

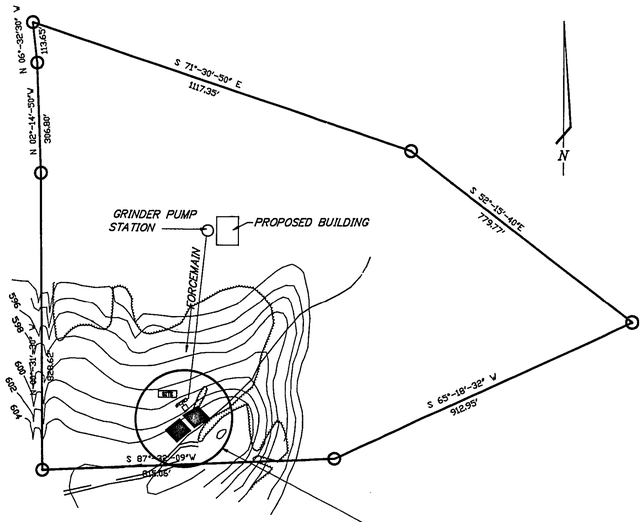
11601 DOWNS RD

20506111

1/2/2008

duponbj

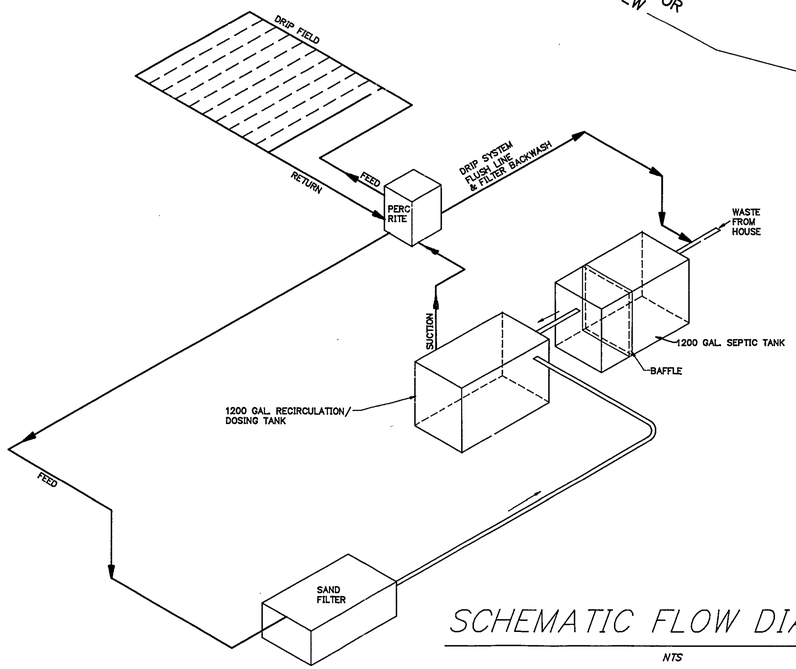
Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M



SITE PLAN

SCALE: 1" = 200'

SEE BELOW RIGHT FOR ENLARGED VIEW

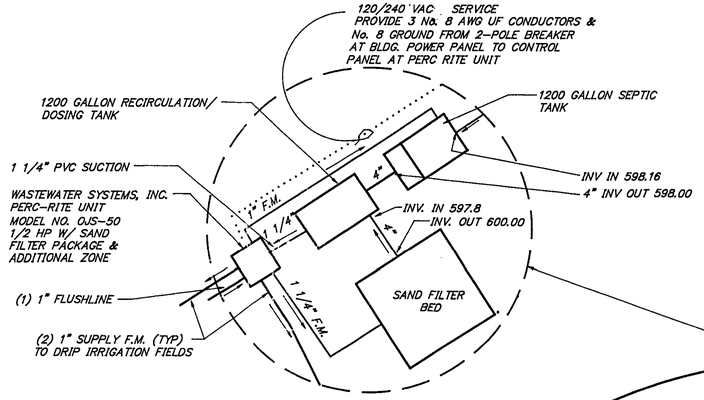


SCHEMATIC FLOW DIAGRAM

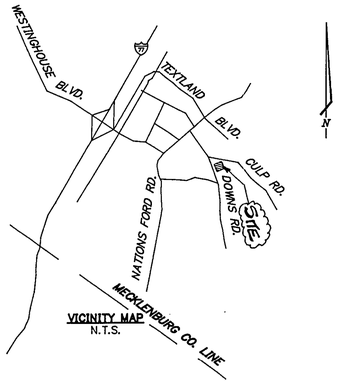
NTS

SPECIFICATIONS

1. IRRIGATION SUPPLY AND RETURN LINES, MANIFOLDS, AND SAND FILTER SUPPLY PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS UNLESS OTHERWISE NOTED.
2. GRAVITY SEWER PIPING SHALL BE SDR 35 CLASS 12454 B OR 12454 C PVC.
3. ALL CONCRETE STRUCTURES SHALL BE 3000 PSI CONCRETE.
4. LIGHTNING ARRESTER SQUARE D MODEL SP3650, SINGLE-PHASE 120/280V SHALL BE PROVIDED FOR PERC-RITE UNIT.

