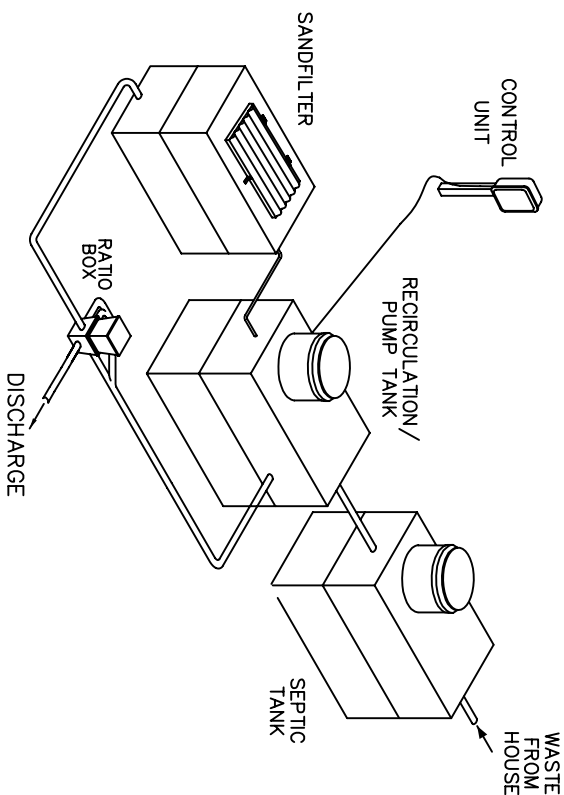


LOCATION MAP

SITE DIRECTIONS



RECIRCULATING SAND FILTER SYSTEM WITH RATIO BOX

SCOPE: HOUSEHOLD SEWAGE WILL FLOW BY GRAVITY THROUGH A TREATMENT UNIT, TYPICALLY A SEPTIC TANK, TO THE SANDFILTER FEED TANK. FROM THE SANDFILTER FEED TANK THE EFFLUENT IS PUMPED TO THE SANDFILTER WHERE, AFTER TREATMENT, IT FLOWS BY GRAVITY TO A RATIO BOX WHERE A PERCENTAGE OF THE EFFLUENT WILL BE SENT BACK TO THE RECIRCULATION TANK AND THE REMAINDER TO DISPOSAL. IF SURFACE DISCHARGE, DISINFECT BY CHLORINATION, THEN THE EFFLUENT WILL FLOW BY GRAVITY THROUGH A SERIES OF CHLORINE CONTACT CHAMBERS. THE FINAL CONTACT CHAMBER WILL ALSO ACT AS A SAMPLE MODULE. FROM THE CONTACT CHAMBERS THE EFFLUENT WILL FLOW BY GRAVITY TO A DISCHARGE POINT.

has designed the drip dispersal system for the specific site in accordance with findings recommendations with the site evaluator/soils evaluator, who is the consultant for the owner. American's pre-engineered system has been selected for the site by the owner's representative. American only certifies the system mechanical application for this site and makes no representation for soil suitability or other site engineering code requirements.

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PROJECT NAME : _____ DRAFTER: _____ DATE: 03/23/06

JOB NAME _____ CHECKED: _____ DATE: _____

TITLE : _____ APPROVED: _____ DATE: _____

COUNTY : _____ COVER SHEET

STATE : _____

FILE: S:\Residential\Plans\0\RA10B03F.dwg SCALE : NTS SHEET: 1 OF 6

CONTENTS:

- Page 1 Cover Sheet
- Page 2 Site Layout Plan
- Page 3 Hydraulic Profile
- Page 4 Control, Pump Specs
- Page 5 Sandfilter Details
- Page 6 System Components & Septic Tank Details

I hereby certify that the evaluations and designs contained herein (refer to subdivision, lot, etc.) were conducted in accordance with the "requirements" furthermore, I certify that the design complies with the minimum requirements of the Regulations

