

Environmental Services - Water Quality
Onsite Wastewater Scan Data Entry Form

PERMIT #: D005422

PIN #: 0711221276

OP DATE: 0510611998

SYSTEM USE:

- ☒ House
☐ Mobile Home
☐ Business
☐ Other

SEWAGE TYPE:

- ☒ Domestic
☐ Industrial

PUMP/SIPHON?:

- ☒ Yes
☐ No

PRESSURE MANIFOLD:

- ☐ Yes
☒ No

SYSTEM TYPE:

- ☐ I
☐ II
☐ III
☒ IV
☐ V
☐ VI
☐ Other

SUB TYPE:

- ☒ A
☐ B
☐ C
☐ D
☐ E
☐ F
☐ G

NBR BEDROOMS:

- ☐ 1
☐ 2
☐ 3
☒ 4
☐ 5
☐ 6
☐ Other

MAINT. SCHEDULE:

- ☒ Yes Bk 8026
☐ No Pg 799

CERT. OPERATOR

- ☒ Yes
☐ No

GT	ST	PT	SIZE
☐	☐		750
☐	☐	☐	900
☐	☐	☐	1,000
☐	☒	☒	1,200
☐	☐	☐	1,500
☐	☐	☐	1,800
☐	☐	☐	2,100
☐	☐	☐	2,500
☐	☐	☐	3,000
☐	☐	☐	4,000
☐	☐	☐	5,000
☐	☐	☐	8,000
☐	☐	☐	10,000
☐	☐	☐	Other
☒		☐	None/NA GT or PT

DRAINFIELD SIZE(SQ. FT.)

04800

DRAIN TYPE:

- ☒ Stone
☐ EZ Flow
☐ Infiltrator
☐ Biodiffuser
☐ Cultec
☐ Drip
☐ Hancor
☐ Large Dia. Pipe
☐ Multi-Pipe
☐ Other

MAX DEPTH (IN.):

- ☒ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ 26 in. or less
☐ 28 in. or less
☐ 30 in. or less
☐ 32 in. or less
☐ 36 in. or less
☐ Other

STONE DEPTH (IN.):

- ☐ 8 in. or less
☒ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ Other

TRENCHES:

- ☒ Individual
☐ Bed

TRENCH WIDTH (IN.):

- ☐ 12 in. or less
☒ 18 in.
☐ 24 in.
☐ 36 in.
☐ 6 ft. or less
☐ 9 ft. or less
☐ Other

WAKE COUNTY ENVIRONMENTAL HEALTH WELL AND SEWAGE SITE LOCATION PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED
UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION HAS BEEN ISSUED.

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

PERMIT#: D005422 STATUS: A APP DATE: 02/26/1997 BLDG PERMIT#: 0980897
APPLICANT: CHATHAM DVLPM/ MIKE CLANCY DAY PHONE: (919) 254 - 5317
ADDRESS: 311 SILVERCLIFF TRAIL FAX#: (000) 000 - 0000
CITY: CARY STATE: NC ZIP: 27511
OWNER: CHATHAM DEVELOPMENT CORP DAY PHONE: (919) 479 - 0035
ADDRESS: 102 HARDCRABBLE DR FAX#: (000) 000 - 0000
CITY: HILLSBOROUGH STATE: NC ZIP: 27278
HD USE CD: 101 ONE-FAMILY HOUSE ORIG PERMIT#: REC?: Y
EXIST USE: TAX MAP#: 0667 0006
BEDROOMS: 4 BSMT: N #EMPLOYEES: 0 WATER: I WASTEWATER: I GARB DISPOSAL: N
TOWNSHIP: 03 BUCKHORN JURIS: WC ZON: R30 PIN: 0711.03 30-1760-000 22 1276
SUBD#: S 000 018 96 SUBD NAME: WEAVER CROSSING LOT-SEC: 32 ACRE: 3.58
IMPRV PRMT: ISSUED?: Y DATE: 04/09/1997 BY: SES TYPE SYSTEM: IV PUMP: Y
CNSTR AUTH: ISSUED?: Y DATE: 10/17/1997 BY: ETD DATE EXPIRED: 10/17/2002
RECEIPT#: 0012759 FEE: 290.00 OP DATE: BY:
WATR SAMPL: REQ?: APPROVED?: DATE: PROPRIETARY SYS:
ST#: 2769 MI: DIR: NAME: WEAVER HILL DIR: TYP: DR
DIRECTIONS: 64 WEST TO COUNTY LINE TO L ON SR 1141 GO 2.5 M
ILES TO R INTO SUB GO TO STOP SIGN T/R LOT IN
CDS

*NOTE: LPP PERMIT
Install according to plans
Detached garage must be
at least 10' from repair
area.