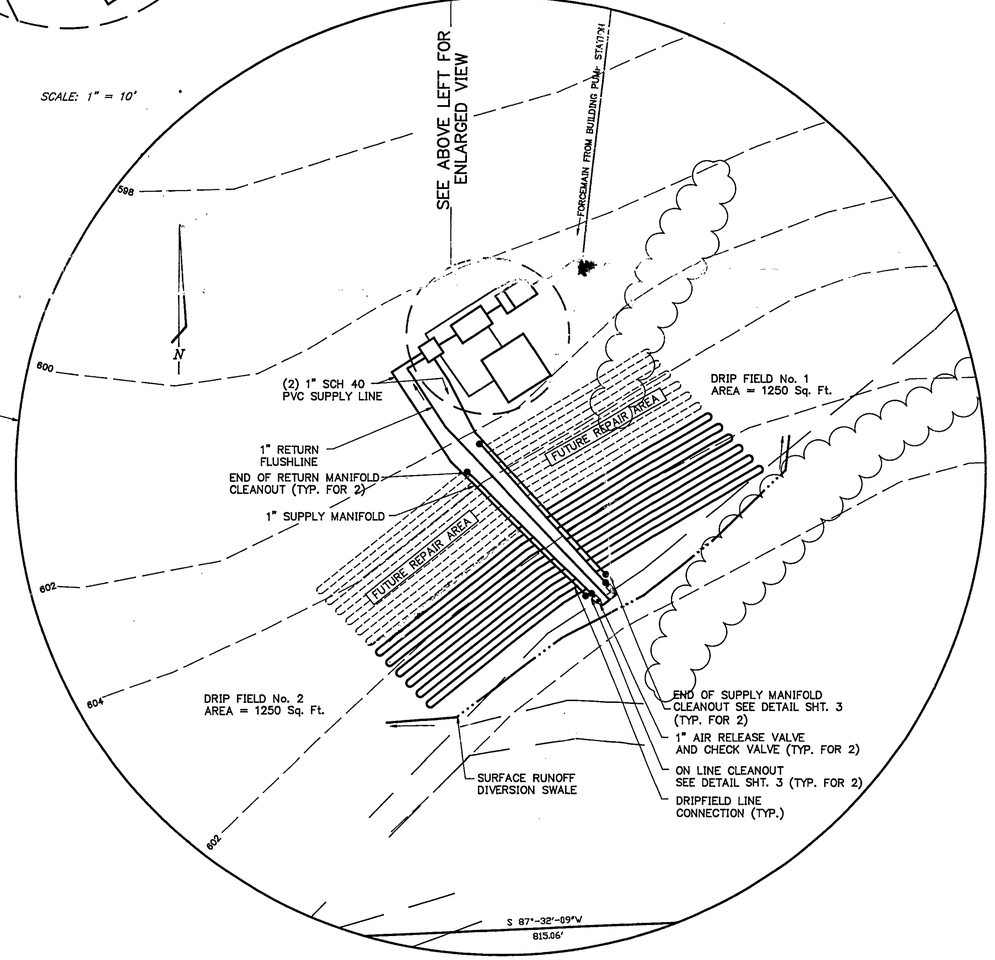


SCALE: 1" = 10'



VICINITY MAP
N.T.S.

SEE ABOVE LEFT FOR ENLARGED VIEW



SITE PLAN

SCALE: 1" = 20'

JESSE WILSON ASSOCIATES
CIVIL/ENVIRONMENTAL ENGINEERING
2007 YANCEYVILLE STREET, SUITE 225
GREENSBORO, NC 27405
(910) 275-0494

NORTH CAROLINA PROFESSIONAL SEAL 10847 ENGINEER JESSE W. WILSON

1/3/95

REV. NO.	DESCRIPTION	DATE	BY	APP'D

McGINNIS FARMS

SUB-SURFACE DRIP IRRIGATION SYSTEM

MECKLENBURG CO. N.C.