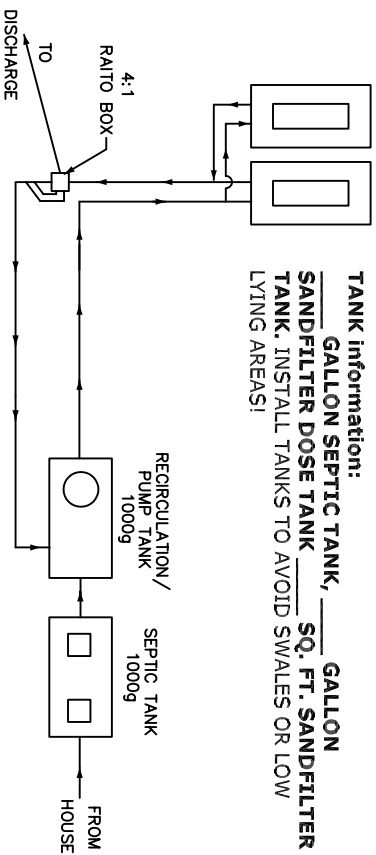
I recommend a _____ on _____

Licensed PE: _____ Date _____ Seal _____

SITE PLAN (SYSTEM LAYOUT SKETCH)

SCALE: ~1" = ___'

ONE OR MULTIPLE
SAND FILTER MODULES
NOT TO SCALE



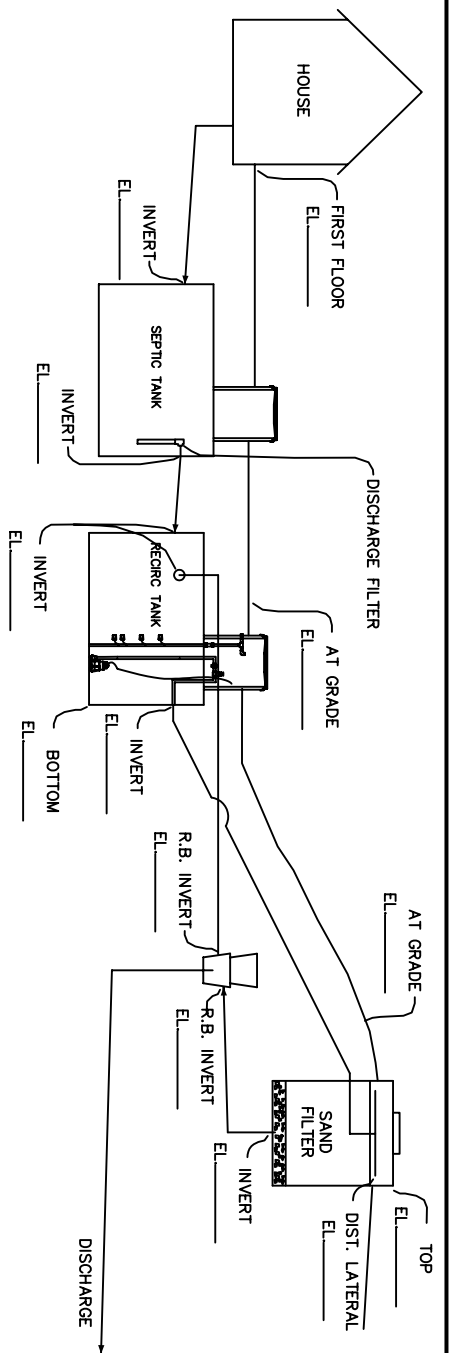
TANK Information:
 _____ GALLON SEPTIC TANK, _____ GALLON
 SANDFILTER DOSE TANK _____ SQ. FT. SANDFILTER
 TANK. INSTALL TANKS TO AVOID SWALES OR LOW
 LYING AREAS!