IMPROVEMENT PERMIT

SIZE OF TANK 1200 ST 1200 PT GALS. TOTAL SQ. FT. 4800 DEPTH OF STONE 9 IN. MAX. DEPTH LINE 12 IN.

WASTEWATER: DOMESTIC ☒ INDUSTRIAL ☐

I.P. ISSUED BY

S. Smith R.S. by E.D. Duff

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE

AUTHORIZATION CONDITIONS

1. Wastewater system construction and installation must meet all conditions and specifications as set forth in the Improvement Permit and the attached site plan with system details. Construction and installation must also meet all requirements set forth in the "Regulations Governing Sanitary Sewage Collection, Treatment And Disposal In Wake County" and any other applicable rules and laws.
2. The wastewater system shall not be covered or placed into use until inspected by the Wake County Environmental Health Division and an Operation Permit issued.
3. Any alteration in site or soil conditions (including location of structures and appurtenances) or modification in use, design wastewater flow or wastewater characteristics as specified in the associated Improvement Permit and application, may void this authorization and associated permits.

OTHER CONDITIONS: Install according to plans submitted by Feb. Assoc. Inc.

SIZE OF TANK 1200 ST 1200 PT GALS. TOTAL SQ. FT. 4800 DEPTH OF STONE 9 IN. MAX. DEPTH LINE 12 IN.

NUMBER OF TRENCHES 6 LENGTH OF TRENCHES 160 FT. WIDTH OF TRENCHES 18 IN.

Contractor To Follow Contours, See Attached Site Plan For Wastewater System Design And Well Location

C.A. ISSUED BY E.D. Duff INSTALLED BY Gene Cole DATE 5-5-98

INSTALLATION APPROVED BY

E.D. Duff

WELL SYSTEM = PRIVATE ☒ SEMI-PUBLIC ☐ NEW ☒ REPLACEMENT ☐

WELL LOG INFORMATION = DEPTH 400' CASING DEPTH 60' YIELD 6 STATIC LEVEL 46'

WELL CONTRACTOR Dennis Well REG.# PUMP CONTRACTOR REG.#

CONSTRUCTION COMPLIANCE = GROUT APPROVED DATE 10/28/97 EHS

WCHD ID # 7675 WELLHEAD APPROVED DATE 4/24/98 EHS

NEGATIVE BACTERIOLOGICAL RESULTS DATE 4/24/98 EHS

SYSTEM FINALIZED DATE 5/6/98 EHS

COMMENTS:

This report is based in part on information provided by the homeowner or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The Environmental Health Specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

R-80W By SWM
 ✓ Date 9/12/97
 101
 40"
 20"
 40" CURVE DELTA ANGLE 54°20'44" RADIUS 50.00' ARC 47.43' TANGENT 25.67' CHORD 45.67' CHORD BEARING S 51°35'36"W

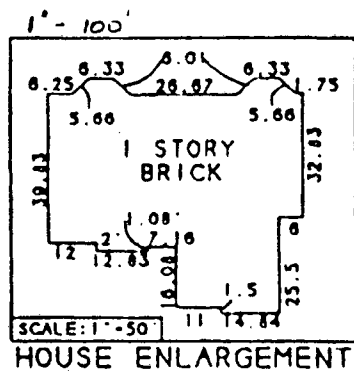
0980897
 (9/12/97) PD > \$2400
 Receipt # 019951
 WELL & SEPTIC Receipt # 12759
 8290

LEGEND:
 C/L - CENTER LINE
 R/W - RIGHT OF WAY

NOTES:
 NOT FOR RECORDATION.
 CONVEYANCES OR SALE.
 PRELIMINARY PLAN.
 BUILDER TO VERIFY ALL
 HOUSE DIMENSIONS.