PROJECT NUMBER	94012
DESIGNED BY	JWW
DRAWN BY	JWW
CHECKED BY	JWW
SCALE	AS SHOWN
DATE	1/3/95

1 OF 3

CAROLINA SPECIALTY METALS, INC. DB 4883 PG 520

NATIONAL ENGINEERING & CONTRACTING COMPANY DB 4630 PG 175

AMON LANE

DOWNS ROAD

N 06°33'04" W 113.54'

N 02°15'24" W 306.80'

S 71°31'24" E 1022.26' 1117.34'

APPROXIMATE LOCATION OF CREEK

APPROXIMATE LOCATION OF POND

TEMPORARY ROCK CHECK DAM NO. 1

TEMPORARY ROCK CHECK DAM NO. 2

SILT FENCE STD. 30.06

STABILIZED CONSTRUCTION ENTRANCE (18'x60')
MATCH EXIST. ROADWAY EDGE OF PAV'T ELEV.
TOP = 578.90 INV. = 576.20
TOP = 578.45 INV. = 576.70

60' R/W

S 89°28'57" W 340.00'

40' GRAVEL DRIVE

TEMPORARY SILT DITCH NO. 2

TRACT A
1,306,811 SF or
30.000 ACRES

10.0 AC.±

37 PARKING SPACES

655.03'

TEMPORARY SILT DITCH NO. 1

828.59'

N 00°31'03" W 1320.30'

2.4 AC.±

N 498702.769
E 1429382.456

NCGS STATION "THREE"
NAD 83
COMBINED FACTOR = 0.9998521
N 498614.954
E 1429406.534

S 15°19'59" E
91.06'
91.05' (GRID)

S 59°44'21" E
7045.42'
7044.55' (GRID)

S 87°11'33" W 815.00'
260.00'
775.00'

89.62'

(NEW LINE)

S 65°16'37" W 913.30'

JOHN A. POLITES, et.al.
DB 5783 PG 121
RESIDUAL
18.8± ACRES

B.D.T. ASSOCIATES
DB 5311 PG 887

W.H. SOUTHERLAND
DB 4826 PG 484

NCGS STATION "LAWN"
NAD 83
COMBINED FACTOR = 0.9998543
N 495064.935
E 1435491.187

D.V. CHAMBLEE
DB 2976 PG 83

HEIRS OF
R.S. CULP
DB 1221 PG 630

J.G. BLACKMON
DB 4563 PG 695

CULP ROAD
60' R/W

S 52°16'37" E 779.81'

N 66°38'15" E 19.35' (TIE)

G.H. WASHINGTON
DB 2507 PG 584

5' SAN. SEW. EASEMENT

S 23°21'45" W 291.15' (TIE)

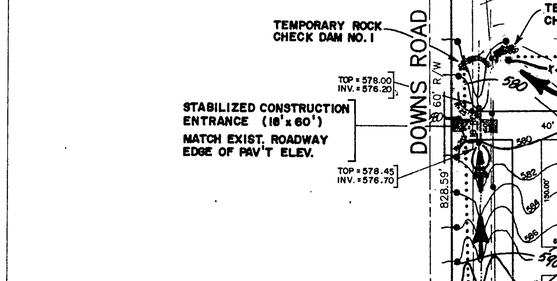
ZONE X

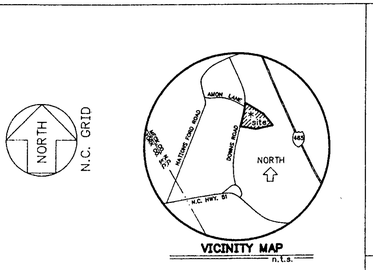
ZONE AE

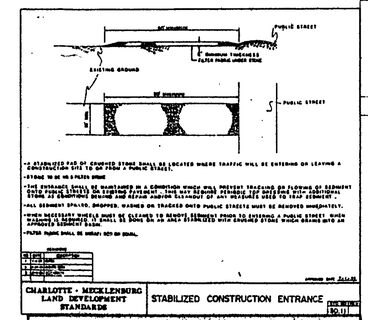
FLOOD BOUNDARY TAKEN FROM F.E.M.A. F.I.R.M. PANEL NUMBER 370158 0180 B

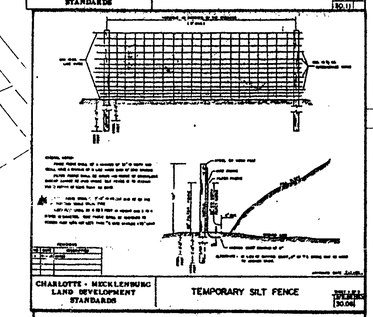
NORTH
N.C. GRID

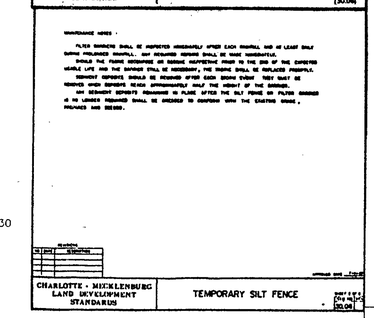
VICINITY MAP
n.t.s.