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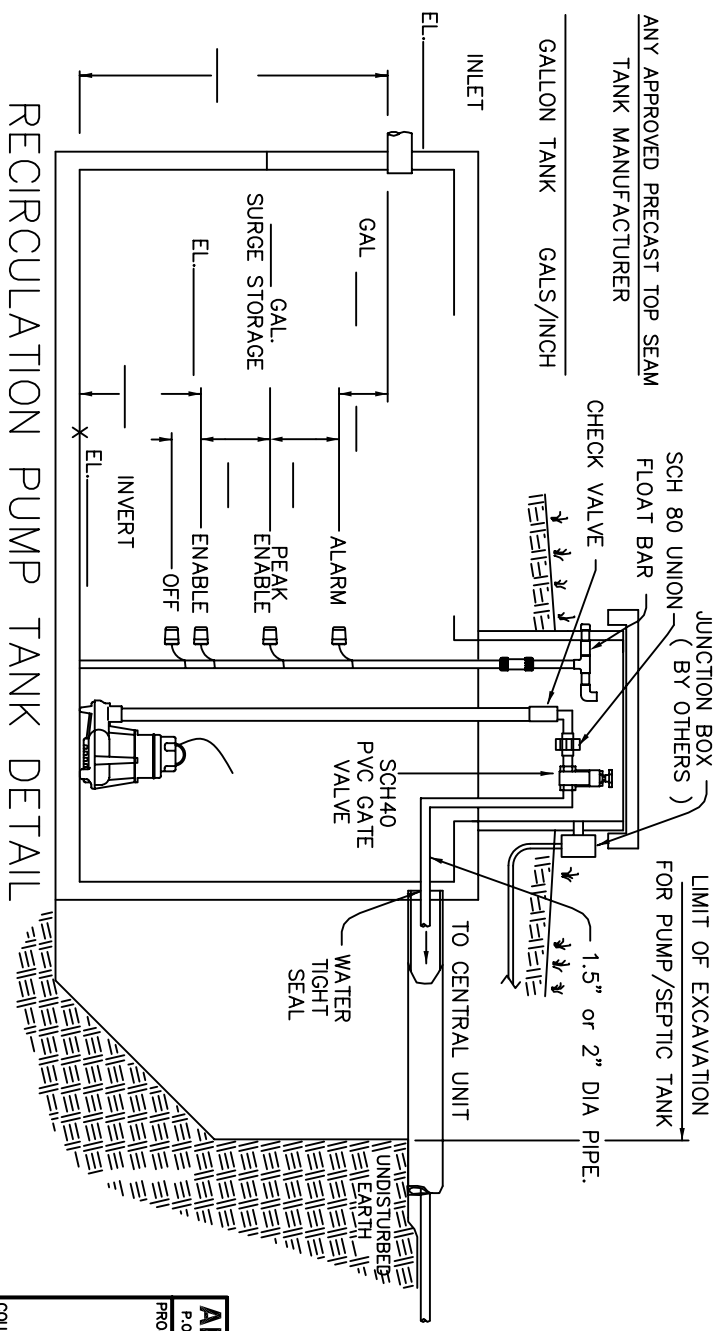
PROJECT NAME :	DRAFTER:	DATE:
JOB NAME	CHECKED:	DATE
	APPROVED:	DATE
	TITLE :	

SITE LAYOUT PLAN



Elevations are based on referenced site plan. During installation elevations must be checked to verify that system will function as designed.

HYDRAULIC PROFILE
NTS



RECIRCULATION PUMP TANK DETAIL
NTS

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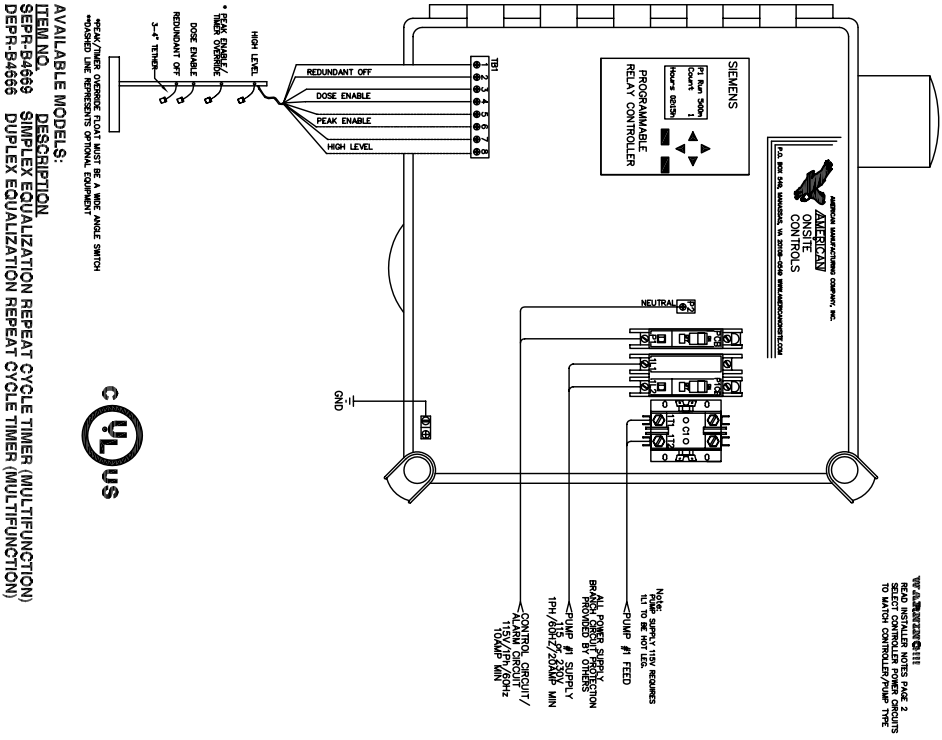
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JOB NAME :	CHECKED :	DATE :
COUNTY :	APPROVED :	DATE :
COUNTY STATE :	TITLE :	