Construction
 Authorization
 Race Site Plan

Mike,
 CALL ME
 IF ANY NEED.
 Thanks!
 851-5335



AUG 21 '97 12:53

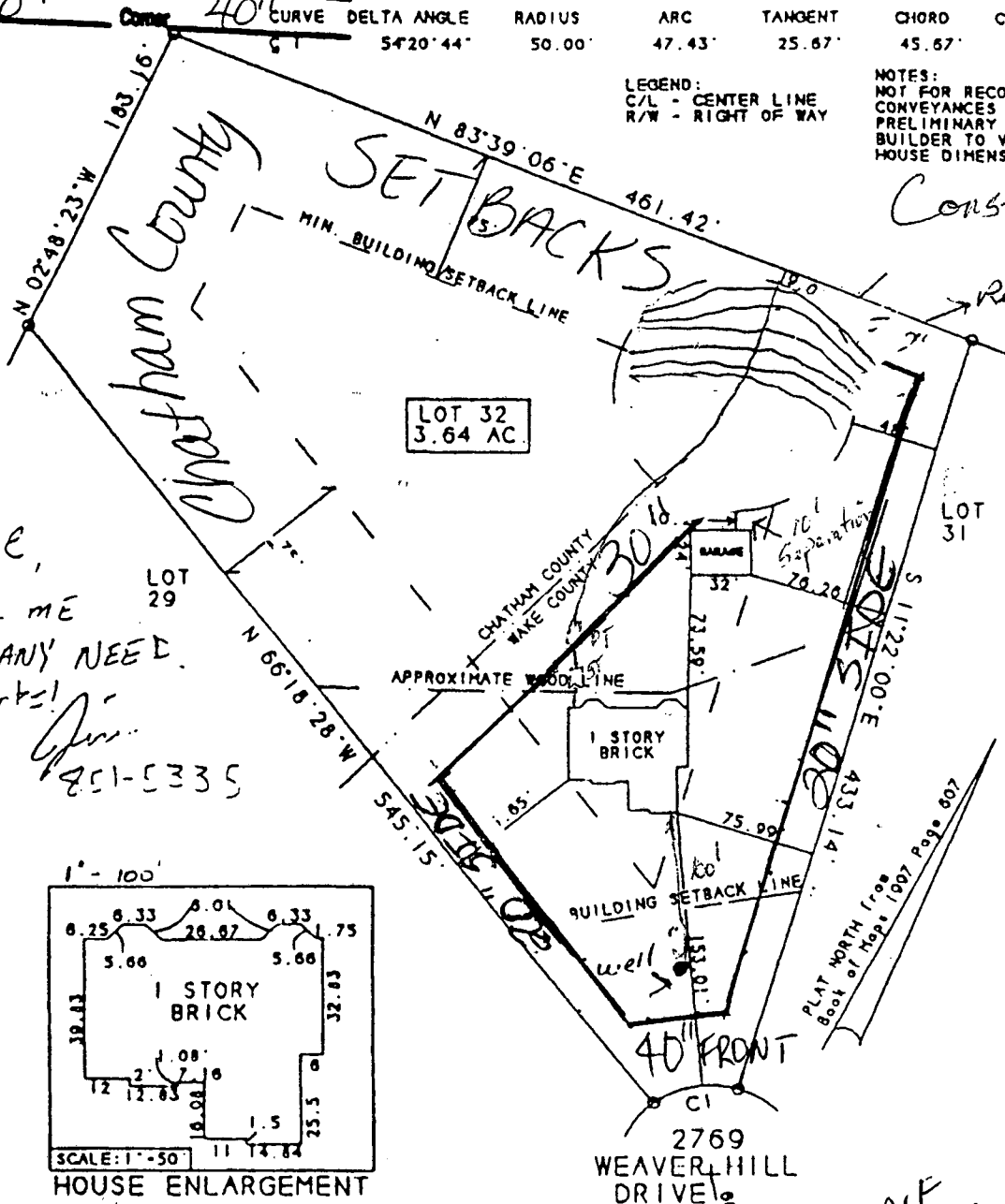
I certify that the location of planned or existing structure(s) are accurately shown. I understand failure to locate structures in accordance with this plot plan may require the relocation of structure(s) regardless degree of completion. I hereby grant permission to Municipal/County Representatives the right of entry to make evaluations or inspections upon this property.