CONSTRUCTION SEQUENCE

1. RECEIVE PLAN APPROVAL FROM COUNTY ENGINEERING DEPARTMENT.
2. POST SEDIMENTATION AND EROSION CONTROL BOND WITH COUNTY ENGINEERING DEPARTMENT.
3. SET UP PRE-CONSTRUCTION CONFERENCE ON-SITE WITH COUNTY ENGINEERING INSPECTOR.
4. INSTALL EROSION CONTROL DEVICES AS INSTRUCTED BY COUNTY ENGINEERING DEPARTMENT INSPECTOR AND PER THE PLANS.
4a. NOTE: SILT FENCE TO BE USED IN LIEU OF CHECK DAM No.2 & TEMP. SILT DITCH No.2. THE LAKE CAN BE UTILIZED IF NECESSARY; BUT, NOT RECOMMENDED.
5. SET UP PRE-CONSTRUCTION REVIEW WITH THE COUNTY ENGINEERING INSPECTOR TO CHECK DEVICES INSTALLED FOR COMPLIANCE WITH STANDARDS.
6. GRADING PERMIT IS ISSUED BY THE COUNTY ENGINEERING INSPECTOR.
7. GRADE THE SITE ACCORDING TO PLANS.
8. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE.
9. ALL 2:1 CUT AND FILL SLOPES WILL REQUIRE STABILIZATION WITH SOME FORM OF MAT UNTIL VEGETATION IS ESTABLISHED.
10. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION.

10± ACRES DENUDED

LEGEND

F	FOUND
S	SET
#4b	No. 4 REBAR
#5b	No. 5 REBAR
CM	CONCRETE MONUMENT
R/W	RIGHT OF WAY
-x-	FENCE LINE
●	UTILITY POLE
OU	OVERHEAD UTILITY
	TEMP. SILT DITCH
	PHASE LINE

GRAPHIC SCALE
100 0 100 200 400
(IN FEET)
1 inch = 100 ft.

⚠3 DECEMBER 29, 1994 - ADDED SILT DITCH, ROCK CHECK DAM & CONSTRUCTION ENT. INFO PER REVIEW COMMENTS

⚠2 DECEMBER 5, 1994 - ADDED SILT FENCE DETAILS, CONSTRUCTION SEQUENCE & STONE FILTER OUTLET

⚠1 NOVEMBER 22, 1994 - REVISED PARKING AND ADDED PROPOSED CONTOURS

THIS DRAWING IS THE PROPERTY OF JMA, JAMES McGOVERN & ASSOCIATES CONSULTING ENGINEERS AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED UPON REQUEST.

JMA
501 N. Park St.
P.O. Box 1
Pineville, North Carolina 28134
(704) 889-8200
James McGovern & Associates
Consulting Engineers

Project
McGINNIS FARMS, INC.

Sheet Title
DOWNS ROAD - SITE PLAN

Engineer
JAMES J. McGOVERN
Drawn By
SANDRA BAETZ PASDON
Date
NOVEMBER 21, 1994

Revisions

No 1	Date	11-22-94
No 2	Date	12-5-94
No 3	Date	12-29-94
No	Date	

Project Number
331.001

Sheet
1 OF 1

OPERATING REGIME FOR DRIP IRRIGATION SYSTEM

Inflow to the pump tank will cause the water level to rise to a pre-determined elevation where a mercury float switch shall close initiating a logic sequence in the microprocessor controller that will determine whether the system has dosed within the last one and half (1.5) hours. If it has dosed within the previous three (3) hours, it will begin a time delay for pump operation until the three (3) hour wait time has been satisfied, or upon reaching the alarm elevation, the system will override the time delay and begin the dosing operation. The system will log for later retrieval the time the "lead" pump float switch was activated and also the time the alarm float switch was activated. Upon receiving a legitimate signal to begin dosing operation, the system will activate the designated "lead" pump. The system shall contain two pumps receiving alternate duty for pumping cycles. The lead pump shall operate delivering a pre-determined dose to the designated ground absorption field. Pumped flow shall pass through a flow meter equipped with pulse generator that will transmit pulsed signals to the microprocessor unit that will reduce received data to gallons and also gallons per minute. The microprocessor, upon recognition of the pre-determined dose volume having been processed, will de-energize the operating pump. The pump will also de-energize if the low water level "pump off" switch is activated.

