
St. George Island Utility Co., Ltd.

3848 Killlearn Court
Tallahassee, Florida 32308
(904) 668-0440 • (904) 927-2648

April 21, 1995

ORIGINAL
FILE COPY

Ms. Blanca S. Bayo
Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, FL 32301

Re: St. George Island Utility Company, Ltd.
Petition for Interim and Permanent Rate Increase
in Franklin County, Florida - Docket No. 940109-WU

Dear Ms. Bayo:

Enclosed is our final engineering analysis and fire protection study for filing in the above-referenced docket.

Sincerely,

Sandra M. Chase

Sandra M. Chase

Enclosure

cc: Ms. Karen Amaya w/enclosure

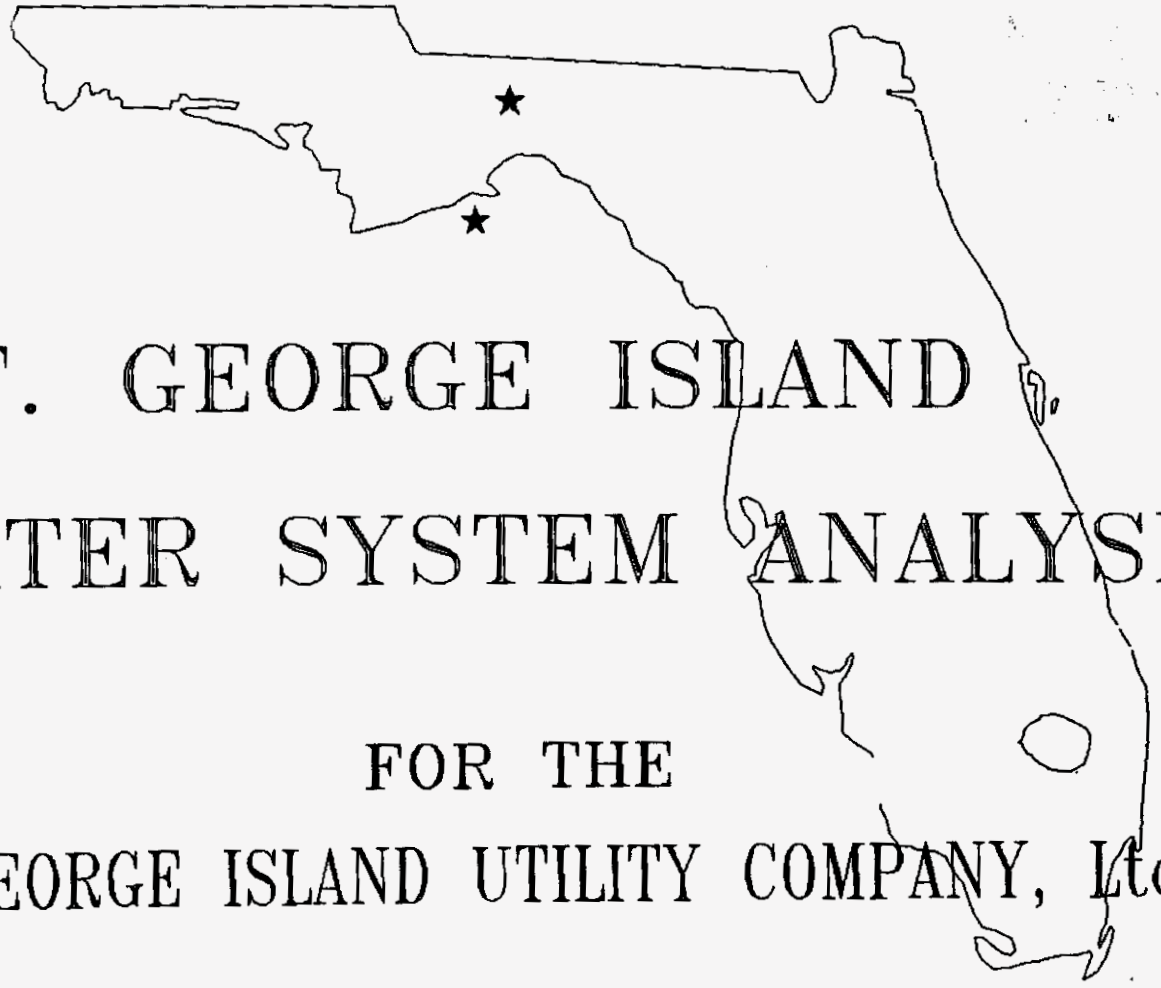
DOCUMENT NUMBER-DATE

04049 APR 21 1995

FPSC-RECORDS/REPORTING

940109-WU

ENGINEER'S REPORT



ST. GEORGE ISLAND WATER SYSTEM ANALYSIS

FOR THE
ST. GEORGE ISLAND UTILITY COMPANY, Ltd.

April 20, 1995

LES THOMAS CONSULTING ENGINEERS

4049 McLEOD DR. TALLAHASSEE, FL 32303
904-562-1810

404-718-7408

3460 POINTE VIEW CIRCLE, GAINESVILLE, GA.

*DN 04049-95
4/21/95*

LES THOMAS CONSULTING ENGINEERS

4049 McLeod Dr.
Tallahassee, Florida 32303

Mr. Gene Brown
St. George Island Utility Company, Ltd.
3848 Killearn Court
Tallahassee, Fl. 32308

April 20, 1995

RE: Water System Analysis and Future System Requirements,
St. George Island Utility Company, Ltd.
St. George Island, Florida

Dear Mr. Brown,

Please find enclosed our final report. This report presents our findings and conclusions of the capabilities of the St. George Island Water System. Included are various hydraulic analysis, a fire protection analysis and recommendations for the system. This report also includes previous comments by the Department of Environmental Protection.

If you have any questions, or if we may be of further assistance, please feel free to call.

Sincerely,



Les M. Thomas, P.E., C.V.S.
President

TABLE OF CONTENTS

A.	CONCLUSIONS and RECOMMENDATIONS	1
B.	SYSTEM ANALYSIS - GENERAL	2
C.	CURRENT SITUATION	4
D.	FUTURE SITUATION	8
E.	SYSTEM HYDRAULIC ANALYSIS	
1.	SUMMARY OF ORIGINAL DATA	1-25
2.	SYSTEM OPERATING AT ANNUAL AVERAGE DAY DEMAND	26-37
3.	SYSTEM OPERATING AT MAXIMUM DAY DEMAND	38-49
4.	SYSTEM OPERATING AT PEAK HOURLY DEMAND	50-61
5.	SYSTEM OPERATING - FIRE AT SIKE'S CUT	62-73
6.	SYSTEM OPERATING - FIRE IN COMMERCIAL AREA	74-85
7.	SYSTEM OPERATING - FIRE AT STATE PARK	86-97
8.	SYSTEM ERC REPORT - (DEMAND AT NODES ARE THE NUMBER OF ERCs SERVED BY THAT AND NOT A GPM FLOW RATE)	98-109
9.	SYSTEM OPERATING AT THEORETICAL PEAK FLOW DEMAND WITH 20 PSI RESIDUAL	110-121
F.	SYSTEM FIRE FLOW ANALYSIS	
1.	SYSTEM MAP FIRE HYDRANTS & PROPOSED WATER MAIN EXTENSIONS	2-29
2.	FIRE FLOW HYDRAULIC ANALYSIS (EAST & WEST)	1-13;1-13

CONCLUSIONS

The St. George Island Utility Company's Water System now has the capacity to physically serve up to 1,853 ERCs. The system presently serves 1,307 ERCs and has obligations to serve an additional 130 ERCs. The FDEP has limited the system to only serving 1,346 ERCs. The Northwest Florida Water Management District will allow the system to withdraw up to 809,000 gpd for three consecutive days with an annual withdrawal limit of 414,000 gpd average. The FDEP methodology of relating gallons of water available to ERCs would allow the System to serve up to 1,555 ERCs. The projected system growth when added to the existing committed service would estimate that the system will be serving 1,555 ERCs by mid 1996. The systems physical capacities could provide service to 1,853 ERCs which is estimated to occur during the year 2000. The system is in compliance with current DEP fire protection requirements. It is also in compliance with Franklin County Regulations. Note: the county effected a fire protection ordinance in 1989 (the SGIU system is exempt from this ordinance as the system was constructed prior to that ordinance) which requires all future systems constructed in the county to provide fire protection consisting of a hydrant capable of delivering 500 gpm to be within 500 feet of every structure.

RECOMMENDATIONS

1. The SGIU should begin preparation of an application to the Northwest Florida Water Management District for an increase in withdrawal allocation up to 964,000 gpd for a FDEP allocation of 1,853 ERCs which would give the utility 2 years to design, permit and construct improvements to increase the system capacity to serve the project growth of the 2000 to 2005 period - 2,340 ERCs. It is recommended that the Utility immediately proceed with identifying a site for the next water well and that preliminary planning be implemented for permitting.
2. It is recommended that the 6" lines and the 8" line buried by DOT be paralleled.
3. If the Utility desired or if a governmental agency having jurisdiction changes its present requirements to now require the system to meet the Franklin County Fire Protection Ordinance; Then 103 fire hydrants would be installed as shown on the attached plans to provide a fire hydrant within 500 feet of every building. Additionally, it is recommended that 36,400 feet of 6" water mains be constructed to ensure delivery of fire flows. 1

**St. George Island Utility Company, Ltd.
Water System Analysis**

General Analysis Parameters and Definitions

The capacity of a water system is based upon its ability to obtain, treat, and deliver water to its users. The factors which dictate the capacity/requirements of the St. George Island Water System are:

A. Consumption Demands -

The consumption demands are the various quantities of water that the consumers have typically required or used at different times of the day or year. The quantities are expressed as follows:

Annual Average Day Flow (ADF) or Demand -

The total quantity of water used during a year divided by 365. The norm is 100 gallons per day per person or 350 gallons per day per single family residence. This quantity is also the definition of the Florida Department of Environmental Protection Equivalent Residential Connection or ERC - 350 gpd.

Maximum Day Demand -

The total water used on the day of highest usage. This is typically 150% of the annual average day consumption. This is the quantity of water that a system's supply (well field and treatment plant) must be capable of providing.

Peak Demand -

The average water used in terms of gallons per minute during the peak hour. Typically this is equivalent to 350% of the Average Day Demand.

Storage Demand -

DEP requires that 50% of the Maximum Day Demand Volume be provided by any, or by a combination of: Elevated Storage Volume, Ground Storage Volume with Emergency Power, or wells with emergency power pumping directly into the distribution system.

(The State of Florida Department of Environmental Protection has established these points over many years of data collection and has accordingly set minimum requirements for water systems which are related to the number and types of users proposed. The Department has granted or established variances to these standards when a system has shown itself to be unique. The Department has established a individual classification for this system and it is reflected herein.)

B. Aquifer Capacity -

The Quantity of water which can be taken from the aquifer without creating adverse affects to either the aquifer, such as salt water intrusion; or to existing users, such as lowering the water table below their wells or well pumps. The Northwest Florida Water Management District is the agency which establishes and permits the quantity to be withdrawn. It is expressed in terms relating to the maximum day demand.

C. System Withdrawal Capacity -

The quantity of water which can be physically pumped from the aquifer. This is the 24 hour quantity of water which the pumps can deliver to the water plant with the largest pump out of service. Its capacity is rated in terms of maximum day demand.

D. Raw Water Transmission Capacity -

The quantity of water which can be transferred to the Island. Its capacity will be rated in terms of maximum day demand as it must be able to deliver all the water needed for the maximum day.

E. Treatment Capacity -

The quantity of water which can be treated in 24 hours. Its capacity is also rated in terms of maximum day capacity.

F. Distribution Capacity -

The quantity of water in gallons per minute which can be delivered throughout the system without allowing the pressure to drop below 20 psi anywhere in the system. It is rated in terms of gallons/minute and relates to the peak and fire flow demands.

G. Fire Flow -

The State of Florida Department of Environmental Protection does not require a system to provide "fire flow". The department does, by reference, incorporate the "RECOMMENDED STANDARDS FOR WATER WORKS (commonly known as the 10 states standards). These standards do not require a system to provide fire protection/flows either. They do state that "When fire protection is to be provided, the system design should be such that fire flows and facilities are in accordance with the requirements of the state Insurance Services Office". The State of Florida ISO office does not require fire protection. The Department of Environmental Protection does require that a fire hydrant be installed on no less than a six (6) inch line if provided.

G. Fire Flow (continued) -

Franklin County passed an ordinance in 1989 which requires that all new subdivisions provide fire hydrants and that they be within 500 feet of any structure and no more than 1,000 feet apart. Subdivisions which were in existence prior to 1989 are exempt from this ordinance. Any new subdivisions (an area of land 5 acres or less subdivided into three or more lots) would have to have fire hydrants. (The St. George Island Utility Company, Ltd.'s system is therefore exempt from this regulation.)

CURRENT SITUATION

The following presents the system's existing user demands and the system's capacities:

A. Consumption Demand

The St. George Island Utility Company, Ltd. has contracted to provide water service as follows:

As of 1/1/95, the system serves 1176 customers (not ERC's) and is obligated to serve an additional 130 customers (or ERC's) for a total of 1306. Its customers are primarily residential, however, the system does serve commercial establishments, motels and a state park facility. These users have a higher demand for water.

To establish a common base for determining system capacities and requirements, the Florida Department of Environmental Protection (FDEP) has established a methodology to equate commercial and residential users known as an ERC. The FDEP, during the period 5/93 to 2/94 established a specific relationship between consumption and an ERC for the St. George Island Utility Company Water System. They determined that an ERC represents the usage 520 gallons on the maximum day of the year. The FDEP currently has approved the system to serve 1,346 ERCs .

Using this definition of an ERC, the system as of 1/1/95 serves 1,307 ERCs. The SGIU is obligated to serve another 130 ERCs, for a total of 1,437 ERCs.

On an annual average day basis, the system delivered 112,725,000 gallons, or 308,835 gpd to its users for the year 1994. The system served an average of 1,233 ERCs during that year. This equates to an avg. day demand of 250 gpd per ERC.

In summary the current system demand characteristics and DEP requirements (actual and obligated users were connected) are:

A. Consumption Demand (continued)

Average Day Demand 1437 x 250 = 359,250 gpd
Maximum Day Demand 1437 x 520 = 747,240 gpd
Storage/Emerg. Power 50% x 747,070 = 373,620 gal. or 270 gpm
Peak Hourly Flow Rate = 236% x 747,240/1440 = 1,222 gpm

B.1. Aquifer Capacity (permitted) -

The St. George Island Water System is presently permitted by the Northwest Florida Water Management District to withdraw water from its well field as follows:

Average Daily Rate of Withdrawal (ADR) 414,000 gallons per day
Maximum Daily Rate of Withdrawal (MDR) 809,000 gallons per day
Number of Consecutive Days/ Year MDR is to be pumped- 3 days.

This allocation allows the utility to serve water based on DEP guidelines to:

$$\frac{809,000 \text{ gpd}}{520 \text{ gal/ERC}} = \underline{1,555 \text{ ERCs MDR}}$$

$$\frac{414,000}{250 \text{ gal/ERC}} = \underline{1,656 \text{ ERCs ADR.}}$$

B.2. Aquifer Capacity (physical) -

An analysis of the existing well field performed by Jim Stidham & Associates, demonstrated that the three wells could reasonably withdraw up to 670 gpm or 964,000 gpd without adversely impacting the aquifer or other existing users.

This equates to 964,000 gallons/ 520 gpd/ERC = 1,853 ERCs

C. System Withdrawal Capacity -

There are now three wells at the SGIU East Point Well Field. Operation of the three well has demonstrated that they can consistently deliver 670 gpm with either the No. 1 or No. 2 well inactive. Therefore, the system withdrawal capacity is

$$\frac{964,000 \text{ gpd}}{520 \text{ gal/ERC}} = \underline{1,853 \text{ ERCs}}$$

D. Raw Water Transmission Capacity - 3,323 ERCs

There is an eight (8") inch water main connecting the wells to the water plant on the Island. The line has demonstrated that it transports 670 gpm, or 964,000 gallons per day to the island (measured). If either the well pumps or the pumping system were upgraded, the line itself (at a discharge pressure of under 100 psi), can hydraulically deliver up to 1,200 gpm to the island, or 1,728,000 gallons per day , or service for

$$\frac{1,728,000 \text{ gallons}}{520 \text{ gpd/ERC}} = 3,323 \text{ ERCs}$$

E. Treatment Capacity -

The water treatment plant provides for the removal of Hydrogen Sulfide and adds chlorine to the system. The plant's aerator is capable of handling raw water at a rate of 670 gallons per minute or 1,855 ERC's.

F. Distribution Capacity -

The pumping system which delivers water to the distribution system has been recently upgraded by the addition of a new 50 HP pump which operates in parallel with the existing 50 HP high service pump. Additionally, both the pumps were modified to operate at a variable speed - dependent on maintaining the system pressure. The result of these modifications allows the system to have a relatively high pressure - consistently.

A computer calculated hydraulic analysis of the entire system has been completed and is enclosed herein.

The analysis shows that the distribution system can deliver peak flow rates of 1,225 gpm while maintaining system pressures above the DEP required. Specifically the pressure at the Bob Sikes Cut was calculated to be 57 psi and 51 psi at the state park. See analysis No. 3.

The analysis also shows that the water system can deliver up to 1,570 gpm with a pressure at the Park of 24 psi and 31 psi at the Bob Sike's Cut. This equates to delivering the peak flow rate for 1,873 ERCs.

G. Fire Flow -

An analysis of the systems ability to deliver a fire flow demand was also performed. The analysis was performed with the system demand set at 1/2 its calculated maximum day demand. To maximize the conditions a 500 gpm fire demand was placed at the Bob Sike's Cut. The system delivered the demands while maintaining a pressure of 34.7 psi at the point of fire flow (85 psi at the Park). See analysis # 4.

An analysis was also performed with a 500 gpm fire demand at the state park. This analysis showed that the pressure at the Park would be -27 psi.(86 psi at Sike's) See analysis #6. An analysis was also performed with a 350 gpm fire demand at the park. This showed that the system could deliver 350 gpm with a residual pressure of 22.6 psi (see last analysis)

An analysis was also performed with a 1,000 gpm fire in the commercial area. The system delivered the flow with pressures at the Sikes Cut of 81 psi and 79 psi at the Park.

An analysis of the distribution system was also performed to determine what modifications would be necessary to upgrade the system to meet the current Franklin County Regulations. That analysis indicated that 103 fire hydrants would be necessary at this time to comply with the requirement for having a fire hydrant within 500 feet of every building. Additionally, it would be necessary to construct 36,400 feet of 6" water main to comply with regulations for minimum line size for hydrants, as well as hydraulic requirements to deliver 500 gpm. The system has the pumping and storage capacities to meet these requirements at this time.

H. Summary of System Capacities or regulated limitations are:

Well Field - 1,853 ERCs (physical)
Well Field - 1,555 ERCs (legal) NWFWMD regulated *
Transmission Line - 3,323 ERCs (physical)
Water Plant - 1,855 ERCs (physical)
Distribution System - 1,873 ERCs (physical)

* limiting element

FUTURE SITUATION

Consumption Demand - The St. George Island Water System, as of 1/1/95 serves 1,307 ERCs. The SGIU is obligated to serve another 130 ERCs, for a total of 1,437 ERCs. It is anticipated to increase at a rate of 5% per year. Therefore it is estimated that the system will serve users as follows:

1998	3 years: total = 1,663 ERCs Max. Day Demand = 873,075 gpd Peak Hourly Flow Rate = 1,414 gpm
2000	5 years: total = 1,834 ERCs Max. Day Demand = 962,850 gpd Peak Hourly Flow Rate = 1,559 gpm
2003	8 years: total = 2,123 ERCs Max. Day Demand = 1,114,575 gpd Peak Hourly Flow Rate = 1,805 gpm
2010	15 years: total = 2,987 ERCs Max. Day Demand = 1,568,175 gpd Peak Hourly Flow Rate = 2,539 gpm
2020	25 years: total = 4,000 ERCs (Note: The apparent build-out at this time is approximately 4,000 ERCs which should occur in 2016.) Max. Day Demand = 2,100,000 gpd Peak Hourly Flow Rate = 3,400 gpm

PHASE I SGIU System Improvement Program for the period 1995 through 2003:

The objective of this program is to provide the additional raw water and distribution system improvements to meet the SGIU Projected System Demands of 2003 - average day, maximum day, and peak hourly. This point in time is selected to allow adequate time for planning, design, permitting and construction prior to being in a crisis situation and also in recognition that any modification to the system will significantly increase its capabilities.

Well Field - A new 300 to 500 gpm well will need to be constructed. [The system well field will have to produce an additional [1,114,575 GPD - 940,000 GPD) 174,575 gallons per day (121 gpm - 774 gpm total). Well No. 1 should also be up-graded with additional impellers and a new motor to maintain capacity at a higher discharge pressure.

Transmission Main - The existing 6" lines on the mainland should be paralleled with an 8" line. The existing 8" line which was buried by DOT on the causeway should be paralleled to enable repair in case of emergency.

Water Treatment Plant - The existing aerator should be modified as necessary to handle 1,000 gpm which is the next reasonable size and which will carry it through 2010. The high service pumping system and or the distribution system must be modified to increase output to meet the peak hourly flow demand of 1,805 gpm. The chlorination system should be modified to allow for flow proportional operation. The distribution system should have a remote pressure monitoring and reporting device installed at each end from which the system should be controlled.

Water Distribution System - The system may need to be strengthened to deliver the additional demands as they become apparent. The modifications shown on the enclosed maps indicate the overall distribution line improvements necessary to meet ultimate peak flow demands. These would also meet current Franklin County Fire Protection Requirements. These should be implemented coincident with growth demands. (Note: the ultimate system demands will require supplemental pressure booster stations strategically located in the distribution network.)

PHASE II

SGIU System Improvement Program for the period 2003 through 2010 - for implementation between 2000 and 2003:

Well Field - A new 300 to 500 gpm well (No. 5) will need to be constructed. [The system well field will have to produce an additional [1,568,175 GPD - 1,372,000 GPD - assumes 300 gpm added phase I) 196,175 gallons per day (136 gpm - 1089 gpm total). Well No. 2 should also be up-graded with additional impellers and a new motor to maintain capacity at a higher discharge pressure.

Transmission Main - Partial Paralleling of the existing 8" lines on the causeway should be commenced with an objective of paralleling the line by 2016.

Water Treatment Plant - The aerator should not need modifying. The high service pumping system and the distribution system must be modified to increase output to meet the peak hourly flow demand of 2,539 gpm. This will probably require the addition of intermediate booster pump stations and or outlying storage facilities. The chlorination system should be adequate.

Water Distribution System - The system should be modified to deliver the additional demands.

```

* * * * * K Y P I P E 2 + * * * * *
*   University of Kentucky Hydraulic Analysis Program   *
*   Distribution of Pressure and Flows in Piping Networks *
*           1000 PIPE VERSION - 1.00   (04/14/94)       *
* * * * *
    
```

DATE: 04/19/95
 TIME: 15:51:28.89

INPUT DATA FILENAME ----- C:\KY2PLUS\DATA\SGI.DAT
 TABULATED OUTPUT FILENAME ----- C:\KY2PLUS\DATA\SGI.OUT
 POSTPROCESSOR RESULTS FILENAME --- C:\KY2PLUS\DATA\SGI.RES

 SUMMARY OF ORIGINAL DATA

U N I T S S P E C I F I E D

FLOWRATE = gallons/minute
 HEAD (HGL) = feet
 PRESSURE = psig

P I P E L I N E D A T A

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE

PIPE NUMBER	NODE #1	NODE #2	LENGTH (ft)	DIAMETER (in)	ROUGHNESS COEFF.	PUMP LABEL	MINOR LOSS COEFF.	FGN-HGL (ft)
1-FGPU	AA	1	150.0	12.0	150.00	P1	0.00	20.00
2-FGPU	BB	1	150.0	12.0	150.00	P2	0.00	20.00
3	3	2	650.0	4.0	150.00		0.00	
4	3	4	160.0	4.0	150.00		0.00	
5	5	1	610.0	8.0	150.00		0.00	
6	6	5	630.0	8.0	150.00		0.00	
7	7	6	1200.0	8.0	150.00		0.00	

8	8	7	1170.0	8.0	150.00	0.00
9	9	8	900.0	8.0	150.00	0.00
10	9	10	1300.0	8.0	150.00	0.00
11	10	11	580.0	2.0	150.00	0.00
12	9	12	200.0	6.0	150.00	0.00
13	12	13	1200.0	2.0	150.00	0.00
14	13	14	2400.0	2.0	150.00	0.00
15	10	15	1150.0	8.0	150.00	0.00
16	10	16	400.0	6.0	150.00	0.00
17	16	17	750.0	6.0	150.00	0.00
18	16	18	770.0	2.0	150.00	0.00
19	16	19	400.0	6.0	150.00	0.00
20	19	20	1000.0	2.0	150.00	0.00
21	19	21	850.0	2.0	150.00	0.00
22	21	20	1150.0	2.0	150.00	0.00
23	23	22	120.0	2.0	150.00	0.00
24	23	24	550.0	2.0	150.00	0.00
25	24	25	110.0	2.0	150.00	0.00
26	24	26	410.0	2.0	150.00	0.00
27	26	27	290.0	1.0	150.00	0.00
28	26	28	380.0	2.0	150.00	0.00
29	29	28	450.0	2.0	150.00	0.00
30	29	30	680.0	2.0	150.00	0.00
31	28	31	550.0	2.0	150.00	0.00
32	31	32	200.0	8.0	150.00	0.00
33	32	23	700.0	2.0	150.00	0.00
34	32	33	370.0	6.0	150.00	0.00
35	34	31	410.0	8.0	150.00	0.00
36	34	35	1380.0	2.0	150.00	0.00
37	35	36	950.0	2.0	150.00	0.00
38	37	36	1050.0	2.0	150.00	0.00
39	38	37	390.0	8.0	150.00	0.00
40	39	38	100.0	8.0	150.00	0.00
41	39	34	300.0	8.0	150.00	0.00
42	40	39	400.0	6.0	150.00	0.00
43	40	41	250.0	6.0	150.00	0.00
44	8	40	480.0	6.0	150.00	0.00
45	40	42	1170.0	2.0	150.00	0.00
46	42	43	400.0	6.0	150.00	0.00
47	43	44	200.0	8.0	150.00	0.00
48	44	37	500.0	8.0	150.00	0.00
49	44	45	550.0	2.0	150.00	0.00
50	45	46	300.0	2.0	150.00	0.00
51	45	47	700.0	2.0	150.00	0.00
52	47	48	350.0	2.0	150.00	0.00
53	48	49	400.0	2.0	150.00	0.00
54	47	50	530.0	2.0	150.00	0.00

55	50	51	350.0	8.0	150.00	0.00
56	51	43	200.0	8.0	150.00	0.00
57	51	52	200.0	2.0	150.00	0.00
58	50	53	650.0	8.0	150.00	0.00
59	53	54	300.0	8.0	150.00	0.00
60	54	55	600.0	8.0	150.00	0.00
61	53	56	360.0	6.0	150.00	0.00
62	56	42	1200.0	2.0	150.00	0.00
63	56	57	60.0	6.0	150.00	0.00
64	57	6	460.0	6.0	150.00	0.00
65	57	58	1000.0	6.0	150.00	0.00
66	35	59	600.0	2.0	150.00	0.00
67	38	60	1000.0	2.0	150.00	0.00
68	5	61	120.0	6.0	150.00	0.00
69	12	62	400.0	6.0	150.00	0.00
70	61	62	3240.0	2.0	150.00	0.00
71	61	63	1300.0	6.0	150.00	0.00
72	15	64	1300.0	8.0	150.00	0.00
73	64	65	1200.0	8.0	150.00	0.00
74	65	66	1200.0	8.0	150.00	0.00
75	14	67	1060.0	2.0	150.00	0.00
76	67	68	230.0	6.0	150.00	0.00
77	68	69	1050.0	6.0	150.00	0.00
78	68	65	370.0	6.0	150.00	0.00
79	20	70	700.0	2.0	150.00	0.00
80	70	71	830.0	6.0	150.00	0.00
81	71	72	500.0	2.0	150.00	0.00
82	71	73	400.0	6.0	150.00	0.00
83	73	74	350.0	6.0	150.00	0.00
84	74	64	60.0	6.0	150.00	0.00
85	74	75	2440.0	2.0	150.00	0.00
86	73	76	1100.0	6.0	150.00	0.00
87	73	77	550.0	6.0	150.00	0.00
88	77	78	700.0	2.0	150.00	0.00
89	70	79	600.0	6.0	150.00	0.00
90	79	80	350.0	2.0	150.00	0.00
91	80	81	400.0	2.0	150.00	0.00
92	81	82	350.0	2.0	150.00	0.00
93	82	83	500.0	2.0	150.00	0.00
94	83	84	600.0	2.0	150.00	0.00
95	83	85	600.0	6.0	150.00	0.00
96	85	86	420.0	6.0	150.00	0.00
97	86	87	950.0	2.0	150.00	0.00
98	86	88	350.0	6.0	150.00	0.00
99	88	89	1550.0	2.0	150.00	0.00
100	89	90	350.0	6.0	150.00	0.00
101	90	91	350.0	6.0	150.00	0.00

102	91	92	350.0	6.0	150.00	0.00
103	92	93	600.0	2.0	150.00	0.00
104	92	75	300.0	6.0	150.00	0.00
105	90	94	800.0	2.0	150.00	0.00
106	91	95	1200.0	6.0	150.00	0.00
107	95	96	480.0	6.0	150.00	0.00
108	96	97	300.0	1.0	150.00	0.00
109	96	88	330.0	6.0	150.00	0.00
110	66	75	50.0	6.0	150.00	0.00
111	66	98	550.0	8.0	150.00	0.00
112	98	99	1200.0	6.0	150.00	0.00
113	98	100	600.0	6.0	150.00	0.00
114	100	101	300.0	6.0	150.00	0.00
115	98	102	700.0	8.0	150.00	0.00
116	102	103	1140.0	6.0	150.00	0.00
117	102	104	850.0	8.0	150.00	0.00
118	104	105	550.0	6.0	150.00	0.00
119	105	106	700.0	6.0	150.00	0.00
120	106	107	650.0	6.0	150.00	0.00
121	107	108	680.0	6.0	150.00	0.00
122	108	105	550.0	6.0	150.00	0.00
123	104	109	100.0	8.0	150.00	0.00
124	109	110	1050.0	8.0	150.00	0.00
125	110	111	930.0	8.0	150.00	0.00
126	111	112	150.0	8.0	150.00	0.00
127	112	113	500.0	8.0	150.00	0.00
128	113	114	2900.0	8.0	150.00	0.00
129	114	115	300.0	8.0	150.00	0.00
130	115	116	850.0	8.0	150.00	0.00
131	116	117	50.0	8.0	150.00	0.00
132	117	118	50.0	8.0	150.00	0.00
133	118	119	1000.0	8.0	150.00	0.00
134	119	120	50.0	8.0	150.00	0.00
135	120	121	550.0	8.0	150.00	0.00
136	121	122	600.0	8.0	150.00	0.00
137	122	123	600.0	8.0	150.00	0.00
138	123	124	600.0	8.0	150.00	0.00
139	124	125	600.0	8.0	150.00	0.00
140	125	126	600.0	8.0	150.00	0.00
141	126	127	690.0	8.0	150.00	0.00
142	127	128	700.0	8.0	150.00	0.00
143	128	129	200.0	8.0	150.00	0.00
144	129	130	820.0	8.0	150.00	0.00
145	130	131	150.0	8.0	150.00	0.00
146	131	132	610.0	8.0	150.00	0.00
147	132	133	100.0	8.0	150.00	0.00
148	133	134	600.0	8.0	150.00	0.00

