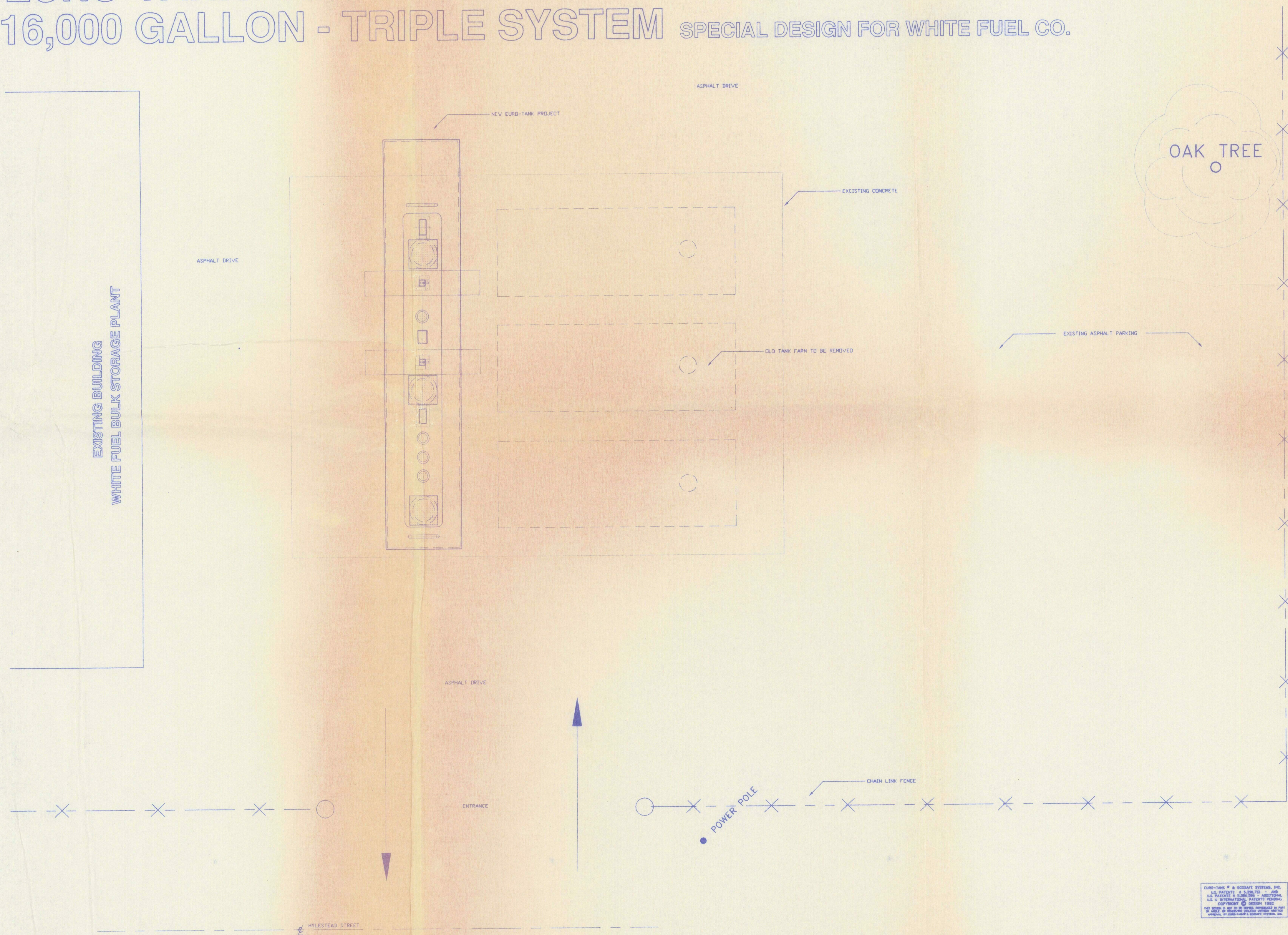


## SITE PLAN

FOR UP-GRADING OF EXISTING UNDER GROUND FUEL STORAGE TANKS  
PROJECT LOCATION:  
WHITE FUEL COMPANY  
12 HYLESTREAD STREET - PROVIDENCE, RI 02905

# EURO-TANK® AMD2-MODEL 16,000 GALLON - TRIPLE SYSTEM

SPECIAL DESIGN FOR WHITE FUEL CO.



### GENERAL NOTES

- 1.) ALL GASOLINE DISPENSING EQUIPMENT WIRING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODES, FLAMMABLE, AND COMBUSTIBLE CODES. GROUNDING SHALL BE IN ACCORDANCE WITH THE NEC. ALL EQUIPMENT AND WORK SHALL BE IN COMPLIANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ADMINISTRATIVE CODES AND OR LOCAL ADMINISTRATIVE AND FIRE CODES.
- 2.) SEE THE GASOLINE DISPENSING EQUIPMENT WIRING DIAGRAM FOR THE ELECTRICAL CONNECTION REQUIREMENTS.
- 3.) EURO-TANK IS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. REFER TO FILE NO. EQ-076.
- 4.) EURO-TANK IS BUILT AS REQUIRED BY THE EPA (CFR 40 CH 280) AND BUILT UL STAN DART AND LABELED UL#58/ACT100 CERTIFIED
- 5.) EURO-TANK IS STAGE I AND STAGE II READY TO CONNECT A 3" CROSS-VENT MANIFOLD BUILT IN (FACTORY ASSEMBLED)

### SCOPE OF WORK:

SAWCUT, BREAKOUT, DEWATER IF REQUIRED, EXCAVATE AS REQUIRED TO INSTALL NEW EURO-TANK® SYSTEM. (SEE ATTACHED DETAILS)

INSTALL NEW EURO-SUMPS® OF TANK FLANGES AS REQUIRED TO SPECIFICATIONS. (SEE SHEET 2, 3, 4, AND 5)

ALL EXCAVATED AREAS CONTAINING THE EURO-TANK® TO BE BACK FILLED WITH CLEAN WASHED SAND (HOMOGENEOUS MATERIAL) OR PEA GRAVEL.

ANY METAL OBJECTS IN CONTACT WITH SOIL TO BE CODED (CATHODE PROTECTED). COMPACTING THE SOIL AS REQUIRED. SEE DETAIL ATTACHED.

COVER AREA WITH REINFORCED CONCRETE INSTALL EURO-GUARD® ISLAND FORMS, NEW CANOPY, FOOTERS, CONDUITS AND LIGHTING SEE ATTACHED DRAWINGS FOR DETAILS.

INSTALL NEW DISPENSERS, HOSES, NOZZLES, CALIBRATE AND STARTUP THE FUEL DISPENSING SYSTEM AS REQUIRED.

LEAVE AREA FREE AND CLEAN OF ALL TRASH AND DEBRIS.

NOTE: THIS SITE PLAN WAS PREPARED WITHOUT THE AID OF A CURRENT PROPERTY SURVEY. THEREFORE ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

*Paul H. Hall*  
4-8-99

EURO-TANK SPECIAL DESIGN

WHITE FUEL COMPANY

12 HYLESTREAD STREET - PROVIDENCE RI 02905

EURO No.: 510SHIT1  
DESIGNED BY: M.M.F.  
DRAWN BY: M.M.F.  
DATE: 06/02/98  
SCALE: AS NOTED  
PAGE 1 OF 5

416 SW 14th STREET  
OCALA, FLORIDA  
VOICE: 352-629-3700  
FAX: 352-629-8611  
PO BOX 478  
SILVER SPRING, FL 34489-0478  
E-MAIL: eurotank@ecospace.net





## SYSTEM NOTES:

EURO-TANK & ECOSAFE SYSTEMS: 16,000 GALLONS  
COMPARTMENT CAPACITIES: 4,000 X 4,000 X 8,000 GAL.  
CANOPY SIZE: N.A.  
NUMBER OF COLUMNS: N.A.  
NUMBER OF LIGHT FIXTURES: N.A.  
CENTER TO CENTER DISTANCE OF DISPENSERS: N.A.  
DISTANCE CLEAR BETWEEN DISPENSER ISLES: N.A.

# AMD2-MODEL 16,000 GAL SPECIAL DESIGN FOR WHITE FUEL

## GENERAL NOTES

- 1.) ALL GASOLINE DISPENSING EQUIPMENT WIRING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODES, FLAMMABLE, AND COMBUSTIBLE CODES. GROUNDING SHALL BE IN ACCORDANCE WITH THE NEC. ALL EQUIPMENT AND WORK SHALL BE IN COMPLIANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ADMINISTRATIVE CODES AND OR LOCAL ADMINISTRATIVE AND FIRE CODES.
- 2.) SEE THE GASOLINE DISPENSING EQUIPMENT WIRING DIAGRAM FOR THE ELECTRICAL CONNECTION REQUIREMENTS.
- 3.) EURO-TANK IS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. REFER TO FILE NO. EQ-076.
4. EURO-TANK IS FABRICATED & COATED ACT 100 & ACT 100U / UL 1746 EQUIVALENT AND CATHODICALLY & CORROSION PROTECTED.