If the high water level "alarm" float switch is activated, the system will select the next sub-field to be dosed, manipulate the appropriate solenoid valves to direct flow to that field, begin its operation of delivering the pre-determined dose volume, and shall also energize the telephonic auto-dialer audible and flashing alarm fixtures. Once energized, the flashing and audible alarm units may only be reset manually.

The microprocessor will also control the periodic backwashing of the filters and the flushing operation of the sub-field lateral network. Filter backwashing shall occur either by the microprocessor upon receiving a signal from pressure differential switch that will measure pressure loss across the system filter units (normally upon reaching a 7 PSI difference) or by recognition of a pre-set elapsed time since last system flush (usually 24 hours). System lateral flushing shall occur when the microprocessor senses recognition of a preset elapsed time since last system flush (usually 28 days). The system shall be configured to allow for manual initiation of backwashing filters or sub-field system flushing.

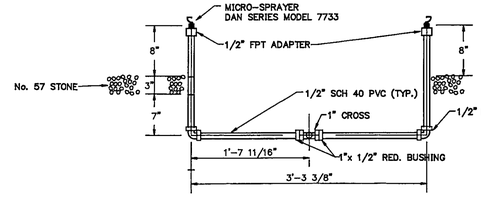
The microprocessor shall also control the sequential alternation of the ground absorption sub-fields by the proper operation of field control (solenoid) valves. The microprocessor may log and record, for later retrieval or transmission, the times of operating cycles, gallons per operating cycle to individual sub-fields, the average flow rate during cycle in "Gallon Per Minute", date and times of filter backwash, date and time of system flushing and the date, time and nature of any alarm condition.

The main pump control panel shall include, but not be limited to an "auto/manual" system control switch, stop/start switch for each pump, non-resettable elapsed time meter for each pump, and individual pump run lights.

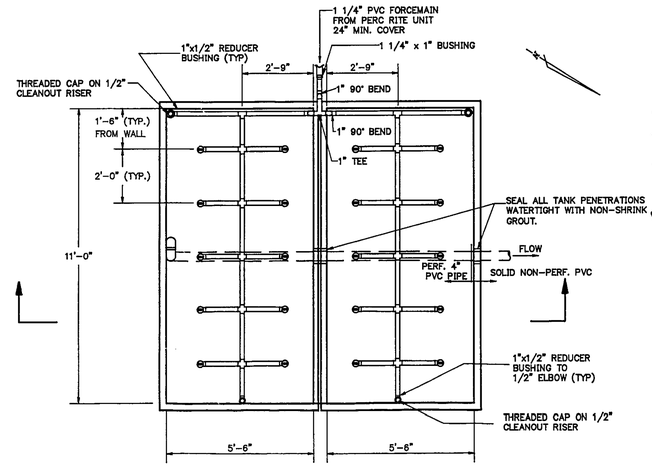
The main pump control panel shall be a NEMA 4x enclosure. All supporting control units, if not housed within the main pump control panel, shall be in a separate NEMA 4x enclosure.

MAINTENANCE SCHEDULE

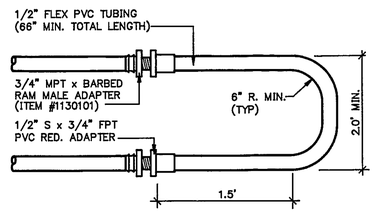
Item	Frequency	Task
Septic Tank	3-6 months	Check for solids accumulation, blockages, or baffle damage, in/exfiltration, pump septage
	12 months	Pump out accumulated solids
Pump Tank	weekly	Check pumps, controls, alarms, elapsed time meters
	3-6 months	Check for solids accumulation, in/exfiltration
	12 months	Pump out accumulated solids
Supply Lines, Force Mains	6-12 months	Check for exposed pipe and leakage
Distribution Fields	2-4 weeks 3-6 months	Mow vegetative cover if applicable Check for erosion, or surfacing of effluent
Pumps, Filter System, & Distribution Piping	monthly	Check flow meter readout and compare to recorded flows, check pumps and filter system for leaks, clean pump house
	quarterly	Remove filter covers and inspect for accumulation of debris, Check differential pressure gauge before and after filter flushing (D.P. should return to original operating D.P.), Check pumps for abnormal vibration, test the alarm functions
	semi-annually	Remove and lubricate O-rings on filter canister, replace if damaged, clean 3/4" filter discs at hydraulic tubing feed
	annually	Remove filter disc rings and replace, clean used rings in mild acid solution and store for next annual replacement, dig alongside dripperline (one per field) and remove small section with emitter, repair with "RAM" couplings and new tubing. Inspect removed tubing for excess slime or buildup. Flush dripperlines with chemical solution as recommended by "Waste Water Systems, Inc." as needed