149	134	135	400.0	8.0	150.00	0.00
150	135	136	400.0	8.0	150.00	0.00
151	136	137	400.0	8.0	150.00	0.00
152	137	138	600.0	8.0	150.00	0.00
153	138	139	250.0	8.0	150.00	0.00
154	139	140	410.0	8.0	150.00	0.00
155	140	141	600.0	8.0	150.00	0.00
156	141	142	610.0	8.0	150.00	0.00
157	142	143	440.0	8.0	150.00	0.00
158	143	144	700.0	8.0	150.00	0.00
159	144	145	750.0	8.0	150.00	0.00
160	145	146	720.0	8.0	150.00	0.00
161	146	147	100.0	8.0	150.00	0.00
162	147	148	200.0	8.0	150.00	0.00
163	110	149	350.0	6.0	150.00	0.00
164	149	150	480.0	6.0	150.00	0.00
165	150	151	600.0	6.0	150.00	0.00
166	112	151	450.0	6.0	150.00	0.00
167	117	152	820.0	6.0	150.00	0.00
168	152	153	600.0	6.0	150.00	0.00
169	153	154	600.0	6.0	150.00	0.00
170	154	155	810.0	6.0	150.00	0.00
171	118	153	870.0	6.0	150.00	0.00
172	121	156	750.0	6.0	150.00	0.00
173	156	157	600.0	6.0	150.00	0.00
174	157	158	600.0	6.0	150.00	0.00
175	158	159	600.0	6.0	150.00	0.00
176	159	124	760.0	6.0	150.00	0.00
177	158	123	760.0	6.0	150.00	0.00
178	157	122	760.0	6.0	150.00	0.00
179	125	160	700.0	6.0	150.00	0.00
180	162	167	800.0	6.0	150.00	0.00
181	167	160	596.6	6.0	150.00	0.00
182	162	163	800.0	6.0	150.00	0.00
183	163	164	900.0	6.0	150.00	0.00
184	164	165	850.0	6.0	150.00	0.00
185	165	166	800.0	6.0	150.00	0.00
186	133	165	610.0	6.0	150.00	0.00
187	130	164	500.0	6.0	150.00	0.00
188	163	128	740.0	6.0	150.00	0.00
189	127	162	720.0	6.0	150.00	0.00
190	126	167	710.0	6.0	150.00	0.00
191	166	168	850.0	6.0	150.00	0.00
192	168	169	900.0	6.0	150.00	0.00
193	169	170	850.0	6.0	150.00	0.00
194	170	141	290.0	6.0	150.00	0.00
195	169	139	670.0	6.0	150.00	0.00

196	168	137	680.0	6.0	150.00	0.00
197	166	135	680.0	6.0	150.00	0.00
198	142	171	400.0	8.0	150.00	0.00
199	171	172	2480.0	8.0	150.00	0.00
200	172	147	610.0	6.0	150.00	0.00
201	145	173	400.0	6.0	150.00	0.00
202	173	174	710.0	6.0	150.00	0.00
203	174	146	320.0	6.0	150.00	0.00
204	63	176	140.0	6.0	150.00	0.00
205	176	2	250.0	2.0	150.00	0.00
206	176	177	350.0	6.0	150.00	0.00
207	177	178	130.0	6.0	150.00	0.00
208	178	179	200.0	6.0	150.00	0.00
209	179	180	950.0	6.0	150.00	0.00
210	180	181	1800.0	2.0	150.00	0.00
211	181	182	2250.0	2.0	150.00	0.00
212	182	183	2350.0	2.0	150.00	0.00
213	183	184	2350.0	2.0	150.00	0.00
214	184	185	400.0	6.0	150.00	0.00
215	185	186	1200.0	8.0	150.00	0.00
216	186	187	1200.0	8.0	150.00	0.00
217	187	188	1200.0	8.0	150.00	0.00
218	188	189	1200.0	8.0	150.00	0.00
219	189	190	1200.0	8.0	150.00	0.00
220	190	191	1100.0	8.0	150.00	0.00
221	191	192	1700.0	8.0	150.00	0.00
222	192	193	1400.0	8.0	150.00	0.00
223	193	176	350.0	8.0	150.00	0.00
224	192	194	350.0	2.0	150.00	0.00
225	194	195	1300.0	2.0	150.00	0.00
226	191	181	320.0	6.0	150.00	0.00
227	191	196	800.0	2.0	150.00	0.00
228	190	197	420.0	2.0	150.00	0.00
229	188	198	330.0	2.0	150.00	0.00
230	183	187	400.0	6.0	150.00	0.00
231	185	199	350.0	2.0	150.00	0.00
232	185	200	950.0	6.0	150.00	0.00
233	200	201	1100.0	6.0	150.00	0.00
234	200	202	100.0	2.0	150.00	0.00
235	202	203	1100.0	6.0	150.00	0.00
236	203	201	100.0	2.0	150.00	0.00
237	203	204	1500.0	2.0	150.00	0.00
238	204	205	100.0	2.0	150.00	0.00
239	205	201	1650.0	6.0	150.00	0.00
240	205	206	800.0	6.0	150.00	0.00
241	206	207	1000.0	6.0	150.00	0.00
242	207	208	1900.0	6.0	150.00	0.00

243	208	209	800.0	6.0	150.00	0.00
244	209	210	1200.0	6.0	150.00	0.00
245	210	211	60.0	2.0	150.00	0.00
246	211	212	2020.0	2.0	150.00	0.00
247	212	208	100.0	2.0	150.00	0.00
248	210	213	850.0	6.0	150.00	0.00
249	213	214	400.0	6.0	150.00	0.00
250	214	218	230.0	6.0	150.00	0.00
251	213	216	200.0	6.0	150.00	0.00
252	214	217	200.0	6.0	150.00	0.00
253	218	219	350.0	6.0	150.00	0.00
254	219	220	1200.0	6.0	150.00	0.00
255	220	221	350.0	6.0	150.00	0.00
256	221	218	1140.0	6.0	150.00	0.00
257	215	221	550.0	6.0	150.00	0.00
258	179	222	110.0	2.0	150.00	0.00
259	222	223	1010.0	2.0	150.00	0.00
260	223	180	110.0	2.0	150.00	0.00
261	1	2	550.0	8.0	150.00	0.00

P U M P D A T A

THERE IS A PUMP ID NO. 1 IN THE FOLLOWING PIPES:

1

DESCRIBED BY THE FOLLOWING DATA:

HEAD	FLOWRATE
(ft)	(gpm)

198.00	0.00
186.80	500.00
142.00	1000.00

THERE IS A PUMP ID NO. 2 IN THE FOLLOWING PIPES:

2

DESCRIBED BY THE FOLLOWING DATA:

HEAD	FLOWRATE
(ft)	(gpm)

220.00	0.00
185.00	650.00
170.00	720.00

JUNCTION NODE DATA

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	JUNCTION ELEVATION (ft)	CONNECTING PIPES			
1		10.00	10.00	1	2	5	261
2		12.00	10.00	3	205	261	
3		8.00	10.00	3	4		
4		2.00	10.00	4			
5		3.00	10.00	5	6	68	
6		5.00	10.00	6	7	64	
7		4.00	10.00	7	8		
8		4.00	10.00	8	9	44	
9		8.00	10.00	9	10	12	
10		11.00	10.00	10	11	15	16
11		1.00	10.00	11			
12		8.00	10.00	12	13	69	
13		14.00	10.00	13	14		
14		12.00	10.00	14	75		
15		12.00	10.00	15	72		
16		9.00	10.00	16	17	18	19
17		1.00	10.00	17			
18		1.00	10.00	18			
19		9.00	10.00	19	20	21	
20		15.00	10.00	20	22	79	
21		2.00	10.00	21	22		
22		1.00	10.00	23			
23		5.00	10.00	23	24	33	
24		4.00	10.00	24	25	26	
25		1.00	10.00	25			
26		2.00	10.00	26	27	28	
27		1.00	10.00	27			
28		4.00	10.00	28	29	31	
29		10.00	10.00	29	30		
30		1.00	10.00	30			
31		5.00	10.00	31	32	35	
32		4.00	10.00	32	33	34	
33		0.00	10.00	34			
34		15.00	10.00	35	36	41	
35		2.00	10.00	36	37	66	
36		5.00	10.00	37	38		
37		13.00	10.00	38	39	48	
38		6.00	10.00	39	40	67	
39		0.00	10.00	40	41	42	

40	5.00	10.00	42	43	44	45
41	1.00	10.00	43			
42	2.00	10.00	45	46	62	
43	2.00	10.00	46	47	56	
44	3.00	10.00	47	48	49	
45	4.00	10.00	49	50	51	
46	1.00	10.00	50			
47	3.00	10.00	51	52	54	
48	5.00	10.00	52	53		
49	4.00	10.00	53			
50	2.00	10.00	54	55	58	
51	0.00	10.00	55	56	57	
52	1.00	10.00	57			
53	4.00	10.00	58	59	61	
54	0.00	10.00	59	60		
55	0.00	10.00	60			
56	6.00	10.00	61	62	63	
57	6.00	10.00	63	64	65	
58	1.00	10.00	65			
59	0.00	10.00	66			
60	2.00	10.00	67			
61	89.00	10.00	68	70	71	
62	14.00	10.00	69	70		
63	8.00	10.00	71	204		
64	3.00	10.00	72	73	84	
65	1.00	10.00	73	74	78	
66	3.00	10.00	74	110	111	
67	5.00	10.00	75	76		
68	11.00	10.00	76	77	78	
69	2.00	10.00	77			
70	7.00	10.00	79	80	89	
71	3.00	10.00	80	81	82	
72	2.00	10.00	81			
73	4.00	10.00	82	83	86	87
74	1.00	10.00	83	84	85	
75	1.00	10.00	85	104	110	
76	1.00	10.00	86			
77	6.00	10.00	87	88		
78	1.00	10.00	88			
79	3.00	10.00	89	90		
80	2.00	10.00	90	91		
81	4.00	10.00	91	92		
82	3.00	10.00	92	93		
83	5.00	10.00	93	94	95	
84	1.00	10.00	94			
85	1.00	10.00	95	96		
86	4.00	10.00	96	97	98	

87	1.00	10.00	97		
88	4.00	10.00	98	99	109
89	5.00	10.00	99	100	
90	2.00	10.00	100	101	105
91	6.00	10.00	101	102	106
92	1.00	10.00	102	103	104
93	1.00	10.00	103		
94	1.00	10.00	105		
95	2.00	10.00	106	107	
96	0.00	10.00	107	108	109
97	1.00	10.00	108		
98	7.00	10.00	111	112	113 115
99	2.00	10.00	112		
100	7.00	10.00	113	114	
101	1.00	10.00	114		
102	7.00	10.00	115	116	117
103	5.00	10.00	116		
104	0.00	10.00	117	118	123
105	2.00	10.00	118	119	122
106	3.00	10.00	119	120	
107	4.00	10.00	120	121	
108	3.00	10.00	121	122	
109	3.00	10.00	123	124	
110	7.00	10.00	124	125	163
111	3.00	10.00	125	126	
112	2.00	10.00	126	127	166
113	24.00	10.00	127	128	
114	0.00	10.00	128	129	
115	17.00	10.00	129	130	
116	3.00	10.00	130	131	
117	1.00	10.00	131	132	167
118	4.00	10.00	132	133	171
119	5.00	10.00	133	134	
120	5.00	10.00	134	135	
121	1.00	10.00	135	136	172
122	6.00	10.00	136	137	178
123	1.00	10.00	137	138	177
124	3.00	10.00	138	139	176
125	3.00	10.00	139	140	179
126	10.00	10.00	140	141	190
127	6.00	10.00	141	142	189
128	6.00	10.00	142	143	188
129	5.00	10.00	143	144	
130	0.00	10.00	144	145	187
131	2.00	10.00	145	146	
132	6.00	10.00	146	147	
133	1.00	10.00	147	148	186

134	3.00	10.00	148	149		
135	4.00	10.00	149	150	197	
136	5.00	10.00	150	151		
137	5.00	10.00	151	152	196	
138	6.00	10.00	152	153		
139	12.00	10.00	153	154	195	
140	3.00	10.00	154	155		
141	3.00	10.00	155	156	194	
142	0.00	10.00	156	157	198	
143	3.00	10.00	157	158		
144	4.00	10.00	158	159		
145	1.00	10.00	159	160	201	
146	1.00	10.00	160	161	203	
147	0.00	10.00	161	162	200	
148	23.00	10.00	162			
149	9.00	10.00	163	164		
150	7.00	10.00	164	165		
151	14.00	10.00	165	166		
152	3.00	10.00	167	168		
153	6.00	10.00	168	169	171	
154	5.00	10.00	169	170		
155	0.00	10.00	170			
156	4.00	10.00	172	173		
157	3.00	10.00	173	174	178	
158	4.00	10.00	174	175	177	
159	2.00	10.00	175	176		
160	5.00	10.00	179	181		
162	13.00	10.00	180	182	189	
163	11.00	10.00	182	183	188	
164	7.00	10.00	183	184	187	
165	10.00	10.00	184	185	186	
166	8.00	10.00	185	191	197	
167	5.00	10.00	180	181	190	
168	9.00	10.00	191	192	196	
169	4.00	10.00	192	193	195	
170	8.00	10.00	193	194		
171	41.00	10.00	198	199		
172	13.00	10.00	199	200		
173	4.00	10.00	201	202		
174	2.00	10.00	202	203		
176	7.00	10.00	204	205	206	223
177	0.00	10.00	206	207		
178	0.00	10.00	207	208		
179	7.00	10.00	208	209	258	
180	8.00	10.00	209	210	260	
181	18.00	10.00	210	211	226	
182	22.00	10.00	211	212		

183	23.00	10.00	212	213	230	
184	9.00	10.00	213	214		
185	10.00	10.00	214	215	231	232
186	9.00	10.00	215	216		
187	11.00	10.00	216	217	230	
188	4.00	10.00	217	218	229	
189	6.00	10.00	218	219		
190	14.00	10.00	219	220	228	
191	6.00	10.00	220	221	226	227
192	5.00	10.00	221	222	224	
193	6.00	10.00	222	223		
194	10.00	10.00	224	225		
195	1.00	10.00	225			
196	1.00	10.00	227			
197	7.00	10.00	228			
198	2.00	10.00	229			
199	15.00	10.00	231			
200	2.00	10.00	232	233	234	
201	2.00	10.00	233	236	239	
202	8.00	10.00	234	235		
203	12.00	10.00	235	236	237	
204	4.00	10.00	237	238		
205	7.00	10.00	238	239	240	
206	5.00	10.00	240	241		
207	24.00	10.00	241	242		
208	0.00	10.00	242	243	247	
209	6.00	10.00	243	244		
210	4.00	10.00	244	245	248	
211	9.00	10.00	245	246		
212	6.00	10.00	246	247		
213	3.00	10.00	248	249	251	
214	12.00	10.00	249	250	252	
215	1.00	10.00	257			
216	68.00	10.00	251			
217	51.00	10.00	252			
218	2.00	10.00	250	253	256	
219	14.00	10.00	253	254		
220	10.00	10.00	254	255		
221	10.00	10.00	255	256	257	
222	11.00	10.00	258	259		
223	18.00	10.00	259	260		

O U T P U T O P T I O N D A T A

OUTPUT SELECTION: ALL RESULTS ARE INCLUDED IN THE TABULATED OUTPUT

S Y S T E M C O N F I G U R A T I O N

NUMBER OF PIPES(p) = 261
NUMBER OF JUNCTION NODES(j) = 221
NUMBER OF PRIMARY LOOPS(l) = 39
NUMBER OF FIXED GRADE NODES(f) = 2
NUMBER OF SUPPLY ZONES(z) = 1

 S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 5 TRIALS WITH AN ACCURACY = 0.00424

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	708.12	0.15	172.87	P1	0.00	2.01	1.03
2-FGPU	BB 1	707.89	0.15	172.87	P2	0.00	2.01	1.03
3	3 2	-10.00	0.05	0.00		0.00	0.26	0.08
4	3 4	2.00	0.00	0.00		0.00	0.05	0.00
5	5 1	-1298.40	13.87	0.00		0.00	8.29	22.73
6	6 5	-778.32	5.55	0.00		0.00	4.97	8.81
7	7 6	-486.08	4.42	0.00		0.00	3.10	3.68
8	8 7	-482.08	4.25	0.00		0.00	3.08	3.63
9	9 8	-634.32	5.43	0.00		0.00	4.05	6.03
10	9 10	595.29	6.97	0.00		0.00	3.80	5.36
11	10 11	1.00	0.02	0.00		0.00	0.10	0.03
12	9 12	31.03	0.02	0.00		0.00	0.35	0.09
13	12 13	24.71	15.18	0.00		0.00	2.52	12.65
14	13 14	10.71	6.46	0.00		0.00	1.09	2.69
15	10 15	531.77	5.00	0.00		0.00	3.39	4.35
16	10 16	51.52	0.09	0.00		0.00	0.58	0.23
17	16 17	1.00	0.00	0.00		0.00	0.01	0.00
18	16 18	1.00	0.03	0.00		0.00	0.10	0.03
19	16 19	40.52	0.06	0.00		0.00	0.46	0.15
20	19 20	18.01	7.05	0.00		0.00	1.84	7.05
21	19 21	13.50	3.51	0.00		0.00	1.38	4.13
22	21 20	11.50	3.53	0.00		0.00	1.17	3.07
23	23 22	1.00	0.00	0.00		0.00	0.10	0.03
24	23 24	6.70	0.62	0.00		0.00	0.68	1.13
25	24 25	1.00	0.00	0.00		0.00	0.10	0.03
26	24 26	1.70	0.04	0.00		0.00	0.17	0.09
27	26 27	1.00	0.28	0.00		0.00	0.41	0.97

28	26	28	-1.30	0.02	0.00	0.00	0.13	0.05
29	29	28	-11.00	1.27	0.00	0.00	1.12	2.83
30	29	30	1.00	0.02	0.00	0.00	0.10	0.03
31	28	31	-16.30	3.22	0.00	0.00	1.66	5.86
32	31	32	16.70	0.00	0.00	0.00	0.11	0.01
33	32	23	12.70	2.58	0.00	0.00	1.30	3.69
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	38.00	0.01	0.00	0.00	0.24	0.03
36	34	35	2.24	0.20	0.00	0.00	0.23	0.15
37	35	36	0.24	0.00	0.00	0.00	0.02	0.00
38	37	36	4.76	0.63	0.00	0.00	0.49	0.60
39	38	37	-217.55	0.32	0.00	0.00	1.39	0.83
40	39	38	-209.55	0.08	0.00	0.00	1.34	0.78
41	39	34	55.24	0.02	0.00	0.00	0.35	0.07
42	40	39	-154.31	0.71	0.00	0.00	1.75	1.79
43	40	41	1.00	0.00	0.00	0.00	0.01	0.00
44	8	40	-156.24	0.88	0.00	0.00	1.77	1.83
45	40	42	-7.93	1.80	0.00	0.00	0.81	1.54
46	42	43	0.48	0.00	0.00	0.00	0.01	0.00
47	43	44	244.71	0.21	0.00	0.00	1.56	1.03
48	44	37	235.31	0.48	0.00	0.00	1.50	0.96
49	44	45	6.40	0.57	0.00	0.00	0.65	1.04
50	45	46	1.00	0.01	0.00	0.00	0.10	0.03
51	45	47	1.40	0.04	0.00	0.00	0.14	0.06
52	47	48	9.00	0.68	0.00	0.00	0.92	1.95
53	48	49	4.00	0.17	0.00	0.00	0.41	0.43
54	47	50	-10.60	1.40	0.00	0.00	1.08	2.64
55	50	51	247.23	0.37	0.00	0.00	1.58	1.05
56	51	43	246.23	0.21	0.00	0.00	1.57	1.05
57	51	52	1.00	0.01	0.00	0.00	0.10	0.03
58	50	53	-259.83	0.75	0.00	0.00	1.66	1.16
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-263.83	1.74	0.00	0.00	2.99	4.82
62	56	42	10.41	3.06	0.00	0.00	1.06	2.55
63	56	57	-280.24	0.32	0.00	0.00	3.18	5.39
64	57	6	-287.24	2.60	0.00	0.00	3.26	5.65
65	57	58	1.00	0.00	0.00	0.00	0.01	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	2.00	0.12	0.00	0.00	0.20	0.12
68	5	61	517.08	2.01	0.00	0.00	5.87	16.77
69	12	62	-1.68	0.00	0.00	0.00	0.02	0.00
70	61	62	15.68	17.65	0.00	0.00	1.60	5.45
71	61	63	412.40	14.34	0.00	0.00	4.68	11.03
72	15	64	519.77	5.42	0.00	0.00	3.32	4.17
73	64	65	472.12	4.19	0.00	0.00	3.01	3.49
74	65	66	451.83	3.86	0.00	0.00	2.88	3.22

75	14	67	-1.29	0.06	0.00	0.00	0.13	0.05
76	67	68	-6.29	0.00	0.00	0.00	0.07	0.00
77	68	69	2.00	0.00	0.00	0.00	0.02	0.00
78	68	65	-19.29	0.01	0.00	0.00	0.22	0.04
79	20	70	14.52	3.31	0.00	0.00	1.48	4.72
80	70	71	-14.70	0.02	0.00	0.00	0.17	0.02
81	71	72	2.00	0.06	0.00	0.00	0.20	0.12
82	71	73	-19.70	0.02	0.00	0.00	0.22	0.04
83	73	74	-31.70	0.03	0.00	0.00	0.36	0.10
84	74	64	-44.65	0.01	0.00	0.00	0.51	0.18
85	74	75	11.95	8.04	0.00	0.00	1.22	3.30
86	73	76	1.00	0.00	0.00	0.00	0.01	0.00
87	73	77	7.00	0.00	0.00	0.00	0.08	0.01
88	77	78	1.00	0.02	0.00	0.00	0.10	0.03
89	70	79	22.22	0.03	0.00	0.00	0.25	0.05
90	79	80	19.22	2.78	0.00	0.00	1.96	7.94
91	80	81	17.22	2.59	0.00	0.00	1.76	6.48
92	81	82	13.22	1.39	0.00	0.00	1.35	3.97
93	82	83	10.22	1.23	0.00	0.00	1.04	2.47
94	83	84	1.00	0.02	0.00	0.00	0.10	0.03
95	83	85	4.22	0.00	0.00	0.00	0.05	0.00
96	85	86	3.22	0.00	0.00	0.00	0.04	0.00
97	86	87	1.00	0.03	0.00	0.00	0.10	0.03
98	86	88	-1.78	0.00	0.00	0.00	0.02	0.00
99	88	89	1.02	0.05	0.00	0.00	0.10	0.03
100	89	90	-3.98	0.00	0.00	0.00	0.05	0.00
101	90	91	-6.98	0.00	0.00	0.00	0.08	0.01
102	91	92	-22.78	0.02	0.00	0.00	0.26	0.05
103	92	93	1.00	0.02	0.00	0.00	0.10	0.03
104	92	75	-24.78	0.02	0.00	0.00	0.28	0.06
105	90	94	1.00	0.03	0.00	0.00	0.10	0.03
106	91	95	9.80	0.01	0.00	0.00	0.11	0.01
107	95	96	7.80	0.00	0.00	0.00	0.09	0.01
108	96	97	1.00	0.29	0.00	0.00	0.41	0.97
109	96	88	6.80	0.00	0.00	0.00	0.08	0.01
110	66	75	13.83	0.00	0.00	0.00	0.16	0.02
111	66	98	435.00	1.65	0.00	0.00	2.78	3.00
112	98	99	2.00	0.00	0.00	0.00	0.02	0.00
113	98	100	8.00	0.00	0.00	0.00	0.09	0.01
114	100	101	1.00	0.00	0.00	0.00	0.01	0.00
115	98	102	418.00	1.95	0.00	0.00	2.67	2.79
116	102	103	5.00	0.00	0.00	0.00	0.06	0.00
117	102	104	406.00	2.24	0.00	0.00	2.59	2.64
118	104	105	12.00	0.01	0.00	0.00	0.14	0.02
119	105	106	11.46	0.01	0.00	0.00	0.13	0.01
120	106	107	8.46	0.01	0.00	0.00	0.10	0.01
121	107	108	4.46	0.00	0.00	0.00	0.05	0.00

122	108	105	1.46	0.00	0.00	0.00	0.02	0.00
123	104	109	394.00	0.25	0.00	0.00	2.51	2.50
124	109	110	391.00	2.59	0.00	0.00	2.50	2.46
125	110	111	274.52	1.19	0.00	0.00	1.75	1.28
126	111	112	271.52	0.19	0.00	0.00	1.73	1.25
127	112	113	349.00	1.00	0.00	0.00	2.23	1.99
128	113	114	325.00	5.07	0.00	0.00	2.07	1.75
129	114	115	325.00	0.52	0.00	0.00	2.07	1.75
130	115	116	308.00	1.35	0.00	0.00	1.97	1.58
131	116	117	305.00	0.08	0.00	0.00	1.95	1.55
132	117	118	282.15	0.07	0.00	0.00	1.80	1.35
133	118	119	286.00	1.38	0.00	0.00	1.83	1.38
134	119	120	281.00	0.07	0.00	0.00	1.79	1.34
135	120	121	276.00	0.71	0.00	0.00	1.76	1.29
136	121	122	208.06	0.46	0.00	0.00	1.33	0.77
137	122	123	182.46	0.36	0.00	0.00	1.16	0.60
138	123	124	195.62	0.41	0.00	0.00	1.25	0.68
139	124	125	252.00	0.65	0.00	0.00	1.61	1.09
140	125	126	187.18	0.38	0.00	0.00	1.19	0.63
141	126	127	160.86	0.33	0.00	0.00	1.03	0.48
142	127	128	146.05	0.28	0.00	0.00	0.93	0.40
143	128	129	130.37	0.06	0.00	0.00	0.83	0.32
144	129	130	125.37	0.25	0.00	0.00	0.80	0.30
145	130	131	123.35	0.04	0.00	0.00	0.79	0.29
146	131	132	121.35	0.17	0.00	0.00	0.77	0.28
147	132	133	115.35	0.03	0.00	0.00	0.74	0.26
148	133	134	106.75	0.13	0.00	0.00	0.68	0.22
149	134	135	103.75	0.08	0.00	0.00	0.66	0.21
150	135	136	101.73	0.08	0.00	0.00	0.65	0.20
151	136	137	96.73	0.07	0.00	0.00	0.62	0.19
152	137	138	88.66	0.09	0.00	0.00	0.57	0.16
153	138	139	82.66	0.03	0.00	0.00	0.53	0.14
154	139	140	72.82	0.04	0.00	0.00	0.46	0.11
155	140	141	69.82	0.06	0.00	0.00	0.45	0.10
156	141	142	92.00	0.10	0.00	0.00	0.59	0.17
157	142	143	34.26	0.01	0.00	0.00	0.22	0.03
158	143	144	31.26	0.02	0.00	0.00	0.20	0.02
159	144	145	27.26	0.01	0.00	0.00	0.17	0.02
160	145	146	17.04	0.01	0.00	0.00	0.11	0.01
161	146	147	19.26	0.00	0.00	0.00	0.12	0.01
162	147	148	23.00	0.00	0.00	0.00	0.15	0.01
163	110	149	109.48	0.33	0.00	0.00	1.24	0.95
164	149	150	100.48	0.39	0.00	0.00	1.14	0.81
165	150	151	93.48	0.42	0.00	0.00	1.06	0.71
166	112	151	-79.48	0.24	0.00	0.00	0.90	0.52
167	117	152	21.85	0.04	0.00	0.00	0.25	0.05
168	152	153	18.85	0.02	0.00	0.00	0.21	0.04

169	153	154	5.00	0.00	0.00	0.00	0.06	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-7.85	0.01	0.00	0.00	0.09	0.01
172	121	156	66.94	0.29	0.00	0.00	0.76	0.38
173	156	157	62.94	0.20	0.00	0.00	0.71	0.34
174	157	158	79.54	0.31	0.00	0.00	0.90	0.52
175	158	159	61.38	0.19	0.00	0.00	0.70	0.32
176	159	124	59.38	0.23	0.00	0.00	0.67	0.30
177	158	123	14.16	0.02	0.00	0.00	0.16	0.02
178	157	122	-19.60	0.03	0.00	0.00	0.22	0.04
179	125	160	61.82	0.23	0.00	0.00	0.70	0.33
180	162	167	-68.14	0.31	0.00	0.00	0.77	0.39
181	167	160	-56.82	0.17	0.00	0.00	0.64	0.28
182	162	163	63.95	0.28	0.00	0.00	0.73	0.35
183	163	164	62.63	0.30	0.00	0.00	0.71	0.34
184	164	165	57.65	0.25	0.00	0.00	0.65	0.29
185	165	166	55.25	0.21	0.00	0.00	0.63	0.27
186	133	165	7.61	0.00	0.00	0.00	0.09	0.01
187	130	164	2.02	0.00	0.00	0.00	0.02	0.00
188	163	128	-9.68	0.01	0.00	0.00	0.11	0.01
189	127	162	8.81	0.01	0.00	0.00	0.10	0.01
190	126	167	16.32	0.02	0.00	0.00	0.19	0.03
191	166	168	45.27	0.16	0.00	0.00	0.51	0.18
192	168	169	39.34	0.13	0.00	0.00	0.45	0.14
193	169	170	33.18	0.09	0.00	0.00	0.38	0.10
194	170	141	25.18	0.02	0.00	0.00	0.29	0.06
195	169	139	2.17	0.00	0.00	0.00	0.02	0.00
196	168	137	-3.07	0.00	0.00	0.00	0.03	0.00
197	166	135	1.98	0.00	0.00	0.00	0.02	0.00
198	142	171	57.74	0.03	0.00	0.00	0.37	0.07
199	171	172	16.74	0.02	0.00	0.00	0.11	0.01
200	172	147	3.74	0.00	0.00	0.00	0.04	0.00
201	145	173	9.22	0.00	0.00	0.00	0.10	0.01
202	173	174	5.22	0.00	0.00	0.00	0.06	0.00
203	174	146	3.22	0.00	0.00	0.00	0.04	0.00
204	63	176	404.40	1.49	0.00	0.00	4.59	10.64
205	176	2	-85.60	31.58	0.00	0.00	8.74	126.34
206	176	177	58.96	0.11	0.00	0.00	0.67	0.30
207	177	178	58.96	0.04	0.00	0.00	0.67	0.30
208	178	179	58.96	0.06	0.00	0.00	0.67	0.30
209	179	180	38.18	0.13	0.00	0.00	0.43	0.13
210	180	181	14.96	8.99	0.00	0.00	1.53	4.99
211	181	182	15.62	12.18	0.00	0.00	1.60	5.41
212	182	183	-6.38	2.42	0.00	0.00	0.65	1.03
213	183	184	7.62	3.37	0.00	0.00	0.78	1.43
214	184	185	-1.38	0.00	0.00	0.00	0.02	0.00
215	185	186	-286.38	1.66	0.00	0.00	1.83	1.38

216	186	187	-295.38	1.76	0.00	0.00	1.89	1.46
217	187	188	-343.38	2.32	0.00	0.00	2.19	1.94
218	188	189	-349.38	2.40	0.00	0.00	2.23	2.00
219	189	190	-355.38	2.48	0.00	0.00	2.27	2.06
220	190	191	-376.38	2.52	0.00	0.00	2.40	2.29
221	191	192	-402.04	4.41	0.00	0.00	2.57	2.59
222	192	193	-418.04	3.90	0.00	0.00	2.67	2.79
223	193	176	-424.04	1.00	0.00	0.00	2.71	2.86
224	192	194	11.00	0.99	0.00	0.00	1.12	2.83
225	194	195	1.00	0.04	0.00	0.00	0.10	0.03
226	191	181	18.67	0.01	0.00	0.00	0.21	0.04
227	191	196	1.00	0.03	0.00	0.00	0.10	0.03
228	190	197	7.00	0.51	0.00	0.00	0.71	1.22
229	188	198	2.00	0.04	0.00	0.00	0.20	0.12
230	183	187	-37.00	0.05	0.00	0.00	0.42	0.13
231	185	199	15.00	1.76	0.00	0.00	1.53	5.02
232	185	200	260.00	4.46	0.00	0.00	2.95	4.69
233	200	201	216.13	3.67	0.00	0.00	2.45	3.33
234	200	202	41.87	3.36	0.00	0.00	4.28	33.61
235	202	203	33.87	0.12	0.00	0.00	0.38	0.11
236	203	201	8.82	0.19	0.00	0.00	0.90	1.88
237	203	204	13.05	5.82	0.00	0.00	1.33	3.88
238	204	205	9.05	0.20	0.00	0.00	0.92	1.97
239	205	201	-222.95	5.83	0.00	0.00	2.53	3.53
240	205	206	225.00	2.87	0.00	0.00	2.55	3.59
241	206	207	220.00	3.45	0.00	0.00	2.50	3.45
242	207	208	196.00	5.29	0.00	0.00	2.22	2.78
243	208	209	180.80	1.92	0.00	0.00	2.05	2.40
244	209	210	174.80	2.70	0.00	0.00	1.98	2.25
245	210	211	-0.20	0.00	0.00	0.00	0.02	0.00
246	211	212	-9.20	4.10	0.00	0.00	0.94	2.03
247	212	208	-15.20	0.51	0.00	0.00	1.55	5.15
248	210	213	171.00	1.84	0.00	0.00	1.94	2.16
249	213	214	100.00	0.32	0.00	0.00	1.13	0.80
250	214	218	37.00	0.03	0.00	0.00	0.42	0.13
251	213	216	68.00	0.08	0.00	0.00	0.77	0.39
252	214	217	51.00	0.05	0.00	0.00	0.58	0.23
253	218	219	22.17	0.02	0.00	0.00	0.25	0.05
254	219	220	8.17	0.01	0.00	0.00	0.09	0.01
255	220	221	-1.83	0.00	0.00	0.00	0.02	0.00
256	221	218	-12.83	0.02	0.00	0.00	0.15	0.02
257	215	221	-1.00	0.00	0.00	0.00	0.01	0.00
258	179	222	13.78	0.47	0.00	0.00	1.41	4.29
259	222	223	2.78	0.22	0.00	0.00	0.28	0.22
260	223	180	-15.22	0.57	0.00	0.00	1.55	5.16
261	1	2	107.60	0.12	0.00	0.00	0.69	0.23