## ELECTRICAL INSTALLATION NOTES

- 1 PROVIDE 1"Ø OR 3/4"Ø AS REQ'D FOR SUBMURGED TURBO PUMP AS REQUIRED PER MANUFACTURER'S RECOMMENDATION.
- 1A PROVIDE 3/4"Ø CONDUIT FOR DISPENSER POWER AS REQUIRED PER MANUFACTURER'S RECOMMENDATION.
- 2 PROVIDE 3/4"Ø CONDUIT FOR MONITOR COAXIAL CABLE FOR AUTOSTICK (FUTURE DEVELOPMENT & OR EURO-SUMP MONITOR).
- 2A PROVIDE 1"Ø CONDUIT FOR THE EURO-GUARD LEAK PREVENTER FOR ONE (1) OF THE EURO-SUMPS WITH MONITOR PIPE ACCESS ONLY.
- 3 PROVIDE 3/4"Ø CONDUIT FOR THE CANOPY LIGHTING FIXTURES.
- 4 PROVIDE 3/4"Ø CONDUIT FOR THE INTERCOM.
- 5 PROVIDE 3/4"Ø CONDUIT AND INSTALL THE EMERGENCY SHUT OFF DEVICE AND PROVIDE A SIGN READING "EMERGENCY SHUT-OFF"

## GENERAL CONDITIONS

### Site Work

- A. Prior to beginning any excavation work, contractor shall locate all utilities. Utilities as shown on the plans are the best of the Engineer's knowledge, however, other utilities may be present. The Contractor shall field verify the location of all improvements and utilities prior to commencement of construction. Damaged underground utilities repairs shall be the responsibility of the Contractor. Contractor shall obtain all necessary building permits prior to construction.
- B. All existing paving or concrete is to be saw-cut prior to excavation.
- C. Repairing or resurfacing materials shall match existing conditions in type of material and thickness. However, the minimum replacement paving shall be 4 inches of linerock or clay base and 2 inches of asphaltic concrete. All parking lot and drainage construction shall conform to the codes and standards referenced below including the FDOT 1988 Standard Specifications for Road and Bridge Construction sections as indicated.  
Earthwork - Sub materials for filling shall conform to AASHTO soil groups A-2, A-3 or A-4 and shall be placed in ten inch loose lifts to the grades shown on the plans. Each lift shall be compacted to 98% of the Modified Proctor Maximum Dry Density (ASTM D1557 Method D). Backfill shall be constructed in accordance with FDOT Sections 125-8, 125-9, 125-10, 125-11, and 125-12.7.

Stabilized Subbase - Pavement subbase shall be stabilized with type B Stabilizing Commercial linerock material conforming to FDOT Sections 914-1 and 914-3.1.2. Stabilizing shall be in accordance with FDOT Section 160-8, and the Sections referenced therein. The minimum LBR value be not less than 40 and field densities shall not be less than 98% Modified Proctor Maximum Dry Density (ASTM D1557 Method D).

Base Course - Lime rock material for linerock base shall conform to the requirements of FDOT Section 911 with the exception of section 911-2.2.2. Linerock base shall be constructed in accordance with the requirements of FDOT Section 200 with the exception of Sections 200-2, 200-5.3, 200-6.3, 200-6.4, 200-7, 200-9.3, 200-10, 200-11, 200-12. The linerock base shall be compacted to a minimum density of no less than 95% Modified Proctor Maximum Dry Density (ASTM D1557 Method D).

Prima Coat - The prima coat material shall conform to the requirements of FDOT Section 300-2.1 and FDOT Sections referenced therein. Cover material for prima coat shall conform to the requirements of FDOT Section 300-2.2 and the Sections referenced therein. Prima coat and tack coat shall be constructed in accordance with the requirements of FDOT Sections 300 with the exception of Section 300-2 and 300-9.

Asphaltic Concrete - Asphaltic Concrete shall be Type S-111 in accordance with FDOT Section 331 with the exception of Section 331-2.2.4 and other references to reclaimed asphalt pavement and with the exception of Section 331-6 and other references to pavement below. Bituminous material shall conform to FDOT Section 915-1 for Asphalt Cement Viscosity Grade AC-20 or AC-30 with the exception that material failing to meet the Viscosity requirements will be rejected. Coarse aggregate shall be supplied from FDOT approved sources and shall conform to the requirements of FDOT Section 901 and the referenced provisions of Section 331 for aggregates to be used in asphaltic concrete. Fine aggregates shall be supplied from FDOT approved sources and shall conform to the requirements of FDOT Section 902 and the referenced provisions of Section 331 for fine aggregates to be used in asphaltic concrete, with the exception of Sections 902-3, 902-5.2.2, 902-5.2.3, 902-6 and 902-7. Mineral filler shall conform to the requirements of FDOT Section 917 and the referenced provisions of Section 331. Plant, Methods, and Equipment for asphaltic concrete shall comply with the requirements of FDOT Section 320 with the exception of Sections 320-2.2.2, 320-2.2.3, 320-2.3 and 320-2.4. In addition, the plant producing the asphaltic concrete for this project shall be one previously approved by FDOT and having supplied FDOT Type S111 Asphaltic Concrete for an FDOT Highway project within the last 2 years. The responsibility for producing asphaltic concrete meeting all requirements of the specifications, including compliance with the design limits, shall be entirely with the Contractor. Compensation at the asphaltic concrete pavement shall conform to the requirements of FDOT Section 330 with the exception of Sections 330-8.2.2, 330-8.1.4, 330-9.3, 330-10.2, 330-10.3, 330-12.3, 330-14, and 330-15.

- D. Graded areas where excavation has taken place shall be patched with sod that matches the variety of existing grass (St. Augustine, Centipede, Bahia, etc.).
- E. All curbing or other existing structures that are disturbed during site operations shall be replaced with equivalent site improvements.
- F. Contractor shall cooperate to the fullest extent possible in conducting the site work such that disturbances to business operations are minimized.
- G. The site shall be kept clean and orderly at all times. Discarded materials shall be removed from the site as soon as possible.
- H. Upon completion of the work, the site shall be restored to its original condition.
- I. The Engineer shall be notified 48 hours minimum before commencing demolition or construction, and following any delays to schedule on site inspections by himself or his representative.

### Trench Excavations

- A. Trenches for the installation of piping shall be cut to the depth shown on the plans.
- B. Piping shall be laid flat on the trench bottom and any voids under the invert shall be filled in before backfilling of the trench is begun.
- C. Builders grade sand shall be packed above and below piping in the trenches.
- D. Mechanical compaction of the soil backfill shall not begin until there is 6 inches of cover on the largest pipe in the excavation.
- E. Trench backfill shall be compacted to 98 percent MOD density per ASTM D 1557. Compaction test results shall be provided.
- F. Field Densities and LBR testing of the fill, stabilized subbase and base shall be performed by a qualified testing lab under the direction of an engineer registered in the State of Florida. One test shall be taken every 50 linear feet or portion thereof along the trench line in each lift of fill or locations designated by the Engineer. A minimum of two (2) LBR test shall be performed on the subbase at locations designated by the Engineer. Test results shall be submitted to the Engineer for review. The contractor shall bear all testing expenses.

### Materials

- A. All materials shall be new unless permission to provide used materials is obtained from the Engineer prior to their installation.
- B. All PVC pipe and fittings shall be Schedule 40 or greater and shall meet ASTM D-2241.
- C. Galvanized Iron Pipe (GIP) shall be Schedule 40, with threaded terminal fittings and.
- D. Valves shall be either PVC ball valves or Class 150 brass gate valves. Globe valves shall not be used. Check Valves shall be horizontal swing type.
- E. PVC connecting piping may have solvent welded fittings. PVC piping used as well casing shall have threaded fittings.
- F. Drained piping in infiltration galleries shall be PVC with 1-inch diameter openings, all fittings used within the drainfield shall be of the type having long radius sweeps directional changes.

### Wall Construction

- A. Well drilling operations shall be conducted so as to minimize spreading of soil cuttings and fluids on the surface. Mud boxes or other controls shall be used whenever possible.
- B. All walls shall be within 5 degrees of plumb, vertical alignment.
- C. All cement grout shall be Type 1 cement with bentonite to prevent shrinkage.
- D. All grouting shall be allowed to set up for 24 hours before work is resumed on the well.
- E. Sand pack material shall be silica of the grade and size distribution indicated on the plans.
- F. Walls shall be developed by surging and pumping until the discharge is free of drilling fluids and formation materials. Wells shall be developed to a pumping rate equal to 150 percent of well design yield.