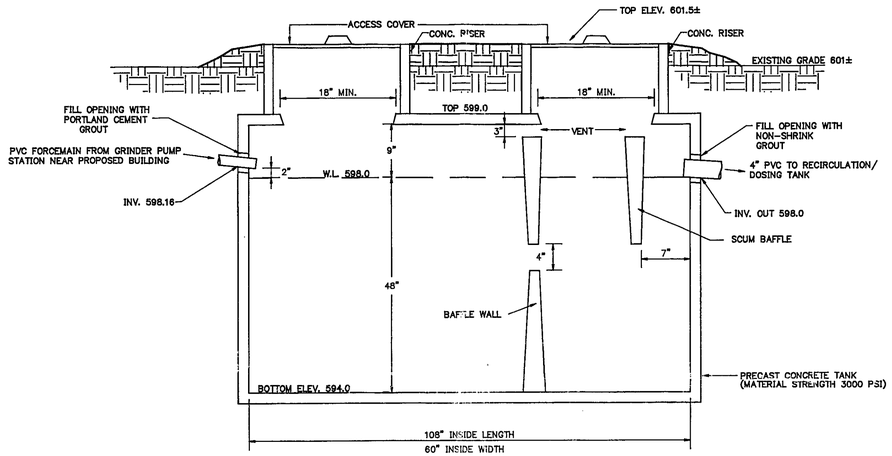
SPRAY NOZZEL DETAIL
1" = 1'-0"



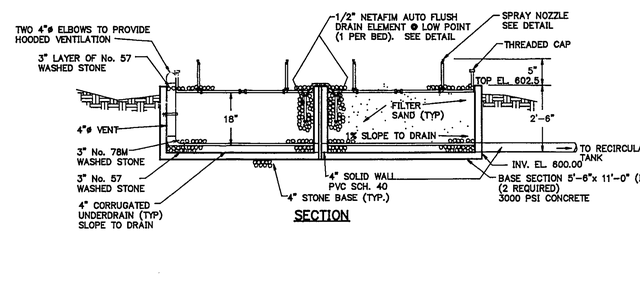
PLAN



DETAIL LOOP CONNECTION
NO SCALE:



1200 GALLON SEPTIC TANK
N.T.S.
HIGH POINT CONCRETE PRODUCTS OR EQUAL



SECTION

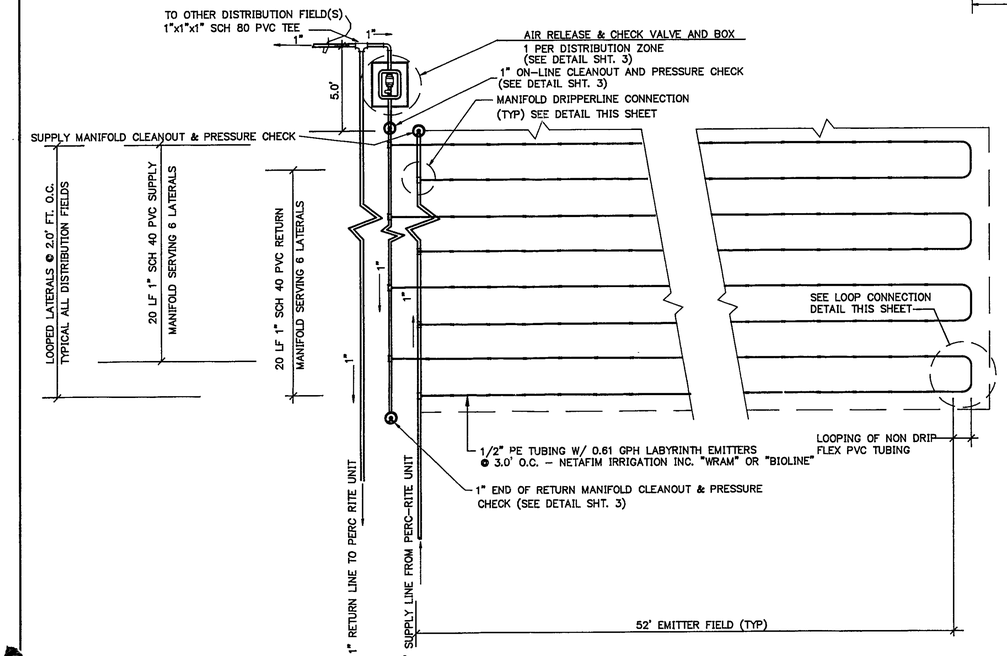
SAND FILTER NOTES

SAND SIZE SHALL BE 0.35 TO 0.75 mm, UNIFORM COEFFICIENT < 3, DUST < .5%

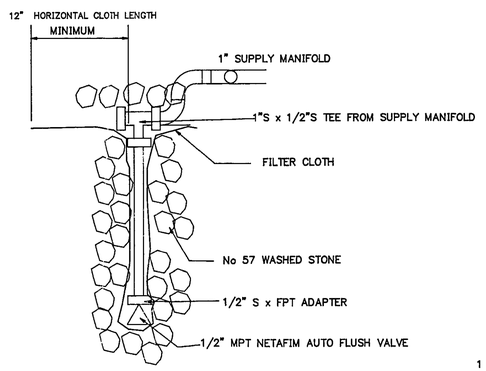
FILTER SHALL UTILIZE TEN SPRAY HEAD COMBINATIONS SPACED TWO (2) FEET APART.