Vickie S. Ryals

Signature of Owner or Authorized Agent

919 851 9926

PAGE.01



SCALE 1" = 100'

AS BUILT ELEVATIONS

END FED

SHOW VALVES

SHOW CHECKS ☒

LENGTH

CENTER FED

LENGTH

LENGTH

4-8 Rock 6	5'11.25"	11.5"	11.25"	5'11.0"	5'9.75"	9.75"	9.5"	5'9.75"	Rock 4-8
4-8 Rock 5	5'9.75"	8.25"	7.5"	5'8.6"	5'5.5"	6.25"	5.5"	5'8.25"	Rock 4-8
4	5'5.25"	5.5"	5.25"	5'5.75"	5'3.75"	4.5"	4.75"	5'4.5"	
3	5'1.6"	1.5"	1.25"	1.75"	5'8.75"	5.25"	5.25"	5'1.5"	Rock 4-8
4-8 Rock 2	4'10.75"	4'11."	4'11.25"	4'11.5"	4'10.75"	10.25"	1.0"	4'10"	Rock 4-8
4-8 Rock 1	4'9.75"	4'9.5"	4'9.75"	4'10"	4'8.6"	4'8.8"	7.5"	4'7.0"	Rock 4-8

2" Valve

3" Supply

Trench Bottoms 4-3 98

Rocked partial 4-8 98

Left open →

Rained in 4-3 ck 46-96 OK after Rain

#4 all

Not locked

SL as of 4-8

left open

OTHER DRAW DIA.

LPP INSTALLATION INSPECTION FORM

Tax Map _____ Parcel _____ Permit _____

LPP Construction Inspection Checklist

Site Preparation

Date _____

1. Is the site in the right location?
2. Roped off and protected from traffic?
3. Small trees and brush cleared?
4. Provisions for site drainage?
5. Distribution field shaped to shed water?
6. Lines staked out properly?
7. Comments _____

Construction Check

BTS-1250
STB-195 1-27-98

Date _____

1. Tanks:

- Proper size, type and construction?
Installed properly?

BTS-1200 1-26-98
PT-213
22 gal/in (21.9)

2. Manifold and laterals:

- Depth of gravel suitable?
Placement of dams?
Holes drilled properly and placed downward?
Manifold and laterals connected properly?

4-3 + 4-8

4-3

3. Width of trenches

18"

4. Comments

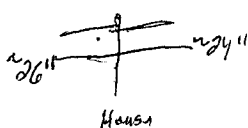
552.975
25.35 x 21.9 = 547.5
47.5
13.5
26"

Operation Check

Date _____

1. Pump and switches operating?
2. High water alarm operating?
3. Electric receptacle outside pump tank?
4. Pressure head adjusted?

Need 21.75 gal Drawdown



5. Comments

American Plant FGBA-3715 926803 Angle 85 13A-1HP Max 8" tether

Final Landscaping

Date _____

1. Site shaped to shed rainwater
2. Any low areas?
3. Diversion drains?
4. Downspout drains directed away from system?
5. Seeded and mulched?
6. Comments _____

Drawdown Actual 78.9 gpm
Design 77.7 5-5-98



FEBRUARY ASSOCIATES, INC.

P.O. Box 5427
Cary, N.C. 27512

Ph: 919/467-5427
Fax: 919/467-5463

Mr. Ed Duke, R.S.
Wake County Department of Health
PO Box 550
Raleigh NC 27602

Dear Mr. Duke:

Attached please find two copies of our proposal for a Low Pressure Pipe on-site sewage disposal system for:
Lot 32, Weaver Crossing D-5422

The proposal includes:
Plans & specifications, including calculations
Site plan
Tank specifications
Pump, controls, and accessory specifications
Installation information

Please note that specific manufacturers mentioned in the proposal are for example only; other products that meet or exceed the specifications may be substituted.