HYDRAULIC PROFILE & PUMP TANK DETAILS

FILE: S:\Residential_Plans\07RAT080XSF.dwg SCALE : NTS SHEET: 3 OF 6

AMERICAN ONSITE CONTROLS
 A Division Of American Manufacturing Co., Inc. P.O. Box 549, Manassas, VA, 20108
PROGRAMMABLE SIMPLEX EQUALIZATION
 INSTALLATION GUIDE FOR "SEPR" Multifunction SERIES TIMED DOSE CONTROL SYSTEM (1 PH, OPTIONS A,LL,R Multifunction)

DWG E4669
REV A 03/07/06

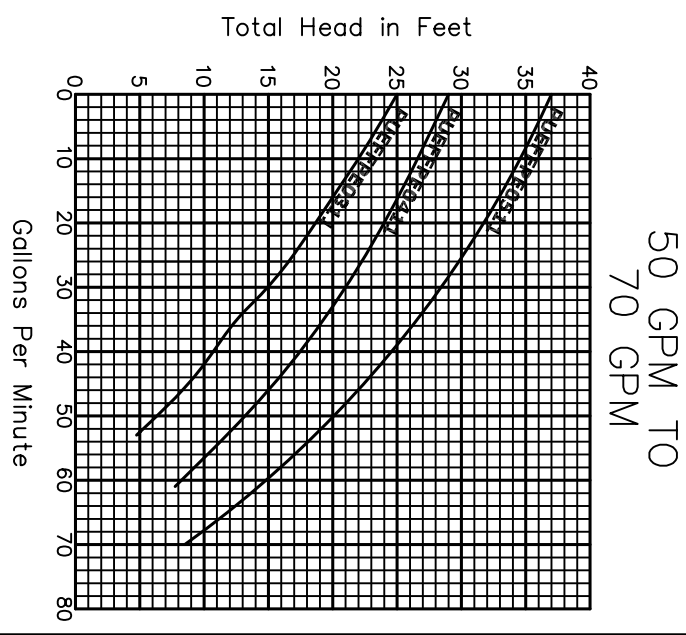
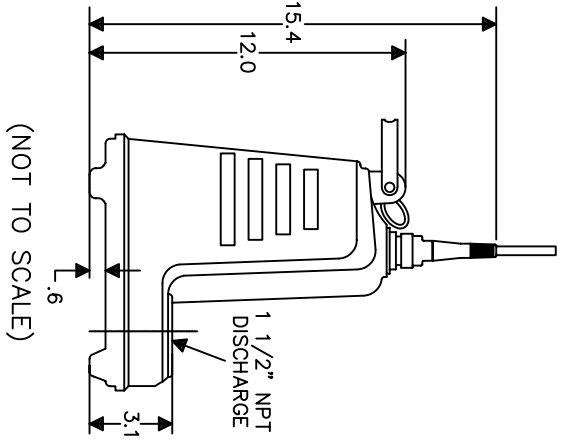


AVAILABLE MODELS:
 ITEM NO. DESCRIPTION
 SEPR-B4669 SIMPLEX EQUALIZATION REPEAT CYCLE TIMER (MULTIFUNCTION)
 SEPR-B4656 DUPLEX EQUALIZATION REPEAT CYCLE TIMER (MULTIFUNCTION)