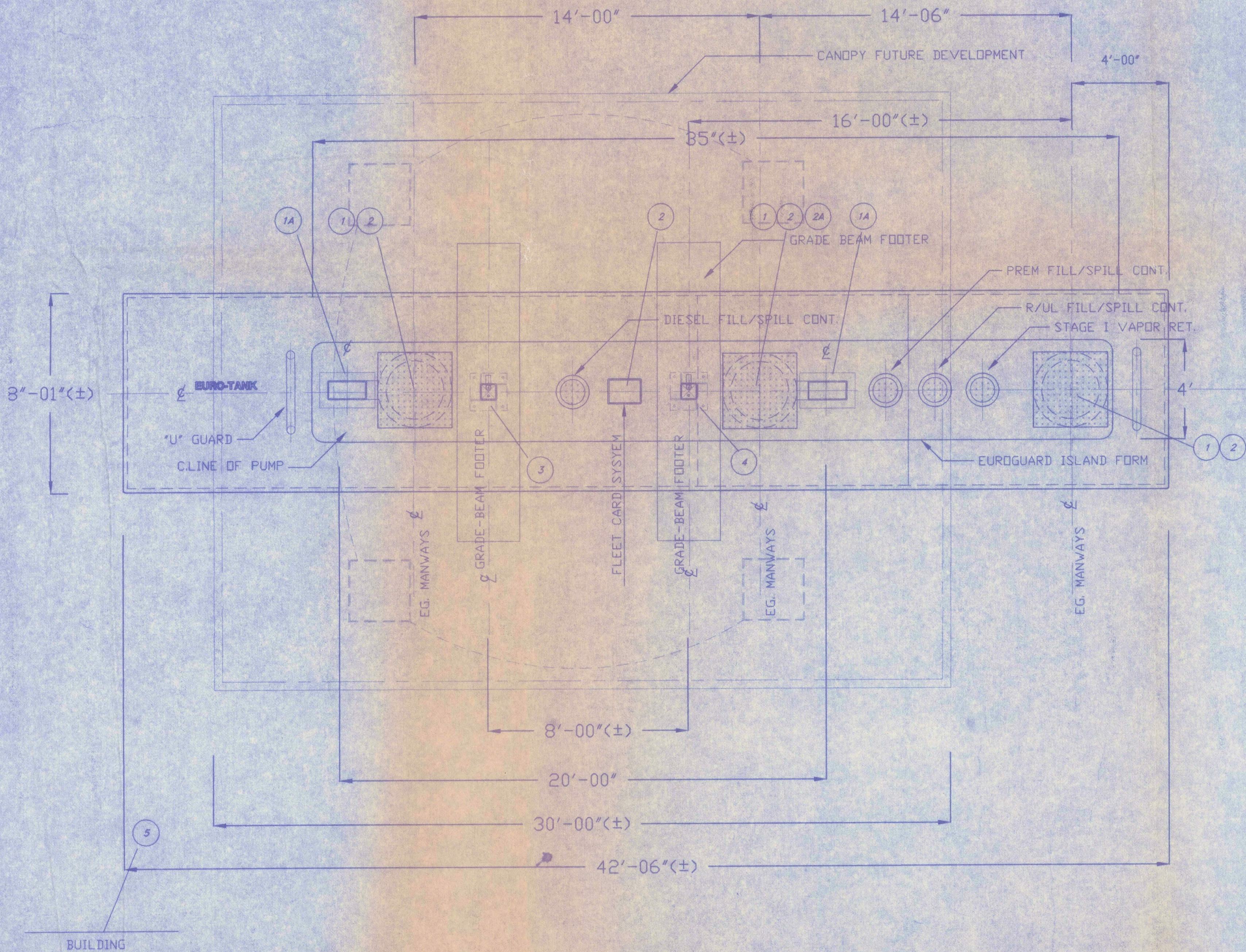
### Piping

- A. All piping shall be hydrostatically tested to insure that leaks are not present prior to reworking. Piping shall be repaired if leaking prior to system start up, and retested.
- B. All piping shall be flushed with clean water to ensure that the system is free from soil, debris or construction materials.
- C. Flushing shall be conducted at a minimum pressure of 40 psi.
- D. All gravity flow piping shall be laid on the line and grade shown on the plans with a laser or similar field equipment.
- E. Long radius sweep elbows shall be used for all 45° and 90° turns.

### Treatment Compound

- A. Concrete in pads or in the slab for the treatment compound shall contain a minimum of 6 sacks of cement per cubic yard and shall have 3000 psi compressive strength @ 28 days. All cast in place concrete proportions, mixing, placing, curing, forming, construction joints, and other concrete work shall comply with the current provisions of ACI 318 and ACI 301. Cast in place concrete shall be finished with a steel trowel finish.
- B. Steel reinforcing bar used in concrete shall meet ASTM A615, A616, or A617 and have a minimum yield strength of 40,000 psi. Welded wire fabric shall have a minimum yield strength of 55,000 psi.
- C. Fencing shall be as shown on the plans. Where chain link is utilized, the wire shall be hot dip galvanized and 10 gauge minimum diameter. Fence posts shall be buried 30 inches in the ground, and then backfilled with soil with 20% cement by volume added.
- D. All electrical work and wiring shall be in strict accordance with the National Electrical Code, latest edition. All equipment shall be grounded as required by the NEC. All electrical equipment used in an enclosure for the remediation equipment shall be explosion proof.

EURO-TANK® & ECOSAFE SYSTEMS, INC.  
U.S. PATENTS # 5,390,715 AND  
U.S. PATENTS # 5,586,586 - ADDITIONAL  
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EURO No.: 510SHIT2  
DESIGNED BY: M.M.F.  
DRAWN BY: M.M.F.  
DATE: 06/02/98  
SCALE: AS NOTED  
PAGE 2 OF 5

EURO-TANK AMD2-MODEL SPECIAL DESIGN

16,000 GAL. (4,000 X 4,000 X 8,000 GAL DIESEL)

PLAN VIEW DIMENTION

DESCRIPTION BY DATE

REV

416 SW 14th STREET  
OCALA, FLORIDA

VOICE: 352-629-3700

FAX: 352-629-8611

PO BOX 478  
SILVER SPRING, FL 34489-0478

E-MAIL: eurotank@adamsnet.com

EURO  
ECOSAFE SYSTEMS, INC.



# ANTI-FLOATATION CALCULATIONS

16,000 GALLON TANK

JOB NO.

## WEIGHT OF MATERIALS

490 pcf = STEEL  
87.6 pcf = CONCRETE  
60 pcf = SOIL FILL  
62.4 pcf = WATER

4.3 ft = Tank Length  
8.00 ft = Tank Diameter  
2.25 ft = Soil Cover above Tank  
0.3125 ft = Outside Wall Thickness  
0.1790 in = Inside Wall Thickness  
0 in = Space Between Outside/Inside Walls  
15.6 ft = TOTAL WIDTH OF CONCRETE SLAB BENEATH CANOPY above TANK  
50.5 ft = TOTAL LENGTH OF CONCRETE SLAB BENEATH CANOPY above TANK

## DOWNWARD FORCES

# = WEIGHT OF TANK GIVEN  
23591 # = WEIGHT OF TANK CALC.

## DOWNWARD FORCES

23591 # = WT OF TANK  
  
2308cf = Volume of SOIL FILL  
138455 # = WT OF FILL ABOVE TANK  
  
50.51 ft = LENGTH OF CONC SLAB  
15.51 ft = WIDTH OF CONC SLAB  
0.67 ft = DEPTH OF CONC SLAB  
522cf = VOLUME OF CONCRETE  
45751 # = WEIGHT OF CONCRETE

# = OTHER WEIGHT  
# = OTHER WEIGHT

207797 # = TOTAL DOWNWARD FORCES

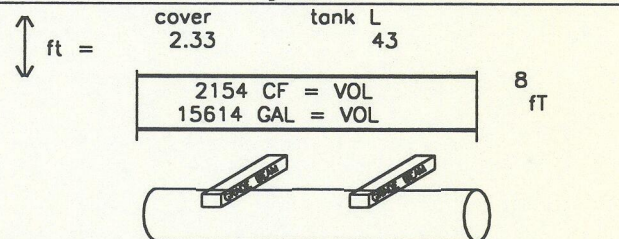
## UPWARD FORCES

2161 cf = EXTERNAL VOLUME OF TANK  
134872 # = BOUANCY FORCE

## RESULTING FORCES

72925 # DOWNWARD 1.54069 = factor fo safety

shear angle of soil = 31 deg assumed  
l of slab @ grade = Tank L + 2\*tan (31)\*h  
L = 50.51 ft W SLAB = 15.51  
grade



## WEIGHT OF TANK

### VOLUME OF STEEL:

2161.42 cf = outside of outside shell volume  
2133.36 cf = inside of outside shell volume  
28.05 cf = NET VOL OF OUTSIDE SHELL  
13745.93 lbs=WEIGHT OF OUTSIDE SHELL  
2133.36 cf = outside of inside shell volume  
2117.38 cf= inside of inside shell volume  
15.99 cf = NET VOL OF INSIDE SHELL  
7832.92 lbs=WEIGHT OF INSIDE SHELL

2.62 cf = Volume of steel of outside ends  
1.49 cf = Volume of steel of insdie end  
4.11 cf = TOT VOL STEEL (ENDS)  
2012.82 lbs= weight of Steel Ends