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		10.00	192.72	10.00	182.72	79.18
2		12.00	192.59	10.00	182.59	79.12
3		8.00	192.54	10.00	182.54	79.10
4		2.00	192.54	10.00	182.54	79.10
5		3.00	178.85	10.00	168.85	73.17
6		5.00	173.30	10.00	163.30	70.76
7		4.00	168.88	10.00	158.88	68.85
8		4.00	164.64	10.00	154.64	67.01
9		8.00	159.21	10.00	149.21	64.66
10		11.00	152.23	10.00	142.23	61.63
11		1.00	152.22	10.00	142.22	61.63
12		8.00	159.19	10.00	149.19	64.65
13		14.00	144.00	10.00	134.00	58.07
14		12.00	137.55	10.00	127.55	55.27
15		12.00	147.23	10.00	137.23	59.47
16		9.00	152.14	10.00	142.14	61.59
17		1.00	152.14	10.00	142.14	61.59
18		1.00	152.12	10.00	142.12	61.58
19		9.00	152.08	10.00	142.08	61.57
20		15.00	145.04	10.00	135.04	58.52
21		2.00	148.57	10.00	138.57	60.05
22		1.00	163.61	10.00	153.61	66.56
23		5.00	163.61	10.00	153.61	66.56
24		4.00	162.99	10.00	152.99	66.30
25		1.00	162.99	10.00	152.99	66.29
26		2.00	162.95	10.00	152.95	66.28
27		1.00	162.67	10.00	152.67	66.16
28		4.00	162.97	10.00	152.97	66.29
29		10.00	161.70	10.00	151.70	65.74
30		1.00	161.68	10.00	151.68	65.73
31		5.00	166.19	10.00	156.19	67.68
32		4.00	166.19	10.00	156.19	67.68
33		0.00	166.19	10.00	156.19	67.68
34		15.00	166.21	10.00	156.21	67.69
35		2.00	166.00	10.00	156.00	67.60
36		5.00	166.00	10.00	156.00	67.60
37		13.00	166.63	10.00	156.63	67.87
38		6.00	166.30	10.00	156.30	67.73
39		0.00	166.23	10.00	156.23	67.70

40	5.00	165.51	10.00	155.51	67.39
41	1.00	165.51	10.00	155.51	67.39
42	2.00	167.32	10.00	157.32	68.17
43	2.00	167.32	10.00	157.32	68.17
44	3.00	167.11	10.00	157.11	68.08
45	4.00	166.54	10.00	156.54	67.83
46	1.00	166.53	10.00	156.53	67.83
47	3.00	166.50	10.00	156.50	67.81
48	5.00	165.81	10.00	155.81	67.52
49	4.00	165.64	10.00	155.64	67.44
50	2.00	167.89	10.00	157.89	68.42
51	0.00	167.53	10.00	157.53	68.26
52	1.00	167.52	10.00	157.52	68.26
53	4.00	168.64	10.00	158.64	68.75
54	0.00	168.64	10.00	158.64	68.75
55	0.00	168.64	10.00	158.64	68.75
56	6.00	170.38	10.00	160.38	69.50
57	6.00	170.70	10.00	160.70	69.64
58	1.00	170.70	10.00	160.70	69.64
59	0.00	166.00	10.00	156.00	67.60
60	2.00	166.18	10.00	156.18	67.68
61	89.00	176.84	10.00	166.84	72.30
62	14.00	159.19	10.00	149.19	64.65
63	8.00	162.50	10.00	152.50	66.08
64	3.00	141.81	10.00	131.81	57.12
65	1.00	137.62	10.00	127.62	55.30
66	3.00	133.76	10.00	123.76	53.63
67	5.00	137.60	10.00	127.60	55.29
68	11.00	137.60	10.00	127.60	55.30
69	2.00	137.60	10.00	127.60	55.29
70	7.00	141.73	10.00	131.73	57.08
71	3.00	141.75	10.00	131.75	57.09
72	2.00	141.69	10.00	131.69	57.06
73	4.00	141.76	10.00	131.76	57.10
74	1.00	141.80	10.00	131.80	57.11
75	1.00	133.76	10.00	123.76	53.63
76	1.00	141.76	10.00	131.76	57.10
77	6.00	141.76	10.00	131.76	57.10
78	1.00	141.74	10.00	131.74	57.09
79	3.00	141.70	10.00	131.70	57.07
80	2.00	138.92	10.00	128.92	55.86
81	4.00	136.33	10.00	126.33	54.74
82	3.00	134.94	10.00	124.94	54.14
83	5.00	133.70	10.00	123.70	53.60
84	1.00	133.68	10.00	123.68	53.60
85	1.00	133.70	10.00	123.70	53.60
86	4.00	133.77	10.00	123.77	53.63

87	1.00	133.74	10.00	123.74	53.62
88	4.00	133.77	10.00	123.77	53.63
89	5.00	133.72	10.00	123.72	53.61
90	2.00	133.72	10.00	123.72	53.61
91	6.00	133.72	10.00	123.72	53.61
92	1.00	133.74	10.00	123.74	53.62
93	1.00	133.72	10.00	123.72	53.61
94	1.00	133.69	10.00	123.69	53.60
95	2.00	133.71	10.00	123.71	53.61
96	0.00	133.70	10.00	123.70	53.60
97	1.00	133.41	10.00	123.41	53.48
98	7.00	132.11	10.00	122.11	52.91
99	2.00	132.11	10.00	122.11	52.91
100	7.00	132.10	10.00	122.10	52.91
101	1.00	132.10	10.00	122.10	52.91
102	7.00	130.16	10.00	120.16	52.07
103	5.00	130.15	10.00	120.15	52.07
104	0.00	127.91	10.00	117.91	51.10
105	2.00	127.90	10.00	117.90	51.09
106	3.00	127.89	10.00	117.89	51.09
107	4.00	127.89	10.00	117.89	51.08
108	3.00	127.90	10.00	117.90	51.09
109	3.00	127.66	10.00	117.66	50.99
110	7.00	125.08	10.00	115.08	49.87
111	3.00	123.89	10.00	113.89	49.35
112	2.00	123.70	10.00	113.70	49.27
113	24.00	122.70	10.00	112.70	48.84
114	0.00	117.63	10.00	107.63	46.64
115	17.00	117.11	10.00	107.11	46.41
116	3.00	115.76	10.00	105.76	45.83
117	1.00	115.69	10.00	105.69	45.80
118	4.00	115.62	10.00	105.62	45.77
119	5.00	114.24	10.00	104.24	45.17
120	5.00	114.17	10.00	104.17	45.14
121	1.00	113.46	10.00	103.46	44.83
122	6.00	113.00	10.00	103.00	44.63
123	1.00	112.64	10.00	102.64	44.48
124	3.00	112.23	10.00	102.23	44.30
125	3.00	111.58	10.00	101.58	44.02
126	10.00	111.20	10.00	101.20	43.85
127	6.00	110.87	10.00	100.87	43.71
128	6.00	110.59	10.00	100.59	43.59
129	5.00	110.53	10.00	100.53	43.56
130	0.00	110.28	10.00	100.28	43.46
131	2.00	110.24	10.00	100.24	43.44
132	6.00	110.07	10.00	100.07	43.36
133	1.00	110.04	10.00	100.04	43.35

134	3.00	109.91	10.00	99.91	43.29
135	4.00	109.82	10.00	99.82	43.26
136	5.00	109.74	10.00	99.74	43.22
137	5.00	109.67	10.00	99.67	43.19
138	6.00	109.57	10.00	99.57	43.15
139	12.00	109.54	10.00	99.54	43.13
140	3.00	109.49	10.00	99.49	43.11
141	3.00	109.43	10.00	99.43	43.09
142	0.00	109.33	10.00	99.33	43.04
143	3.00	109.32	10.00	99.32	43.04
144	4.00	109.30	10.00	99.30	43.03
145	1.00	109.29	10.00	99.29	43.03
146	1.00	109.28	10.00	99.28	43.02
147	0.00	109.28	10.00	99.28	43.02
148	23.00	109.28	10.00	99.28	43.02
149	9.00	124.75	10.00	114.75	49.72
150	7.00	124.36	10.00	114.36	49.56
151	14.00	123.94	10.00	113.94	49.37
152	3.00	115.65	10.00	105.65	45.78
153	6.00	115.62	10.00	105.62	45.77
154	5.00	115.62	10.00	105.62	45.77
155	0.00	115.62	10.00	105.62	45.77
156	4.00	113.18	10.00	103.18	44.71
157	3.00	112.97	10.00	102.97	44.62
158	4.00	112.66	10.00	102.66	44.49
159	2.00	112.46	10.00	102.46	44.40
160	5.00	111.35	10.00	101.35	43.92
162	13.00	110.87	10.00	100.87	43.71
163	11.00	110.59	10.00	100.59	43.59
164	7.00	110.28	10.00	100.28	43.46
165	10.00	110.04	10.00	100.04	43.35
166	8.00	109.82	10.00	99.82	43.26
167	5.00	111.18	10.00	101.18	43.84
168	9.00	109.67	10.00	99.67	43.19
169	4.00	109.54	10.00	99.54	43.13
170	8.00	109.45	10.00	99.45	43.10
171	41.00	109.30	10.00	99.30	43.03
172	13.00	109.28	10.00	99.28	43.02
173	4.00	109.29	10.00	99.29	43.02
174	2.00	109.28	10.00	99.28	43.02
176	7.00	161.01	10.00	151.01	65.44
177	0.00	160.91	10.00	150.91	65.39
178	0.00	160.87	10.00	150.87	65.38
179	7.00	160.81	10.00	150.81	65.35
180	8.00	160.68	10.00	150.68	65.29
181	18.00	151.69	10.00	141.69	61.40
182	22.00	139.51	10.00	129.51	56.12

183	23.00	141.93	10.00	131.93	57.17
184	9.00	138.56	10.00	128.56	55.71
185	10.00	138.56	10.00	128.56	55.71
186	9.00	140.22	10.00	130.22	56.43
187	11.00	141.98	10.00	131.98	57.19
188	4.00	144.30	10.00	134.30	58.20
189	6.00	146.70	10.00	136.70	59.24
190	14.00	149.18	10.00	139.18	60.31
191	6.00	151.70	10.00	141.70	61.40
192	5.00	156.11	10.00	146.11	63.31
193	6.00	160.01	10.00	150.01	65.00
194	10.00	155.12	10.00	145.12	62.88
195	1.00	155.07	10.00	145.07	62.87
196	1.00	151.67	10.00	141.67	61.39
197	7.00	148.66	10.00	138.66	60.09
198	2.00	144.26	10.00	134.26	58.18
199	15.00	136.81	10.00	126.81	54.95
200	2.00	134.10	10.00	124.10	53.78
201	2.00	130.44	10.00	120.44	52.19
202	8.00	130.74	10.00	120.74	52.32
203	12.00	130.62	10.00	120.62	52.27
204	4.00	124.81	10.00	114.81	49.75
205	7.00	124.61	10.00	114.61	49.66
206	5.00	121.74	10.00	111.74	48.42
207	24.00	118.29	10.00	108.29	46.93
208	0.00	113.01	10.00	103.01	44.64
209	6.00	111.09	10.00	101.09	43.81
210	4.00	108.39	10.00	98.39	42.64
211	9.00	108.39	10.00	98.39	42.64
212	6.00	112.49	10.00	102.49	44.41
213	3.00	106.55	10.00	96.55	41.84
214	12.00	106.23	10.00	96.23	41.70
215	1.00	106.18	10.00	96.18	41.68
216	68.00	106.47	10.00	96.47	41.81
217	51.00	106.19	10.00	96.19	41.68
218	2.00	106.20	10.00	96.20	41.69
219	14.00	106.19	10.00	96.19	41.68
220	10.00	106.18	10.00	96.18	41.68
221	10.00	106.18	10.00	96.18	41.68
222	11.00	160.33	10.00	150.33	65.14
223	18.00	160.11	10.00	150.11	65.05

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES

(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	708.12	
BB	2	707.89	

NET SYSTEM INFLOW = 1416.00
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1416.00

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.170

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	10.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00099

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

ANNUAL AVERAGE DAILY FLOW - 250 GPD/ERC

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE #1	NOS. #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-XXPU	AA	1							
2-FGPU	BB	1	250.55	0.02	218.74	P2	0.00	0.71	0.15
3	3	2	-1.70	0.00	0.00		0.00	0.04	0.00

4	3	4	0.34	0.00	0.00	0.00	0.01	0.00
5	5	1	-229.32	0.56	0.00	0.00	1.46	0.92
6	6	5	-132.35	0.21	0.00	0.00	0.84	0.33
7	7	6	-82.65	0.17	0.00	0.00	0.53	0.14
8	8	7	-81.97	0.16	0.00	0.00	0.52	0.14
9	9	8	-107.87	0.20	0.00	0.00	0.69	0.23
10	9	10	101.20	0.26	0.00	0.00	0.65	0.20
11	10	11	0.17	0.00	0.00	0.00	0.02	0.00
12	9	12	5.31	0.00	0.00	0.00	0.06	0.00
13	12	13	4.20	0.57	0.00	0.00	0.43	0.48
14	13	14	1.82	0.24	0.00	0.00	0.19	0.10
15	10	15	90.40	0.19	0.00	0.00	0.58	0.16
16	10	16	8.76	0.00	0.00	0.00	0.10	0.01
17	16	17	0.17	0.00	0.00	0.00	0.00	0.00
18	16	18	0.17	0.00	0.00	0.00	0.02	0.00
19	16	19	6.89	0.00	0.00	0.00	0.08	0.01
20	19	20	3.06	0.26	0.00	0.00	0.31	0.26
21	19	21	2.30	0.13	0.00	0.00	0.23	0.16
22	21	20	1.96	0.13	0.00	0.00	0.20	0.12
23	23	22	0.17	0.00	0.00	0.00	0.02	0.00
24	23	24	1.14	0.02	0.00	0.00	0.12	0.04
25	24	25	0.17	0.00	0.00	0.00	0.02	0.00
26	24	26	0.29	0.00	0.00	0.00	0.03	0.00
27	26	27	0.17	0.01	0.00	0.00	0.07	0.04
28	26	28	-0.22	0.00	0.00	0.00	0.02	0.00
29	29	28	-1.87	0.05	0.00	0.00	0.19	0.11
30	29	30	0.17	0.00	0.00	0.00	0.02	0.00
31	28	31	-2.77	0.12	0.00	0.00	0.28	0.22
32	31	32	2.84	0.00	0.00	0.00	0.02	0.00
33	32	23	2.16	0.10	0.00	0.00	0.22	0.14
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	6.46	0.00	0.00	0.00	0.04	0.00
36	34	35	0.38	0.01	0.00	0.00	0.04	0.01
37	35	36	0.04	0.00	0.00	0.00	0.00	0.00
38	37	36	0.81	0.02	0.00	0.00	0.08	0.02
39	38	37	-36.99	0.01	0.00	0.00	0.24	0.03
40	39	38	-35.63	0.00	0.00	0.00	0.23	0.03
41	39	34	9.39	0.00	0.00	0.00	0.06	0.00
42	40	39	-26.24	0.03	0.00	0.00	0.30	0.07
43	40	41	0.17	0.00	0.00	0.00	0.00	0.00
44	8	40	-26.57	0.03	0.00	0.00	0.30	0.07
45	40	42	-1.35	0.07	0.00	0.00	0.14	0.06
46	42	43	0.08	0.00	0.00	0.00	0.00	0.00
47	43	44	41.61	0.01	0.00	0.00	0.27	0.04
48	44	37	40.01	0.02	0.00	0.00	0.26	0.04
49	44	45	1.09	0.02	0.00	0.00	0.11	0.04
50	45	46	0.17	0.00	0.00	0.00	0.02	0.00

51	45	47	0.24	0.00	0.00	0.00	0.02	0.00
52	47	48	1.53	0.03	0.00	0.00	0.16	0.07
53	48	49	0.68	0.01	0.00	0.00	0.07	0.02
54	47	50	-1.80	0.05	0.00	0.00	0.18	0.10
55	50	51	42.04	0.01	0.00	0.00	0.27	0.04
56	51	43	41.87	0.01	0.00	0.00	0.27	0.04
57	51	52	0.17	0.00	0.00	0.00	0.02	0.00
58	50	53	-44.18	0.03	0.00	0.00	0.28	0.04
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-44.86	0.07	0.00	0.00	0.51	0.18
62	56	42	1.77	0.12	0.00	0.00	0.18	0.10
63	56	57	-47.65	0.01	0.00	0.00	0.54	0.20
64	57	6	-48.84	0.10	0.00	0.00	0.55	0.21
65	57	58	0.17	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.34	0.00	0.00	0.00	0.03	0.00
68	5	61	96.46	0.09	0.00	0.00	1.09	0.75
69	12	62	-0.25	0.00	0.00	0.00	0.00	0.00
70	61	62	2.63	0.65	0.00	0.00	0.27	0.20
71	61	63	78.70	0.67	0.00	0.00	0.89	0.51
72	15	64	88.36	0.20	0.00	0.00	0.56	0.16
73	64	65	80.26	0.16	0.00	0.00	0.51	0.13
74	65	66	76.81	0.15	0.00	0.00	0.49	0.12
75	14	67	-0.22	0.00	0.00	0.00	0.02	0.00
76	67	68	-1.07	0.00	0.00	0.00	0.01	0.00
77	68	69	0.34	0.00	0.00	0.00	0.00	0.00
78	68	65	-3.28	0.00	0.00	0.00	0.04	0.00
79	20	70	2.47	0.12	0.00	0.00	0.25	0.18
80	70	71	-2.50	0.00	0.00	0.00	0.03	0.00
81	71	72	0.34	0.00	0.00	0.00	0.03	0.00
82	71	73	-3.35	0.00	0.00	0.00	0.04	0.00
83	73	74	-5.39	0.00	0.00	0.00	0.06	0.00
84	74	64	-7.59	0.00	0.00	0.00	0.09	0.01
85	74	75	2.03	0.30	0.00	0.00	0.21	0.12
86	73	76	0.17	0.00	0.00	0.00	0.00	0.00
87	73	77	1.19	0.00	0.00	0.00	0.01	0.00
88	77	78	0.17	0.00	0.00	0.00	0.02	0.00
89	70	79	3.78	0.00	0.00	0.00	0.04	0.00
90	79	80	3.27	0.10	0.00	0.00	0.33	0.30
91	80	81	2.93	0.10	0.00	0.00	0.30	0.24
92	81	82	2.25	0.05	0.00	0.00	0.23	0.15
93	82	83	1.74	0.05	0.00	0.00	0.18	0.09
94	83	84	0.17	0.00	0.00	0.00	0.02	0.00
95	83	85	0.72	0.00	0.00	0.00	0.01	0.00
96	85	86	0.55	0.00	0.00	0.00	0.01	0.00
97	86	87	0.17	0.00	0.00	0.00	0.02	0.00

98	86	88	-0.30	0.00	0.00	0.00	0.00	0.00
99	88	89	0.09	0.00	0.00	0.00	0.01	0.00
100	89	90	-0.76	0.00	0.00	0.00	0.01	0.00
101	90	91	-1.27	0.00	0.00	0.00	0.01	0.00
102	91	92	-3.87	0.00	0.00	0.00	0.04	0.00
103	92	93	0.17	0.00	0.00	0.00	0.02	0.00
104	92	75	-4.21	0.00	0.00	0.00	0.05	0.00
105	90	94	0.17	0.00	0.00	0.00	0.02	0.00
106	91	95	1.58	0.00	0.00	0.00	0.02	0.00
107	95	96	1.24	0.00	0.00	0.00	0.01	0.00
108	96	97	0.17	0.01	0.00	0.00	0.07	0.04
109	96	88	1.07	0.00	0.00	0.00	0.01	0.00
110	66	75	2.35	0.00	0.00	0.00	0.03	0.00
111	66	98	73.95	0.06	0.00	0.00	0.47	0.11
112	98	99	0.34	0.00	0.00	0.00	0.00	0.00
113	98	100	1.36	0.00	0.00	0.00	0.02	0.00
114	100	101	0.17	0.00	0.00	0.00	0.00	0.00
115	98	102	71.06	0.07	0.00	0.00	0.45	0.10
116	102	103	0.85	0.00	0.00	0.00	0.01	0.00
117	102	104	69.02	0.08	0.00	0.00	0.44	0.10
118	104	105	2.04	0.00	0.00	0.00	0.02	0.00
119	105	106	1.43	0.00	0.00	0.00	0.02	0.00
120	106	107	0.92	0.00	0.00	0.00	0.01	0.00
121	107	108	0.24	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.27	0.00	0.00	0.00	0.00	0.00
123	104	109	66.98	0.01	0.00	0.00	0.43	0.09
124	109	110	66.47	0.10	0.00	0.00	0.42	0.09
125	110	111	46.67	0.04	0.00	0.00	0.30	0.05
126	111	112	46.16	0.01	0.00	0.00	0.29	0.05
127	112	113	59.33	0.04	0.00	0.00	0.38	0.07
128	113	114	55.25	0.19	0.00	0.00	0.35	0.07
129	114	115	55.25	0.02	0.00	0.00	0.35	0.07
130	115	116	52.36	0.05	0.00	0.00	0.33	0.06
131	116	117	51.85	0.00	0.00	0.00	0.33	0.06
132	117	118	47.97	0.00	0.00	0.00	0.31	0.05
133	118	119	48.62	0.05	0.00	0.00	0.31	0.05
134	119	120	47.77	0.00	0.00	0.00	0.30	0.05
135	120	121	46.92	0.03	0.00	0.00	0.30	0.05
136	121	122	35.37	0.02	0.00	0.00	0.23	0.03
137	122	123	31.02	0.01	0.00	0.00	0.20	0.02
138	123	124	33.26	0.02	0.00	0.00	0.21	0.03
139	124	125	42.84	0.02	0.00	0.00	0.27	0.04
140	125	126	31.82	0.01	0.00	0.00	0.20	0.02
141	126	127	27.35	0.01	0.00	0.00	0.17	0.02
142	127	128	24.83	0.01	0.00	0.00	0.16	0.01
143	128	129	22.16	0.00	0.00	0.00	0.14	0.01
144	129	130	21.31	0.01	0.00	0.00	0.14	0.01

145	130	131	20.97	0.00	0.00	0.00	0.13	0.01
146	131	132	20.63	0.01	0.00	0.00	0.13	0.01
147	132	133	19.61	0.00	0.00	0.00	0.13	0.01
148	133	134	18.15	0.01	0.00	0.00	0.12	0.01
149	134	135	17.64	0.00	0.00	0.00	0.11	0.01
150	135	136	17.29	0.00	0.00	0.00	0.11	0.01
151	136	137	16.44	0.00	0.00	0.00	0.10	0.01
152	137	138	15.07	0.00	0.00	0.00	0.10	0.01
153	138	139	14.05	0.00	0.00	0.00	0.09	0.01
154	139	140	12.38	0.00	0.00	0.00	0.08	0.00
155	140	141	11.87	0.00	0.00	0.00	0.08	0.00
156	141	142	15.64	0.00	0.00	0.00	0.10	0.01
157	142	143	5.81	0.00	0.00	0.00	0.04	0.00
158	143	144	5.30	0.00	0.00	0.00	0.03	0.00
159	144	145	4.62	0.00	0.00	0.00	0.03	0.00
160	145	146	2.98	0.00	0.00	0.00	0.02	0.00
161	146	147	3.26	0.00	0.00	0.00	0.02	0.00
162	147	148	3.91	0.00	0.00	0.00	0.02	0.00
163	110	149	18.61	0.01	0.00	0.00	0.21	0.04
164	149	150	17.08	0.01	0.00	0.00	0.19	0.03
165	150	151	15.89	0.02	0.00	0.00	0.18	0.03
166	112	151	-13.51	0.01	0.00	0.00	0.15	0.02
167	117	152	3.71	0.00	0.00	0.00	0.04	0.00
168	152	153	3.20	0.00	0.00	0.00	0.04	0.00
169	153	154	0.85	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-1.33	0.00	0.00	0.00	0.02	0.00
172	121	156	11.38	0.01	0.00	0.00	0.13	0.01
173	156	157	10.70	0.01	0.00	0.00	0.12	0.01
174	157	158	13.52	0.01	0.00	0.00	0.15	0.02
175	158	159	10.43	0.01	0.00	0.00	0.12	0.01
176	159	124	10.09	0.01	0.00	0.00	0.11	0.01
177	158	123	2.41	0.00	0.00	0.00	0.03	0.00
178	157	122	-3.33	0.00	0.00	0.00	0.04	0.00
179	125	160	10.51	0.01	0.00	0.00	0.12	0.01
180	162	167	-11.58	0.01	0.00	0.00	0.13	0.01
181	167	160	-9.66	0.01	0.00	0.00	0.11	0.01
182	162	163	10.87	0.01	0.00	0.00	0.12	0.01
183	163	164	10.65	0.01	0.00	0.00	0.12	0.01
184	164	165	9.80	0.01	0.00	0.00	0.11	0.01
185	165	166	9.39	0.01	0.00	0.00	0.11	0.01
186	133	165	1.29	0.00	0.00	0.00	0.01	0.00
187	130	164	0.34	0.00	0.00	0.00	0.00	0.00
188	163	128	-1.64	0.00	0.00	0.00	0.02	0.00
189	127	162	1.50	0.00	0.00	0.00	0.02	0.00
190	126	167	2.77	0.00	0.00	0.00	0.03	0.00
191	166	168	7.70	0.01	0.00	0.00	0.09	0.01

192	168	169	6.69	0.00	0.00	0.00	0.08	0.01
193	169	170	5.64	0.00	0.00	0.00	0.06	0.00
194	170	141	4.28	0.00	0.00	0.00	0.05	0.00
195	169	139	0.37	0.00	0.00	0.00	0.00	0.00
196	168	137	-0.52	0.00	0.00	0.00	0.01	0.00
197	166	135	0.34	0.00	0.00	0.00	0.00	0.00
198	142	171	9.83	0.00	0.00	0.00	0.06	0.00
199	171	172	2.86	0.00	0.00	0.00	0.02	0.00
200	172	147	0.65	0.00	0.00	0.00	0.01	0.00
201	145	173	1.47	0.00	0.00	0.00	0.02	0.00
202	173	174	0.79	0.00	0.00	0.00	0.01	0.00
203	174	146	0.45	0.00	0.00	0.00	0.01	0.00
204	63	176	77.34	0.07	0.00	0.00	0.88	0.50
205	176	2	-15.79	1.38	0.00	0.00	1.61	5.52
206	176	177	10.38	0.00	0.00	0.00	0.12	0.01
207	177	178	10.38	0.00	0.00	0.00	0.12	0.01
208	178	179	10.38	0.00	0.00	0.00	0.12	0.01
209	179	180	6.84	0.01	0.00	0.00	0.08	0.01
210	180	181	2.90	0.43	0.00	0.00	0.30	0.24
211	181	182	2.90	0.54	0.00	0.00	0.30	0.24
212	182	183	-0.84	0.06	0.00	0.00	0.09	0.02
213	183	184	1.55	0.18	0.00	0.00	0.16	0.08
214	184	185	0.02	0.00	0.00	0.00	0.00	0.00
215	185	186	-58.26	0.09	0.00	0.00	0.37	0.07
216	186	187	-59.79	0.09	0.00	0.00	0.38	0.08
217	187	188	-67.96	0.12	0.00	0.00	0.43	0.10
218	188	189	-68.98	0.12	0.00	0.00	0.44	0.10
219	189	190	-70.00	0.12	0.00	0.00	0.45	0.10
220	190	191	-73.57	0.12	0.00	0.00	0.47	0.11
221	191	192	-77.82	0.21	0.00	0.00	0.50	0.12
222	192	193	-80.54	0.18	0.00	0.00	0.51	0.13
223	193	176	-81.56	0.05	0.00	0.00	0.52	0.14
224	192	194	1.87	0.04	0.00	0.00	0.19	0.11
225	194	195	0.17	0.00	0.00	0.00	0.02	0.00
226	191	181	3.06	0.00	0.00	0.00	0.03	0.00
227	191	196	0.17	0.00	0.00	0.00	0.02	0.00
228	190	197	1.19	0.02	0.00	0.00	0.12	0.05
229	188	198	0.34	0.00	0.00	0.00	0.03	0.00
230	183	187	-6.30	0.00	0.00	0.00	0.07	0.00
231	185	199	2.55	0.07	0.00	0.00	0.26	0.19
232	185	200	54.03	0.24	0.00	0.00	0.61	0.26
233	200	201	45.12	0.20	0.00	0.00	0.51	0.18
234	200	202	8.57	0.18	0.00	0.00	0.88	1.78
235	202	203	7.21	0.01	0.00	0.00	0.08	0.01
236	203	201	2.39	0.02	0.00	0.00	0.24	0.17
237	203	204	2.78	0.33	0.00	0.00	0.28	0.22
238	204	205	2.10	0.01	0.00	0.00	0.21	0.13

239	205	201	-47.17	0.33	0.00	0.00	0.54	0.20
240	205	206	48.08	0.16	0.00	0.00	0.55	0.21
241	206	207	47.23	0.20	0.00	0.00	0.54	0.20
242	207	208	43.15	0.32	0.00	0.00	0.49	0.17
243	208	209	40.06	0.12	0.00	0.00	0.45	0.15
244	209	210	39.04	0.17	0.00	0.00	0.44	0.14
245	210	211	-0.54	0.00	0.00	0.00	0.05	0.01
246	211	212	-2.07	0.26	0.00	0.00	0.21	0.13
247	212	208	-3.09	0.03	0.00	0.00	0.32	0.27
248	210	213	38.90	0.12	0.00	0.00	0.44	0.14
249	213	214	26.83	0.03	0.00	0.00	0.30	0.07
250	214	218	16.12	0.01	0.00	0.00	0.18	0.03
251	213	216	11.56	0.00	0.00	0.00	0.13	0.01
252	214	217	8.67	0.00	0.00	0.00	0.10	0.01
253	218	219	8.03	0.00	0.00	0.00	0.09	0.01
254	219	220	5.65	0.00	0.00	0.00	0.06	0.00
255	220	221	3.95	0.00	0.00	0.00	0.04	0.00
256	221	218	-7.75	0.01	0.00	0.00	0.09	0.01
257	215	221	-10.00	0.01	0.00	0.00	0.11	0.01
258	179	222	2.35	0.02	0.00	0.00	0.24	0.16
259	222	223	0.48	0.01	0.00	0.00	0.05	0.01
260	223	180	-2.58	0.02	0.00	0.00	0.26	0.19
261	1	2	19.53	0.01	0.00	0.00	0.12	0.01

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		1.70	238.72	10.00	228.72	99.11
2		2.04	238.71	10.00	228.71	99.11
3		1.36	238.71	10.00	228.71	99.11
4		0.34	238.71	10.00	228.71	99.11
5		0.51	238.16	10.00	228.16	98.87
6		0.85	237.95	10.00	227.95	98.78
7		0.68	237.78	10.00	227.78	98.71
8		0.68	237.62	10.00	227.62	98.64
9		1.36	237.42	10.00	227.42	98.55
10		1.87	237.16	10.00	227.16	98.44
11		0.17	237.16	10.00	227.16	98.44
12		1.36	237.42	10.00	227.42	98.55
13		2.38	236.85	10.00	226.85	98.30
14		2.04	236.61	10.00	226.61	98.20
15		2.04	236.97	10.00	226.97	98.35