FILTER SHALL HAVE 1% BOTTOM SLOPE TO OUTLET END.

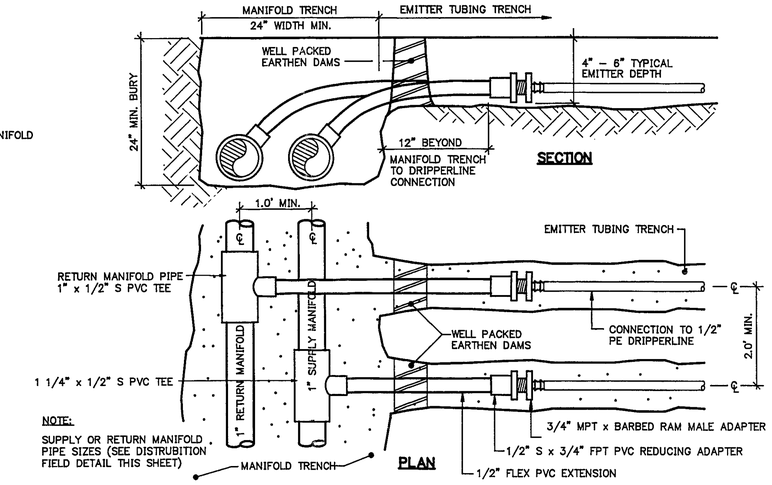
SAND FILTER DETAIL
3/8" = 1'-0"



PLAN TYPICAL LOOPED DISTRIBUTION FIELD



DETAIL 1/2" NETAFIM AUTO FLUSH
NO SCALE:



DETAIL MANIFOLD \ DRIPPERLINE CONNECTION
NO SCALE:

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GREENSBORO, NC 27405
(910) 275-0494