When review of the plans has been completed, please forward one copy of the plans (and permit, if applicable) to:

Mike Clancy phone 254 5317
311 Silvercliff Trail
Cary NC 27511

If you have questions or require additional information, please feel free to call me.

Sincerely,

Katherine H. Morris, R.S., P.G.
President

coverwk.let

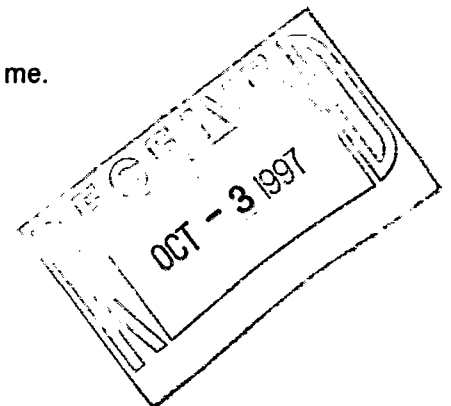
() APPROVED
(X) APPROVED AS NOTED
() DISAPPROVED

Review of this document has been made only for conformance with the design concept of the project and approval or approval as noted shall not relieve the contractor from responsibility for any errors therein or for furnishing the materials, and equipment of proper dimension, size, quantity, quality and all performance characteristics to meet the requirements and intent of the contract documents.

WAKE COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION

September 29, 1997

Date 10-17-97 By Ed Duke





FEBRUARY ASSOCIATES, INC.

P.O. Box 5427
Cary, N.C. 27512

Ph: 919/467-5427
Fax: 919/467-5463

ALTERNATIVE SYSTEM DESIGN
date: 9-25-97

OWNER MIKE CLANCY

TYPE OF SYSTEM LPP

ADDRESS 311 SILVERCLIFF TR.

COUNTY WAKE

CARY NC 27511

SITE LOT 32 WEAVER CROSSING

PHONE 254-5317

PERMIT D-5422

Site evaluation by STEVE SMITH, R.S.

SPECIFICATIONS: (Source: permit, site evaluation, other: _____)

Daily waste load 480 gpd, for 4 BR. HOUSE LTAR .1 gal/sq.ft./day

Trenches

* Maximum depth 12-14 inches
Width 18 inches
Gravel depth 8-9 inches
Gravel size 21" inches

Lateral

sleeves: no ☒ yes with 4 " diameter corrugated tubing

Fill cap: ☒ no yes, _____ deep, placed on site prior to installation
yes, _____ deep, placed over completed trenches

* SURFACE TOPO IS IRREGULAR

Sleeves should be ~ 5' shorter than laterals

DESIGN PARAMETERS:

Septic tank 1200 gallons

Pump tank 1200 gallons, 28 gallons per inch

Lateral field 4800 sq. ft.

Laterals 960 linear feet, 1 1/4 " diameter
with turnups in valve boxes or 6"-diameter capped risers

Configuration 6 @ 160' IN 2 SUBFIELDS, w/ CENTER MANIFOLD

See

Supply line ~ 200 feet, 3 " diam.

All pipe and fittings: Sch. 40 PVC unless otherwise noted. See "SITE PLAN & DETAILS" sheet for size and placement of valves, etc.

Manifold(s) ~ 35 feet, 3 " diam.

Dosing rate 77.7 gpm

Dosing volume 476 gallons.

Total dynamic head 7.3 feet

Drawdown in pump tank 17 21.6 inches

Pump HYDROMATIC SP40M1 Controls RHOMBUS TYPE 112 PANEL, w/

ALARM OPTION, ELAPSED TIME METER, CYCLE COUNTER, NEMA 4X BOX
Other equipment which meets or exceeds the specifications may be substituted

OTHER REQUIREMENTS:

newlpp.doc

* Use 2" PVC from Pump thru Union & check valve in tank then bush up to 3" PVC from inside of Pump tank to field. May Reduce down to 2" for Gate valves in field then back up to 3" PVC.