16	1.53	237.15	10.00	227.15	98.43
17	0.17	237.15	10.00	227.15	98.43
18	0.17	237.15	10.00	227.15	98.43
19	1.53	237.15	10.00	227.15	98.43
20	2.55	236.89	10.00	226.89	98.32
21	0.34	237.02	10.00	227.02	98.38
22	0.17	237.59	10.00	227.59	98.62
23	0.85	237.59	10.00	227.59	98.62
24	0.68	237.56	10.00	227.56	98.61
25	0.17	237.56	10.00	227.56	98.61
26	0.34	237.56	10.00	227.56	98.61
27	0.17	237.55	10.00	227.55	98.61
28	0.68	237.56	10.00	227.56	98.61
29	1.70	237.51	10.00	227.51	98.59
30	0.17	237.51	10.00	227.51	98.59
31	0.85	237.68	10.00	227.68	98.66
32	0.68	237.68	10.00	227.68	98.66
33	0.00	237.68	10.00	227.68	98.66
34	2.55	237.68	10.00	227.68	98.66
35	0.34	237.68	10.00	227.68	98.66
36	0.85	237.68	10.00	227.68	98.66
37	2.21	237.70	10.00	227.70	98.67
38	1.02	237.69	10.00	227.69	98.66
39	0.00	237.68	10.00	227.68	98.66
40	0.85	237.66	10.00	227.66	98.65
41	0.17	237.66	10.00	227.66	98.65
42	0.34	237.73	10.00	227.73	98.68
43	0.34	237.73	10.00	227.73	98.68
44	0.51	237.72	10.00	227.72	98.68
45	0.68	237.70	10.00	227.70	98.67
46	0.17	237.70	10.00	227.70	98.67
47	0.51	237.69	10.00	227.69	98.67
48	0.85	237.67	10.00	227.67	98.66
49	0.68	237.66	10.00	227.66	98.65
50	0.34	237.75	10.00	227.75	98.69
51	0.00	237.73	10.00	227.73	98.68
52	0.17	237.73	10.00	227.73	98.68
53	0.68	237.78	10.00	227.78	98.70
54	0.00	237.78	10.00	227.78	98.70
55	0.00	237.78	10.00	227.78	98.70
56	1.02	237.84	10.00	227.84	98.73
57	1.02	237.85	10.00	227.85	98.74
58	0.17	237.85	10.00	227.85	98.74
59	0.00	237.68	10.00	227.68	98.66
60	0.34	237.68	10.00	227.68	98.66
61	15.13	238.07	10.00	228.07	98.83
62	2.38	237.42	10.00	227.42	98.55

63	1.36	237.40	10.00	227.40	98.54
64	0.51	236.77	10.00	226.77	98.27
65	0.17	236.61	10.00	226.61	98.20
66	0.51	236.46	10.00	226.46	98.13
67	0.85	236.61	10.00	226.61	98.20
68	1.87	236.61	10.00	226.61	98.20
69	0.34	236.61	10.00	226.61	98.20
70	1.19	236.76	10.00	226.76	98.26
71	0.51	236.76	10.00	226.76	98.26
72	0.34	236.76	10.00	226.76	98.26
73	0.68	236.77	10.00	226.77	98.26
74	0.17	236.77	10.00	226.77	98.27
75	0.17	236.46	10.00	226.46	98.13
76	0.17	236.77	10.00	226.77	98.26
77	1.02	236.76	10.00	226.76	98.26
78	0.17	236.76	10.00	226.76	98.26
79	0.51	236.76	10.00	226.76	98.26
80	0.34	236.66	10.00	226.66	98.22
81	0.68	236.56	10.00	226.56	98.18
82	0.51	236.51	10.00	226.51	98.15
83	0.85	236.46	10.00	226.46	98.13
84	0.17	236.46	10.00	226.46	98.13
85	0.17	236.46	10.00	226.46	98.13
86	0.68	236.46	10.00	226.46	98.13
87	0.17	236.46	10.00	226.46	98.13
88	0.68	236.46	10.00	226.46	98.13
89	0.85	236.46	10.00	226.46	98.13
90	0.34	236.46	10.00	226.46	98.13
91	1.02	236.46	10.00	226.46	98.13
92	0.17	236.46	10.00	226.46	98.13
93	0.17	236.46	10.00	226.46	98.13
94	0.17	236.46	10.00	226.46	98.13
95	0.34	236.46	10.00	226.46	98.13
96	0.00	236.46	10.00	226.46	98.13
97	0.17	236.45	10.00	226.45	98.13
98	1.19	236.40	10.00	226.40	98.11
99	0.34	236.40	10.00	226.40	98.11
100	1.19	236.40	10.00	226.40	98.11
101	0.17	236.40	10.00	226.40	98.11
102	1.19	236.33	10.00	226.33	98.08
103	0.85	236.33	10.00	226.33	98.08
104	0.00	236.24	10.00	226.24	98.04
105	0.34	236.24	10.00	226.24	98.04
106	0.51	236.24	10.00	226.24	98.04
107	0.68	236.24	10.00	226.24	98.04
108	0.51	236.24	10.00	226.24	98.04
109	0.51	236.24	10.00	226.24	98.04

110	1.19	236.14	10.00	226.14	97.99
111	0.51	236.09	10.00	226.09	97.97
112	0.34	236.09	10.00	226.09	97.97
113	4.08	236.05	10.00	226.05	97.95
114	0.00	235.86	10.00	225.86	97.87
115	2.89	235.84	10.00	225.84	97.86
116	0.51	235.79	10.00	225.79	97.84
117	0.17	235.79	10.00	225.79	97.84
118	0.68	235.78	10.00	225.78	97.84
119	0.85	235.73	10.00	225.73	97.82
120	0.85	235.73	10.00	225.73	97.82
121	0.17	235.70	10.00	225.70	97.80
122	1.02	235.68	10.00	225.68	97.80
123	0.17	235.67	10.00	225.67	97.79
124	0.51	235.66	10.00	225.66	97.78
125	0.51	235.63	10.00	225.63	97.77
126	1.70	235.62	10.00	225.62	97.77
127	1.02	235.60	10.00	225.60	97.76
128	1.02	235.59	10.00	225.59	97.76
129	0.85	235.59	10.00	225.59	97.76
130	0.00	235.58	10.00	225.58	97.75
131	0.34	235.58	10.00	225.58	97.75
132	1.02	235.57	10.00	225.57	97.75
133	0.17	235.57	10.00	225.57	97.75
134	0.51	235.57	10.00	225.57	97.75
135	0.68	235.57	10.00	225.57	97.74
136	0.85	235.56	10.00	225.56	97.74
137	0.85	235.56	10.00	225.56	97.74
138	1.02	235.56	10.00	225.56	97.74
139	2.04	235.55	10.00	225.55	97.74
140	0.51	235.55	10.00	225.55	97.74
141	0.51	235.55	10.00	225.55	97.74
142	0.00	235.55	10.00	225.55	97.74
143	0.51	235.55	10.00	225.55	97.74
144	0.68	235.55	10.00	225.55	97.74
145	0.17	235.55	10.00	225.55	97.74
146	0.17	235.54	10.00	225.54	97.74
147	0.00	235.54	10.00	225.54	97.74
148	3.91	235.54	10.00	225.54	97.74
149	1.53	236.13	10.00	226.13	97.99
150	1.19	236.11	10.00	226.11	97.98
151	2.38	236.10	10.00	226.10	97.97
152	0.51	235.78	10.00	225.78	97.84
153	1.02	235.78	10.00	225.78	97.84
154	0.85	235.78	10.00	225.78	97.84
155	0.00	235.78	10.00	225.78	97.84
156	0.68	235.69	10.00	225.69	97.80

157	0.51	235.68	10.00	225.68	97.80
158	0.68	235.67	10.00	225.67	97.79
159	0.34	235.66	10.00	225.66	97.79
160	0.85	235.62	10.00	225.62	97.77
162	2.21	235.60	10.00	225.60	97.76
163	1.87	235.59	10.00	225.59	97.76
164	1.19	235.58	10.00	225.58	97.75
165	1.70	235.57	10.00	225.57	97.75
166	1.36	235.57	10.00	225.57	97.74
167	0.85	235.62	10.00	225.62	97.77
168	1.53	235.56	10.00	225.56	97.74
169	0.68	235.55	10.00	225.55	97.74
170	1.36	235.55	10.00	225.55	97.74
171	6.97	235.55	10.00	225.55	97.74
172	2.21	235.54	10.00	225.54	97.74
173	0.68	235.55	10.00	225.55	97.74
174	0.34	235.54	10.00	225.54	97.74
176	1.19	237.33	10.00	227.33	98.51
177	0.00	237.33	10.00	227.33	98.51
178	0.00	237.33	10.00	227.33	98.51
179	1.19	237.32	10.00	227.32	98.51
180	1.36	237.32	10.00	227.32	98.50
181	3.06	236.89	10.00	226.89	98.32
182	3.74	236.35	10.00	226.35	98.09
183	3.91	236.41	10.00	226.41	98.11
184	1.53	236.23	10.00	226.23	98.03
185	1.70	236.23	10.00	226.23	98.03
186	1.53	236.32	10.00	226.32	98.07
187	1.87	236.41	10.00	226.41	98.11
188	0.68	236.53	10.00	226.53	98.16
189	1.02	236.64	10.00	226.64	98.21
190	2.38	236.77	10.00	226.77	98.27
191	1.02	236.89	10.00	226.89	98.32
192	0.85	237.10	10.00	227.10	98.41
193	1.02	237.28	10.00	227.28	98.49
194	1.70	237.06	10.00	227.06	98.39
195	0.17	237.06	10.00	227.06	98.39
196	0.17	236.89	10.00	226.89	98.32
197	1.19	236.75	10.00	226.75	98.26
198	0.34	236.52	10.00	226.52	98.16
199	2.55	236.17	10.00	226.17	98.01
200	0.34	235.99	10.00	225.99	97.93
201	0.34	235.79	10.00	225.79	97.84
202	1.36	235.81	10.00	225.81	97.85
203	2.04	235.80	10.00	225.80	97.85
204	0.68	235.47	10.00	225.47	97.70
205	1.19	235.46	10.00	225.46	97.70

206	0.85	235.29	10.00	225.29	97.63
207	4.08	235.09	10.00	225.09	97.54
208	0.00	234.77	10.00	224.77	97.40
209	1.02	234.66	10.00	224.66	97.35
210	0.68	234.49	10.00	224.49	97.28
211	1.53	234.49	10.00	224.49	97.28
212	1.02	234.75	10.00	224.75	97.39
213	0.51	234.37	10.00	224.37	97.23
214	2.04	234.34	10.00	224.34	97.21
215	10.00	234.32	10.00	224.32	97.21
216	11.56	234.37	10.00	224.37	97.23
217	8.67	234.34	10.00	224.34	97.21
218	0.34	234.34	10.00	224.34	97.21
219	2.38	234.33	10.00	224.33	97.21
220	1.70	234.33	10.00	224.33	97.21
221	1.70	234.33	10.00	224.33	97.21
222	1.87	237.31	10.00	227.31	98.50
223	3.06	237.30	10.00	227.30	98.50

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

- (+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
- (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
BB	2	250.55	

NET SYSTEM INFLOW = 250.55
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 250.55

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.360

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = 0.00019

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

MAXIMUM MONTH (3-DAY DEMAND) 520 GPD/ERC

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-XXPU	AA 1							
2-FGPU	BB 1	531.40	0.09	202.66	P2	0.00	1.51	0.60
3	3 2	-3.60	0.01	0.00		0.00	0.09	0.01

4	3	4	0.72	0.00	0.00	0.00	0.02	0.00
5	5	1	-486.34	2.25	0.00	0.00	3.10	3.69
6	6	5	-280.26	0.84	0.00	0.00	1.79	1.33
7	7	6	-175.03	0.67	0.00	0.00	1.12	0.56
8	8	7	-173.59	0.64	0.00	0.00	1.11	0.55
9	9	8	-228.42	0.82	0.00	0.00	1.46	0.91
10	9	10	214.30	1.05	0.00	0.00	1.37	0.81
11	10	11	0.36	0.00	0.00	0.00	0.04	0.01
12	9	12	11.24	0.00	0.00	0.00	0.13	0.01
13	12	13	8.90	2.29	0.00	0.00	0.91	1.91
14	13	14	3.86	0.97	0.00	0.00	0.39	0.41
15	10	15	191.44	0.75	0.00	0.00	1.22	0.66
16	10	16	18.55	0.01	0.00	0.00	0.21	0.04
17	16	17	0.36	0.00	0.00	0.00	0.00	0.00
18	16	18	0.36	0.00	0.00	0.00	0.04	0.01
19	16	19	14.59	0.01	0.00	0.00	0.17	0.02
20	19	20	6.48	1.06	0.00	0.00	0.66	1.06
21	19	21	4.86	0.53	0.00	0.00	0.50	0.62
22	21	20	4.14	0.53	0.00	0.00	0.42	0.46
23	23	22	0.36	0.00	0.00	0.00	0.04	0.01
24	23	24	2.41	0.09	0.00	0.00	0.25	0.17
25	24	25	0.36	0.00	0.00	0.00	0.04	0.01
26	24	26	0.61	0.01	0.00	0.00	0.06	0.01
27	26	27	0.36	0.04	0.00	0.00	0.15	0.15
28	26	28	-0.47	0.00	0.00	0.00	0.05	0.01
29	29	28	-3.96	0.19	0.00	0.00	0.40	0.43
30	29	30	0.36	0.00	0.00	0.00	0.04	0.01
31	28	31	-5.87	0.49	0.00	0.00	0.60	0.88
32	31	32	6.01	0.00	0.00	0.00	0.04	0.00
33	32	23	4.57	0.39	0.00	0.00	0.47	0.56
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	13.68	0.00	0.00	0.00	0.09	0.00
36	34	35	0.81	0.03	0.00	0.00	0.08	0.02
37	35	36	0.09	0.00	0.00	0.00	0.01	0.00
38	37	36	1.71	0.09	0.00	0.00	0.17	0.09
39	38	37	-78.34	0.05	0.00	0.00	0.50	0.13
40	39	38	-75.46	0.01	0.00	0.00	0.48	0.12
41	39	34	19.89	0.00	0.00	0.00	0.13	0.01
42	40	39	-55.57	0.11	0.00	0.00	0.63	0.27
43	40	41	0.36	0.00	0.00	0.00	0.00	0.00
44	8	40	-56.27	0.13	0.00	0.00	0.64	0.28
45	40	42	-2.86	0.27	0.00	0.00	0.29	0.23
46	42	43	0.17	0.00	0.00	0.00	0.00	0.00
47	43	44	88.12	0.03	0.00	0.00	0.56	0.16
48	44	37	84.73	0.07	0.00	0.00	0.54	0.14
49	44	45	2.30	0.09	0.00	0.00	0.24	0.16
50	45	46	0.36	0.00	0.00	0.00	0.04	0.01

51	45	47	0.50	0.01	0.00	0.00	0.05	0.01
52	47	48	3.24	0.10	0.00	0.00	0.33	0.29
53	48	49	1.44	0.03	0.00	0.00	0.15	0.07
54	47	50	-3.82	0.21	0.00	0.00	0.39	0.40
55	50	51	89.02	0.06	0.00	0.00	0.57	0.16
56	51	43	88.66	0.03	0.00	0.00	0.57	0.16
57	51	52	0.36	0.00	0.00	0.00	0.04	0.01
58	50	53	-93.56	0.11	0.00	0.00	0.60	0.17
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-95.00	0.26	0.00	0.00	1.08	0.73
62	56	42	3.75	0.46	0.00	0.00	0.38	0.39
63	56	57	-100.91	0.05	0.00	0.00	1.14	0.81
64	57	6	-103.43	0.39	0.00	0.00	1.17	0.85
65	57	58	0.36	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.72	0.02	0.00	0.00	0.07	0.02
68	5	61	204.99	0.36	0.00	0.00	2.33	3.02
69	12	62	-0.54	0.00	0.00	0.00	0.01	0.00
70	61	62	5.58	2.60	0.00	0.00	0.57	0.80
71	61	63	167.38	2.70	0.00	0.00	1.90	2.08
72	15	64	187.12	0.82	0.00	0.00	1.19	0.63
73	64	65	169.97	0.63	0.00	0.00	1.08	0.53
74	65	66	162.66	0.58	0.00	0.00	1.04	0.49
75	14	67	-0.46	0.01	0.00	0.00	0.05	0.01
76	67	68	-2.26	0.00	0.00	0.00	0.03	0.00
77	68	69	0.72	0.00	0.00	0.00	0.01	0.00
78	68	65	-6.94	0.00	0.00	0.00	0.08	0.01
79	20	70	5.23	0.50	0.00	0.00	0.53	0.71
80	70	71	-5.29	0.00	0.00	0.00	0.06	0.00
81	71	72	0.72	0.01	0.00	0.00	0.07	0.02
82	71	73	-7.09	0.00	0.00	0.00	0.08	0.01
83	73	74	-11.41	0.01	0.00	0.00	0.13	0.01
84	74	64	-16.07	0.00	0.00	0.00	0.18	0.03
85	74	75	4.30	1.21	0.00	0.00	0.44	0.50
86	73	76	0.36	0.00	0.00	0.00	0.00	0.00
87	73	77	2.52	0.00	0.00	0.00	0.03	0.00
88	77	78	0.36	0.00	0.00	0.00	0.04	0.01
89	70	79	8.00	0.00	0.00	0.00	0.09	0.01
90	79	80	6.92	0.42	0.00	0.00	0.71	1.20
91	80	81	6.20	0.39	0.00	0.00	0.63	0.98
92	81	82	4.76	0.21	0.00	0.00	0.49	0.60
93	82	83	3.68	0.19	0.00	0.00	0.38	0.37
94	83	84	0.36	0.00	0.00	0.00	0.04	0.01
95	83	85	1.52	0.00	0.00	0.00	0.02	0.00
96	85	86	1.16	0.00	0.00	0.00	0.01	0.00
97	86	87	0.36	0.00	0.00	0.00	0.04	0.01

98	86	88	-0.64	0.00	0.00	0.00	0.01	0.00
99	88	89	-0.18	0.00	0.00	0.00	0.02	0.00
100	89	90	-1.98	0.00	0.00	0.00	0.02	0.00
101	90	91	-3.06	0.00	0.00	0.00	0.03	0.00
102	91	92	-8.20	0.00	0.00	0.00	0.09	0.01
103	92	93	0.36	0.00	0.00	0.00	0.04	0.01
104	92	75	-8.92	0.00	0.00	0.00	0.10	0.01
105	90	94	0.36	0.00	0.00	0.00	0.04	0.01
106	91	95	2.99	0.00	0.00	0.00	0.03	0.00
107	95	96	2.27	0.00	0.00	0.00	0.03	0.00
108	96	97	0.36	0.04	0.00	0.00	0.15	0.15
109	96	88	1.91	0.00	0.00	0.00	0.02	0.00
110	66	75	4.98	0.00	0.00	0.00	0.06	0.00
111	66	98	156.60	0.25	0.00	0.00	1.00	0.45
112	98	99	0.72	0.00	0.00	0.00	0.01	0.00
113	98	100	2.88	0.00	0.00	0.00	0.03	0.00
114	100	101	0.36	0.00	0.00	0.00	0.00	0.00
115	98	102	150.48	0.29	0.00	0.00	0.96	0.42
116	102	103	1.80	0.00	0.00	0.00	0.02	0.00
117	102	104	146.16	0.34	0.00	0.00	0.93	0.40
118	104	105	4.32	0.00	0.00	0.00	0.05	0.00
119	105	106	1.73	0.00	0.00	0.00	0.02	0.00
120	106	107	0.65	0.00	0.00	0.00	0.01	0.00
121	107	108	-0.79	0.00	0.00	0.00	0.01	0.00
122	108	105	-1.87	0.00	0.00	0.00	0.02	0.00
123	104	109	141.84	0.04	0.00	0.00	0.91	0.38
124	109	110	140.76	0.39	0.00	0.00	0.90	0.37
125	110	111	98.83	0.18	0.00	0.00	0.63	0.19
126	111	112	97.75	0.03	0.00	0.00	0.62	0.19
127	112	113	125.64	0.15	0.00	0.00	0.80	0.30
128	113	114	117.00	0.76	0.00	0.00	0.75	0.26
129	114	115	117.00	0.08	0.00	0.00	0.75	0.26
130	115	116	110.88	0.20	0.00	0.00	0.71	0.24
131	116	117	109.80	0.01	0.00	0.00	0.70	0.23
132	117	118	101.58	0.01	0.00	0.00	0.65	0.20
133	118	119	102.96	0.21	0.00	0.00	0.66	0.21
134	119	120	101.16	0.01	0.00	0.00	0.65	0.20
135	120	121	99.36	0.11	0.00	0.00	0.63	0.19
136	121	122	74.90	0.07	0.00	0.00	0.48	0.12
137	122	123	65.69	0.05	0.00	0.00	0.42	0.09
138	123	124	70.42	0.06	0.00	0.00	0.45	0.10
139	124	125	90.72	0.10	0.00	0.00	0.58	0.16
140	125	126	67.38	0.06	0.00	0.00	0.43	0.09
141	126	127	57.91	0.05	0.00	0.00	0.37	0.07
142	127	128	52.58	0.04	0.00	0.00	0.34	0.06
143	128	129	46.94	0.01	0.00	0.00	0.30	0.05
144	129	130	45.14	0.04	0.00	0.00	0.29	0.05

145	130	131	44.41	0.01	0.00	0.00	0.28	0.04
146	131	132	43.69	0.03	0.00	0.00	0.28	0.04
147	132	133	41.53	0.00	0.00	0.00	0.27	0.04
148	133	134	38.43	0.02	0.00	0.00	0.25	0.03
149	134	135	37.35	0.01	0.00	0.00	0.24	0.03
150	135	136	36.62	0.01	0.00	0.00	0.23	0.03
151	136	137	34.82	0.01	0.00	0.00	0.22	0.03
152	137	138	31.92	0.01	0.00	0.00	0.20	0.02
153	138	139	29.76	0.01	0.00	0.00	0.19	0.02
154	139	140	26.22	0.01	0.00	0.00	0.17	0.02
155	140	141	25.14	0.01	0.00	0.00	0.16	0.02
156	141	142	33.12	0.02	0.00	0.00	0.21	0.03
157	142	143	12.31	0.00	0.00	0.00	0.08	0.00
158	143	144	11.23	0.00	0.00	0.00	0.07	0.00
159	144	145	9.79	0.00	0.00	0.00	0.06	0.00
160	145	146	6.32	0.00	0.00	0.00	0.04	0.00
161	146	147	6.91	0.00	0.00	0.00	0.04	0.00
162	147	148	8.28	0.00	0.00	0.00	0.05	0.00
163	110	149	39.41	0.05	0.00	0.00	0.45	0.14
164	149	150	36.17	0.06	0.00	0.00	0.41	0.12
165	150	151	33.65	0.06	0.00	0.00	0.38	0.11
166	112	151	-28.61	0.04	0.00	0.00	0.32	0.08
167	117	152	7.86	0.01	0.00	0.00	0.09	0.01
168	152	153	6.78	0.00	0.00	0.00	0.08	0.01
169	153	154	1.80	0.00	0.00	0.00	0.02	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-2.82	0.00	0.00	0.00	0.03	0.00
172	121	156	24.10	0.04	0.00	0.00	0.27	0.06
173	156	157	22.66	0.03	0.00	0.00	0.26	0.05
174	157	158	28.63	0.05	0.00	0.00	0.32	0.08
175	158	159	22.10	0.03	0.00	0.00	0.25	0.05
176	159	124	21.38	0.03	0.00	0.00	0.24	0.05
177	158	123	5.10	0.00	0.00	0.00	0.06	0.00
178	157	122	-7.06	0.00	0.00	0.00	0.08	0.01
179	125	160	22.26	0.03	0.00	0.00	0.25	0.05
180	162	167	-24.53	0.05	0.00	0.00	0.28	0.06
181	167	160	-20.46	0.03	0.00	0.00	0.23	0.04
182	162	163	23.02	0.04	0.00	0.00	0.26	0.05
183	163	164	22.54	0.05	0.00	0.00	0.26	0.05
184	164	165	20.75	0.04	0.00	0.00	0.24	0.04
185	165	166	19.89	0.03	0.00	0.00	0.23	0.04
186	133	165	2.74	0.00	0.00	0.00	0.03	0.00
187	130	164	0.73	0.00	0.00	0.00	0.01	0.00
188	163	128	-3.48	0.00	0.00	0.00	0.04	0.00
189	127	162	3.17	0.00	0.00	0.00	0.04	0.00
190	126	167	5.88	0.00	0.00	0.00	0.07	0.00
191	166	168	16.30	0.02	0.00	0.00	0.18	0.03

192	168	169	14.16	0.02	0.00	0.00	0.16	0.02
193	169	170	11.94	0.01	0.00	0.00	0.14	0.02
194	170	141	9.06	0.00	0.00	0.00	0.10	0.01
195	169	139	0.78	0.00	0.00	0.00	0.01	0.00
196	168	137	-1.10	0.00	0.00	0.00	0.01	0.00
197	166	135	0.71	0.00	0.00	0.00	0.01	0.00
198	142	171	20.81	0.00	0.00	0.00	0.13	0.01
199	171	172	6.05	0.00	0.00	0.00	0.04	0.00
200	172	147	1.37	0.00	0.00	0.00	0.02	0.00
201	145	173	3.11	0.00	0.00	0.00	0.04	0.00
202	173	174	1.67	0.00	0.00	0.00	0.02	0.00
203	174	146	0.95	0.00	0.00	0.00	0.01	0.00
204	63	176	164.50	0.28	0.00	0.00	1.87	2.01
205	176	2	-33.54	5.57	0.00	0.00	3.43	22.29
206	176	177	22.00	0.02	0.00	0.00	0.25	0.05
207	177	178	22.00	0.01	0.00	0.00	0.25	0.05
208	178	179	22.00	0.01	0.00	0.00	0.25	0.05
209	179	180	14.50	0.02	0.00	0.00	0.16	0.02
210	180	181	6.16	1.74	0.00	0.00	0.63	0.97
211	181	182	6.16	2.17	0.00	0.00	0.63	0.97
212	182	183	-1.76	0.22	0.00	0.00	0.18	0.09
213	183	184	3.30	0.72	0.00	0.00	0.34	0.30
214	184	185	0.06	0.00	0.00	0.00	0.00	0.00
215	185	186	-124.18	0.35	0.00	0.00	0.79	0.29
216	186	187	-127.42	0.37	0.00	0.00	0.81	0.31
217	187	188	-144.72	0.47	0.00	0.00	0.92	0.39
218	188	189	-146.88	0.48	0.00	0.00	0.94	0.40
219	189	190	-149.04	0.50	0.00	0.00	0.95	0.41
220	190	191	-156.60	0.50	0.00	0.00	1.00	0.45
221	191	192	-165.60	0.85	0.00	0.00	1.06	0.50
222	192	193	-171.36	0.75	0.00	0.00	1.09	0.53
223	193	176	-173.52	0.19	0.00	0.00	1.11	0.55
224	192	194	3.96	0.15	0.00	0.00	0.40	0.43
225	194	195	0.36	0.01	0.00	0.00	0.04	0.01
226	191	181	6.48	0.00	0.00	0.00	0.07	0.01
227	191	196	0.36	0.00	0.00	0.00	0.04	0.01
228	190	197	2.52	0.08	0.00	0.00	0.26	0.18
229	188	198	0.72	0.01	0.00	0.00	0.07	0.02
230	183	187	-13.34	0.01	0.00	0.00	0.15	0.02
231	185	199	5.40	0.26	0.00	0.00	0.55	0.76
232	185	200	115.24	0.99	0.00	0.00	1.31	1.04
233	200	201	96.25	0.82	0.00	0.00	1.09	0.75
234	200	202	18.27	0.72	0.00	0.00	1.87	7.23
235	202	203	15.39	0.03	0.00	0.00	0.17	0.02
236	203	201	5.14	0.07	0.00	0.00	0.52	0.69
237	203	204	5.93	1.35	0.00	0.00	0.61	0.90
238	204	205	4.49	0.05	0.00	0.00	0.46	0.54

239	205	201	-100.67	1.34	0.00	0.00	1.14	0.81
240	205	206	102.64	0.67	0.00	0.00	1.16	0.84
241	206	207	100.84	0.81	0.00	0.00	1.14	0.81
242	207	208	92.20	1.31	0.00	0.00	1.05	0.69
243	208	209	85.62	0.48	0.00	0.00	0.97	0.60
244	209	210	83.46	0.69	0.00	0.00	0.95	0.57
245	210	211	-1.18	0.00	0.00	0.00	0.12	0.05
246	211	212	-4.42	1.05	0.00	0.00	0.45	0.52
247	212	208	-6.58	0.11	0.00	0.00	0.67	1.09
248	210	213	83.20	0.48	0.00	0.00	0.94	0.57
249	213	214	57.64	0.12	0.00	0.00	0.65	0.29
250	214	218	34.96	0.03	0.00	0.00	0.40	0.11
251	213	216	24.48	0.01	0.00	0.00	0.28	0.06
252	214	217	18.36	0.01	0.00	0.00	0.21	0.03
253	218	219	17.36	0.01	0.00	0.00	0.20	0.03
254	219	220	12.32	0.02	0.00	0.00	0.14	0.02
255	220	221	8.72	0.00	0.00	0.00	0.10	0.01
256	221	218	-16.88	0.03	0.00	0.00	0.19	0.03
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	4.98	0.07	0.00	0.00	0.51	0.65
259	222	223	1.02	0.03	0.00	0.00	0.10	0.03
260	223	180	-5.46	0.09	0.00	0.00	0.56	0.77
261	1	2	41.46	0.02	0.00	0.00	0.26	0.04

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		3.60	222.57	10.00	212.57	92.12
2		4.32	222.55	10.00	212.55	92.11
3		2.88	222.54	10.00	212.54	92.10
4		0.72	222.54	10.00	212.54	92.10
5		1.08	220.32	10.00	210.32	91.14
6		1.80	219.49	10.00	209.49	90.78
7		1.44	218.82	10.00	208.82	90.49
8		1.44	218.18	10.00	208.18	90.21
9		2.88	217.36	10.00	207.36	89.86
10		3.96	216.31	10.00	206.31	89.40
11		0.36	216.31	10.00	206.31	89.40
12		2.88	217.36	10.00	207.36	89.85
13		5.04	215.07	10.00	205.07	88.86
14		4.32	214.09	10.00	204.09	88.44
15		4.32	215.55	10.00	205.55	89.07

16	3.24	216.29	10.00	206.29	89.39
17	0.36	216.29	10.00	206.29	89.39
18	0.36	216.29	10.00	206.29	89.39
19	3.24	216.29	10.00	206.29	89.39
20	5.40	215.22	10.00	205.22	88.93
21	0.72	215.76	10.00	205.76	89.16
22	0.36	218.02	10.00	208.02	90.14
23	1.80	218.02	10.00	208.02	90.14
24	1.44	217.93	10.00	207.93	90.10
25	0.36	217.93	10.00	207.93	90.10
26	0.72	217.93	10.00	207.93	90.10
27	0.36	217.88	10.00	207.88	90.08
28	1.44	217.93	10.00	207.93	90.10
29	3.60	217.74	10.00	207.74	90.02
30	0.36	217.73	10.00	207.73	90.02
31	1.80	218.41	10.00	208.41	90.31
32	1.44	218.41	10.00	208.41	90.31
33	0.00	218.41	10.00	208.41	90.31
34	5.40	218.42	10.00	208.42	90.31
35	0.72	218.39	10.00	208.39	90.30
36	1.80	218.38	10.00	208.38	90.30
37	4.68	218.48	10.00	208.48	90.34
38	2.16	218.43	10.00	208.43	90.32
39	0.00	218.42	10.00	208.42	90.31
40	1.80	218.31	10.00	208.31	90.27
41	0.36	218.31	10.00	208.31	90.27
42	0.72	218.58	10.00	208.58	90.39
43	0.72	218.58	10.00	208.58	90.39
44	1.08	218.55	10.00	208.55	90.37
45	1.44	218.47	10.00	208.47	90.34
46	0.36	218.46	10.00	208.46	90.33
47	1.08	218.46	10.00	208.46	90.33
48	1.80	218.36	10.00	208.36	90.29
49	1.44	218.33	10.00	208.33	90.28
50	0.72	218.67	10.00	208.67	90.42
51	0.00	218.61	10.00	208.61	90.40
52	0.36	218.61	10.00	208.61	90.40
53	1.44	218.78	10.00	208.78	90.47
54	0.00	218.78	10.00	208.78	90.47
55	0.00	218.78	10.00	208.78	90.47
56	2.16	219.05	10.00	209.05	90.59
57	2.16	219.09	10.00	209.09	90.61
58	0.36	219.09	10.00	209.09	90.61
59	0.00	218.39	10.00	208.39	90.30
60	0.72	218.41	10.00	208.41	90.31
61	32.04	219.96	10.00	209.96	90.98
62	5.04	217.36	10.00	207.36	89.85