SUBMERSIBLE EFFLUENT PUMP AND PUMP CURVE

PUEFFPE0311 = 1/2 HP, 115V, 1 PHASE
 PUEFFPE0411 = 3/4 HP, 115V, 1 PHASE
 PUEFFPE0511 = 1 HP, 115V, 1 PHASE



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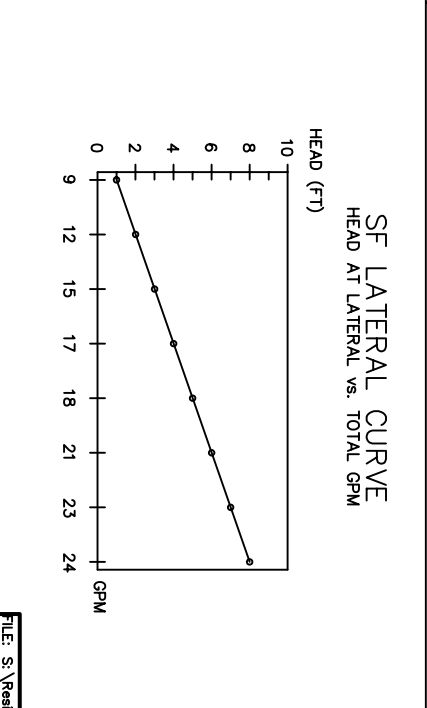
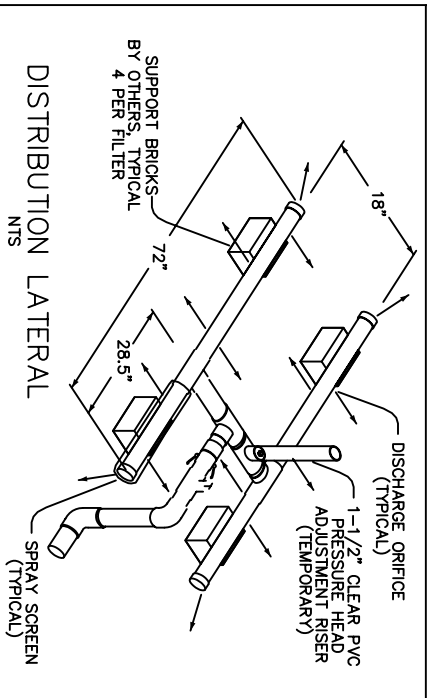
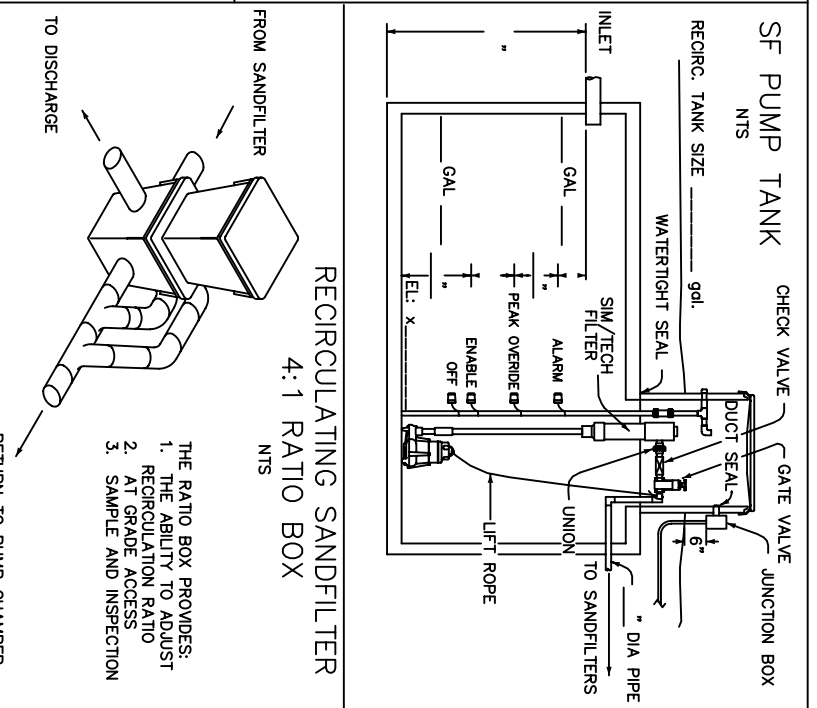
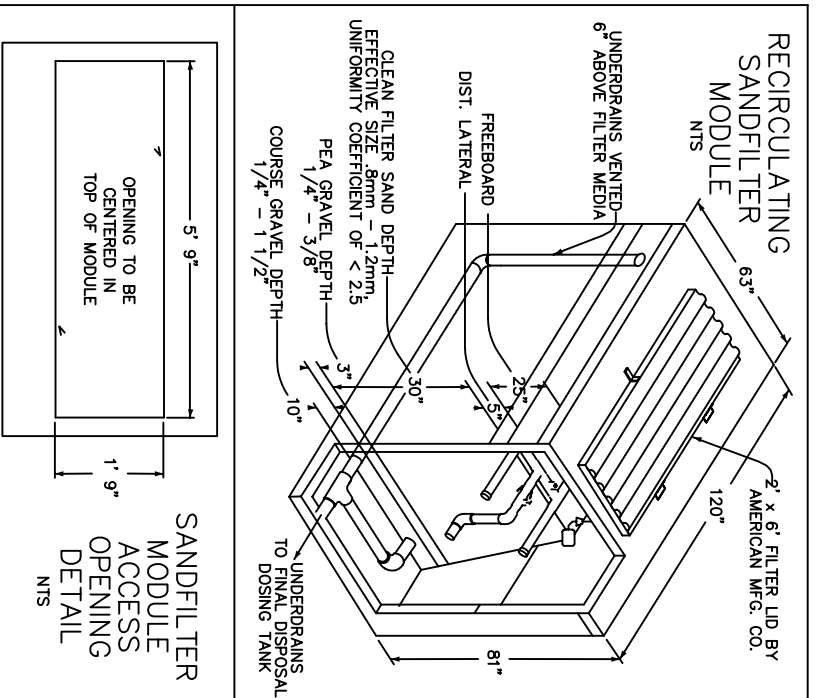
PROJECT NAME : _____
 JOB NAME : _____