23591.13 lbs = TOTAL WEIGHT OF TANK

### VOLUME OF OVERBURDEN

$V = [H/3](B1+B2+(B1B2)^{.5}) - [(V/2)+M]$

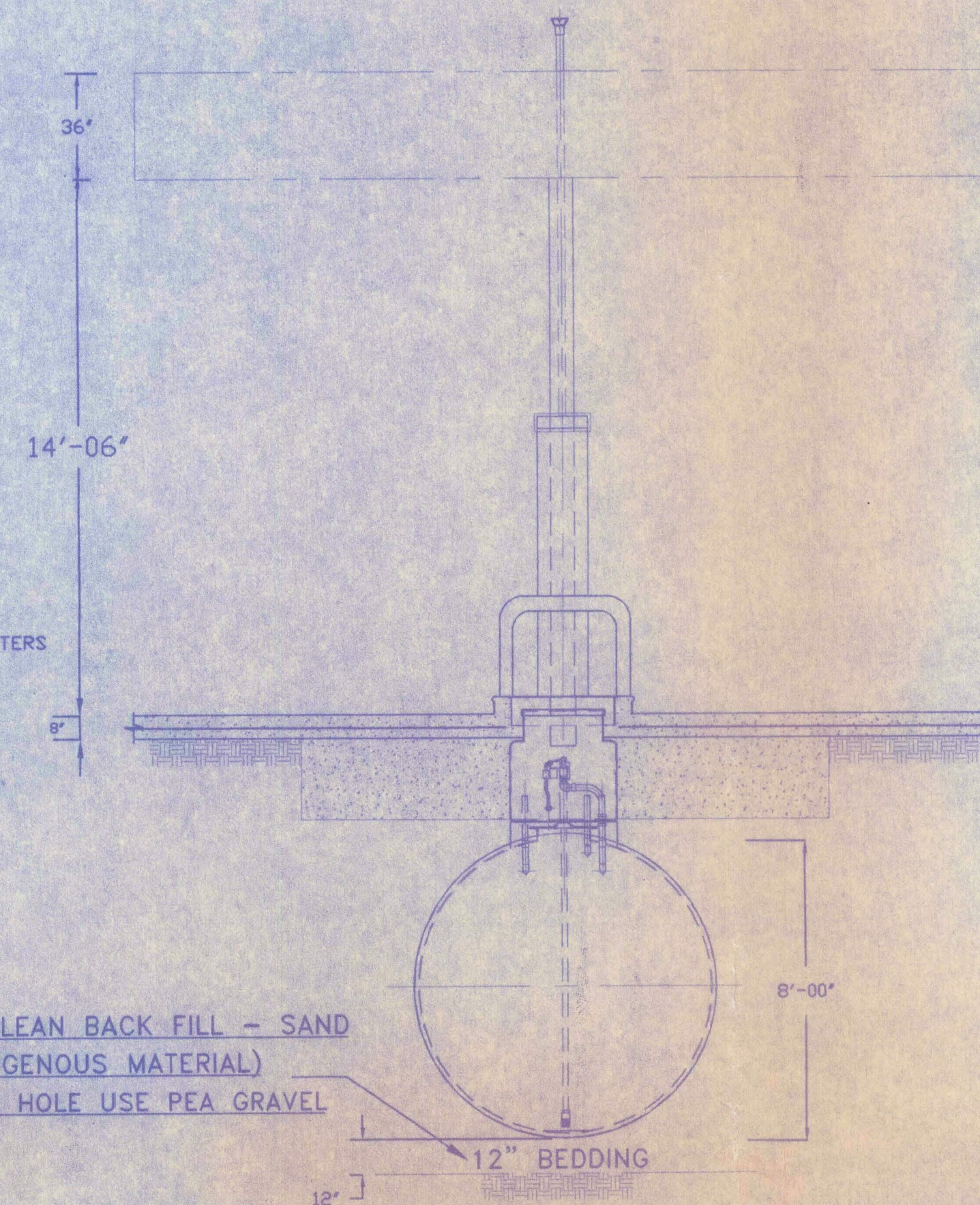
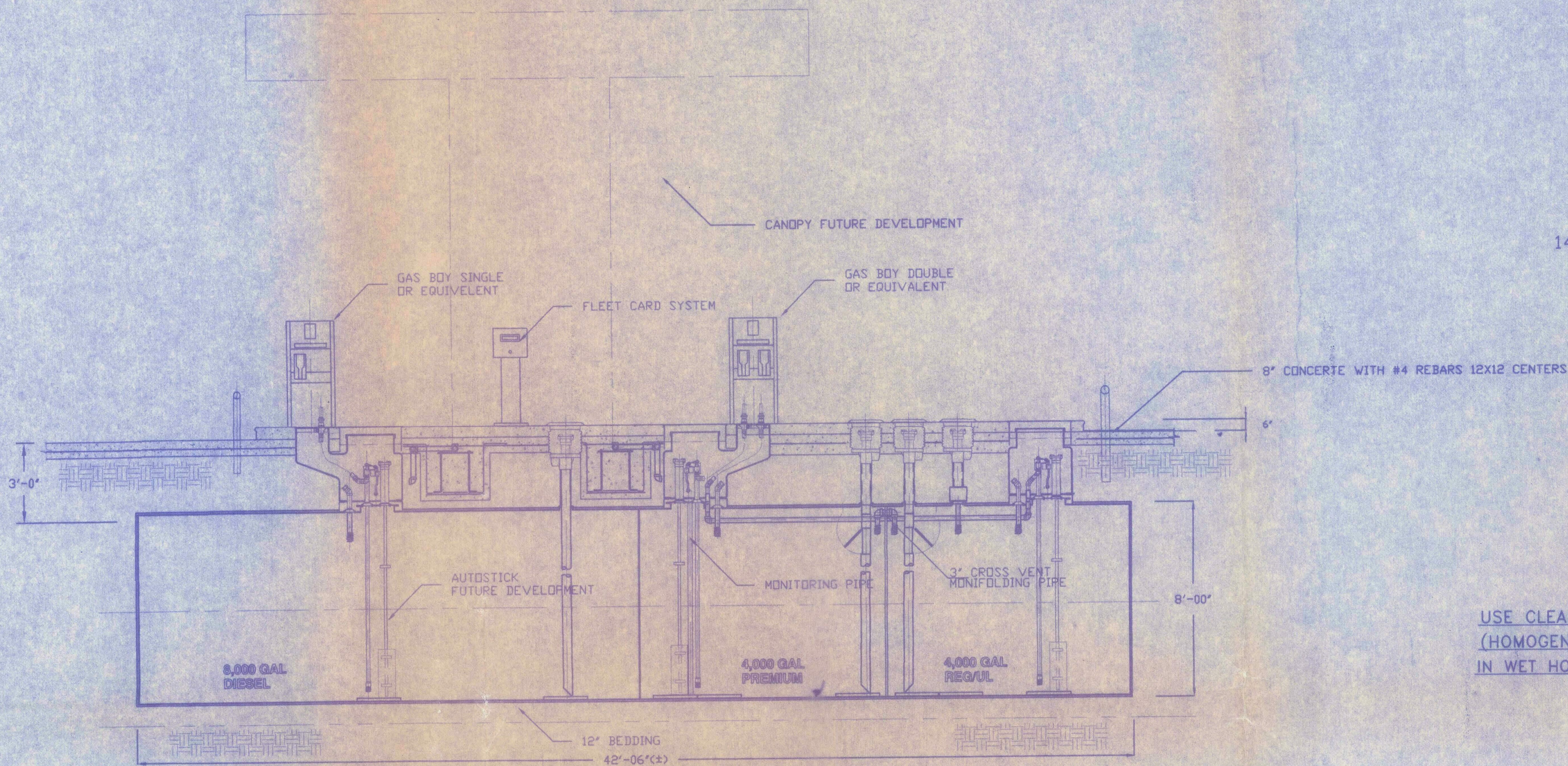
6.46 ft = h = D/2 + d  
15.51 ft = Width of Slab @ Grade Level  
50.51 ft = Length of Slab @ Grade Level  
783.41 sf = B1 = Refelected Tank Area  
2161.42 cf = V = Volume of Tank Displacement  
42.00 cf = M = Void in Overburden (manway)  
2307.58 cf = V overburden

CERTIFIED BY: RIDDLE CONSULTING ENGINEERS, PAUL RIDDLE P.E.