63	2.88	217.26	10.00	207.26	89.81
64	1.08	214.74	10.00	204.74	88.72
65	0.36	214.11	10.00	204.11	88.45
66	1.08	213.52	10.00	203.52	88.19
67	1.80	214.10	10.00	204.10	88.44
68	3.96	214.10	10.00	204.10	88.44
69	0.72	214.10	10.00	204.10	88.44
70	2.52	214.73	10.00	204.73	88.71
71	1.08	214.73	10.00	204.73	88.72
72	0.72	214.72	10.00	204.72	88.71
73	1.44	214.73	10.00	204.73	88.72
74	0.36	214.74	10.00	204.74	88.72
75	0.36	213.52	10.00	203.52	88.19
76	0.36	214.73	10.00	204.73	88.72
77	2.16	214.73	10.00	204.73	88.72
78	0.36	214.73	10.00	204.73	88.71
79	1.08	214.72	10.00	204.72	88.71
80	0.72	214.30	10.00	204.30	88.53
81	1.44	213.91	10.00	203.91	88.36
82	1.08	213.70	10.00	203.70	88.27
83	1.80	213.52	10.00	203.52	88.19
84	0.36	213.51	10.00	203.51	88.19
85	0.36	213.52	10.00	203.52	88.19
86	1.44	213.51	10.00	203.51	88.19
87	0.36	213.51	10.00	203.51	88.19
88	1.44	213.52	10.00	203.52	88.19
89	1.80	213.52	10.00	203.52	88.19
90	0.72	213.52	10.00	203.52	88.19
91	2.16	213.52	10.00	203.52	88.19
92	0.36	213.52	10.00	203.52	88.19
93	0.36	213.52	10.00	203.52	88.19
94	0.36	213.51	10.00	203.51	88.19
95	0.72	213.52	10.00	203.52	88.19
96	0.00	213.52	10.00	203.52	88.19
97	0.36	213.47	10.00	203.47	88.17
98	2.52	213.27	10.00	203.27	88.09
99	0.72	213.27	10.00	203.27	88.09
100	2.52	213.27	10.00	203.27	88.09
101	0.36	213.27	10.00	203.27	88.09
102	2.52	212.98	10.00	202.98	87.96
103	1.80	212.98	10.00	202.98	87.96
104	0.00	212.64	10.00	202.64	87.81
105	0.72	212.64	10.00	202.64	87.81
106	1.08	212.64	10.00	202.64	87.81
107	1.44	212.64	10.00	202.64	87.81
108	1.08	212.64	10.00	202.64	87.81
109	1.08	212.60	10.00	202.60	87.80

110	2.52	212.21	10.00	202.21	87.63
111	1.08	212.04	10.00	202.04	87.55
112	0.72	212.01	10.00	202.01	87.54
113	8.64	211.86	10.00	201.86	87.47
114	0.00	211.09	10.00	201.09	87.14
115	6.12	211.01	10.00	201.01	87.11
116	1.08	210.81	10.00	200.81	87.02
117	0.36	210.80	10.00	200.80	87.01
118	1.44	210.79	10.00	200.79	87.01
119	1.80	210.58	10.00	200.58	86.92
120	1.80	210.57	10.00	200.57	86.91
121	0.36	210.46	10.00	200.46	86.87
122	2.16	210.39	10.00	200.39	86.84
123	0.36	210.34	10.00	200.34	86.81
124	1.08	210.28	10.00	200.28	86.79
125	1.08	210.18	10.00	200.18	86.74
126	3.60	210.12	10.00	200.12	86.72
127	2.16	210.07	10.00	200.07	86.70
128	2.16	210.03	10.00	200.03	86.68
129	1.80	210.02	10.00	200.02	86.68
130	0.00	209.98	10.00	199.98	86.66
131	0.72	209.98	10.00	199.98	86.66
132	2.16	209.95	10.00	199.95	86.65
133	0.36	209.95	10.00	199.95	86.64
134	1.08	209.93	10.00	199.93	86.64
135	1.44	209.92	10.00	199.92	86.63
136	1.80	209.90	10.00	199.90	86.62
137	1.80	209.89	10.00	199.89	86.62
138	2.16	209.88	10.00	199.88	86.61
139	4.32	209.87	10.00	199.87	86.61
140	1.08	209.87	10.00	199.87	86.61
141	1.08	209.86	10.00	199.86	86.60
142	0.00	209.84	10.00	199.84	86.60
143	1.08	209.84	10.00	199.84	86.60
144	1.44	209.84	10.00	199.84	86.60
145	0.36	209.83	10.00	199.83	86.60
146	0.36	209.83	10.00	199.83	86.59
147	0.00	209.83	10.00	199.83	86.59
148	8.28	209.83	10.00	199.83	86.59
149	3.24	212.17	10.00	202.17	87.60
150	2.52	212.11	10.00	202.11	87.58
151	5.04	212.04	10.00	202.04	87.55
152	1.08	210.79	10.00	200.79	87.01
153	2.16	210.79	10.00	200.79	87.01
154	1.80	210.79	10.00	200.79	87.01
155	0.00	210.79	10.00	200.79	87.01
156	1.44	210.42	10.00	200.42	86.85

157	1.08	210.39	10.00	200.39	86.84
158	1.44	210.34	10.00	200.34	86.82
159	0.72	210.31	10.00	200.31	86.80
160	1.80	210.15	10.00	200.15	86.73
162	4.68	210.07	10.00	200.07	86.70
163	3.96	210.03	10.00	200.03	86.68
164	2.52	209.98	10.00	199.98	86.66
165	3.60	209.95	10.00	199.95	86.64
166	2.88	209.92	10.00	199.92	86.63
167	1.80	210.12	10.00	200.12	86.72
168	3.24	209.89	10.00	199.89	86.62
169	1.44	209.87	10.00	199.87	86.61
170	2.88	209.86	10.00	199.86	86.61
171	14.76	209.84	10.00	199.84	86.60
172	4.68	209.83	10.00	199.83	86.59
173	1.44	209.83	10.00	199.83	86.59
174	0.72	209.83	10.00	199.83	86.59
176	2.52	216.98	10.00	206.98	89.69
177	0.00	216.96	10.00	206.96	89.68
178	0.00	216.96	10.00	206.96	89.68
179	2.52	216.95	10.00	206.95	89.68
180	2.88	216.93	10.00	206.93	89.67
181	6.48	215.19	10.00	205.19	88.91
182	7.92	213.01	10.00	203.01	87.97
183	8.28	213.24	10.00	203.24	88.07
184	3.24	212.52	10.00	202.52	87.76
185	3.60	212.52	10.00	202.52	87.76
186	3.24	212.87	10.00	202.87	87.91
187	3.96	213.24	10.00	203.24	88.07
188	1.44	213.71	10.00	203.71	88.28
189	2.16	214.20	10.00	204.20	88.48
190	5.04	214.69	10.00	204.69	88.70
191	2.16	215.19	10.00	205.19	88.91
192	1.80	216.04	10.00	206.04	89.28
193	2.16	216.79	10.00	206.79	89.61
194	3.60	215.89	10.00	205.89	89.22
195	0.36	215.88	10.00	205.88	89.22
196	0.36	215.18	10.00	205.18	88.91
197	2.52	214.61	10.00	204.61	88.67
198	0.72	213.71	10.00	203.71	88.27
199	5.40	212.26	10.00	202.26	87.64
200	0.72	211.53	10.00	201.53	87.33
201	0.72	210.71	10.00	200.71	86.98
202	2.88	210.81	10.00	200.81	87.02
203	4.32	210.78	10.00	200.78	87.01
204	1.44	209.43	10.00	199.43	86.42
205	2.52	209.38	10.00	199.38	86.40

206	1.80	208.70	10.00	198.70	86.11
207	8.64	207.89	10.00	197.89	85.75
208	0.00	206.58	10.00	196.58	85.19
209	2.16	206.10	10.00	196.10	84.98
210	1.44	205.42	10.00	195.42	84.68
211	3.24	205.42	10.00	195.42	84.68
212	2.16	206.48	10.00	196.48	85.14
213	1.08	204.93	10.00	194.93	84.47
214	4.32	204.82	10.00	194.82	84.42
215	22.00	204.73	10.00	194.73	84.38
216	24.48	204.92	10.00	194.92	84.47
217	18.36	204.81	10.00	194.81	84.42
218	0.72	204.79	10.00	194.79	84.41
219	5.04	204.78	10.00	194.78	84.41
220	3.60	204.76	10.00	194.76	84.40
221	3.60	204.76	10.00	194.76	84.40
222	3.96	216.88	10.00	206.88	89.65
223	6.48	216.84	10.00	206.84	89.63

SUMMARY OF INFLOWS AND OUTFLOWS

- (+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
BB	2	531.40	

NET SYSTEM INFLOW = 531.40
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 531.40

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.850

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00474

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

PEAK HOURLY FLOW DEMAND - 490% AADF; 235% MAXIMUM DAY DEMAND

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	561.52	0.10	183.34	P1	0.00	1.59	0.67
2-FGPU	BB 1	663.23	0.14	182.45	P2	0.00	1.88	0.91
3	3 2	-8.50	0.04	0.00		0.00	0.22	0.06

4	3	4	1.70	0.00	0.00	0.00	0.04	0.00
5	5	1	-1122.14	10.58	0.00	0.00	7.16	17.35
6	6	5	-661.64	4.11	0.00	0.00	4.22	6.52
7	7	6	-413.21	3.27	0.00	0.00	2.64	2.73
8	8	7	-409.81	3.14	0.00	0.00	2.62	2.69
9	9	8	-539.24	4.02	0.00	0.00	3.44	4.47
10	9	10	506.00	5.16	0.00	0.00	3.23	3.97
11	10	11	0.85	0.01	0.00	0.00	0.09	0.02
12	9	12	26.44	0.01	0.00	0.00	0.30	0.07
13	12	13	21.00	11.24	0.00	0.00	2.14	9.37
14	13	14	9.10	4.78	0.00	0.00	0.93	1.99
15	10	15	452.01	3.70	0.00	0.00	2.88	3.22
16	10	16	43.79	0.07	0.00	0.00	0.50	0.17
17	16	17	0.85	0.00	0.00	0.00	0.01	0.00
18	16	18	0.85	0.02	0.00	0.00	0.09	0.02
19	16	19	34.44	0.04	0.00	0.00	0.39	0.11
20	19	20	15.31	5.21	0.00	0.00	1.56	5.21
21	19	21	11.48	2.60	0.00	0.00	1.17	3.06
22	21	20	9.78	2.61	0.00	0.00	1.00	2.27
23	23	22	0.85	0.00	0.00	0.00	0.09	0.02
24	23	24	5.70	0.46	0.00	0.00	0.58	0.84
25	24	25	0.85	0.00	0.00	0.00	0.09	0.02
26	24	26	1.45	0.03	0.00	0.00	0.15	0.07
27	26	27	0.85	0.21	0.00	0.00	0.35	0.72
28	26	28	-1.10	0.02	0.00	0.00	0.11	0.04
29	29	28	-9.35	0.94	0.00	0.00	0.95	2.09
30	29	30	0.85	0.02	0.00	0.00	0.09	0.02
31	28	31	-13.85	2.38	0.00	0.00	1.41	4.33
32	31	32	14.20	0.00	0.00	0.00	0.09	0.01
33	32	23	10.80	1.91	0.00	0.00	1.10	2.73
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	32.30	0.01	0.00	0.00	0.21	0.02
36	34	35	1.91	0.15	0.00	0.00	0.19	0.11
37	35	36	0.21	0.00	0.00	0.00	0.02	0.00
38	37	36	4.04	0.47	0.00	0.00	0.41	0.44
39	38	37	-184.94	0.24	0.00	0.00	1.18	0.62
40	39	38	-178.14	0.06	0.00	0.00	1.14	0.57
41	39	34	46.96	0.01	0.00	0.00	0.30	0.05
42	40	39	-131.19	0.53	0.00	0.00	1.49	1.32
43	40	41	0.85	0.00	0.00	0.00	0.01	0.00
44	8	40	-132.83	0.65	0.00	0.00	1.51	1.35
45	40	42	-6.74	1.34	0.00	0.00	0.69	1.14
46	42	43	0.41	0.00	0.00	0.00	0.00	0.00
47	43	44	208.03	0.15	0.00	0.00	1.33	0.77
48	44	37	200.04	0.36	0.00	0.00	1.28	0.71
49	44	45	5.44	0.42	0.00	0.00	0.56	0.77
50	45	46	0.85	0.01	0.00	0.00	0.09	0.02

51	45	47	1.19	0.03	0.00	0.00	0.12	0.05
52	47	48	7.65	0.50	0.00	0.00	0.78	1.44
53	48	49	3.40	0.13	0.00	0.00	0.35	0.32
54	47	50	-9.01	1.04	0.00	0.00	0.92	1.95
55	50	51	210.17	0.27	0.00	0.00	1.34	0.78
56	51	43	209.32	0.15	0.00	0.00	1.34	0.77
57	51	52	0.85	0.00	0.00	0.00	0.09	0.02
58	50	53	-220.87	0.56	0.00	0.00	1.41	0.85
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-224.27	1.29	0.00	0.00	2.54	3.57
62	56	42	8.85	2.27	0.00	0.00	0.90	1.89
63	56	57	-238.23	0.24	0.00	0.00	2.70	3.99
64	57	6	-244.18	1.92	0.00	0.00	2.77	4.18
65	57	58	0.85	0.00	0.00	0.00	0.01	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	1.70	0.09	0.00	0.00	0.17	0.09
68	5	61	457.95	1.61	0.00	0.00	5.20	13.39
69	12	62	-1.36	0.00	0.00	0.00	0.02	0.00
70	61	62	13.26	12.95	0.00	0.00	1.35	4.00
71	61	63	369.04	11.67	0.00	0.00	4.19	8.98
72	15	64	441.81	4.01	0.00	0.00	2.82	3.09
73	64	65	401.31	3.10	0.00	0.00	2.56	2.58
74	65	66	384.06	2.86	0.00	0.00	2.45	2.38
75	14	67	-1.10	0.04	0.00	0.00	0.11	0.04
76	67	68	-5.35	0.00	0.00	0.00	0.06	0.00
77	68	69	1.70	0.00	0.00	0.00	0.02	0.00
78	68	65	-16.40	0.01	0.00	0.00	0.19	0.03
79	20	70	12.34	2.45	0.00	0.00	1.26	3.50
80	70	71	-12.49	0.01	0.00	0.00	0.14	0.02
81	71	72	1.70	0.04	0.00	0.00	0.17	0.09
82	71	73	-16.74	0.01	0.00	0.00	0.19	0.03
83	73	74	-26.94	0.02	0.00	0.00	0.31	0.07
84	74	64	-37.95	0.01	0.00	0.00	0.43	0.13
85	74	75	10.16	5.95	0.00	0.00	1.04	2.44
86	73	76	0.85	0.00	0.00	0.00	0.01	0.00
87	73	77	5.95	0.00	0.00	0.00	0.07	0.00
88	77	78	0.85	0.02	0.00	0.00	0.09	0.02
89	70	79	18.88	0.02	0.00	0.00	0.21	0.04
90	79	80	16.33	2.06	0.00	0.00	1.67	5.88
91	80	81	14.63	1.92	0.00	0.00	1.49	4.79
92	81	82	11.23	1.03	0.00	0.00	1.15	2.94
93	82	83	8.68	0.91	0.00	0.00	0.89	1.82
94	83	84	0.85	0.01	0.00	0.00	0.09	0.02
95	83	85	3.58	0.00	0.00	0.00	0.04	0.00
96	85	86	2.73	0.00	0.00	0.00	0.03	0.00
97	86	87	0.85	0.02	0.00	0.00	0.09	0.02

98	86	88	-1.52	0.00	0.00	0.00	0.02	0.00
99	88	89	-0.33	0.01	0.00	0.00	0.03	0.00
100	89	90	-4.58	0.00	0.00	0.00	0.05	0.00
101	90	91	-7.13	0.00	0.00	0.00	0.08	0.01
102	91	92	-19.37	0.01	0.00	0.00	0.22	0.04
103	92	93	0.85	0.01	0.00	0.00	0.09	0.02
104	92	75	-21.07	0.01	0.00	0.00	0.24	0.04
105	90	94	0.85	0.02	0.00	0.00	0.09	0.02
106	91	95	7.13	0.01	0.00	0.00	0.08	0.01
107	95	96	5.43	0.00	0.00	0.00	0.06	0.00
108	96	97	0.85	0.22	0.00	0.00	0.35	0.72
109	96	88	4.58	0.00	0.00	0.00	0.05	0.00
110	66	75	11.76	0.00	0.00	0.00	0.13	0.02
111	66	98	369.75	1.22	0.00	0.00	2.36	2.22
112	98	99	1.70	0.00	0.00	0.00	0.02	0.00
113	98	100	6.80	0.00	0.00	0.00	0.08	0.01
114	100	101	0.85	0.00	0.00	0.00	0.01	0.00
115	98	102	355.30	1.44	0.00	0.00	2.27	2.06
116	102	103	4.25	0.00	0.00	0.00	0.05	0.00
117	102	104	345.10	1.66	0.00	0.00	2.20	1.95
118	104	105	10.20	0.01	0.00	0.00	0.12	0.01
119	105	106	4.07	0.00	0.00	0.00	0.05	0.00
120	106	107	1.52	0.00	0.00	0.00	0.02	0.00
121	107	108	-1.88	0.00	0.00	0.00	0.02	0.00
122	108	105	-4.43	0.00	0.00	0.00	0.05	0.00
123	104	109	334.90	0.18	0.00	0.00	2.14	1.85
124	109	110	332.35	1.91	0.00	0.00	2.12	1.82
125	110	111	233.34	0.88	0.00	0.00	1.49	0.95
126	111	112	230.79	0.14	0.00	0.00	1.47	0.93
127	112	113	296.65	0.74	0.00	0.00	1.89	1.48
128	113	114	276.25	3.75	0.00	0.00	1.76	1.29
129	114	115	276.25	0.39	0.00	0.00	1.76	1.29
130	115	116	261.80	1.00	0.00	0.00	1.67	1.17
131	116	117	259.25	0.06	0.00	0.00	1.65	1.15
132	117	118	239.83	0.05	0.00	0.00	1.53	1.00
133	118	119	243.10	1.02	0.00	0.00	1.55	1.02
134	119	120	238.85	0.05	0.00	0.00	1.52	0.99
135	120	121	234.60	0.53	0.00	0.00	1.50	0.96
136	121	122	176.85	0.34	0.00	0.00	1.13	0.57
137	122	123	155.09	0.27	0.00	0.00	0.99	0.44
138	123	124	166.28	0.30	0.00	0.00	1.06	0.51
139	124	125	214.20	0.48	0.00	0.00	1.37	0.81
140	125	126	159.10	0.28	0.00	0.00	1.02	0.47
141	126	127	136.73	0.24	0.00	0.00	0.87	0.35
142	127	128	124.14	0.21	0.00	0.00	0.79	0.29
143	128	129	110.82	0.05	0.00	0.00	0.71	0.24
144	129	130	106.57	0.18	0.00	0.00	0.68	0.22

145	130	131	104.85	0.03	0.00	0.00	0.67	0.22
146	131	132	103.15	0.13	0.00	0.00	0.66	0.21
147	132	133	98.05	0.02	0.00	0.00	0.63	0.19
148	133	134	90.73	0.10	0.00	0.00	0.58	0.16
149	134	135	88.18	0.06	0.00	0.00	0.56	0.16
150	135	136	86.47	0.06	0.00	0.00	0.55	0.15
151	136	137	82.22	0.05	0.00	0.00	0.52	0.14
152	137	138	75.36	0.07	0.00	0.00	0.48	0.12
153	138	139	70.26	0.03	0.00	0.00	0.45	0.10
154	139	140	61.90	0.03	0.00	0.00	0.40	0.08
155	140	141	59.35	0.04	0.00	0.00	0.38	0.07
156	141	142	78.20	0.08	0.00	0.00	0.50	0.12
157	142	143	29.07	0.01	0.00	0.00	0.19	0.02
158	143	144	26.52	0.01	0.00	0.00	0.17	0.02
159	144	145	23.12	0.01	0.00	0.00	0.15	0.01
160	145	146	14.93	0.00	0.00	0.00	0.10	0.01
161	146	147	16.32	0.00	0.00	0.00	0.10	0.01
162	147	148	19.55	0.00	0.00	0.00	0.12	0.01
163	110	149	93.06	0.25	0.00	0.00	1.06	0.70
164	149	150	85.41	0.29	0.00	0.00	0.97	0.60
165	150	151	79.46	0.31	0.00	0.00	0.90	0.52
166	112	151	-67.56	0.17	0.00	0.00	0.77	0.39
167	117	152	18.57	0.03	0.00	0.00	0.21	0.04
168	152	153	16.02	0.02	0.00	0.00	0.18	0.03
169	153	154	4.25	0.00	0.00	0.00	0.05	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-6.67	0.00	0.00	0.00	0.08	0.01
172	121	156	56.90	0.21	0.00	0.00	0.65	0.28
173	156	157	53.50	0.15	0.00	0.00	0.61	0.25
174	157	158	67.61	0.23	0.00	0.00	0.77	0.39
175	158	159	52.17	0.14	0.00	0.00	0.59	0.24
176	159	124	50.47	0.17	0.00	0.00	0.57	0.23
177	158	123	12.03	0.01	0.00	0.00	0.14	0.02
178	157	122	-16.66	0.02	0.00	0.00	0.19	0.03
179	125	160	52.55	0.17	0.00	0.00	0.60	0.24
180	162	167	-57.92	0.23	0.00	0.00	0.66	0.29
181	167	160	-48.30	0.12	0.00	0.00	0.55	0.21
182	162	163	54.36	0.21	0.00	0.00	0.62	0.26
183	163	164	53.23	0.22	0.00	0.00	0.60	0.25
184	164	165	49.00	0.18	0.00	0.00	0.56	0.21
185	165	166	46.97	0.16	0.00	0.00	0.53	0.20
186	133	165	6.47	0.00	0.00	0.00	0.07	0.01
187	130	164	1.72	0.00	0.00	0.00	0.02	0.00
188	163	128	-8.22	0.01	0.00	0.00	0.09	0.01
189	127	162	7.48	0.00	0.00	0.00	0.08	0.01
190	126	167	13.87	0.01	0.00	0.00	0.16	0.02
191	166	168	38.48	0.12	0.00	0.00	0.44	0.14

192	168	169	33.44	0.09	0.00	0.00	0.38	0.11
193	169	170	28.20	0.07	0.00	0.00	0.32	0.08
194	170	141	21.40	0.01	0.00	0.00	0.24	0.05
195	169	139	1.84	0.00	0.00	0.00	0.02	0.00
196	168	137	-2.61	0.00	0.00	0.00	0.03	0.00
197	166	135	1.68	0.00	0.00	0.00	0.02	0.00
198	142	171	49.13	0.02	0.00	0.00	0.31	0.05
199	171	172	14.28	0.01	0.00	0.00	0.09	0.01
200	172	147	3.23	0.00	0.00	0.00	0.04	0.00
201	145	173	7.34	0.00	0.00	0.00	0.08	0.01
202	173	174	3.94	0.00	0.00	0.00	0.04	0.00
203	174	146	2.24	0.00	0.00	0.00	0.03	0.00
204	63	176	362.24	1.21	0.00	0.00	4.11	8.68
205	176	2	-75.41	24.98	0.00	0.00	7.70	99.93
206	176	177	50.87	0.08	0.00	0.00	0.58	0.23
207	177	178	50.87	0.03	0.00	0.00	0.58	0.23
208	178	179	50.87	0.05	0.00	0.00	0.58	0.23
209	179	180	33.19	0.10	0.00	0.00	0.38	0.10
210	180	181	13.47	7.41	0.00	0.00	1.38	4.12
211	181	182	13.78	9.66	0.00	0.00	1.41	4.29
212	182	183	-4.92	1.50	0.00	0.00	0.50	0.64
213	183	184	7.03	2.90	0.00	0.00	0.72	1.23
214	184	185	-0.62	0.00	0.00	0.00	0.01	0.00
215	185	186	-264.02	1.43	0.00	0.00	1.69	1.19
216	186	187	-271.67	1.51	0.00	0.00	1.73	1.25
217	187	188	-312.52	1.95	0.00	0.00	1.99	1.63
218	188	189	-317.62	2.01	0.00	0.00	2.03	1.68
219	189	190	-322.72	2.07	0.00	0.00	2.06	1.73
220	190	191	-340.57	2.10	0.00	0.00	2.17	1.91
221	191	192	-362.13	3.63	0.00	0.00	2.31	2.14
222	192	193	-375.73	3.20	0.00	0.00	2.40	2.29
223	193	176	-380.83	0.82	0.00	0.00	2.43	2.34
224	192	194	9.35	0.73	0.00	0.00	0.95	2.09
225	194	195	0.85	0.03	0.00	0.00	0.09	0.02
226	191	181	15.61	0.01	0.00	0.00	0.18	0.03
227	191	196	0.85	0.02	0.00	0.00	0.09	0.02
228	190	197	5.95	0.38	0.00	0.00	0.61	0.91
229	188	198	1.70	0.03	0.00	0.00	0.17	0.09
230	183	187	-31.49	0.04	0.00	0.00	0.36	0.09
231	185	199	12.75	1.30	0.00	0.00	1.30	3.72
232	185	200	242.15	3.91	0.00	0.00	2.75	4.12
233	200	201	201.72	3.23	0.00	0.00	2.29	2.93
234	200	202	38.73	2.91	0.00	0.00	3.95	29.08
235	202	203	31.93	0.11	0.00	0.00	0.36	0.10
236	203	201	9.43	0.21	0.00	0.00	0.96	2.13
237	203	204	12.30	5.21	0.00	0.00	1.26	3.47
238	204	205	8.90	0.19	0.00	0.00	0.91	1.91

239	205	201	-209.45	5.19	0.00	0.00	2.38	3.15
240	205	206	212.40	2.58	0.00	0.00	2.41	3.23
241	206	207	208.15	3.11	0.00	0.00	2.36	3.11
242	207	208	187.75	4.88	0.00	0.00	2.13	2.57
243	208	209	173.74	1.78	0.00	0.00	1.97	2.23
244	209	210	168.64	2.53	0.00	0.00	1.91	2.11
245	210	211	-1.26	0.00	0.00	0.00	0.13	0.05
246	211	212	-8.91	3.86	0.00	0.00	0.91	1.91
247	212	208	-14.01	0.44	0.00	0.00	1.43	4.42
248	210	213	166.50	1.75	0.00	0.00	1.89	2.06
249	213	214	106.15	0.36	0.00	0.00	1.20	0.89
250	214	218	52.60	0.06	0.00	0.00	0.60	0.24
251	213	216	57.80	0.06	0.00	0.00	0.66	0.29
252	214	217	43.35	0.03	0.00	0.00	0.49	0.17
253	218	219	27.82	0.03	0.00	0.00	0.32	0.07
254	219	220	15.92	0.03	0.00	0.00	0.18	0.03
255	220	221	7.42	0.00	0.00	0.00	0.08	0.01
256	221	218	-23.08	0.06	0.00	0.00	0.26	0.05
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	11.73	0.35	0.00	0.00	1.20	3.18
259	222	223	2.38	0.17	0.00	0.00	0.24	0.17
260	223	180	-12.92	0.42	0.00	0.00	1.32	3.81
261	1	2	94.11	0.10	0.00	0.00	0.60	0.18

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		8.50	202.32	10.00	192.32	83.34
2		10.20	202.22	10.00	192.22	83.29
3		6.80	202.18	10.00	192.18	83.28
4		1.70	202.18	10.00	192.18	83.28
5		2.55	191.73	10.00	181.73	78.75
6		4.25	187.62	10.00	177.62	76.97
7		3.40	184.35	10.00	174.35	75.55
8		3.40	181.21	10.00	171.21	74.19
9		6.80	177.19	10.00	167.19	72.45
10		9.35	172.03	10.00	162.03	70.21
11		0.85	172.02	10.00	162.02	70.21
12		6.80	177.18	10.00	167.18	72.44
13		11.90	165.94	10.00	155.94	67.57
14		10.20	161.16	10.00	151.16	65.50
15		10.20	168.33	10.00	158.33	68.61

16	7.65	171.96	10.00	161.96	70.18
17	0.85	171.96	10.00	161.96	70.18
18	0.85	171.94	10.00	161.94	70.17
19	7.65	171.92	10.00	161.92	70.16
20	12.75	166.70	10.00	156.70	67.90
21	1.70	169.32	10.00	159.32	69.04
22	0.85	180.45	10.00	170.45	73.86
23	4.25	180.45	10.00	170.45	73.86
24	3.40	179.99	10.00	169.99	73.66
25	0.85	179.99	10.00	169.99	73.66
26	1.70	179.96	10.00	169.96	73.65
27	0.85	179.75	10.00	169.75	73.56
28	3.40	179.98	10.00	169.98	73.66
29	8.50	179.04	10.00	169.04	73.25
30	0.85	179.02	10.00	169.02	73.24
31	4.25	182.36	10.00	172.36	74.69
32	3.40	182.36	10.00	172.36	74.69
33	0.00	182.36	10.00	172.36	74.69
34	12.75	182.37	10.00	172.37	74.69
35	1.70	182.22	10.00	172.22	74.63
36	4.25	182.22	10.00	172.22	74.63
37	11.05	182.68	10.00	172.68	74.83
38	5.10	182.44	10.00	172.44	74.73
39	0.00	182.39	10.00	172.39	74.70
40	4.25	181.86	10.00	171.86	74.47
41	0.85	181.86	10.00	171.86	74.47
42	1.70	183.19	10.00	173.19	75.05
43	1.70	183.19	10.00	173.19	75.05
44	2.55	183.04	10.00	173.04	74.98
45	3.40	182.62	10.00	172.62	74.80
46	0.85	182.61	10.00	172.61	74.80
47	2.55	182.59	10.00	172.59	74.79
48	4.25	182.08	10.00	172.08	74.57
49	3.40	181.95	10.00	171.95	74.51
50	1.70	183.62	10.00	173.62	75.24
51	0.00	183.35	10.00	173.35	75.12
52	0.85	183.34	10.00	173.34	75.12
53	3.40	184.18	10.00	174.18	75.48
54	0.00	184.18	10.00	174.18	75.48
55	0.00	184.18	10.00	174.18	75.48
56	5.10	185.46	10.00	175.46	76.03
57	5.10	185.70	10.00	175.70	76.14
58	0.85	185.70	10.00	175.70	76.14
59	0.00	182.22	10.00	172.22	74.63
60	1.70	182.35	10.00	172.35	74.69
61	75.65	190.13	10.00	180.13	78.05
62	11.90	177.18	10.00	167.18	72.44

63	6.80	178.45	10.00	168.45	73.00
64	2.55	164.31	10.00	154.31	66.87
65	0.85	161.21	10.00	151.21	65.53
66	2.55	158.35	10.00	148.35	64.29
67	4.25	161.20	10.00	151.20	65.52
68	9.35	161.20	10.00	151.20	65.52
69	1.70	161.20	10.00	151.20	65.52
70	5.95	164.25	10.00	154.25	66.84
71	2.55	164.27	10.00	154.27	66.85
72	1.70	164.22	10.00	154.22	66.83
73	3.40	164.28	10.00	154.28	66.85
74	0.85	164.30	10.00	154.30	66.87
75	0.85	158.35	10.00	148.35	64.29
76	0.85	164.28	10.00	154.28	66.85
77	5.10	164.28	10.00	154.28	66.85
78	0.85	164.26	10.00	154.26	66.85
79	2.55	164.23	10.00	154.23	66.83
80	1.70	162.18	10.00	152.18	65.94
81	3.40	160.26	10.00	150.26	65.11
82	2.55	159.23	10.00	149.23	64.67
83	4.25	158.32	10.00	148.32	64.27
84	0.85	158.30	10.00	148.30	64.26
85	0.85	158.32	10.00	148.32	64.27
86	3.40	158.32	10.00	148.32	64.27
87	0.85	158.29	10.00	148.29	64.26
88	3.40	158.32	10.00	148.32	64.27
89	4.25	158.32	10.00	148.32	64.27
90	1.70	158.32	10.00	148.32	64.27
91	5.10	158.33	10.00	148.33	64.27
92	0.85	158.34	10.00	148.34	64.28
93	0.85	158.32	10.00	148.32	64.27
94	0.85	158.30	10.00	148.30	64.27
95	1.70	158.32	10.00	148.32	64.27
96	0.00	158.32	10.00	148.32	64.27
97	0.85	158.10	10.00	148.10	64.18
98	5.95	157.13	10.00	147.13	63.76
99	1.70	157.13	10.00	147.13	63.76
100	5.95	157.13	10.00	147.13	63.76
101	0.85	157.13	10.00	147.13	63.76
102	5.95	155.69	10.00	145.69	63.13
103	4.25	155.69	10.00	145.69	63.13
104	0.00	154.03	10.00	144.03	62.41
105	1.70	154.02	10.00	144.02	62.41
106	2.55	154.02	10.00	144.02	62.41
107	3.40	154.02	10.00	144.02	62.41
108	2.55	154.02	10.00	144.02	62.41
109	2.55	153.84	10.00	143.84	62.33