ALTERNATIVE SYSTEM DESIGN

NAME CLANCY

PAGE 2

Dosing rate (from flow chart) 75.7 gpm

Max. pump run time 14.5 min

Anti-siphon hole flow rate 2.0 gpm

Actual pump run time 6.1 min
(dosing volume / dosing rate)

TOTAL DOSING RATE 77.7 GPM

Top lateral elevation 100.0

Friction loss = $\frac{1.85}{4.87} \times .00113 \times \frac{L \times Q^2}{D^5}$

Pump-off elevation ~ 101.0

L = length. Q = dosing rate. D = actual inside diameter
(new pipe)

Elevation head -1.0 feet

Design head 2.0 feet

supply line } 235 ' of 3 " = 3.6 '
 manifolds } of " =

Flush head 2.0 feet

Friction & fittings loss 4.3' feet

+ 20% fittings loss .7

TOTAL DYNAMIC HEAD 7.3 FEET

TOTAL 4.3'

Draining manifold(s) and supply line length } 235 X 38.4 gal/100' = 902 gallons
 length } X gal/100' = gallons

total draining volume 90.2 gallons

Lateral volume length 960 X 7.8 gal/100' = 74.9 gallons

volume to pressurize 165.1 gallons

Dosing volume: min: (5 x lat vol + drain) = 464 gallons

max: (10 x lat vol + drain) = 839 gallons

DOSING VOLUME 476 GALLONS

Interior dimensions of pump tank length 108 " X width 60 " X 1 " = 21.9 gallons per inch
 230 cubic inches per gallon

DRAWDOWN 21.75 17 INCHES = dosing volume / gallons per inch
 Dependent on tank?

Note: pump tank dimensions vary by manufacturer. Drawdown should be recalculated using dimensions of specific tank selected. A minor adjustment in the dosing volume to achieve a whole number of inches is acceptable.

LATERAL	ELEVATION (FT)	ELEV. DIFF. (FT)	HEAD (FT)	HOLE SIZE (IN)	FLOW PER HOLE (GPM)	LENGTH (FT)	SPAC- ING (FT)	NO. HOLES	FLOW PER LATERAL (GPM)	1ST AND LAST HOLE (FT)	INST FLOW RATE (GPM /FT)
1	100.00	0.00	2.0	5/32	0.407	80	4.0	18	7.33	6.0	0.092
2	100.00	0.00	2.0	5/32	0.407	80	4.0	18	7.33	6.0	0.092
3	99.80	0.20	2.2	5/32	0.427	80	4.5	17	7.26	4.0	0.091
4	99.80	0.20	2.2	5/32	0.427	80	4.5	17	7.26	4.0	0.091
5	99.60	0.40	2.4	5/32	0.446	80	5.0	15	6.69	5.0	0.084
6	99.60	0.40	2.4	5/32	0.446	80	5.0	15	6.69	5.0	0.084
1	99.40	0.00	2.0	5/32	0.407	80	5.0	15	6.11	5.0	0.076
2	99.40	0.00	2.0	5/32	0.407	80	5.0	15	6.11	5.0	0.076
3	99.20	0.20	2.2	5/32	0.427	80	5.0	14	5.98	7.5	0.075
4	99.20	0.20	2.2	5/32	0.427	80	5.0	14	5.98	7.5	0.075
5	99.00	0.40	2.4	5/32	0.446	80	7.5	10	4.46	6.3	0.056
6	99.00	0.40	2.4	5/32	0.446	80	7.5	10	4.46	6.3	0.056

6'3.6"

INPUT ↓, ↑ OR END

FIELD NUMBER = 2

TOTAL LENGTH = 960 FT

TOTAL FLOW = 75.66 GPM

MAXIMUM REDUCTION OF FLOW BETWEEN LATERALS = 39.13%

Press any key to continue...

SYSTEM DRY CAPACITY $960' \times 1.33 \text{ GAL/FT} = 1277 \text{ GALLONS}$
 (IN 18" TRENCH W/
 5" GRAVEL UNDER
 LATERAL)

BOTTOM LATERAL $160' \times 1.33 = 212.8 \text{ GAL DRY}$
 $- 55.7 \text{ " DOSE}$
 $\hline 157.1 \text{ " RESERVE}$
 $- 90.2 \text{ " DRAINING VOL}$
 $\hline 67 \text{ " OVERLOAD CAPACITY}$