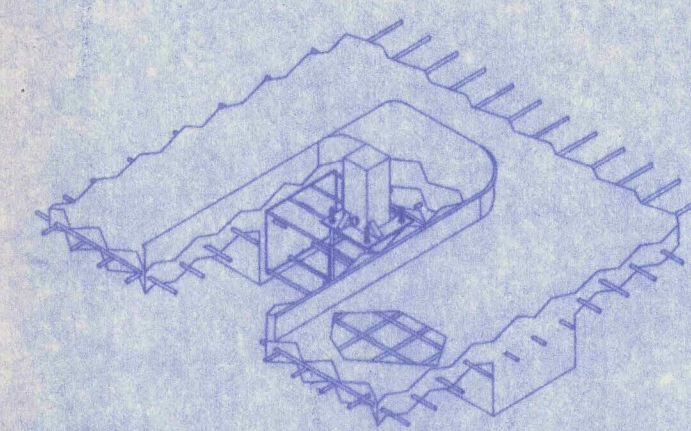


# AMD2 MODEL

## SPECIAL DESIGN FOR WHITE FUEL

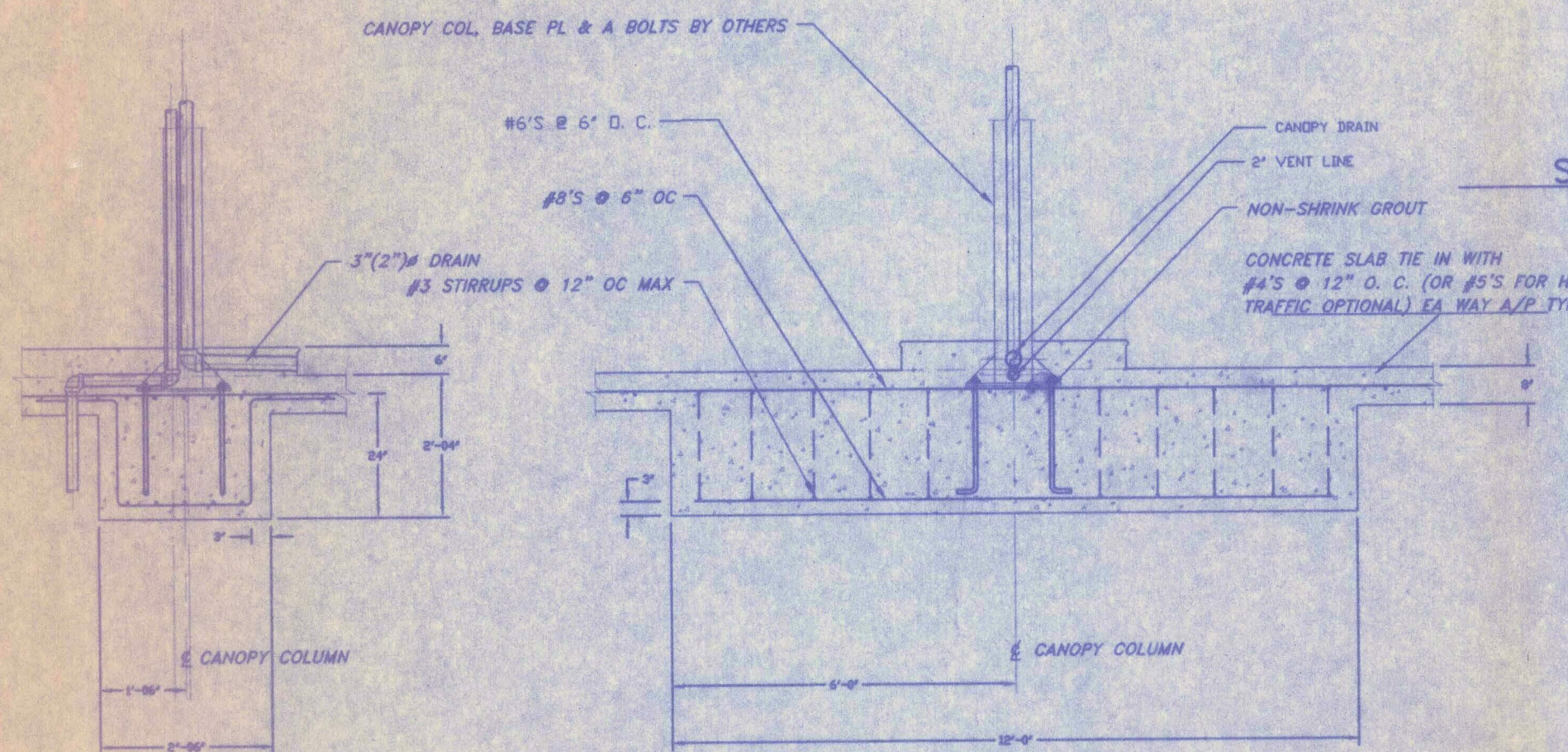


## EURO-TANK® CROSS SECTION



SPECIAL GRADE BEAM ISSOM. VIEW

NOTE:  
THE EURO-TANK® SYSTEM  
IS STAGE II READY WITH  
A CROSS MANIFOLD OF 3"  
CONNECTING THE GASOLINE  
COMPARTMENTS.



EURO-TANK<sup>®</sup> SPECIAL FOOTER GRADE BEAM DETAIL  
SMAL CANOPY GRADE BEAM DESIGN (2'-06" WIDE)

[illegible]

**EURO-TANK® & ECOSAFE SYSTEMS, INC.**  
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U.S. PATENTS # 5,586,586 - ADDITIONAL  
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**GENERAL NOTE**

GRADE BEAM TIE IN IS REQUIRED & MUST BE MONOLITHIC POURED (NO COLD JOINTS). ISLAND FORMS MUST BE SET & CAN BE FINISHED AFTER SETTING OF CANOPY POSTS.

Paul Fiddle  
4-6-99

[illegible]

CERTIFIED BY: RIDDLE CONSULTING ENGINEERS, PAUL RIDDLE P.E.

EURO No.: 16AMDWFUEL  
DESIGNED BY: M.M.F.  
DRAWN BY: M.M.F.  
DATE: 06/17/97  
SCALE: N.A.  
PAGE 3 OF 5

EURO-TANK AMD2 MODEL SPECIAL DESIGN  
16,000 GAL. TRIPPLE COMPARTMENT (8DIESELX4X4)  
SECTION AND DETAIL VIEW

[illegible]

416 SW 14th STREET  
OCALA, FLORIDA  
VOICE: 352-629-3700  
FAX: 352-629-8611  
PO BOX 478  
SILVER SPRINGS, FL 34489-0478  
WEB SITE: [WWW.EUROTANK.COM](http://WWW.EUROTANK.COM)  
SYSTEMS, INC.



ALL EQUIPMENT MUST BE  
APPROVED BY LOCAL AND  
STATE AUTHORITIES

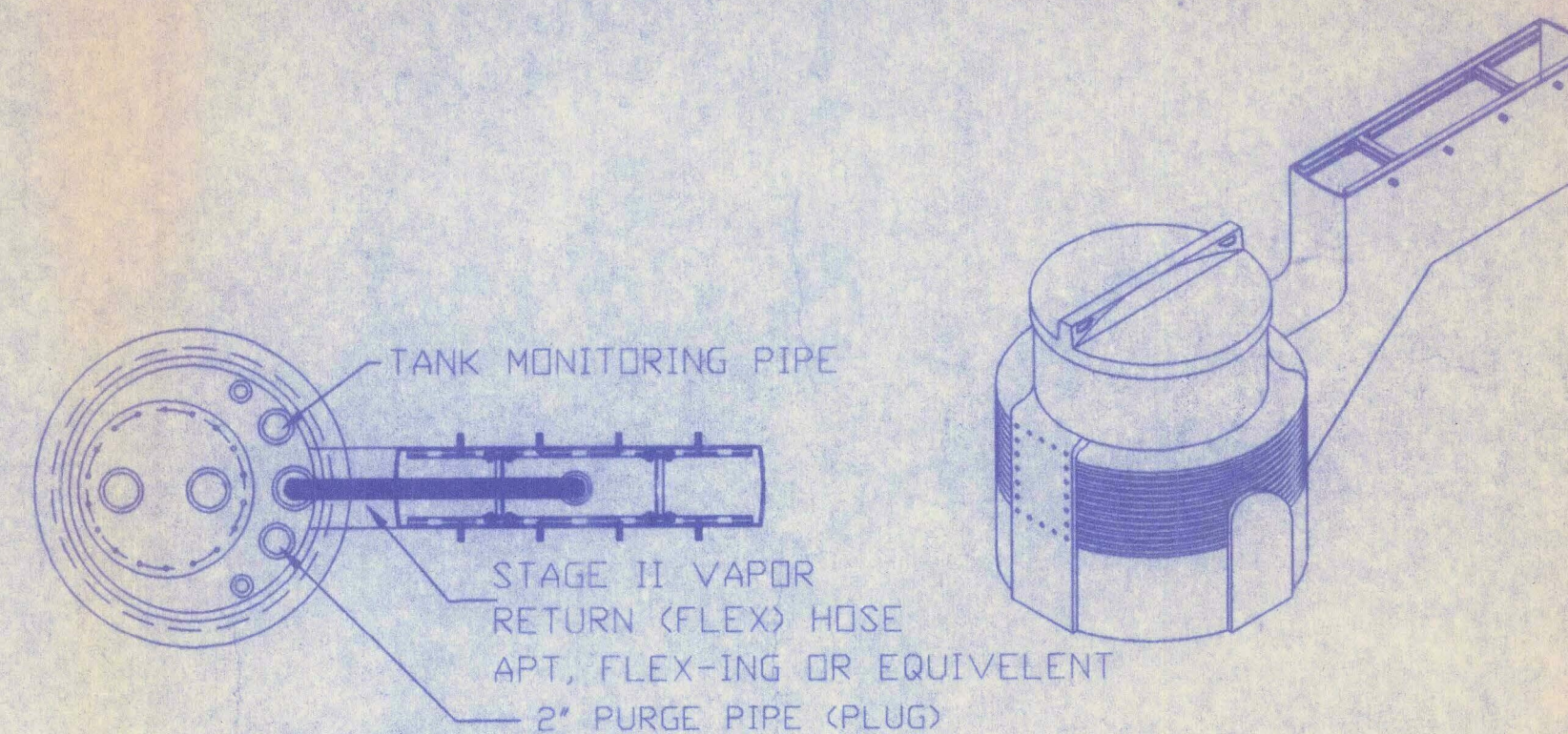
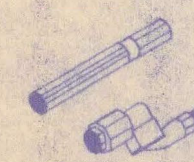
(REFER TO SHEET #5 EURO-SUMP DETAIL ASSM'Y.)