COUNTRY : _____
 COUNTY, STATE : _____

DRAWN BY : _____ DATE: 03/23/06
 CHECKED BY : _____ DATE: _____
 APPROVED BY : _____ DATE: _____

TITLE : CONTROL & PUMP CURVE DETAILS

FILE: s:\Residential_Plans\076A10BOX\F.dwg SCALE: NTS SHEET: 4 OF 6



RECIRCULATING SANDFILTER TO DISCHARGE CALCULATIONS

- NUMBER OF BEDROOMS WATER CONSERVATION YES () NO ()
- GPD/BEDROOM
- TOTAL GALLONS
- DESIGN GALL/SQFT/DAY SANDFILTER LOADING RATE
- SO FEET FILTER REQUIRED (#3 / #4)
- S.F. MODULES @ SQ FT /MODULE
- TOTAL SQ FT @ GPD/SQ FT PROVIDED
- :1 DESIGN RECIRCULATION RATIO BASED ON FORWARD FLOW
- TOTAL GALLONS PER DAY DOSED (#9X #3) (SEE NOTE 1 BELOW)
- CYCLES PER DAY
- HR MIN FREQUENCY OF CYCLE
- GALLONS PER CYCLE (#9 / #10)
- INCHES COVER/CYCLE (#12 / 7.48) / (#7) X (12)
- GALLONS -DOSING TANK SIZE @ GALS PER INCH OF TANK
- GALLONS DRAWN PER CYCLE (#12 / #140)
- INCHES RECIRCULATION STORAGE (1/2 DAY TO 1 DAY)
- NO. OF FILTERS TO RECEIVE PUMP DISCHARGE
- NUMBER OF DISCHARGE LATERALS PER FILTER
- GPM PER DISCHARGE
- FT. DESIGN HEAD FOR DISCHARGE HOLES
- TOTAL GPM (#17 X #18 X #19)
- FEET OF STATIC HEAD
- INCHES DIAMETER SUPPLY PIPE
- FT. OF EQUIVALENT LENGTH OF SUPPLY PIPE
- FT. TOT. HEAD LOSS FOR FILTERS (#20 & #21)
- MINUTES SECONDS DRAWDOWN TIME FOR RECIRCULATION TANK
- MINUTES SECONDS DRAWDOWN TIME FOR SPRAY TANK

NOTE 1:
 BASED ON FORWARD FLOW FOR A RATIO BOX THE RATIO IS THE RELATIONSHIP OF THE INLET TO THE TOTAL NUMBER OF OUTLETS. A 4:1 RATIO HAS 3 PARTS RETURN AND 1 PART DISCHARGE (TOTAL OF PARTS) TO ONE INLET ; i.e., TOTAL GALLONS = INLET FLOW / % DISCHARGE.