110	5.95	151.93	10.00	141.93	61.50
111	2.55	151.05	10.00	141.05	61.12
112	1.70	150.91	10.00	140.91	61.06
113	20.40	150.17	10.00	140.17	60.74
114	0.00	146.42	10.00	136.42	59.12
115	14.45	146.03	10.00	136.03	58.95
116	2.55	145.04	10.00	135.04	58.52
117	0.85	144.98	10.00	134.98	58.49
118	3.40	144.93	10.00	134.93	58.47
119	4.25	143.91	10.00	133.91	58.03
120	4.25	143.86	10.00	133.86	58.01
121	0.85	143.33	10.00	133.33	57.78
122	5.10	142.99	10.00	132.99	57.63
123	0.85	142.73	10.00	132.73	57.52
124	2.55	142.42	10.00	132.42	57.38
125	2.55	141.94	10.00	131.94	57.17
126	8.50	141.66	10.00	131.66	57.05
127	5.10	141.42	10.00	131.42	56.95
128	5.10	141.21	10.00	131.21	56.86
129	4.25	141.16	10.00	131.16	56.84
130	0.00	140.98	10.00	130.98	56.76
131	1.70	140.95	10.00	130.95	56.74
132	5.10	140.82	10.00	130.82	56.69
133	0.85	140.80	10.00	130.80	56.68
134	2.55	140.70	10.00	130.70	56.64
135	3.40	140.64	10.00	130.64	56.61
136	4.25	140.58	10.00	130.58	56.59
137	4.25	140.53	10.00	130.53	56.56
138	5.10	140.46	10.00	130.46	56.53
139	10.20	140.43	10.00	130.43	56.52
140	2.55	140.40	10.00	130.40	56.51
141	2.55	140.35	10.00	130.35	56.49
142	0.00	140.28	10.00	130.28	56.45
143	2.55	140.27	10.00	130.27	56.45
144	3.40	140.26	10.00	130.26	56.44
145	0.85	140.25	10.00	130.25	56.44
146	0.85	140.24	10.00	130.24	56.44
147	0.00	140.24	10.00	130.24	56.44
148	19.55	140.24	10.00	130.24	56.44
149	7.65	151.69	10.00	141.69	61.40
150	5.95	151.40	10.00	141.40	61.27
151	11.90	151.09	10.00	141.09	61.14
152	2.55	144.95	10.00	134.95	58.48
153	5.10	144.93	10.00	134.93	58.47
154	4.25	144.93	10.00	134.93	58.47
155	0.00	144.93	10.00	134.93	58.47
156	3.40	143.12	10.00	133.12	57.69

157	2.55	142.97	10.00	132.97	57.62
158	3.40	142.74	10.00	132.74	57.52
159	1.70	142.60	10.00	132.60	57.46
160	4.25	141.77	10.00	131.77	57.10
162	11.05	141.41	10.00	131.41	56.95
163	9.35	141.21	10.00	131.21	56.86
164	5.95	140.98	10.00	130.98	56.76
165	8.50	140.80	10.00	130.80	56.68
166	6.80	140.64	10.00	130.64	56.61
167	4.25	141.65	10.00	131.65	57.05
168	7.65	140.53	10.00	130.53	56.56
169	3.40	140.43	10.00	130.43	56.52
170	6.80	140.37	10.00	130.37	56.49
171	34.85	140.26	10.00	130.26	56.44
172	11.05	140.24	10.00	130.24	56.44
173	3.40	140.24	10.00	130.24	56.44
174	1.70	140.24	10.00	130.24	56.44
176	5.95	177.24	10.00	167.24	72.47
177	0.00	177.16	10.00	167.16	72.43
178	0.00	177.13	10.00	167.13	72.42
179	5.95	177.08	10.00	167.08	72.40
180	6.80	176.98	10.00	166.98	72.36
181	15.30	169.58	10.00	159.58	69.15
182	18.70	159.92	10.00	149.92	64.97
183	19.55	161.42	10.00	151.42	65.61
184	7.65	158.52	10.00	148.52	64.36
185	8.50	158.52	10.00	148.52	64.36
186	7.65	159.95	10.00	149.95	64.98
187	9.35	161.45	10.00	151.45	65.63
188	3.40	163.40	10.00	153.40	66.48
189	5.10	165.42	10.00	155.42	67.35
190	11.90	167.49	10.00	157.49	68.24
191	5.10	169.58	10.00	159.58	69.15
192	4.25	173.21	10.00	163.21	70.73
193	5.10	176.42	10.00	166.42	72.11
194	8.50	172.48	10.00	162.48	70.41
195	0.85	172.45	10.00	162.45	70.40
196	0.85	169.56	10.00	159.56	69.14
197	5.95	167.11	10.00	157.11	68.08
198	1.70	163.38	10.00	153.38	66.46
199	12.75	157.22	10.00	147.22	63.80
200	1.70	154.61	10.00	144.61	62.66
201	1.70	151.38	10.00	141.38	61.27
202	6.80	151.70	10.00	141.70	61.40
203	10.20	151.60	10.00	141.60	61.36
204	3.40	146.38	10.00	136.38	59.10
205	5.95	146.19	10.00	136.19	59.02

206	4.25	143.61	10.00	133.61	57.90
207	20.40	140.50	10.00	130.50	56.55
208	0.00	135.62	10.00	125.62	54.44
209	5.10	133.84	10.00	123.84	53.66
210	3.40	131.31	10.00	121.31	52.57
211	7.65	131.32	10.00	121.32	52.57
212	5.10	135.18	10.00	125.18	54.24
213	2.55	129.57	10.00	119.57	51.81
214	10.20	129.21	10.00	119.21	51.66
215	22.00	129.07	10.00	119.07	51.60
216	57.80	129.51	10.00	119.51	51.79
217	43.35	129.18	10.00	119.18	51.64
218	1.70	129.15	10.00	119.15	51.63
219	11.90	129.13	10.00	119.13	51.62
220	8.50	129.10	10.00	119.10	51.61
221	8.50	129.09	10.00	119.09	51.61
222	9.35	176.73	10.00	166.73	72.25
223	15.30	176.56	10.00	166.56	72.18

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES

(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	561.52	
BB	2	663.23	

NET SYSTEM INFLOW = 1224.75
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1224.75

CHANGES FOR NEXT SIMULATION

DEMAND CHANGES

DEMAND TYPE = 1 - GDF = 0.180

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
148	500.00
215	22.00

SIMULATION RESULTS

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00039

SIMULATION DESCRIPTION (LABEL)

FIRE FLOW - 1/2 MAXIMUM DAY + 500 GPM FIRE DEMAND AT BOB SIKES CUT

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	195.08	0.01	196.74	P1	0.00	0.55	0.09
2-FGPU	BB 1	577.48	0.11	196.83	P2	0.00	1.64	0.70

3	3	2	-1.80	0.00	0.00	0.00	0.05	0.00
4	3	4	0.36	0.00	0.00	0.00	0.01	0.00
5	5	1	-733.09	4.81	0.00	0.00	4.68	7.89
6	6	5	-624.47	3.69	0.00	0.00	3.99	5.86
7	7	6	-413.47	3.28	0.00	0.00	2.64	2.73
8	8	7	-412.75	3.18	0.00	0.00	2.63	2.72
9	9	8	-598.55	4.88	0.00	0.00	3.82	5.42
10	9	10	590.00	6.86	0.00	0.00	3.77	5.27
11	10	11	0.18	0.00	0.00	0.00	0.02	0.00
12	9	12	7.11	0.00	0.00	0.00	0.08	0.01
13	12	13	17.46	7.98	0.00	0.00	1.78	6.65
14	13	14	14.94	11.97	0.00	0.00	1.53	4.99
15	10	15	559.57	5.50	0.00	0.00	3.57	4.78
16	10	16	28.26	0.03	0.00	0.00	0.32	0.08
17	16	17	0.18	0.00	0.00	0.00	0.00	0.00
18	16	18	0.18	0.00	0.00	0.00	0.02	0.00
19	16	19	26.28	0.03	0.00	0.00	0.30	0.07
20	19	20	14.49	4.71	0.00	0.00	1.48	4.71
21	19	21	10.17	2.08	0.00	0.00	1.04	2.45
22	21	20	9.81	2.63	0.00	0.00	1.00	2.29
23	23	22	0.18	0.00	0.00	0.00	0.02	0.00
24	23	24	1.21	0.03	0.00	0.00	0.12	0.05
25	24	25	0.18	0.00	0.00	0.00	0.02	0.00
26	24	26	0.31	0.00	0.00	0.00	0.03	0.00
27	26	27	0.18	0.01	0.00	0.00	0.07	0.04
28	26	28	-0.23	0.00	0.00	0.00	0.02	0.00
29	29	28	-1.98	0.05	0.00	0.00	0.20	0.12
30	29	30	0.18	0.00	0.00	0.00	0.02	0.00
31	28	31	-2.93	0.13	0.00	0.00	0.30	0.24
32	31	32	3.01	0.00	0.00	0.00	0.02	0.00
33	32	23	2.29	0.11	0.00	0.00	0.23	0.15
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	6.84	0.00	0.00	0.00	0.04	0.00
36	34	35	-1.18	0.06	0.00	0.00	0.12	0.05
37	35	36	-1.54	0.07	0.00	0.00	0.16	0.07
38	37	36	2.44	0.18	0.00	0.00	0.25	0.17
39	38	37	-189.63	0.25	0.00	0.00	1.21	0.64
40	39	38	-188.19	0.06	0.00	0.00	1.20	0.64
41	39	34	8.36	0.00	0.00	0.00	0.05	0.00
42	40	39	-179.83	0.95	0.00	0.00	2.04	2.37
43	40	41	0.18	0.00	0.00	0.00	0.00	0.00
44	8	40	-186.52	1.22	0.00	0.00	2.12	2.54
45	40	42	-7.76	1.73	0.00	0.00	0.79	1.48
46	42	43	-0.16	0.00	0.00	0.00	0.00	0.00
47	43	44	193.25	0.13	0.00	0.00	1.23	0.67
48	44	37	194.41	0.34	0.00	0.00	1.24	0.68
49	44	45	-1.70	0.05	0.00	0.00	0.17	0.09

50	45	46	0.18	0.00	0.00	0.00	0.02	0.00
51	45	47	-2.60	0.14	0.00	0.00	0.27	0.20
52	47	48	1.62	0.03	0.00	0.00	0.17	0.08
53	48	49	0.72	0.01	0.00	0.00	0.07	0.02
54	47	50	-4.76	0.32	0.00	0.00	0.49	0.60
55	50	51	193.95	0.24	0.00	0.00	1.24	0.67
56	51	43	193.77	0.13	0.00	0.00	1.24	0.67
57	51	52	0.18	0.00	0.00	0.00	0.02	0.00
58	50	53	-199.07	0.46	0.00	0.00	1.27	0.71
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-199.79	1.04	0.00	0.00	2.27	2.88
62	56	42	7.96	1.87	0.00	0.00	0.81	1.55
63	56	57	-208.84	0.19	0.00	0.00	2.37	3.13
64	57	6	-210.10	1.46	0.00	0.00	2.38	3.16
65	57	58	0.18	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.36	0.01	0.00	0.00	0.04	0.01
68	5	61	108.08	0.11	0.00	0.00	1.23	0.92
69	12	62	-11.79	0.01	0.00	0.00	0.13	0.02
70	61	62	14.31	14.91	0.00	0.00	1.46	4.60
71	61	63	77.75	0.65	0.00	0.00	0.88	0.50
72	15	64	557.41	6.17	0.00	0.00	3.56	4.75
73	64	65	540.86	5.39	0.00	0.00	3.45	4.49
74	65	66	550.22	5.56	0.00	0.00	3.51	4.64
75	14	67	12.78	3.96	0.00	0.00	1.31	3.73
76	67	68	11.88	0.00	0.00	0.00	0.13	0.02
77	68	69	0.36	0.00	0.00	0.00	0.00	0.00
78	68	65	9.54	0.00	0.00	0.00	0.11	0.01
79	20	70	21.60	6.91	0.00	0.00	2.21	9.87
80	70	71	1.34	0.00	0.00	0.00	0.02	0.00
81	71	72	0.36	0.00	0.00	0.00	0.04	0.01
82	71	73	0.44	0.00	0.00	0.00	0.01	0.00
83	73	74	-1.72	0.00	0.00	0.00	0.02	0.00
84	74	64	-16.01	0.00	0.00	0.00	0.18	0.03
85	74	75	14.12	10.95	0.00	0.00	1.44	4.49
86	73	76	0.18	0.00	0.00	0.00	0.00	0.00
87	73	77	1.26	0.00	0.00	0.00	0.01	0.00
88	77	78	0.18	0.00	0.00	0.00	0.02	0.00
89	70	79	19.00	0.02	0.00	0.00	0.22	0.04
90	79	80	18.46	2.58	0.00	0.00	1.89	7.38
91	80	81	18.10	2.84	0.00	0.00	1.85	7.11
92	81	82	17.38	2.31	0.00	0.00	1.78	6.60
93	82	83	16.84	3.11	0.00	0.00	1.72	6.22
94	83	84	0.18	0.00	0.00	0.00	0.02	0.00
95	83	85	15.76	0.02	0.00	0.00	0.18	0.03
96	85	86	15.58	0.01	0.00	0.00	0.18	0.03

97	86	87	0.18	0.00	0.00	0.00	0.02	0.00
98	86	88	14.68	0.01	0.00	0.00	0.17	0.02
99	88	89	0.82	0.04	0.00	0.00	0.08	0.02
100	89	90	-0.08	0.00	0.00	0.00	0.00	0.00
101	90	91	-0.62	0.00	0.00	0.00	0.01	0.00
102	91	92	10.90	0.00	0.00	0.00	0.12	0.01
103	92	93	0.18	0.00	0.00	0.00	0.02	0.00
104	92	75	10.54	0.00	0.00	0.00	0.12	0.01
105	90	94	0.18	0.00	0.00	0.00	0.02	0.00
106	91	95	-12.60	0.02	0.00	0.00	0.14	0.02
107	95	96	-12.96	0.01	0.00	0.00	0.15	0.02
108	96	97	0.18	0.01	0.00	0.00	0.07	0.04
109	96	88	-13.14	0.01	0.00	0.00	0.15	0.02
110	66	75	-24.48	0.00	0.00	0.00	0.28	0.06
111	66	98	574.16	2.76	0.00	0.00	3.66	5.02
112	98	99	0.36	0.00	0.00	0.00	0.00	0.00
113	98	100	1.44	0.00	0.00	0.00	0.02	0.00
114	100	101	0.18	0.00	0.00	0.00	0.00	0.00
115	98	102	571.10	3.48	0.00	0.00	3.64	4.97
116	102	103	0.90	0.00	0.00	0.00	0.01	0.00
117	102	104	568.94	4.19	0.00	0.00	3.63	4.93
118	104	105	2.16	0.00	0.00	0.00	0.02	0.00
119	105	106	0.86	0.00	0.00	0.00	0.01	0.00
120	106	107	0.32	0.00	0.00	0.00	0.00	0.00
121	107	108	-0.40	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.94	0.00	0.00	0.00	0.01	0.00
123	104	109	566.78	0.49	0.00	0.00	3.62	4.90
124	109	110	566.24	5.13	0.00	0.00	3.61	4.89
125	110	111	417.23	2.58	0.00	0.00	2.66	2.78
126	111	112	416.69	0.42	0.00	0.00	2.66	2.77
127	112	113	558.68	2.38	0.00	0.00	3.57	4.77
128	113	114	554.36	13.63	0.00	0.00	3.54	4.70
129	114	115	554.36	1.41	0.00	0.00	3.54	4.70
130	115	116	551.30	3.95	0.00	0.00	3.52	4.65
131	116	117	550.76	0.23	0.00	0.00	3.52	4.64
132	117	118	518.63	0.21	0.00	0.00	3.31	4.15
133	118	119	547.34	4.59	0.00	0.00	3.49	4.59
134	119	120	546.44	0.23	0.00	0.00	3.49	4.58
135	120	121	545.54	2.51	0.00	0.00	3.48	4.56
136	121	122	415.47	1.65	0.00	0.00	2.65	2.75
137	122	123	378.33	1.39	0.00	0.00	2.41	2.32
138	123	124	413.55	1.64	0.00	0.00	2.64	2.73
139	124	125	541.22	2.70	0.00	0.00	3.45	4.50
140	125	126	410.42	1.62	0.00	0.00	2.62	2.69
141	126	127	377.22	1.59	0.00	0.00	2.41	2.30
142	127	128	370.82	1.56	0.00	0.00	2.37	2.23
143	128	129	354.11	0.41	0.00	0.00	2.26	2.05

144	129	130	353.21	1.67	0.00	0.00	2.25	2.04
145	130	131	358.63	0.31	0.00	0.00	2.29	2.10
146	131	132	358.27	1.28	0.00	0.00	2.29	2.09
147	132	133	357.19	0.21	0.00	0.00	2.28	2.08
148	133	134	344.30	1.17	0.00	0.00	2.20	1.95
149	134	135	343.76	0.78	0.00	0.00	2.19	1.94
150	135	136	358.69	0.84	0.00	0.00	2.29	2.10
151	136	137	357.79	0.84	0.00	0.00	2.28	2.09
152	137	138	356.77	1.25	0.00	0.00	2.28	2.08
153	138	139	355.69	0.52	0.00	0.00	2.27	2.07
154	139	140	357.50	0.86	0.00	0.00	2.28	2.09
155	140	141	356.96	1.25	0.00	0.00	2.28	2.08
156	141	142	512.42	2.48	0.00	0.00	3.27	4.06
157	142	143	306.01	0.69	0.00	0.00	1.95	1.56
158	143	144	305.47	1.09	0.00	0.00	1.95	1.56
159	144	145	304.75	1.16	0.00	0.00	1.95	1.55
160	145	146	229.58	0.66	0.00	0.00	1.47	0.92
161	146	147	303.31	0.15	0.00	0.00	1.94	1.54
162	147	148	500.00	0.78	0.00	0.00	3.19	3.88
163	110	149	147.75	0.58	0.00	0.00	1.68	1.65
164	149	150	146.13	0.78	0.00	0.00	1.66	1.61
165	150	151	144.87	0.95	0.00	0.00	1.64	1.59
166	112	151	-142.35	0.69	0.00	0.00	1.62	1.54
167	117	152	31.95	0.08	0.00	0.00	0.36	0.10
168	152	153	31.41	0.06	0.00	0.00	0.36	0.09
169	153	154	0.90	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-29.43	0.07	0.00	0.00	0.33	0.08
172	121	156	129.89	0.97	0.00	0.00	1.47	1.30
173	156	157	129.17	0.77	0.00	0.00	1.47	1.29
174	157	158	164.69	1.21	0.00	0.00	1.87	2.02
175	158	159	128.57	0.76	0.00	0.00	1.46	1.27
176	159	124	128.21	0.96	0.00	0.00	1.45	1.27
177	158	123	35.40	0.09	0.00	0.00	0.40	0.12
178	157	122	-36.05	0.09	0.00	0.00	0.41	0.12
179	125	160	130.26	0.91	0.00	0.00	1.48	1.31
180	162	167	-159.86	1.53	0.00	0.00	1.81	1.91
181	167	160	-129.36	0.77	0.00	0.00	1.47	1.29
182	162	163	162.84	1.58	0.00	0.00	1.85	1.97
183	163	164	176.49	2.06	0.00	0.00	2.00	2.29
184	164	165	169.81	1.81	0.00	0.00	1.93	2.13
185	165	166	180.72	1.91	0.00	0.00	2.05	2.39
186	133	165	12.71	0.01	0.00	0.00	0.14	0.02
187	130	164	-5.42	0.00	0.00	0.00	0.06	0.00
188	163	128	-15.62	0.02	0.00	0.00	0.18	0.03
189	127	162	5.32	0.00	0.00	0.00	0.06	0.00
190	126	167	31.40	0.07	0.00	0.00	0.36	0.09

191	166	168	163.63	1.69	0.00	0.00	1.86	1.99
192	168	169	162.13	1.76	0.00	0.00	1.84	1.96
193	169	170	157.44	1.58	0.00	0.00	1.79	1.85
194	170	141	156.00	0.53	0.00	0.00	1.77	1.82
195	169	139	3.97	0.00	0.00	0.00	0.05	0.00
196	168	137	-0.12	0.00	0.00	0.00	0.00	0.00
197	166	135	15.65	0.02	0.00	0.00	0.18	0.03
198	142	171	206.41	0.30	0.00	0.00	1.32	0.75
199	171	172	199.03	1.75	0.00	0.00	1.27	0.71
200	172	147	196.69	1.71	0.00	0.00	2.23	2.80
201	145	173	74.99	0.19	0.00	0.00	0.85	0.47
202	173	174	74.27	0.33	0.00	0.00	0.84	0.46
203	174	146	73.91	0.15	0.00	0.00	0.84	0.46
204	63	176	76.31	0.07	0.00	0.00	0.87	0.48
205	176	2	-33.71	5.62	0.00	0.00	3.44	22.50
206	176	177	11.40	0.01	0.00	0.00	0.13	0.01
207	177	178	11.40	0.00	0.00	0.00	0.13	0.01
208	178	179	11.40	0.00	0.00	0.00	0.13	0.01
209	179	180	7.64	0.01	0.00	0.00	0.09	0.01
210	180	181	3.48	0.60	0.00	0.00	0.35	0.33
211	181	182	3.39	0.72	0.00	0.00	0.35	0.32
212	182	183	-0.57	0.03	0.00	0.00	0.06	0.01
213	183	184	1.94	0.27	0.00	0.00	0.20	0.11
214	184	185	0.32	0.00	0.00	0.00	0.00	0.00
215	185	186	-72.80	0.13	0.00	0.00	0.46	0.11
216	186	187	-74.42	0.14	0.00	0.00	0.48	0.11
217	187	188	-83.05	0.17	0.00	0.00	0.53	0.14
218	188	189	-84.13	0.17	0.00	0.00	0.54	0.14
219	189	190	-85.21	0.18	0.00	0.00	0.54	0.15
220	190	191	-88.99	0.17	0.00	0.00	0.57	0.16
221	191	192	-93.40	0.30	0.00	0.00	0.60	0.17
222	192	193	-96.28	0.26	0.00	0.00	0.61	0.18
223	193	176	-97.36	0.07	0.00	0.00	0.62	0.19
224	192	194	1.98	0.04	0.00	0.00	0.20	0.12
225	194	195	0.18	0.00	0.00	0.00	0.02	0.00
226	191	181	3.16	0.00	0.00	0.00	0.04	0.00
227	191	196	0.18	0.00	0.00	0.00	0.02	0.00
228	190	197	1.26	0.02	0.00	0.00	0.13	0.05
229	188	198	0.36	0.00	0.00	0.00	0.04	0.01
230	183	187	-6.65	0.00	0.00	0.00	0.08	0.01
231	185	199	2.70	0.07	0.00	0.00	0.28	0.21
232	185	200	68.62	0.38	0.00	0.00	0.78	0.40
233	200	201	57.52	0.32	0.00	0.00	0.65	0.29
234	200	202	10.74	0.27	0.00	0.00	1.10	2.70
235	202	203	9.30	0.01	0.00	0.00	0.11	0.01
236	203	201	3.54	0.03	0.00	0.00	0.36	0.35
237	203	204	3.60	0.53	0.00	0.00	0.37	0.36

238	204	205	2.88	0.02	0.00	0.00	0.29	0.24
239	205	201	-60.70	0.52	0.00	0.00	0.69	0.32
240	205	206	62.32	0.27	0.00	0.00	0.71	0.33
241	206	207	61.42	0.32	0.00	0.00	0.70	0.32
242	207	208	57.10	0.54	0.00	0.00	0.65	0.28
243	208	209	53.25	0.20	0.00	0.00	0.60	0.25
244	209	210	52.17	0.29	0.00	0.00	0.59	0.24
245	210	211	-1.15	0.00	0.00	0.00	0.12	0.04
246	211	212	-2.77	0.44	0.00	0.00	0.28	0.22
247	212	208	-3.85	0.04	0.00	0.00	0.39	0.40
248	210	213	52.60	0.21	0.00	0.00	0.60	0.24
249	213	214	39.82	0.06	0.00	0.00	0.45	0.15
250	214	218	28.48	0.02	0.00	0.00	0.32	0.08
251	213	216	12.24	0.00	0.00	0.00	0.14	0.02
252	214	217	9.18	0.00	0.00	0.00	0.10	0.01
253	218	219	13.45	0.01	0.00	0.00	0.15	0.02
254	219	220	10.93	0.02	0.00	0.00	0.12	0.01
255	220	221	9.13	0.00	0.00	0.00	0.10	0.01
256	221	218	-14.67	0.03	0.00	0.00	0.17	0.02
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	2.50	0.02	0.00	0.00	0.26	0.18
259	222	223	0.52	0.01	0.00	0.00	0.05	0.01
260	223	180	-2.72	0.02	0.00	0.00	0.28	0.21
261	1	2	37.67	0.02	0.00	0.00	0.24	0.03

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		1.80	216.73	10.00	206.73	89.58
2		2.16	216.71	10.00	206.71	89.57
3		1.44	216.71	10.00	206.71	89.57
4		0.36	216.71	10.00	206.71	89.57
5		0.54	211.92	10.00	201.92	87.50
6		0.90	208.22	10.00	198.22	85.90
7		0.72	204.95	10.00	194.95	84.48
8		0.72	201.76	10.00	191.76	83.10
9		1.44	196.89	10.00	186.89	80.98
10		1.98	190.03	10.00	180.03	78.01
11		0.18	190.03	10.00	180.03	78.01
12		1.44	196.89	10.00	186.89	80.98
13		2.52	188.90	10.00	178.90	77.52
14		2.16	176.93	10.00	166.93	72.34

15	2.16	184.53	10.00	174.53	75.63
16	1.62	190.00	10.00	180.00	78.00
17	0.18	190.00	10.00	180.00	78.00
18	0.18	190.00	10.00	180.00	78.00
19	1.62	189.97	10.00	179.97	77.99
20	2.70	185.26	10.00	175.26	75.95
21	0.36	187.89	10.00	177.89	77.09
22	0.18	203.82	10.00	193.82	83.99
23	0.90	203.82	10.00	193.82	83.99
24	0.72	203.79	10.00	193.79	83.98
25	0.18	203.79	10.00	193.79	83.98
26	0.36	203.79	10.00	193.79	83.98
27	0.18	203.78	10.00	193.78	83.97
28	0.72	203.79	10.00	193.79	83.98
29	1.80	203.74	10.00	193.74	83.95
30	0.18	203.74	10.00	193.74	83.95
31	0.90	203.93	10.00	193.93	84.04
32	0.72	203.93	10.00	193.93	84.04
33	0.00	203.93	10.00	193.93	84.04
34	2.70	203.93	10.00	193.93	84.04
35	0.36	203.99	10.00	193.99	84.06
36	0.90	204.06	10.00	194.06	84.09
37	2.34	204.24	10.00	194.24	84.17
38	1.08	203.99	10.00	193.99	84.06
39	0.00	203.93	10.00	193.93	84.04
40	0.90	202.98	10.00	192.98	83.63
41	0.18	202.98	10.00	192.98	83.63
42	0.36	204.72	10.00	194.72	84.38
43	0.36	204.72	10.00	194.72	84.38
44	0.54	204.58	10.00	194.58	84.32
45	0.72	204.63	10.00	194.63	84.34
46	0.18	204.63	10.00	194.63	84.34
47	0.54	204.77	10.00	194.77	84.40
48	0.90	204.74	10.00	194.74	84.39
49	0.72	204.73	10.00	194.73	84.38
50	0.36	205.09	10.00	195.09	84.54
51	0.00	204.85	10.00	194.85	84.43
52	0.18	204.85	10.00	194.85	84.43
53	0.72	205.54	10.00	195.54	84.74
54	0.00	205.54	10.00	195.54	84.74
55	0.00	205.54	10.00	195.54	84.74
56	1.08	206.58	10.00	196.58	85.19
57	1.08	206.77	10.00	196.77	85.27
58	0.18	206.77	10.00	196.77	85.27
59	0.00	203.99	10.00	193.99	84.06
60	0.36	203.99	10.00	193.99	84.06
61	16.02	211.80	10.00	201.80	87.45

62	2.52	196.89	10.00	186.89	80.99
63	1.44	211.15	10.00	201.15	87.17
64	0.54	178.36	10.00	168.36	72.96
65	0.18	172.97	10.00	162.97	70.62
66	0.54	167.41	10.00	157.41	68.21
67	0.90	172.98	10.00	162.98	70.62
68	1.98	172.97	10.00	162.97	70.62
69	0.36	172.97	10.00	162.97	70.62
70	1.26	178.36	10.00	168.36	72.95
71	0.54	178.36	10.00	168.36	72.95
72	0.36	178.35	10.00	168.35	72.95
73	0.72	178.36	10.00	168.36	72.95
74	0.18	178.36	10.00	168.36	72.95
75	0.18	167.41	10.00	157.41	68.21
76	0.18	178.36	10.00	168.36	72.95
77	1.08	178.36	10.00	168.36	72.95
78	0.18	178.36	10.00	168.36	72.95
79	0.54	178.33	10.00	168.33	72.94
80	0.36	175.75	10.00	165.75	71.83
81	0.72	172.91	10.00	162.91	70.59
82	0.54	170.60	10.00	160.60	69.59
83	0.90	167.49	10.00	157.49	68.25
84	0.18	167.49	10.00	157.49	68.24
85	0.18	167.47	10.00	157.47	68.24
86	0.72	167.46	10.00	157.46	68.23
87	0.18	167.46	10.00	157.46	68.23
88	0.72	167.45	10.00	157.45	68.23
89	0.90	167.42	10.00	157.42	68.21
90	0.36	167.42	10.00	157.42	68.21
91	1.08	167.42	10.00	157.42	68.21
92	0.18	167.41	10.00	157.41	68.21
93	0.18	167.41	10.00	157.41	68.21
94	0.18	167.42	10.00	157.42	68.21
95	0.36	167.44	10.00	157.44	68.22
96	0.00	167.45	10.00	157.45	68.23
97	0.18	167.44	10.00	157.44	68.22
98	1.26	164.65	10.00	154.65	67.01
99	0.36	164.65	10.00	154.65	67.01
100	1.26	164.65	10.00	154.65	67.01
101	0.18	164.65	10.00	154.65	67.01
102	1.26	161.17	10.00	151.17	65.51
103	0.90	161.17	10.00	151.17	65.51
104	0.00	156.98	10.00	146.98	63.69
105	0.36	156.98	10.00	146.98	63.69
106	0.54	156.98	10.00	146.98	63.69
107	0.72	156.98	10.00	146.98	63.69
108	0.54	156.98	10.00	146.98	63.69

109	0.54	156.49	10.00	146.49	63.48
110	1.26	151.36	10.00	141.36	61.26
111	0.54	148.78	10.00	138.78	60.14
112	0.36	148.36	10.00	138.36	59.96
113	4.32	145.98	10.00	135.98	58.92
114	0.00	132.35	10.00	122.35	53.02
115	3.06	130.94	10.00	120.94	52.41
116	0.54	126.98	10.00	116.98	50.69
117	0.18	126.75	10.00	116.75	50.59
118	0.72	126.54	10.00	116.54	50.50
119	0.90	121.95	10.00	111.95	48.51
120	0.90	121.72	10.00	111.72	48.41
121	0.18	119.21	10.00	109.21	47.33
122	1.08	117.56	10.00	107.56	46.61
123	0.18	116.17	10.00	106.17	46.01
124	0.54	114.53	10.00	104.53	45.30
125	0.54	111.83	10.00	101.83	44.13
126	1.80	110.22	10.00	100.22	43.43
127	1.08	108.63	10.00	98.63	42.74
128	1.08	107.07	10.00	97.07	42.06
129	0.90	106.66	10.00	96.66	41.88
130	0.00	104.98	10.00	94.98	41.16
131	0.36	104.67	10.00	94.67	41.02
132	1.08	103.39	10.00	93.39	40.47
133	0.18	103.18	10.00	93.18	40.38
134	0.54	102.02	10.00	92.02	39.87
135	0.72	101.24	10.00	91.24	39.54
136	0.90	100.40	10.00	90.40	39.17
137	0.90	99.57	10.00	89.57	38.81
138	1.08	98.32	10.00	88.32	38.27
139	2.16	97.80	10.00	87.80	38.05
140	0.54	96.95	10.00	86.95	37.68
141	0.54	95.70	10.00	85.70	37.14
142	0.00	93.22	10.00	83.22	36.06
143	0.54	92.53	10.00	82.53	35.76
144	0.72	91.44	10.00	81.44	35.29
145	0.18	90.28	10.00	80.28	34.79
146	0.18	89.62	10.00	79.62	34.50
147	0.00	89.46	10.00	79.46	34.43
148	500.00	88.69	10.00	78.69	34.10
149	1.62	150.78	10.00	140.78	61.01
150	1.26	150.01	10.00	140.01	60.67
151	2.52	149.05	10.00	139.05	60.26
152	0.54	126.67	10.00	116.67	50.56
153	1.08	126.61	10.00	116.61	50.53
154	0.90	126.61	10.00	116.61	50.53
155	0.00	126.61	10.00	116.61	50.53