- ## II. COMPONENTS LIST

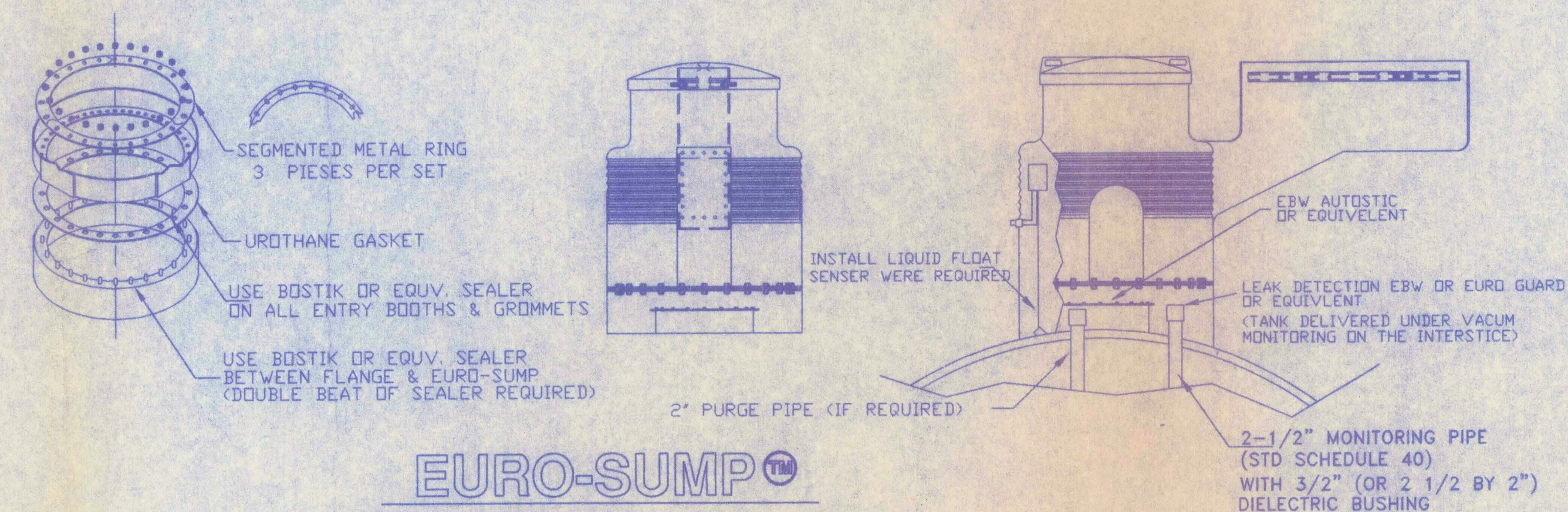
- NOTE:**  
PROVIDE ALL ELECTRICAL CONDUITS AS OUTLINED  
IN THE DESIGN SEE SHEET # 2. THE SPECIAL DESIGN  
FOR THE GRADE BEAM - CANOPY FOOTER MUST BE  
ADHERED TO IF COULD JOINT PORE IS BEING USED  
TIE IN BY DOUWELING IS REQUIRED SEE EURD-TANK  
INSTALLATION REQUIREMENT AND GUIDELINES

OPTION WITH SPACER HOSE  
1.) EBW MODEL 697-3/4"  
2.) EBW MODEL 897-1"  
OR EQUIVALENT

## GENERIC DRAWING

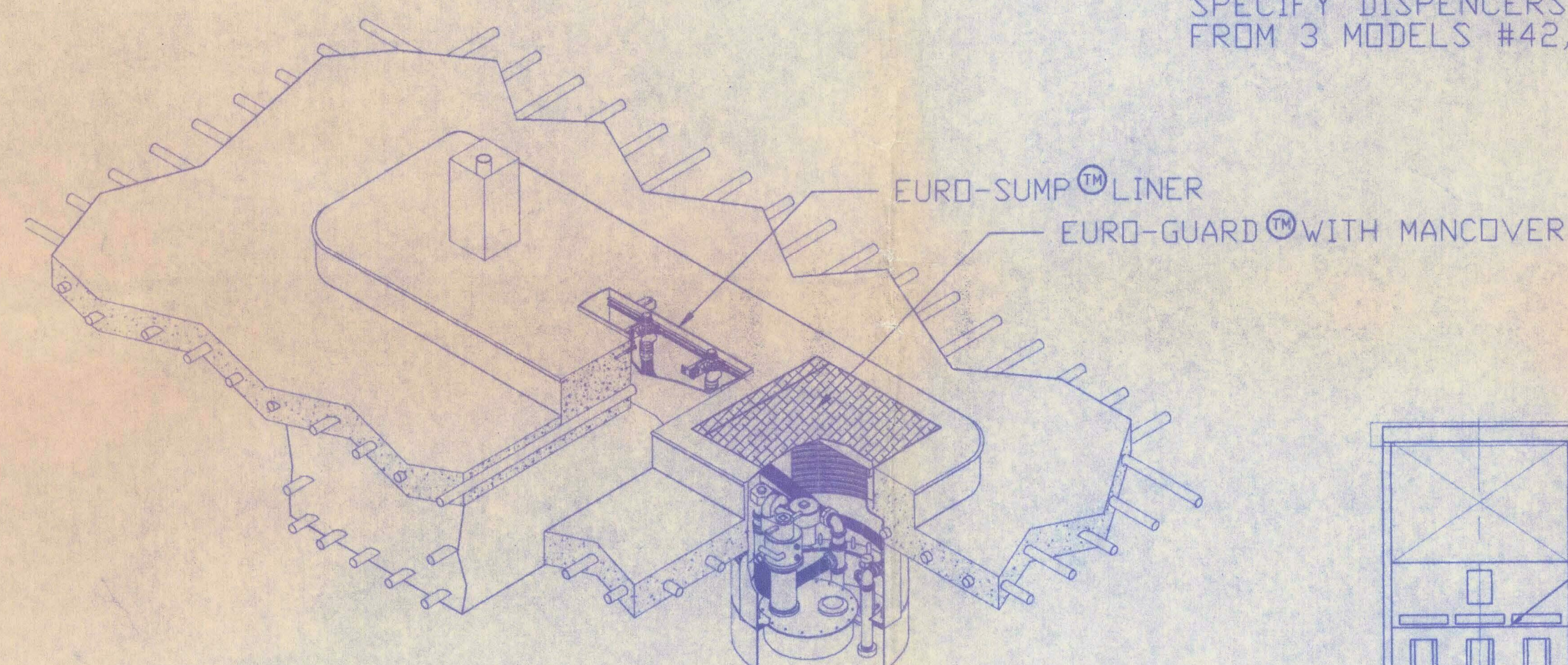
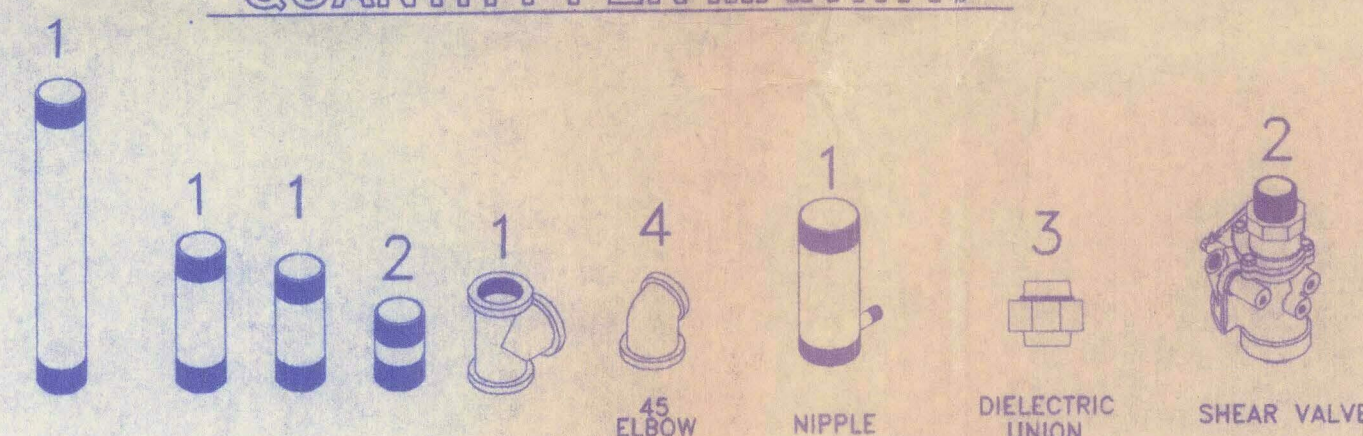


\*\* INTERSTICE MONITORING OPERATED  
 BY A CONTINUOUS VACUUM WITH A  
 EURO-GUARD ® LEAK PREVENTOR SYSTEM.  
 MANUAL MONITORING REQUIRES A  
 MONTHLY CHECK & DOCUMENTATION  
 CHANGES REQUIRE INVESTIGATION.  
 REAPPLY THE VACUUM. MAINTAIN THE  
 VACUUM AT OR AROUND 10" OF MERCURY