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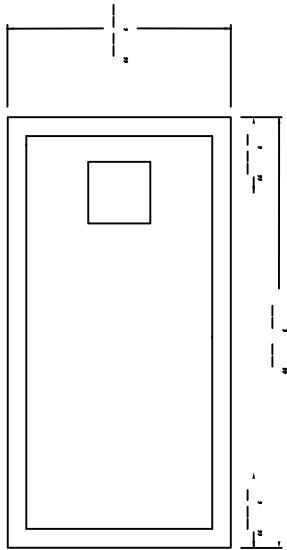
PROJECT NAME : _____ DATE: 03/23/06
 DRAWN: LJV
 CHECKED: _____ DATE: _____
 APPROVED: _____ DATE: _____

JOB NAME : _____
 TITLE : _____
 RECIRCULATION TANK & SANDFILTER DETAILS

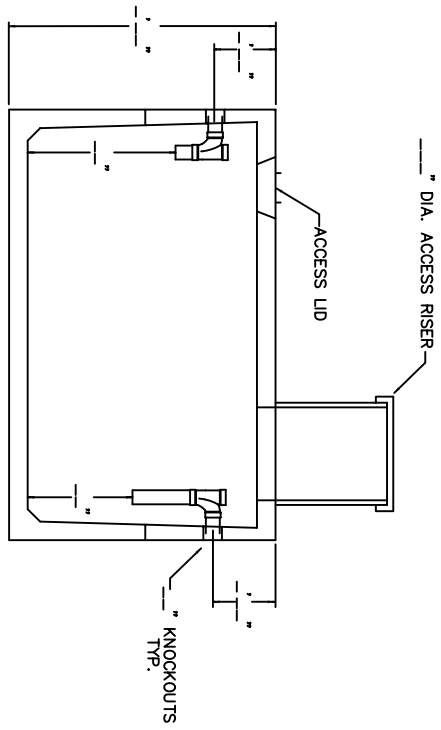
COUNTRY : _____
 COUNTY, STATE : _____

FILE: S:\Residential\Plans\07\KAT10BOXSF.dwg SCALE : NTS SHEET: 5 OF 6

1000 GAL SEPTIC TANK 1 TYP.



PLAN VIEW



SECTION VIEW

TANK DATA
 TANK MFG. CO: _____ OR EQUIVALENT
 LIQUID DEPTH: _____"
 GALS/INCH: _____"
 USED AS: SEPTIC AND RECIRCULATION TANKS

COMPONENT SUMMARY:

SEPTIC TANK: _____
 RECIRCULATION PUMP TANK: _____
 SAND FILTERS: _____
 RATIO BOX: _____
 CHLORINATOR _____
 CHLORINE CONTACT CHAMBER _____
 (last module is also sampling chamber)
 PUMP: _____
 PUMP KIT (disconnect, check & gate valves): _____
 CONTROL PANEL: _____
 FLOAT SWITCHES: _____
 SAND FILTER PACKAGES _____
 IN-LINE PUMP FILTER _____
 EFFLUENT FILTER _____

MANUFACTURER /MODEL #

(1) tank, _____ gallons
 (1) tank, _____ gallons
 _____modified tanks, _____ gallons
 by American Mfg.

(3) by American Mfg.
 (1) effluent pump, Model _____
 by American Mfg.
 by American Mfg.
 by American Mfg.
 _____ by American Mfg.
 SIM/TECH Filter
 Treit Products Inc.

AMERICAN MANUFACTURING CO.	
P.O. BOX 97 ELKWOOD, VA 22718 (540) 825-1084	
PROJECT NAME : _____	DRAWER: LWJ DATE: 03/23/06
JOB NAME	CHECKED: _____ DATE: _____
COUNTRY : _____	APPROVED: _____ DATE: _____
COUNTY, STATE	TITLE : _____
SCALE : NTS	SYSTEM COMPONENT SPECIFICATIONS & SEPTIC TANK DETAIL
FILE: S:\Residential_Plans\ORATIOBOXSF.dwg	SHEET: 6 OF 6