156	0.72	118.24	10.00	108.24	46.90
157	0.54	117.47	10.00	107.47	46.57
158	0.72	116.26	10.00	106.26	46.05
159	0.36	115.50	10.00	105.50	45.71
160	0.90	110.92	10.00	100.92	43.73
162	2.34	108.63	10.00	98.63	42.74
163	1.98	107.05	10.00	97.05	42.05
164	1.26	104.99	10.00	94.99	41.16
165	1.80	103.17	10.00	93.17	40.38
166	1.44	101.26	10.00	91.26	39.55
167	0.90	110.15	10.00	100.15	43.40
168	1.62	99.57	10.00	89.57	38.81
169	0.72	97.80	10.00	87.80	38.05
170	1.44	96.23	10.00	86.23	37.37
171	7.38	92.92	10.00	82.92	35.93
172	2.34	91.17	10.00	81.17	35.17
173	0.72	90.09	10.00	80.09	34.71
174	0.36	89.76	10.00	79.76	34.56
176	1.26	211.08	10.00	201.08	87.14
177	0.00	211.08	10.00	201.08	87.13
178	0.00	211.08	10.00	201.08	87.13
179	1.26	211.07	10.00	201.07	87.13
180	1.44	211.07	10.00	201.07	87.13
181	3.24	210.47	10.00	200.47	86.87
182	3.96	209.75	10.00	199.75	86.56
183	4.14	209.77	10.00	199.77	86.57
184	1.62	209.51	10.00	199.51	86.45
185	1.80	209.51	10.00	199.51	86.45
186	1.62	209.64	10.00	199.64	86.51
187	1.98	209.78	10.00	199.78	86.57
188	0.72	209.94	10.00	199.94	86.64
189	1.08	210.12	10.00	200.12	86.72
190	2.52	210.29	10.00	200.29	86.79
191	1.08	210.47	10.00	200.47	86.87
192	0.90	210.76	10.00	200.76	87.00
193	1.08	211.02	10.00	201.02	87.11
194	1.80	210.72	10.00	200.72	86.98
195	0.18	210.72	10.00	200.72	86.98
196	0.18	210.47	10.00	200.47	86.87
197	1.26	210.27	10.00	200.27	86.78
198	0.36	209.94	10.00	199.94	86.64
199	2.70	209.44	10.00	199.44	86.42
200	0.36	209.13	10.00	199.13	86.29
201	0.36	208.81	10.00	198.81	86.15
202	1.44	208.86	10.00	198.86	86.17
203	2.16	208.85	10.00	198.85	86.17
204	0.72	208.31	10.00	198.31	85.94

205	1.26	208.29	10.00	198.29	85.93
206	0.90	208.02	10.00	198.02	85.81
207	4.32	207.70	10.00	197.70	85.67
208	0.00	207.16	10.00	197.16	85.44
209	1.08	206.96	10.00	196.96	85.35
210	0.72	206.67	10.00	196.67	85.23
211	1.62	206.68	10.00	196.68	85.23
212	1.08	207.12	10.00	197.12	85.42
213	0.54	206.47	10.00	196.47	85.14
214	2.16	206.41	10.00	196.41	85.11
215	22.00	206.34	10.00	196.34	85.08
216	12.24	206.46	10.00	196.46	85.13
217	9.18	206.41	10.00	196.41	85.11
218	0.36	206.39	10.00	196.39	85.10
219	2.52	206.38	10.00	196.38	85.10
220	1.80	206.37	10.00	196.37	85.09
221	1.80	206.37	10.00	196.37	85.09
222	1.98	211.05	10.00	201.05	87.12
223	3.24	211.04	10.00	201.04	87.12

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	195.08	
BB	2	577.48	

NET SYSTEM INFLOW	=	772.56	
NET SYSTEM OUTFLOW	=	0.00	
NET SYSTEM DEMAND	=	772.56	

CHANGES FOR NEXT SIMULATION

DEMAND CHANGES

DEMAND TYPE = 1 - GDF = 0.180

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00
2	1000.00

SIMULATION RESULTS

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00342

SIMULATION DESCRIPTION (LABEL)

FIRE FLOW @ 1,000 GPM AT CENTER OF COMMERCIAL; 1/2 MAX DAY

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	602.76	0.11	180.71	P1	0.00	1.71	0.76
2-FGPU	BB 1	671.78	0.14	180.74	P2	0.00	1.91	0.93

3	3	2	-1.80	0.00	0.00	0.00	0.05	0.00
4	3	4	0.36	0.00	0.00	0.00	0.01	0.00
5	5	1	-299.38	0.92	0.00	0.00	1.91	1.50
6	6	5	-140.39	0.23	0.00	0.00	0.90	0.37
7	7	6	-87.69	0.19	0.00	0.00	0.56	0.15
8	8	7	-86.97	0.18	0.00	0.00	0.56	0.15
9	9	8	-114.47	0.23	0.00	0.00	0.73	0.25
10	9	10	107.15	0.29	0.00	0.00	0.68	0.22
11	10	11	0.18	0.00	0.00	0.00	0.02	0.00
12	9	12	5.88	0.00	0.00	0.00	0.07	0.00
13	12	13	4.45	0.63	0.00	0.00	0.45	0.53
14	13	14	1.93	0.27	0.00	0.00	0.20	0.11
15	10	15	95.72	0.21	0.00	0.00	0.61	0.18
16	10	16	9.27	0.00	0.00	0.00	0.11	0.01
17	16	17	0.18	0.00	0.00	0.00	0.00	0.00
18	16	18	0.18	0.00	0.00	0.00	0.02	0.00
19	16	19	7.29	0.00	0.00	0.00	0.08	0.01
20	19	20	3.24	0.29	0.00	0.00	0.33	0.29
21	19	21	2.43	0.15	0.00	0.00	0.25	0.17
22	21	20	2.07	0.15	0.00	0.00	0.21	0.13
23	23	22	0.18	0.00	0.00	0.00	0.02	0.00
24	23	24	1.21	0.03	0.00	0.00	0.12	0.05
25	24	25	0.18	0.00	0.00	0.00	0.02	0.00
26	24	26	0.31	0.00	0.00	0.00	0.03	0.00
27	26	27	0.18	0.01	0.00	0.00	0.07	0.04
28	26	28	-0.23	0.00	0.00	0.00	0.02	0.00
29	29	28	-1.98	0.05	0.00	0.00	0.20	0.12
30	29	30	0.18	0.00	0.00	0.00	0.02	0.00
31	28	31	-2.93	0.13	0.00	0.00	0.30	0.24
32	31	32	3.01	0.00	0.00	0.00	0.02	0.00
33	32	23	2.29	0.11	0.00	0.00	0.23	0.15
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	6.84	0.00	0.00	0.00	0.04	0.00
36	34	35	0.40	0.01	0.00	0.00	0.04	0.01
37	35	36	0.04	0.00	0.00	0.00	0.00	0.00
38	37	36	0.86	0.03	0.00	0.00	0.09	0.03
39	38	37	-39.25	0.01	0.00	0.00	0.25	0.03
40	39	38	-37.81	0.00	0.00	0.00	0.24	0.03
41	39	34	9.94	0.00	0.00	0.00	0.06	0.00
42	40	39	-27.87	0.03	0.00	0.00	0.32	0.08
43	40	41	0.18	0.00	0.00	0.00	0.00	0.00
44	8	40	-28.22	0.04	0.00	0.00	0.32	0.08
45	40	42	-1.43	0.08	0.00	0.00	0.15	0.06
46	42	43	0.09	0.00	0.00	0.00	0.00	0.00
47	43	44	44.14	0.01	0.00	0.00	0.28	0.04
48	44	37	42.45	0.02	0.00	0.00	0.27	0.04
49	44	45	1.15	0.02	0.00	0.00	0.12	0.04

50	45	46	0.18	0.00	0.00	0.00	0.02	0.00
51	45	47	0.25	0.00	0.00	0.00	0.03	0.00
52	47	48	1.62	0.03	0.00	0.00	0.17	0.08
53	48	49	0.72	0.01	0.00	0.00	0.07	0.02
54	47	50	-1.91	0.06	0.00	0.00	0.19	0.11
55	50	51	44.59	0.02	0.00	0.00	0.28	0.04
56	51	43	44.41	0.01	0.00	0.00	0.28	0.04
57	51	52	0.18	0.00	0.00	0.00	0.02	0.00
58	50	53	-46.86	0.03	0.00	0.00	0.30	0.05
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-47.58	0.07	0.00	0.00	0.54	0.20
62	56	42	1.88	0.13	0.00	0.00	0.19	0.11
63	56	57	-50.54	0.01	0.00	0.00	0.57	0.23
64	57	6	-51.80	0.11	0.00	0.00	0.59	0.24
65	57	58	0.18	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.36	0.01	0.00	0.00	0.04	0.01
68	5	61	158.44	0.23	0.00	0.00	1.80	1.88
69	12	62	-0.01	0.00	0.00	0.00	0.00	0.00
70	61	62	2.53	0.60	0.00	0.00	0.26	0.19
71	61	63	139.90	1.94	0.00	0.00	1.59	1.49
72	15	64	93.56	0.23	0.00	0.00	0.60	0.17
73	64	65	84.98	0.17	0.00	0.00	0.54	0.15
74	65	66	81.33	0.16	0.00	0.00	0.52	0.13
75	14	67	-0.23	0.00	0.00	0.00	0.02	0.00
76	67	68	-1.13	0.00	0.00	0.00	0.01	0.00
77	68	69	0.36	0.00	0.00	0.00	0.00	0.00
78	68	65	-3.47	0.00	0.00	0.00	0.04	0.00
79	20	70	2.61	0.14	0.00	0.00	0.27	0.20
80	70	71	-2.65	0.00	0.00	0.00	0.03	0.00
81	71	72	0.36	0.00	0.00	0.00	0.04	0.01
82	71	73	-3.55	0.00	0.00	0.00	0.04	0.00
83	73	74	-5.71	0.00	0.00	0.00	0.06	0.00
84	74	64	-8.04	0.00	0.00	0.00	0.09	0.01
85	74	75	2.15	0.34	0.00	0.00	0.22	0.14
86	73	76	0.18	0.00	0.00	0.00	0.00	0.00
87	73	77	1.26	0.00	0.00	0.00	0.01	0.00
88	77	78	0.18	0.00	0.00	0.00	0.02	0.00
89	70	79	4.00	0.00	0.00	0.00	0.05	0.00
90	79	80	3.46	0.12	0.00	0.00	0.35	0.33
91	80	81	3.10	0.11	0.00	0.00	0.32	0.27
92	81	82	2.38	0.06	0.00	0.00	0.24	0.17
93	82	83	1.84	0.05	0.00	0.00	0.19	0.10
94	83	84	0.18	0.00	0.00	0.00	0.02	0.00
95	83	85	0.76	0.00	0.00	0.00	0.01	0.00
96	85	86	0.58	0.00	0.00	0.00	0.01	0.00

97	86	87	0.18	0.00	0.00	0.00	0.02	0.00
98	86	88	-0.32	0.00	0.00	0.00	0.00	0.00
99	88	89	-0.07	0.00	0.00	0.00	0.01	0.00
100	89	90	-0.97	0.00	0.00	0.00	0.01	0.00
101	90	91	-1.51	0.00	0.00	0.00	0.02	0.00
102	91	92	-4.10	0.00	0.00	0.00	0.05	0.00
103	92	93	0.18	0.00	0.00	0.00	0.02	0.00
104	92	75	-4.46	0.00	0.00	0.00	0.05	0.00
105	90	94	0.18	0.00	0.00	0.00	0.02	0.00
106	91	95	1.51	0.00	0.00	0.00	0.02	0.00
107	95	96	1.15	0.00	0.00	0.00	0.01	0.00
108	96	97	0.18	0.01	0.00	0.00	0.07	0.04
109	96	88	0.97	0.00	0.00	0.00	0.01	0.00
110	66	75	2.49	0.00	0.00	0.00	0.03	0.00
111	66	98	78.30	0.07	0.00	0.00	0.50	0.13
112	98	99	0.36	0.00	0.00	0.00	0.00	0.00
113	98	100	1.44	0.00	0.00	0.00	0.02	0.00
114	100	101	0.18	0.00	0.00	0.00	0.00	0.00
115	98	102	75.24	0.08	0.00	0.00	0.48	0.12
116	102	103	0.90	0.00	0.00	0.00	0.01	0.00
117	102	104	73.08	0.09	0.00	0.00	0.47	0.11
118	104	105	2.16	0.00	0.00	0.00	0.02	0.00
119	105	106	0.86	0.00	0.00	0.00	0.01	0.00
120	106	107	0.32	0.00	0.00	0.00	0.00	0.00
121	107	108	-0.40	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.94	0.00	0.00	0.00	0.01	0.00
123	104	109	70.92	0.01	0.00	0.00	0.45	0.10
124	109	110	70.38	0.11	0.00	0.00	0.45	0.10
125	110	111	49.41	0.05	0.00	0.00	0.32	0.05
126	111	112	48.87	0.01	0.00	0.00	0.31	0.05
127	112	113	62.82	0.04	0.00	0.00	0.40	0.08
128	113	114	58.50	0.21	0.00	0.00	0.37	0.07
129	114	115	58.50	0.02	0.00	0.00	0.37	0.07
130	115	116	55.44	0.06	0.00	0.00	0.35	0.07
131	116	117	54.90	0.00	0.00	0.00	0.35	0.06
132	117	118	50.79	0.00	0.00	0.00	0.32	0.06
133	118	119	51.48	0.06	0.00	0.00	0.33	0.06
134	119	120	50.58	0.00	0.00	0.00	0.32	0.06
135	120	121	49.68	0.03	0.00	0.00	0.32	0.05
136	121	122	37.45	0.02	0.00	0.00	0.24	0.03
137	122	123	32.84	0.02	0.00	0.00	0.21	0.03
138	123	124	35.21	0.02	0.00	0.00	0.22	0.03
139	124	125	45.36	0.03	0.00	0.00	0.29	0.05
140	125	126	33.69	0.02	0.00	0.00	0.22	0.03
141	126	127	28.95	0.01	0.00	0.00	0.18	0.02
142	127	128	26.29	0.01	0.00	0.00	0.17	0.02
143	128	129	23.47	0.00	0.00	0.00	0.15	0.01

144	129	130	22.57	0.01	0.00	0.00	0.14	0.01
145	130	131	22.20	0.00	0.00	0.00	0.14	0.01
146	131	132	21.84	0.01	0.00	0.00	0.14	0.01
147	132	133	20.76	0.00	0.00	0.00	0.13	0.01
148	133	134	19.21	0.01	0.00	0.00	0.12	0.01
149	134	135	18.67	0.00	0.00	0.00	0.12	0.01
150	135	136	18.31	0.00	0.00	0.00	0.12	0.01
151	136	137	17.41	0.00	0.00	0.00	0.11	0.01
152	137	138	15.96	0.00	0.00	0.00	0.10	0.01
153	138	139	14.88	0.00	0.00	0.00	0.09	0.01
154	139	140	13.11	0.00	0.00	0.00	0.08	0.00
155	140	141	12.57	0.00	0.00	0.00	0.08	0.00
156	141	142	16.56	0.00	0.00	0.00	0.11	0.01
157	142	143	6.16	0.00	0.00	0.00	0.04	0.00
158	143	144	5.62	0.00	0.00	0.00	0.04	0.00
159	144	145	4.90	0.00	0.00	0.00	0.03	0.00
160	145	146	3.16	0.00	0.00	0.00	0.02	0.00
161	146	147	3.46	0.00	0.00	0.00	0.02	0.00
162	147	148	4.14	0.00	0.00	0.00	0.03	0.00
163	110	149	19.71	0.01	0.00	0.00	0.22	0.04
164	149	150	18.09	0.02	0.00	0.00	0.21	0.03
165	150	151	16.83	0.02	0.00	0.00	0.19	0.03
166	112	151	-14.31	0.01	0.00	0.00	0.16	0.02
167	117	152	3.93	0.00	0.00	0.00	0.04	0.00
168	152	153	3.39	0.00	0.00	0.00	0.04	0.00
169	153	154	0.90	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-1.41	0.00	0.00	0.00	0.02	0.00
172	121	156	12.05	0.01	0.00	0.00	0.14	0.02
173	156	157	11.33	0.01	0.00	0.00	0.13	0.01
174	157	158	14.32	0.01	0.00	0.00	0.16	0.02
175	158	159	11.05	0.01	0.00	0.00	0.13	0.01
176	159	124	10.69	0.01	0.00	0.00	0.12	0.01
177	158	123	2.55	0.00	0.00	0.00	0.03	0.00
178	157	122	-3.53	0.00	0.00	0.00	0.04	0.00
179	125	160	11.13	0.01	0.00	0.00	0.13	0.01
180	162	167	-12.27	0.01	0.00	0.00	0.14	0.02
181	167	160	-10.23	0.01	0.00	0.00	0.12	0.01
182	162	163	11.51	0.01	0.00	0.00	0.13	0.01
183	163	164	11.27	0.01	0.00	0.00	0.13	0.01
184	164	165	10.38	0.01	0.00	0.00	0.12	0.01
185	165	166	9.95	0.01	0.00	0.00	0.11	0.01
186	133	165	1.37	0.00	0.00	0.00	0.02	0.00
187	130	164	0.36	0.00	0.00	0.00	0.00	0.00
188	163	128	-1.74	0.00	0.00	0.00	0.02	0.00
189	127	162	1.59	0.00	0.00	0.00	0.02	0.00
190	126	167	2.94	0.00	0.00	0.00	0.03	0.00

191	166	168	8.15	0.01	0.00	0.00	0.09	0.01
192	168	169	7.08	0.01	0.00	0.00	0.08	0.01
193	169	170	5.97	0.00	0.00	0.00	0.07	0.00
194	170	141	4.53	0.00	0.00	0.00	0.05	0.00
195	169	139	0.39	0.00	0.00	0.00	0.00	0.00
196	168	137	-0.55	0.00	0.00	0.00	0.01	0.00
197	166	135	0.36	0.00	0.00	0.00	0.00	0.00
198	142	171	10.40	0.00	0.00	0.00	0.07	0.00
199	171	172	3.02	0.00	0.00	0.00	0.02	0.00
200	172	147	0.68	0.00	0.00	0.00	0.01	0.00
201	145	173	1.55	0.00	0.00	0.00	0.02	0.00
202	173	174	0.83	0.00	0.00	0.00	0.01	0.00
203	174	146	0.47	0.00	0.00	0.00	0.01	0.00
204	63	176	138.46	0.20	0.00	0.00	1.57	1.46
205	176	2	28.44	4.10	0.00	0.00	2.90	16.41
206	176	177	11.40	0.01	0.00	0.00	0.13	0.01
207	177	178	11.40	0.00	0.00	0.00	0.13	0.01
208	178	179	11.40	0.00	0.00	0.00	0.13	0.01
209	179	180	7.64	0.01	0.00	0.00	0.09	0.01
210	180	181	3.48	0.60	0.00	0.00	0.35	0.33
211	181	182	3.39	0.72	0.00	0.00	0.35	0.32
212	182	183	-0.57	0.03	0.00	0.00	0.06	0.01
213	183	184	1.94	0.27	0.00	0.00	0.20	0.11
214	184	185	0.32	0.00	0.00	0.00	0.00	0.00
215	185	186	-72.80	0.13	0.00	0.00	0.46	0.11
216	186	187	-74.42	0.14	0.00	0.00	0.48	0.11
217	187	188	-83.05	0.17	0.00	0.00	0.53	0.14
218	188	189	-84.13	0.17	0.00	0.00	0.54	0.14
219	189	190	-85.21	0.18	0.00	0.00	0.54	0.15
220	190	191	-88.99	0.17	0.00	0.00	0.57	0.16
221	191	192	-93.40	0.30	0.00	0.00	0.60	0.17
222	192	193	-96.28	0.26	0.00	0.00	0.61	0.18
223	193	176	-97.36	0.07	0.00	0.00	0.62	0.19
224	192	194	1.98	0.04	0.00	0.00	0.20	0.12
225	194	195	0.18	0.00	0.00	0.00	0.02	0.00
226	191	181	3.16	0.00	0.00	0.00	0.04	0.00
227	191	196	0.18	0.00	0.00	0.00	0.02	0.00
228	190	197	1.26	0.02	0.00	0.00	0.13	0.05
229	188	198	0.36	0.00	0.00	0.00	0.04	0.01
230	183	187	-6.65	0.00	0.00	0.00	0.08	0.01
231	185	199	2.70	0.07	0.00	0.00	0.28	0.21
232	185	200	68.62	0.38	0.00	0.00	0.78	0.40
233	200	201	57.52	0.32	0.00	0.00	0.65	0.29
234	200	202	10.74	0.27	0.00	0.00	1.10	2.70
235	202	203	9.30	0.01	0.00	0.00	0.11	0.01
236	203	201	3.54	0.03	0.00	0.00	0.36	0.35
237	203	204	3.60	0.53	0.00	0.00	0.37	0.36

238	204	205	2.88	0.02	0.00	0.00	0.29	0.24
239	205	201	-60.70	0.52	0.00	0.00	0.69	0.32
240	205	206	62.32	0.27	0.00	0.00	0.71	0.33
241	206	207	61.42	0.32	0.00	0.00	0.70	0.32
242	207	208	57.10	0.54	0.00	0.00	0.65	0.28
243	208	209	53.25	0.20	0.00	0.00	0.60	0.25
244	209	210	52.17	0.29	0.00	0.00	0.59	0.24
245	210	211	-1.15	0.00	0.00	0.00	0.12	0.04
246	211	212	-2.77	0.44	0.00	0.00	0.28	0.22
247	212	208	-3.85	0.04	0.00	0.00	0.39	0.40
248	210	213	52.60	0.21	0.00	0.00	0.60	0.24
249	213	214	39.82	0.06	0.00	0.00	0.45	0.15
250	214	218	28.48	0.02	0.00	0.00	0.32	0.08
251	213	216	12.24	0.00	0.00	0.00	0.14	0.02
252	214	217	9.18	0.00	0.00	0.00	0.10	0.01
253	218	219	13.45	0.01	0.00	0.00	0.15	0.02
254	219	220	10.93	0.02	0.00	0.00	0.12	0.01
255	220	221	9.13	0.00	0.00	0.00	0.10	0.01
256	221	218	-14.67	0.03	0.00	0.00	0.17	0.02
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	2.50	0.02	0.00	0.00	0.26	0.18
259	222	223	0.52	0.01	0.00	0.00	0.05	0.01
260	223	180	-2.72	0.02	0.00	0.00	0.28	0.21
261	1	2	973.36	7.33	0.00	0.00	6.21	13.33

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		1.80	200.60	10.00	190.60	82.59
2		1000.00	193.27	10.00	183.27	79.42
3		1.44	193.26	10.00	183.26	79.41
4		0.36	193.26	10.00	183.26	79.41
5		0.54	199.68	10.00	189.68	82.20
6		0.90	199.45	10.00	189.45	82.09
7		0.72	199.26	10.00	189.26	82.01
8		0.72	199.09	10.00	189.09	81.94
9		1.44	198.86	10.00	188.86	81.84
10		1.98	198.57	10.00	188.57	81.71
11		0.18	198.57	10.00	188.57	81.71
12		1.44	198.86	10.00	188.86	81.84
13		2.52	198.22	10.00	188.22	81.56
14		2.16	197.95	10.00	187.95	81.45

15	2.16	198.36	10.00	188.36	81.62
16	1.62	198.56	10.00	188.56	81.71
17	0.18	198.56	10.00	188.56	81.71
18	0.18	198.56	10.00	188.56	81.71
19	1.62	198.56	10.00	188.56	81.71
20	2.70	198.27	10.00	188.27	81.58
21	0.36	198.41	10.00	188.41	81.65
22	0.18	199.04	10.00	189.04	81.92
23	0.90	199.04	10.00	189.04	81.92
24	0.72	199.02	10.00	189.02	81.91
25	0.18	199.02	10.00	189.02	81.91
26	0.36	199.02	10.00	189.02	81.91
27	0.18	199.00	10.00	189.00	81.90
28	0.72	199.02	10.00	189.02	81.91
29	1.80	198.96	10.00	188.96	81.88
30	0.18	198.96	10.00	188.96	81.88
31	0.90	199.15	10.00	189.15	81.97
32	0.72	199.15	10.00	189.15	81.97
33	0.00	199.15	10.00	189.15	81.97
34	2.70	199.15	10.00	189.15	81.97
35	0.36	199.14	10.00	189.14	81.96
36	0.90	199.14	10.00	189.14	81.96
37	2.34	199.17	10.00	189.17	81.97
38	1.08	199.16	10.00	189.16	81.97
39	0.00	199.15	10.00	189.15	81.97
40	0.90	199.12	10.00	189.12	81.95
41	0.18	199.12	10.00	189.12	81.95
42	0.36	199.20	10.00	189.20	81.99
43	0.36	199.20	10.00	189.20	81.99
44	0.54	199.19	10.00	189.19	81.98
45	0.72	199.17	10.00	189.17	81.97
46	0.18	199.17	10.00	189.17	81.97
47	0.54	199.16	10.00	189.16	81.97
48	0.90	199.14	10.00	189.14	81.96
49	0.72	199.13	10.00	189.13	81.96
50	0.36	199.22	10.00	189.22	82.00
51	0.00	199.21	10.00	189.21	81.99
52	0.18	199.21	10.00	189.21	81.99
53	0.72	199.25	10.00	189.25	82.01
54	0.00	199.25	10.00	189.25	82.01
55	0.00	199.25	10.00	189.25	82.01
56	1.08	199.33	10.00	189.33	82.04
57	1.08	199.34	10.00	189.34	82.05
58	0.18	199.34	10.00	189.34	82.05
59	0.00	199.14	10.00	189.14	81.96
60	0.36	199.15	10.00	189.15	81.97
61	16.02	199.46	10.00	189.46	82.10

62	2.52	198.86	10.00	188.86	81.84
63	1.44	197.52	10.00	187.52	81.26
64	0.54	198.13	10.00	188.13	81.52
65	0.18	197.96	10.00	187.96	81.45
66	0.54	197.79	10.00	187.79	81.38
67	0.90	197.96	10.00	187.96	81.45
68	1.98	197.96	10.00	187.96	81.45
69	0.36	197.96	10.00	187.96	81.45
70	1.26	198.13	10.00	188.13	81.52
71	0.54	198.13	10.00	188.13	81.52
72	0.36	198.13	10.00	188.13	81.52
73	0.72	198.13	10.00	188.13	81.52
74	0.18	198.13	10.00	188.13	81.52
75	0.18	197.79	10.00	187.79	81.38
76	0.18	198.13	10.00	188.13	81.52
77	1.08	198.13	10.00	188.13	81.52
78	0.18	198.13	10.00	188.13	81.52
79	0.54	198.13	10.00	188.13	81.52
80	0.36	198.01	10.00	188.01	81.47
81	0.72	197.90	10.00	187.90	81.42
82	0.54	197.84	10.00	187.84	81.40
83	0.90	197.79	10.00	187.79	81.38
84	0.18	197.79	10.00	187.79	81.38
85	0.18	197.79	10.00	187.79	81.38
86	0.72	197.79	10.00	187.79	81.38
87	0.18	197.79	10.00	187.79	81.38
88	0.72	197.79	10.00	187.79	81.38
89	0.90	197.79	10.00	187.79	81.38
90	0.36	197.79	10.00	187.79	81.38
91	1.08	197.79	10.00	187.79	81.38
92	0.18	197.79	10.00	187.79	81.38
93	0.18	197.79	10.00	187.79	81.38
94	0.18	197.79	10.00	187.79	81.38
95	0.36	197.79	10.00	187.79	81.38
96	0.00	197.79	10.00	187.79	81.38
97	0.18	197.78	10.00	187.78	81.37
98	1.26	197.73	10.00	187.73	81.35
99	0.36	197.73	10.00	187.73	81.35
100	1.26	197.73	10.00	187.73	81.35
101	0.18	197.73	10.00	187.73	81.35
102	1.26	197.64	10.00	187.64	81.31
103	0.90	197.64	10.00	187.64	81.31
104	0.00	197.55	10.00	187.55	81.27
105	0.36	197.55	10.00	187.55	81.27
106	0.54	197.55	10.00	187.55	81.27
107	0.72	197.55	10.00	187.55	81.27
108	0.54	197.55	10.00	187.55	81.27

109	0.54	197.54	10.00	187.54	81.27
110	1.26	197.43	10.00	187.43	81.22
111	0.54	197.38	10.00	187.38	81.20
112	0.36	197.38	10.00	187.38	81.20
113	4.32	197.33	10.00	187.33	81.18
114	0.00	197.12	10.00	187.12	81.09
115	3.06	197.10	10.00	187.10	81.08
116	0.54	197.04	10.00	187.04	81.05
117	0.18	197.04	10.00	187.04	81.05
118	0.72	197.04	10.00	187.04	81.05
119	0.90	196.98	10.00	186.98	81.02
120	0.90	196.98	10.00	186.98	81.02
121	0.18	196.95	10.00	186.95	81.01
122	1.08	196.93	10.00	186.93	81.00
123	0.18	196.91	10.00	186.91	81.00
124	0.54	196.90	10.00	186.90	80.99
125	0.54	196.87	10.00	186.87	80.98
126	1.80	196.85	10.00	186.85	80.97
127	1.08	196.84	10.00	186.84	80.96
128	1.08	196.83	10.00	186.83	80.96
129	0.90	196.83	10.00	186.83	80.96
130	0.00	196.81	10.00	186.81	80.95
131	0.36	196.81	10.00	186.81	80.95
132	1.08	196.81	10.00	186.81	80.95
133	0.18	196.80	10.00	186.80	80.95
134	0.54	196.80	10.00	186.80	80.95
135	0.72	196.80	10.00	186.80	80.94
136	0.90	196.79	10.00	186.79	80.94
137	0.90	196.79	10.00	186.79	80.94
138	1.08	196.79	10.00	186.79	80.94
139	2.16	196.78	10.00	186.78	80.94
140	0.54	196.78	10.00	186.78	80.94
141	0.54	196.78	10.00	186.78	80.94
142	0.00	196.78	10.00	186.78	80.94
143	0.54	196.77	10.00	186.77	80.94
144	0.72	196.77	10.00	186.77	80.94
145	0.18	196.77	10.00	186.77	80.94
146	0.18	196.77	10.00	186.77	80.93
147	0.00	196.77	10.00	186.77	80.93
148	4.14	196.77	10.00	186.77	80.93
149	1.62	197.42	10.00	187.42	81.21
150	1.26	197.40	10.00	187.40	81.21
151	2.52	197.38	10.00	187.38	81.20
152	0.54	197.04	10.00	187.04	81.05
153	1.08	197.04	10.00	187.04	81.05
154	0.90	197.04	10.00	187.04	81.05
155	0.00	197.04	10.00	187.04	81.05

156	0.72	196.94	10.00	186.94	81.01
157	0.54	196.93	10.00	186.93	81.00
158	0.72	196.91	10.00	186.91	81.00
159	0.36	196.91	10.00	186.91	80.99
160	0.90	196.86	10.00	186.86	80.97
162	2.34	196.84	10.00	186.84	80.96
163	1.98	196.83	10.00	186.83	80.96
164	1.26	196.81	10.00	186.81	80.95
165	1.80	196.80	10.00	186.80	80.95
166	1.44	196.80	10.00	186.80	80.94
167	0.90	196.85	10.00	186.85	80.97
168	1.62	196.79	10.00	186.79	80.94
169	0.72	196.78	10.00	186.78	80.94
170	1.44	196.78	10.00	186.78	80.94
171	7.38	196.77	10.00	186.77	80.94
172	2.34	196.77	10.00	186.77	80.94
173	0.72	196.77	10.00	186.77	80.94
174	0.36	196.77	10.00	186.77	80.94
176	1.26	197.37	10.00	187.37	81.19
177	0.00	197.36	10.00	187.36	81.19
178	0.00	197.36	10.00	187.36	81.19
179	1.26	197.36	10.00	187.36	81.19
180	1.44	197.35	10.00	187.35	81.19
181	3.24	196.75	10.00	186.75	80.93
182	3.96	196.03	10.00	186.03	80.61
183	4.14	196.06	10.00	186.06	80.63
184	1.62	195.79	10.00	185.79	80.51
185	1.80	195.79	10.00	185.79	80.51
186	1.62	195.92	10.00	185.92	80.57
187	1.98	196.06	10.00	186.06	80.63
188	0.72	196.23	10.00	186.23	80.70
189	1.08	196.40	10.00	186.40	80.77
190	2.52	196.58	10.00	186.58	80.85
191	1.08	196.75	10.00	186.75	80.93
192	0.90	197.05	10.00	187.05	81.05
193	1.08	197.30	10.00	187.30	81.16
194	1.80	197.00	10.00	187.00	81.04
195	0.18	197.00	10.00	187.00	81.03
196	0.18	196.75	10.00	186.75	80.92
197	1.26	196.55	10.00	186.55	80.84
198	0.36	196.23	10.00	186.23	80.70
199	2.70	195.72	10.00	185.72	80.48
200	0.36	195.41	10.00	185.41	80.35
201	0.36	195.10	10.00	185.10	80.21
202	1.44	195.14	10.00	185.14	80.23
203	2.16	195.13	10.00	185.13	80.22
204	0.72	194.60	10.00	184.60	79.99