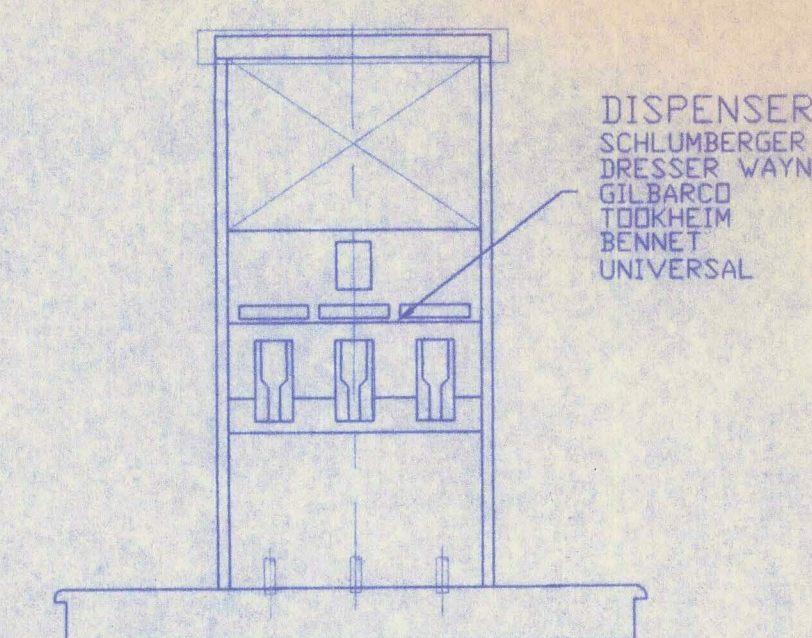


EURO-SUMP<sup>TM</sup>

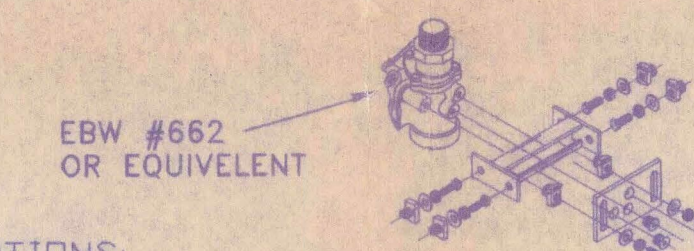
QUANTITY PER MANWAY



## EURO-TANK® &amp; EURO GUARD™ ISLAND FORMS



## PRODUCT DISPENSER



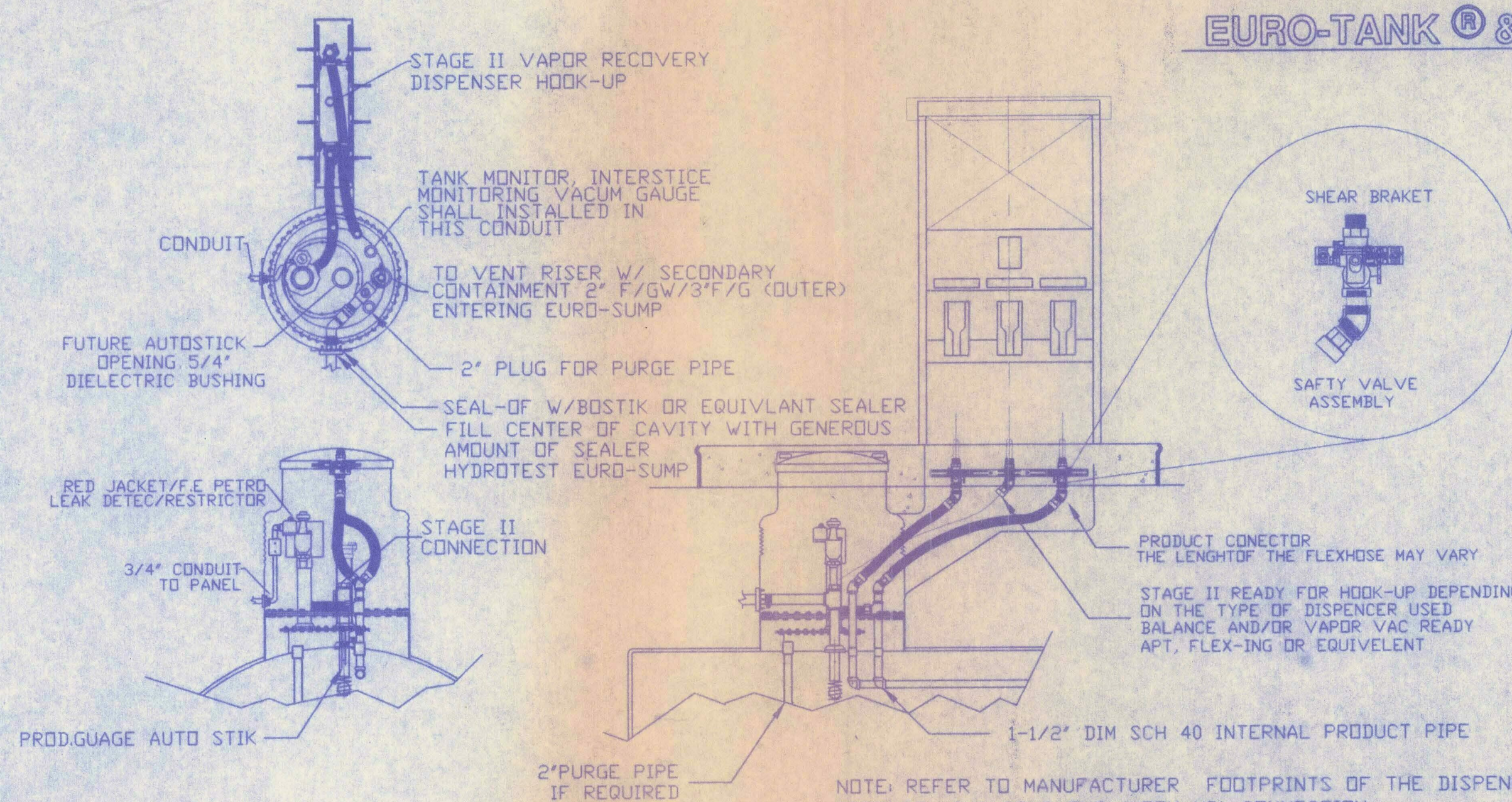
## DISPENSER OPTIONS:

SCHLUMBERGER  
DRESSER WAYNE  
GILBARCO  
TOOKHEIM  
BENNET  
UNIVERSAL

DISPENSER SHOULD NEVER BE INSTALLED WITHOUT A SHEAR VALVE. A 1-1/2" SAFETY VALVE (SHEAR VALVE) GENERIC (CHECK LIST) IN EACH RISER BELOW EACH DISPENSER IS RECOMMENDED. THE SHEAR VALVE SERVES AS A CRITICAL SAFETY FEATURE, BY FUNCTIONING TO CUT OFF THE FLOW OF GAS TO THE DISPENSER IN THE EVENT OF A SHOCK AND/OR IF A FIRE OCCURS. THE VALVE CAN BE CLOSED MANUALLY AS ONE OF THE REQUIRED SAFETY MEASURES FOR SERVICING DISPENSER FILTERS AND OTHER HYDRAULIC PARTS. CORRECT INSTALLATION IS REQUIRED TO PREVENT THE VALVE FROM BEING SHUT OFF. SEE ILLUSTRATION ABOVE AND THE STEP BY STEP PROCEDURE WHICH FOLLOWS.

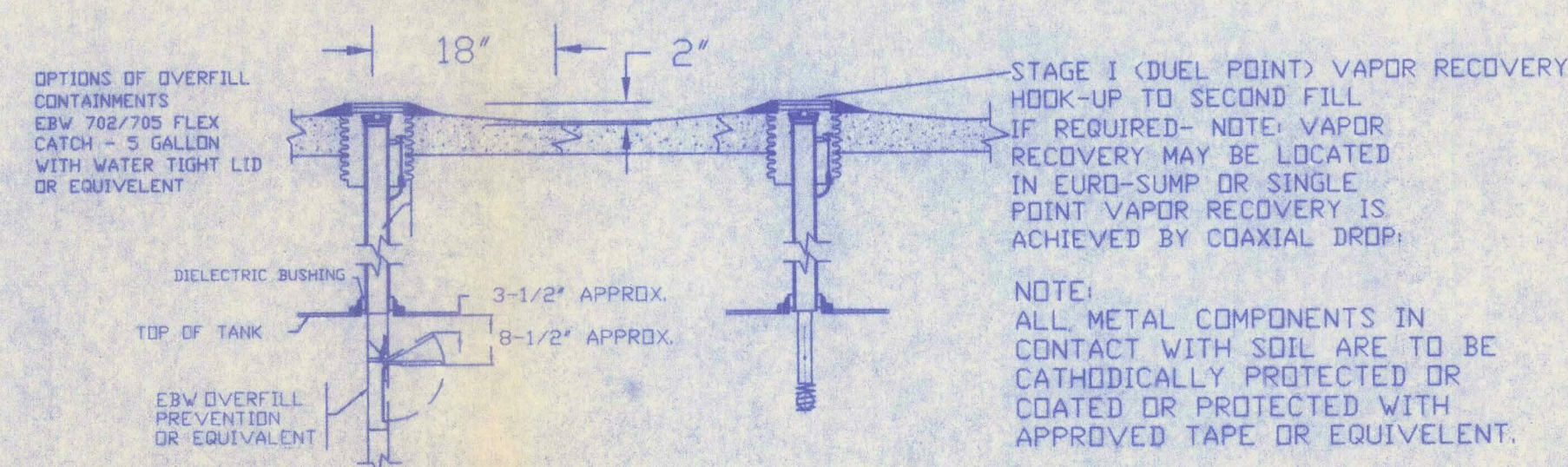
OPTIONS:

USE EURO-TANK GALVANIZED SHEAR BRACKETS AND UINSTRUD ASSEMBLY,  
OR FBW 660-204-01 OR EQUIVALENT.