PROFESSIONAL ENGINEER NORTH CAROLINA SEAL 18197 JESSE W. WILSON

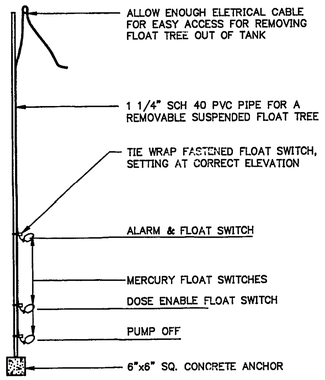
REV. NO.	DESCRIPTION	DATE	BY	APP'D

DETAIL SHEET

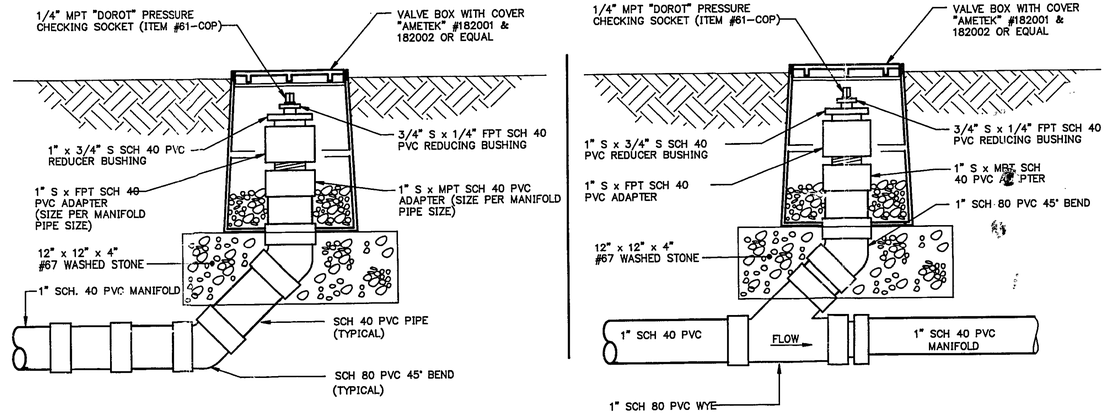
McGINNIS FARMS
DRIP IRRIGATION SYSTEM

MECKLENBURG COUNTY, NORTH CAROLINA

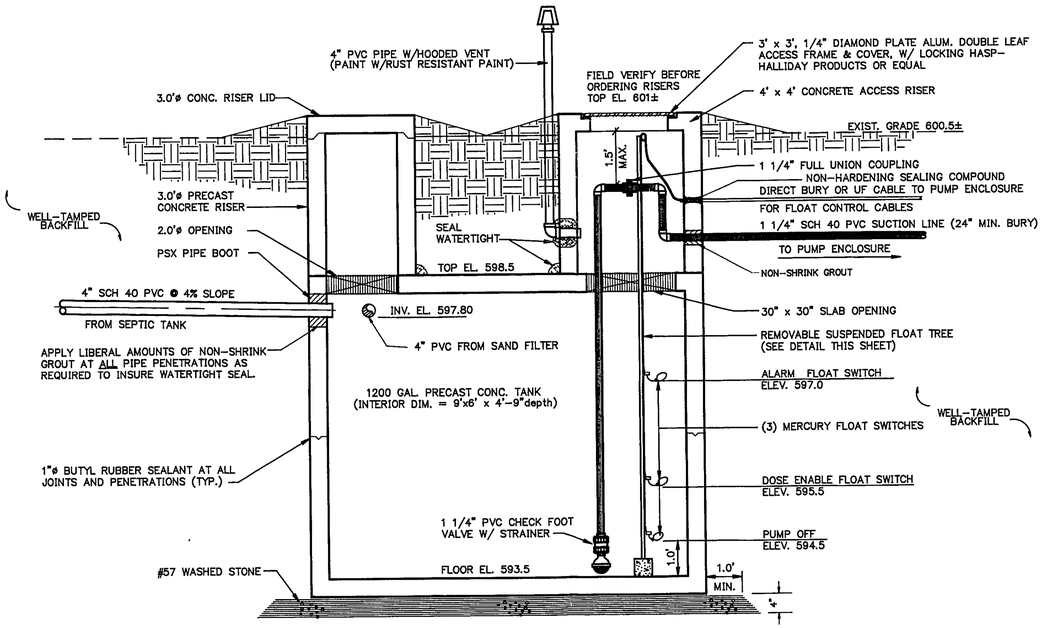
PROJECT NUMBER	94012
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CHECKED BY	JWW
SCALE	AS NOTED
DATE	1/3/95



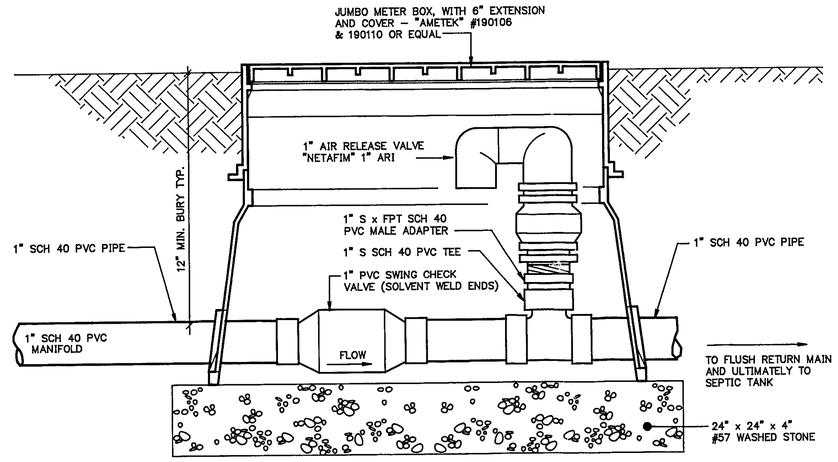
DETAIL FLOAT TREE
SCALE: 1\2" = 1'-0"



DETAIL MANIFOLD CLEANOUTS WITH PRESSURE CHECK
SCALE: 3"=1'-0"



DETAIL 1200 GALLON PUMP TANK
SCALE: NTS



DETAIL AIR RELEASE, CHECK VALVE AND BOX
SCALE: 3"=1'-0" (TYPICAL ONE PER ZONE)

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GREENSBORO, NC 27405
(910) 275-0494

NORTH CAROLINA PROFESSIONAL SEAL 18197 ENGINEER JESSE W. WILSON

REV. NO.	DESCRIPTION	DATE	BY	APP'D

DETAIL SHEET
McGINNIS FARMS
DRIP IRRIGATION SYSTEM
MECKLENBURG COUNTY, NORTH CAROLINA

PROJECT NUMBER	94012
DESIGNED BY	JWW
DRAWN BY	NBS
CHECKED BY	JWW
SCALE	AS NOTED
DATE	12/14/94

94012DT1.DWG