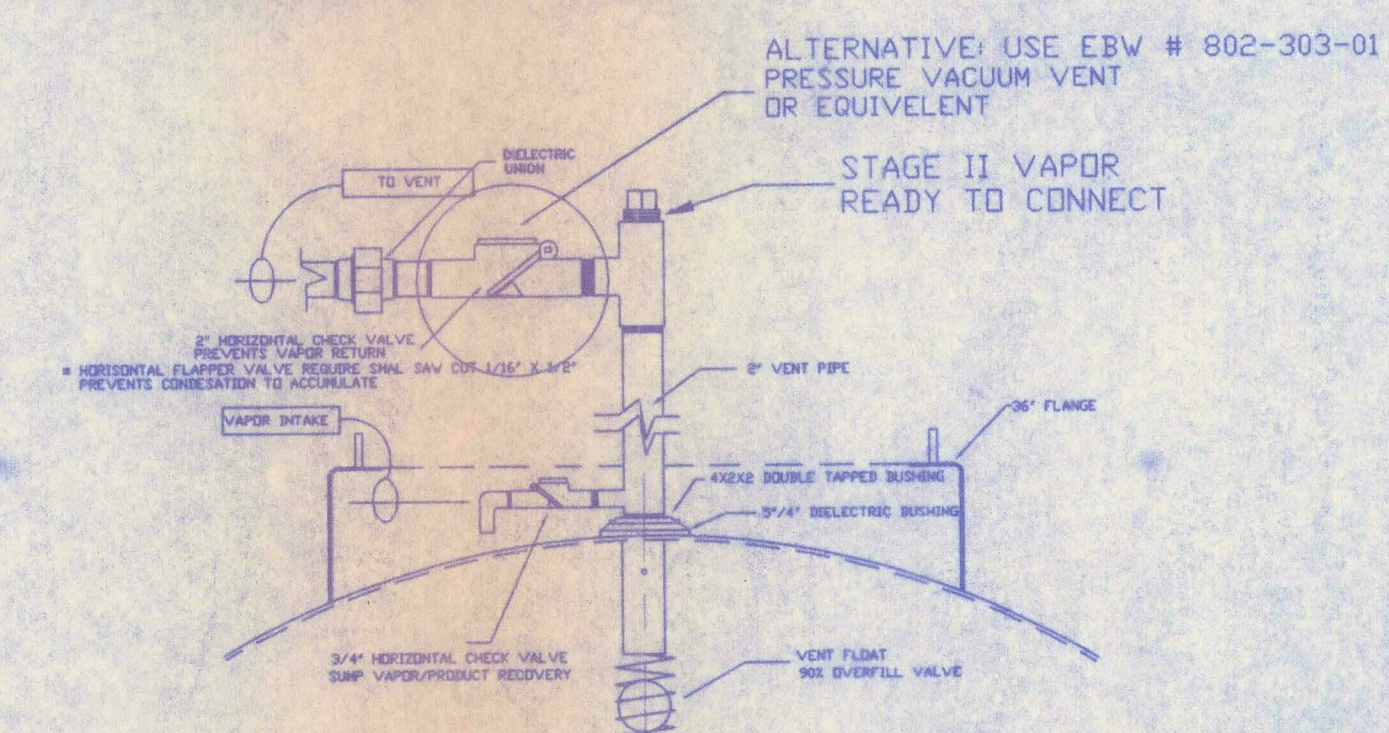
NOTE: REFER TO MANUFACTURER FOOTPRINTS OF THE DISPENSER FOR PRODUCT LINE STUB-OUT (HOOK-UP) CONNECTION.

## OVERFILL & SPILL CONTAINMENT



CERTIFICATION PERTAINS TO THE USE OF THE COMPONENTS  
WITHIN THE SYSTEM - NOT TO THE DESIGN OF SAME.  
ALL COMPONENTS SHALL APPROVED BY LOCAL & STATE AUTHORITY

## EURO SUMP® VAPOR AND PRODUCT RECOVERY ASSEMBLY



EURO No.: ASSEMBLY4.  
DESIGNED BY: M.M.F.  
DRAWN BY: M.M.F.  
DATE: 06/02/97  
SCALE: N.A.  
PAGE 4 OF 5

**A-II MODEL**

## EURO-TANK COMPONENTS - A-II MODEL

## SPECIFICATIONS AND

## ASSEMBLY DETAILS

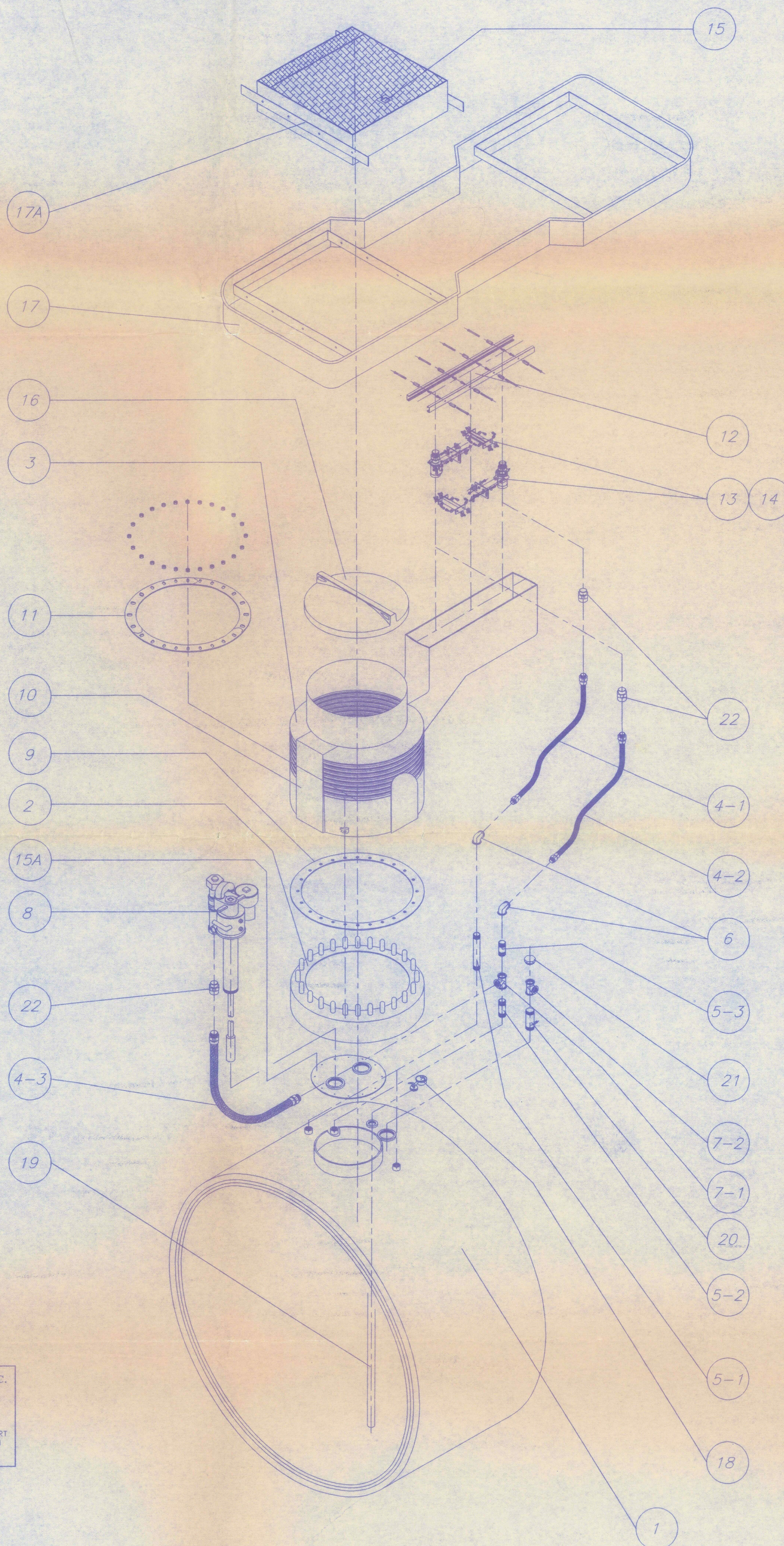
[illegible]

116 SW 14th STREET  
OCALA, FLORIDA  
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FAX: 352-629-8611  
PO BOX 478  
SILVER SPRINGS, FL 34489-0478  
E-MAIL: [eurotank@atlantic.net](mailto:eurotank@atlantic.net)  
WEB PAGE: [www.eurotank.com](http://www.eurotank.com)

# EURO



- 1.) EURO-TANK®
- 2.) FLANGE  
(WELDED TO TANK)
- 3.) MANWAY
- 4.) FLEX HOSES
  - a.) LENGTH -  
(VARIES WITH MPD)
    - 1.) VARIES
    - 2.) VARIES
    - 3.) 12 INCHES
- 5.) PIPE
  - a.) LENGTH
    - 1.) 12"
    - 2.) 5"
    - 3.) 4"
- 6.) ELBOW 45
- 7.) "T"
  - a.) SIZES
    - 1.) 1-1/2"
    - 2.) 2"
- 8.) PUMP
- 9.) GASKET
- 10.) SUMP
- 11.) METAL RINGS, BOLTS  
& WASHERS
- 12.) UNISTRUT WITH  
CONNECTING SCREWS,  
COUPLING & BOLTS
- 13.) SHEAR VALVES
- 14.) BRACKET & PLATE WITH  
ATTACHMENT SCREWS  
& SPRINGS
- 15.) MANWAY LID
  - a.) MANWAY COVER
- 16.) SUMP COVER
- 17.) EURO-GUARD®-CENTER ISLE  
STRAIGHT OR DOGBONE
  - a.) EURO-GUARD® MANWAY  
- SPRING ASSISTED,  
HINGED, LOCKED.
- 18.) VACUUM GAUGE  
(OR FLOAT SENSOR OPTION)  
FOR INTERSTITIAL MONITORING
- 19.) MONITORING PIPE 2-1/2" DIA.
- 20.) VAPOR RECOVERY NIPPLE  
2"x 6" X 3/4"
- 21.) PLUG - 2"
- 22.) DIELECTRIC UNION 1-1/2"



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 VOICE: 352-629-3700  
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 PO BOX 478  
 SILVER SPRINGS, FL 34489-0478  
 E-MAIL: eurotank@atlantic.net  
 WEB PAGE: www.eurotank.com

1	CHANGED COMPONENTS	DAM	9/9/96
REV	DESCRIPTION	BY	DATE

## EURO-TANK® SUMP ASSEMBLY EXPLODED ASSEMBLY DETAIL

EURO No.: ISOASSM  
 DESIGNED BY: M.M.F.  
 DRAWN BY: C.A.B.  
 DATE: 11-20-96  
 SCALE: NONE  
 PAGE 5 OF 5