205	1.26	194.57	10.00	184.57	79.98
206	0.90	194.31	10.00	184.31	79.87
207	4.32	193.98	10.00	183.98	79.73
208	0.00	193.45	10.00	183.45	79.49
209	1.08	193.25	10.00	183.25	79.41
210	0.72	192.96	10.00	182.96	79.28
211	1.62	192.96	10.00	182.96	79.28
212	1.08	193.41	10.00	183.41	79.48
213	0.54	192.75	10.00	182.75	79.19
214	2.16	192.69	10.00	182.69	79.17
215	22.00	192.62	10.00	182.62	79.14
216	12.24	192.75	10.00	182.75	79.19
217	9.18	192.69	10.00	182.69	79.17
218	0.36	192.68	10.00	182.68	79.16
219	2.52	192.67	10.00	182.67	79.16
220	1.80	192.65	10.00	182.65	79.15
221	1.80	192.65	10.00	182.65	79.15
222	1.98	197.34	10.00	187.34	81.18
223	3.24	197.33	10.00	187.33	81.18

SUMMARY OF INFLOWS AND OUTFLOWS

- (+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	602.76	
BB	2	671.78	

NET SYSTEM INFLOW = 1274.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1274.54

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.180

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	522.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 4 TRIALS WITH AN ACCURACY = 0.00209

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

FIRE FLOW @ STATE PARK, 1/2 MAX. DAY DEMAND

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	198.82	0.01	196.68	P1	0.00	0.56	0.10
2-FGPU	BB 1	577.88	0.11	196.78	P2	0.00	1.64	0.70
3	3 2	-1.80	0.00	0.00		0.00	0.05	0.00

4	3	4	0.36	0.00	0.00	0.00	0.01	0.00
5	5	1	-685.81	4.25	0.00	0.00	4.38	6.97
6	6	5	-147.88	0.26	0.00	0.00	0.94	0.41
7	7	6	-92.70	0.21	0.00	0.00	0.59	0.17
8	8	7	-91.98	0.20	0.00	0.00	0.59	0.17
9	9	8	-121.96	0.26	0.00	0.00	0.78	0.28
10	9	10	107.16	0.29	0.00	0.00	0.68	0.22
11	10	11	0.18	0.00	0.00	0.00	0.02	0.00
12	9	12	13.36	0.00	0.00	0.00	0.15	0.02
13	12	13	4.44	0.63	0.00	0.00	0.45	0.53
14	13	14	1.92	0.27	0.00	0.00	0.20	0.11
15	10	15	95.72	0.21	0.00	0.00	0.61	0.18
16	10	16	9.27	0.00	0.00	0.00	0.11	0.01
17	16	17	0.18	0.00	0.00	0.00	0.00	0.00
18	16	18	0.18	0.00	0.00	0.00	0.02	0.00
19	16	19	7.29	0.00	0.00	0.00	0.08	0.01
20	19	20	3.24	0.29	0.00	0.00	0.33	0.29
21	19	21	2.43	0.15	0.00	0.00	0.25	0.17
22	21	20	2.07	0.15	0.00	0.00	0.21	0.13
23	23	22	0.18	0.00	0.00	0.00	0.02	0.00
24	23	24	1.21	0.03	0.00	0.00	0.12	0.05
25	24	25	0.18	0.00	0.00	0.00	0.02	0.00
26	24	26	0.31	0.00	0.00	0.00	0.03	0.00
27	26	27	0.18	0.01	0.00	0.00	0.07	0.04
28	26	28	-0.23	0.00	0.00	0.00	0.02	0.00
29	29	28	-1.98	0.05	0.00	0.00	0.20	0.12
30	29	30	0.18	0.00	0.00	0.00	0.02	0.00
31	28	31	-2.93	0.13	0.00	0.00	0.30	0.24
32	31	32	3.01	0.00	0.00	0.00	0.02	0.00
33	32	23	2.29	0.11	0.00	0.00	0.23	0.15
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	6.84	0.00	0.00	0.00	0.04	0.00
36	34	35	0.38	0.01	0.00	0.00	0.04	0.01
37	35	36	0.02	0.00	0.00	0.00	0.00	0.00
38	37	36	0.88	0.03	0.00	0.00	0.09	0.03
39	38	37	-41.61	0.02	0.00	0.00	0.27	0.04
40	39	38	-40.17	0.00	0.00	0.00	0.26	0.04
41	39	34	9.92	0.00	0.00	0.00	0.06	0.00
42	40	39	-30.25	0.03	0.00	0.00	0.34	0.09
43	40	41	0.18	0.00	0.00	0.00	0.00	0.00
44	8	40	-30.70	0.04	0.00	0.00	0.35	0.09
45	40	42	-1.53	0.09	0.00	0.00	0.16	0.07
46	42	43	0.08	0.00	0.00	0.00	0.00	0.00
47	43	44	46.49	0.01	0.00	0.00	0.30	0.05
48	44	37	44.83	0.02	0.00	0.00	0.29	0.04
49	44	45	1.12	0.02	0.00	0.00	0.11	0.04
50	45	46	0.18	0.00	0.00	0.00	0.02	0.00

51	45	47	0.22	0.00	0.00	0.00	0.02	0.00
52	47	48	1.62	0.03	0.00	0.00	0.17	0.08
53	48	49	0.72	0.01	0.00	0.00	0.07	0.02
54	47	50	-1.94	0.06	0.00	0.00	0.20	0.11
55	50	51	46.95	0.02	0.00	0.00	0.30	0.05
56	51	43	46.77	0.01	0.00	0.00	0.30	0.05
57	51	52	0.18	0.00	0.00	0.00	0.02	0.00
58	50	53	-49.25	0.03	0.00	0.00	0.31	0.05
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-49.97	0.08	0.00	0.00	0.57	0.22
62	56	42	1.97	0.14	0.00	0.00	0.20	0.12
63	56	57	-53.02	0.01	0.00	0.00	0.60	0.25
64	57	6	-54.28	0.12	0.00	0.00	0.62	0.26
65	57	58	0.18	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.36	0.01	0.00	0.00	0.04	0.01
68	5	61	537.39	2.16	0.00	0.00	6.10	18.01
69	12	62	7.48	0.00	0.00	0.00	0.08	0.01
70	61	62	-4.96	2.10	0.00	0.00	0.51	0.65
71	61	63	526.33	22.53	0.00	0.00	5.97	17.33
72	15	64	93.56	0.23	0.00	0.00	0.60	0.17
73	64	65	84.99	0.17	0.00	0.00	0.54	0.15
74	65	66	81.33	0.16	0.00	0.00	0.52	0.13
75	14	67	-0.24	0.00	0.00	0.00	0.02	0.00
76	67	68	-1.14	0.00	0.00	0.00	0.01	0.00
77	68	69	0.36	0.00	0.00	0.00	0.00	0.00
78	68	65	-3.48	0.00	0.00	0.00	0.04	0.00
79	20	70	2.61	0.14	0.00	0.00	0.27	0.20
80	70	71	-2.65	0.00	0.00	0.00	0.03	0.00
81	71	72	0.36	0.00	0.00	0.00	0.04	0.01
82	71	73	-3.55	0.00	0.00	0.00	0.04	0.00
83	73	74	-5.71	0.00	0.00	0.00	0.06	0.00
84	74	64	-8.04	0.00	0.00	0.00	0.09	0.01
85	74	75	2.15	0.34	0.00	0.00	0.22	0.14
86	73	76	0.18	0.00	0.00	0.00	0.00	0.00
87	73	77	1.26	0.00	0.00	0.00	0.01	0.00
88	77	78	0.18	0.00	0.00	0.00	0.02	0.00
89	70	79	4.00	0.00	0.00	0.00	0.05	0.00
90	79	80	3.46	0.12	0.00	0.00	0.35	0.33
91	80	81	3.10	0.11	0.00	0.00	0.32	0.27
92	81	82	2.38	0.06	0.00	0.00	0.24	0.17
93	82	83	1.84	0.05	0.00	0.00	0.19	0.10
94	83	84	0.18	0.00	0.00	0.00	0.02	0.00
95	83	85	0.76	0.00	0.00	0.00	0.01	0.00
96	85	86	0.58	0.00	0.00	0.00	0.01	0.00
97	86	87	0.18	0.00	0.00	0.00	0.02	0.00

98	86	88	-0.32	0.00	0.00	0.00	0.00	0.00
99	88	89	-0.07	0.00	0.00	0.00	0.01	0.00
100	89	90	-0.97	0.00	0.00	0.00	0.01	0.00
101	90	91	-1.51	0.00	0.00	0.00	0.02	0.00
102	91	92	-4.10	0.00	0.00	0.00	0.05	0.00
103	92	93	0.18	0.00	0.00	0.00	0.02	0.00
104	92	75	-4.46	0.00	0.00	0.00	0.05	0.00
105	90	94	0.18	0.00	0.00	0.00	0.02	0.00
106	91	95	1.51	0.00	0.00	0.00	0.02	0.00
107	95	96	1.15	0.00	0.00	0.00	0.01	0.00
108	96	97	0.18	0.01	0.00	0.00	0.07	0.04
109	96	88	0.97	0.00	0.00	0.00	0.01	0.00
110	66	75	2.49	0.00	0.00	0.00	0.03	0.00
111	66	98	78.30	0.07	0.00	0.00	0.50	0.13
112	98	99	0.36	0.00	0.00	0.00	0.00	0.00
113	98	100	1.44	0.00	0.00	0.00	0.02	0.00
114	100	101	0.18	0.00	0.00	0.00	0.00	0.00
115	98	102	75.24	0.08	0.00	0.00	0.48	0.12
116	102	103	0.90	0.00	0.00	0.00	0.01	0.00
117	102	104	73.08	0.09	0.00	0.00	0.47	0.11
118	104	105	2.16	0.00	0.00	0.00	0.02	0.00
119	105	106	0.86	0.00	0.00	0.00	0.01	0.00
120	106	107	0.32	0.00	0.00	0.00	0.00	0.00
121	107	108	-0.40	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.94	0.00	0.00	0.00	0.01	0.00
123	104	109	70.92	0.01	0.00	0.00	0.45	0.10
124	109	110	70.38	0.11	0.00	0.00	0.45	0.10
125	110	111	49.41	0.05	0.00	0.00	0.32	0.05
126	111	112	48.87	0.01	0.00	0.00	0.31	0.05
127	112	113	62.82	0.04	0.00	0.00	0.40	0.08
128	113	114	58.50	0.21	0.00	0.00	0.37	0.07
129	114	115	58.50	0.02	0.00	0.00	0.37	0.07
130	115	116	55.44	0.06	0.00	0.00	0.35	0.07
131	116	117	54.90	0.00	0.00	0.00	0.35	0.06
132	117	118	50.79	0.00	0.00	0.00	0.32	0.06
133	118	119	51.48	0.06	0.00	0.00	0.33	0.06
134	119	120	50.58	0.00	0.00	0.00	0.32	0.06
135	120	121	49.68	0.03	0.00	0.00	0.32	0.05
136	121	122	37.45	0.02	0.00	0.00	0.24	0.03
137	122	123	32.84	0.02	0.00	0.00	0.21	0.03
138	123	124	35.21	0.02	0.00	0.00	0.22	0.03
139	124	125	45.36	0.03	0.00	0.00	0.29	0.05
140	125	126	33.69	0.02	0.00	0.00	0.22	0.03
141	126	127	28.95	0.01	0.00	0.00	0.18	0.02
142	127	128	26.29	0.01	0.00	0.00	0.17	0.02
143	128	129	23.47	0.00	0.00	0.00	0.15	0.01
144	129	130	22.57	0.01	0.00	0.00	0.14	0.01

145	130	131	22.20	0.00	0.00	0.00	0.14	0.01
146	131	132	21.84	0.01	0.00	0.00	0.14	0.01
147	132	133	20.76	0.00	0.00	0.00	0.13	0.01
148	133	134	19.21	0.01	0.00	0.00	0.12	0.01
149	134	135	18.67	0.00	0.00	0.00	0.12	0.01
150	135	136	18.31	0.00	0.00	0.00	0.12	0.01
151	136	137	17.41	0.00	0.00	0.00	0.11	0.01
152	137	138	15.96	0.00	0.00	0.00	0.10	0.01
153	138	139	14.88	0.00	0.00	0.00	0.09	0.01
154	139	140	13.11	0.00	0.00	0.00	0.08	0.00
155	140	141	12.57	0.00	0.00	0.00	0.08	0.00
156	141	142	16.56	0.00	0.00	0.00	0.11	0.01
157	142	143	6.16	0.00	0.00	0.00	0.04	0.00
158	143	144	5.62	0.00	0.00	0.00	0.04	0.00
159	144	145	4.90	0.00	0.00	0.00	0.03	0.00
160	145	146	3.16	0.00	0.00	0.00	0.02	0.00
161	146	147	3.46	0.00	0.00	0.00	0.02	0.00
162	147	148	4.14	0.00	0.00	0.00	0.03	0.00
163	110	149	19.71	0.01	0.00	0.00	0.22	0.04
164	149	150	18.09	0.02	0.00	0.00	0.21	0.03
165	150	151	16.83	0.02	0.00	0.00	0.19	0.03
166	112	151	-14.31	0.01	0.00	0.00	0.16	0.02
167	117	152	3.93	0.00	0.00	0.00	0.04	0.00
168	152	153	3.39	0.00	0.00	0.00	0.04	0.00
169	153	154	0.90	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-1.41	0.00	0.00	0.00	0.02	0.00
172	121	156	12.05	0.01	0.00	0.00	0.14	0.02
173	156	157	11.33	0.01	0.00	0.00	0.13	0.01
174	157	158	14.32	0.01	0.00	0.00	0.16	0.02
175	158	159	11.05	0.01	0.00	0.00	0.13	0.01
176	159	124	10.69	0.01	0.00	0.00	0.12	0.01
177	158	123	2.55	0.00	0.00	0.00	0.03	0.00
178	157	122	-3.53	0.00	0.00	0.00	0.04	0.00
179	125	160	11.13	0.01	0.00	0.00	0.13	0.01
180	162	167	-12.27	0.01	0.00	0.00	0.14	0.02
181	167	160	-10.23	0.01	0.00	0.00	0.12	0.01
182	162	163	11.51	0.01	0.00	0.00	0.13	0.01
183	163	164	11.27	0.01	0.00	0.00	0.13	0.01
184	164	165	10.38	0.01	0.00	0.00	0.12	0.01
185	165	166	9.95	0.01	0.00	0.00	0.11	0.01
186	133	165	1.37	0.00	0.00	0.00	0.02	0.00
187	130	164	0.36	0.00	0.00	0.00	0.00	0.00
188	163	128	-1.74	0.00	0.00	0.00	0.02	0.00
189	127	162	1.59	0.00	0.00	0.00	0.02	0.00
190	126	167	2.94	0.00	0.00	0.00	0.03	0.00
191	166	168	8.15	0.01	0.00	0.00	0.09	0.01

192	168	169	7.08	0.01	0.00	0.00	0.08	0.01
193	169	170	5.97	0.00	0.00	0.00	0.07	0.00
194	170	141	4.53	0.00	0.00	0.00	0.05	0.00
195	169	139	0.39	0.00	0.00	0.00	0.00	0.00
196	168	137	-0.55	0.00	0.00	0.00	0.01	0.00
197	166	135	0.36	0.00	0.00	0.00	0.00	0.00
198	142	171	10.40	0.00	0.00	0.00	0.07	0.00
199	171	172	3.02	0.00	0.00	0.00	0.02	0.00
200	172	147	0.68	0.00	0.00	0.00	0.01	0.00
201	145	173	1.55	0.00	0.00	0.00	0.02	0.00
202	173	174	0.83	0.00	0.00	0.00	0.01	0.00
203	174	146	0.47	0.00	0.00	0.00	0.01	0.00
204	63	176	524.89	2.41	0.00	0.00	5.96	17.24
205	176	2	-85.13	31.27	0.00	0.00	8.69	125.08
206	176	177	29.26	0.03	0.00	0.00	0.33	0.08
207	177	178	29.26	0.01	0.00	0.00	0.33	0.08
208	178	179	29.26	0.02	0.00	0.00	0.33	0.08
209	179	180	24.88	0.06	0.00	0.00	0.28	0.06
210	180	181	21.34	17.36	0.00	0.00	2.18	9.64
211	181	182	17.01	14.26	0.00	0.00	1.74	6.34
212	182	183	13.05	9.12	0.00	0.00	1.33	3.88
213	183	184	14.80	11.51	0.00	0.00	1.51	4.90
214	184	185	13.18	0.01	0.00	0.00	0.15	0.02
215	185	186	-559.94	5.75	0.00	0.00	3.57	4.79
216	186	187	-561.56	5.78	0.00	0.00	3.58	4.81
217	187	188	-569.43	5.93	0.00	0.00	3.63	4.94
218	188	189	-570.51	5.95	0.00	0.00	3.64	4.96
219	189	190	-571.59	5.97	0.00	0.00	3.65	4.97
220	190	191	-575.37	5.54	0.00	0.00	3.67	5.04
221	191	192	-575.54	8.56	0.00	0.00	3.67	5.04
222	192	193	-578.42	7.12	0.00	0.00	3.69	5.08
223	193	176	-579.50	1.79	0.00	0.00	3.70	5.10
224	192	194	1.98	0.04	0.00	0.00	0.20	0.12
225	194	195	0.18	0.00	0.00	0.00	0.02	0.00
226	191	181	-1.08	0.00	0.00	0.00	0.01	0.00
227	191	196	0.18	0.00	0.00	0.00	0.02	0.00
228	190	197	1.26	0.02	0.00	0.00	0.13	0.05
229	188	198	0.36	0.00	0.00	0.00	0.04	0.01
230	183	187	-5.89	0.00	0.00	0.00	0.07	0.00
231	185	199	2.70	0.07	0.00	0.00	0.28	0.21
232	185	200	568.62	19.00	0.00	0.00	6.45	20.00
233	200	201	485.87	16.44	0.00	0.00	5.51	14.94
234	200	202	82.39	11.77	0.00	0.00	8.41	117.71
235	202	203	80.95	0.59	0.00	0.00	0.92	0.54
236	203	201	46.45	4.07	0.00	0.00	4.74	40.73
237	203	204	32.34	31.24	0.00	0.00	3.30	20.83
238	204	205	31.62	2.00	0.00	0.00	3.23	19.98

239	205	201	-531.96	29.16	0.00	0.00	6.04	17.68
240	205	206	562.32	15.67	0.00	0.00	6.38	19.59
241	206	207	561.42	19.53	0.00	0.00	6.37	19.53
242	207	208	557.10	36.58	0.00	0.00	6.32	19.25
243	208	209	528.02	13.95	0.00	0.00	5.99	17.43
244	209	210	526.94	20.84	0.00	0.00	5.98	17.37
245	210	211	-26.38	0.86	0.00	0.00	2.69	14.28
246	211	212	-28.00	32.22	0.00	0.00	2.86	15.95
247	212	208	-29.08	1.71	0.00	0.00	2.97	17.11
248	210	213	552.60	16.12	0.00	0.00	6.27	18.97
249	213	214	539.82	7.26	0.00	0.00	6.13	18.16
250	214	218	528.48	4.02	0.00	0.00	6.00	17.46
251	213	216	12.24	0.00	0.00	0.00	0.14	0.02
252	214	217	9.18	0.00	0.00	0.00	0.10	0.01
253	218	219	229.23	1.30	0.00	0.00	2.60	3.72
254	219	220	226.71	4.37	0.00	0.00	2.57	3.64
255	220	221	224.91	1.26	0.00	0.00	2.55	3.59
256	221	218	-298.89	6.93	0.00	0.00	3.39	6.08
257	215	221	-522.00	9.39	0.00	0.00	5.92	17.07
258	179	222	3.11	0.03	0.00	0.00	0.32	0.27
259	222	223	1.13	0.04	0.00	0.00	0.12	0.04
260	223	180	-2.11	0.01	0.00	0.00	0.22	0.13
261	1	2	89.09	0.09	0.00	0.00	0.57	0.16

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		1.80	216.67	10.00	206.67	89.56
2		2.16	216.58	10.00	206.58	89.52
3		1.44	216.58	10.00	206.58	89.52
4		0.36	216.58	10.00	206.58	89.52
5		0.54	212.42	10.00	202.42	87.71
6		0.90	212.16	10.00	202.16	87.60
7		0.72	211.96	10.00	201.96	87.51
8		0.72	211.76	10.00	201.76	87.43
9		1.44	211.50	10.00	201.50	87.32
10		1.98	211.21	10.00	201.21	87.19
11		0.18	211.21	10.00	201.21	87.19
12		1.44	212.35	10.00	202.35	87.69
13		2.52	211.72	10.00	201.72	87.41
14		2.16	211.45	10.00	201.45	87.30
15		2.16	211.00	10.00	201.00	87.10

16	1.62	211.21	10.00	201.21	87.19
17	0.18	211.21	10.00	201.21	87.19
18	0.18	211.21	10.00	201.21	87.19
19	1.62	211.20	10.00	201.20	87.19
20	2.70	210.91	10.00	200.91	87.06
21	0.36	211.06	10.00	201.06	87.13
22	0.18	211.73	10.00	201.73	87.42
23	0.90	211.73	10.00	201.73	87.42
24	0.72	211.70	10.00	201.70	87.40
25	0.18	211.70	10.00	201.70	87.40
26	0.36	211.70	10.00	201.70	87.40
27	0.18	211.69	10.00	201.69	87.40
28	0.72	211.70	10.00	201.70	87.40
29	1.80	211.65	10.00	201.65	87.38
30	0.18	211.65	10.00	201.65	87.38
31	0.90	211.84	10.00	201.84	87.46
32	0.72	211.83	10.00	201.83	87.46
33	0.00	211.83	10.00	201.83	87.46
34	2.70	211.84	10.00	201.84	87.46
35	0.36	211.83	10.00	201.83	87.46
36	0.90	211.83	10.00	201.83	87.46
37	2.34	211.86	10.00	201.86	87.47
38	1.08	211.84	10.00	201.84	87.46
39	0.00	211.84	10.00	201.84	87.46
40	0.90	211.80	10.00	201.80	87.45
41	0.18	211.80	10.00	201.80	87.45
42	0.36	211.89	10.00	201.89	87.48
43	0.36	211.89	10.00	201.89	87.48
44	0.54	211.88	10.00	201.88	87.48
45	0.72	211.85	10.00	201.85	87.47
46	0.18	211.85	10.00	201.85	87.47
47	0.54	211.85	10.00	201.85	87.47
48	0.90	211.82	10.00	201.82	87.46
49	0.72	211.82	10.00	201.82	87.45
50	0.36	211.91	10.00	201.91	87.50
51	0.00	211.90	10.00	201.90	87.49
52	0.18	211.90	10.00	201.90	87.49
53	0.72	211.95	10.00	201.95	87.51
54	0.00	211.95	10.00	201.95	87.51
55	0.00	211.95	10.00	201.95	87.51
56	1.08	212.03	10.00	202.03	87.55
57	1.08	212.04	10.00	202.04	87.55
58	0.18	212.04	10.00	202.04	87.55
59	0.00	211.83	10.00	201.83	87.46
60	0.36	211.84	10.00	201.84	87.46
61	16.02	210.26	10.00	200.26	86.78
62	2.52	212.35	10.00	202.35	87.69

63	1.44	187.73	10.00	177.73	77.01
64	0.54	210.78	10.00	200.78	87.00
65	0.18	210.60	10.00	200.60	86.93
66	0.54	210.44	10.00	200.44	86.86
67	0.90	211.46	10.00	201.46	87.30
68	1.98	211.46	10.00	201.46	87.30
69	0.36	211.46	10.00	201.46	87.30
70	1.26	210.77	10.00	200.77	87.00
71	0.54	210.77	10.00	200.77	87.00
72	0.36	210.77	10.00	200.77	87.00
73	0.72	210.77	10.00	200.77	87.00
74	0.18	210.78	10.00	200.78	87.00
75	0.18	210.44	10.00	200.44	86.86
76	0.18	210.77	10.00	200.77	87.00
77	1.08	210.77	10.00	200.77	87.00
78	0.18	210.77	10.00	200.77	87.00
79	0.54	210.77	10.00	200.77	87.00
80	0.36	210.65	10.00	200.65	86.95
81	0.72	210.55	10.00	200.55	86.90
82	0.54	210.49	10.00	200.49	86.88
83	0.90	210.44	10.00	200.44	86.86
84	0.18	210.44	10.00	200.44	86.86
85	0.18	210.44	10.00	200.44	86.86
86	0.72	210.44	10.00	200.44	86.86
87	0.18	210.44	10.00	200.44	86.86
88	0.72	210.44	10.00	200.44	86.86
89	0.90	210.44	10.00	200.44	86.86
90	0.36	210.44	10.00	200.44	86.86
91	1.08	210.44	10.00	200.44	86.86
92	0.18	210.44	10.00	200.44	86.86
93	0.18	210.44	10.00	200.44	86.86
94	0.18	210.44	10.00	200.44	86.86
95	0.36	210.44	10.00	200.44	86.86
96	0.00	210.44	10.00	200.44	86.86
97	0.18	210.43	10.00	200.43	86.85
98	1.26	210.37	10.00	200.37	86.83
99	0.36	210.37	10.00	200.37	86.83
100	1.26	210.37	10.00	200.37	86.83
101	0.18	210.37	10.00	200.37	86.83
102	1.26	210.29	10.00	200.29	86.79
103	0.90	210.29	10.00	200.29	86.79
104	0.00	210.20	10.00	200.20	86.75
105	0.36	210.19	10.00	200.19	86.75
106	0.54	210.19	10.00	200.19	86.75
107	0.72	210.19	10.00	200.19	86.75
108	0.54	210.19	10.00	200.19	86.75
109	0.54	210.18	10.00	200.18	86.75

110	1.26	210.08	10.00	200.08	86.70
111	0.54	210.03	10.00	200.03	86.68
112	0.36	210.02	10.00	200.02	86.68
113	4.32	209.98	10.00	199.98	86.66
114	0.00	209.77	10.00	199.77	86.57
115	3.06	209.74	10.00	199.74	86.56
116	0.54	209.69	10.00	199.69	86.53
117	0.18	209.68	10.00	199.68	86.53
118	0.72	209.68	10.00	199.68	86.53
119	0.90	209.62	10.00	199.62	86.50
120	0.90	209.62	10.00	199.62	86.50
121	0.18	209.59	10.00	199.59	86.49
122	1.08	209.57	10.00	199.57	86.48
123	0.18	209.56	10.00	199.56	86.47
124	0.54	209.54	10.00	199.54	86.47
125	0.54	209.51	10.00	199.51	86.46
126	1.80	209.50	10.00	199.50	86.45
127	1.08	209.48	10.00	199.48	86.44
128	1.08	209.47	10.00	199.47	86.44
129	0.90	209.47	10.00	199.47	86.44
130	0.00	209.46	10.00	199.46	86.43
131	0.36	209.46	10.00	199.46	86.43
132	1.08	209.45	10.00	199.45	86.43
133	0.18	209.45	10.00	199.45	86.43
134	0.54	209.44	10.00	199.44	86.43
135	0.72	209.44	10.00	199.44	86.42
136	0.90	209.44	10.00	199.44	86.42
137	0.90	209.43	10.00	199.43	86.42
138	1.08	209.43	10.00	199.43	86.42
139	2.16	209.43	10.00	199.43	86.42
140	0.54	209.43	10.00	199.43	86.42
141	0.54	209.42	10.00	199.42	86.42
142	0.00	209.42	10.00	199.42	86.42
143	0.54	209.42	10.00	199.42	86.41
144	0.72	209.42	10.00	199.42	86.41
145	0.18	209.42	10.00	199.42	86.41
146	0.18	209.42	10.00	199.42	86.41
147	0.00	209.42	10.00	199.42	86.41
148	4.14	209.42	10.00	199.42	86.41
149	1.62	210.06	10.00	200.06	86.69
150	1.26	210.05	10.00	200.05	86.69
151	2.52	210.03	10.00	200.03	86.68
152	0.54	209.68	10.00	199.68	86.53
153	1.08	209.68	10.00	199.68	86.53
154	0.90	209.68	10.00	199.68	86.53
155	0.00	209.68	10.00	199.68	86.53
156	0.72	209.58	10.00	199.58	86.48

157	0.54	209.57	10.00	199.57	86.48
158	0.72	209.56	10.00	199.56	86.48
159	0.36	209.55	10.00	199.55	86.47
160	0.90	209.50	10.00	199.50	86.45
162	2.34	209.48	10.00	199.48	86.44
163	1.98	209.47	10.00	199.47	86.44
164	1.26	209.46	10.00	199.46	86.43
165	1.80	209.45	10.00	199.45	86.43
166	1.44	209.44	10.00	199.44	86.42
167	0.90	209.50	10.00	199.50	86.45
168	1.62	209.43	10.00	199.43	86.42
169	0.72	209.43	10.00	199.43	86.42
170	1.44	209.42	10.00	199.42	86.42
171	7.38	209.42	10.00	199.42	86.41
172	2.34	209.42	10.00	199.42	86.41
173	0.72	209.42	10.00	199.42	86.41
174	0.36	209.42	10.00	199.42	86.41
176	1.26	185.31	10.00	175.31	75.97
177	0.00	185.28	10.00	175.28	75.96
178	0.00	185.27	10.00	175.27	75.95
179	1.26	185.26	10.00	175.26	75.94
180	1.44	185.20	10.00	175.20	75.92
181	3.24	167.84	10.00	157.84	68.40
182	3.96	153.58	10.00	143.58	62.22
183	4.14	144.46	10.00	134.46	58.27
184	1.62	132.95	10.00	122.95	53.28
185	1.80	132.94	10.00	122.94	53.27
186	1.62	138.68	10.00	128.68	55.76
187	1.98	144.46	10.00	134.46	58.27
188	0.72	150.39	10.00	140.39	60.83
189	1.08	156.34	10.00	146.34	63.41
190	2.52	162.30	10.00	152.30	66.00
191	1.08	167.84	10.00	157.84	68.40
192	0.90	176.41	10.00	166.41	72.11
193	1.08	183.53	10.00	173.53	75.19
194	1.80	176.37	10.00	166.37	72.09
195	0.18	176.36	10.00	166.36	72.09
196	0.18	167.84	10.00	157.84	68.40
197	1.26	162.28	10.00	152.28	65.99
198	0.36	150.39	10.00	140.39	60.83
199	2.70	132.87	10.00	122.87	53.24
200	0.36	113.94	10.00	103.94	45.04
201	0.36	97.50	10.00	87.50	37.92
202	1.44	102.17	10.00	92.17	39.94
203	2.16	101.58	10.00	91.58	39.68
204	0.72	70.33	10.00	60.33	26.15
205	1.26	68.34	10.00	58.34	25.28

206	0.90	52.67	10.00	42.67	18.49
207	4.32	33.13	10.00	23.13	10.03
208	0.00	-3.45	10.00	-13.45	-5.83
209	1.08	-17.39	10.00	-27.39	-11.87
210	0.72	-38.24	10.00	-48.24	-20.90
211	1.62	-37.38	10.00	-47.38	-20.53
212	1.08	-5.16	10.00	-15.16	-6.57
213	0.54	-54.36	10.00	-64.36	-27.89
214	2.16	-61.62	10.00	-71.62	-31.04
215	522.00	-81.95	10.00	-91.95	-39.85
216	12.24	-54.36	10.00	-64.36	-27.89
217	9.18	-61.62	10.00	-71.62	-31.04
218	0.36	-65.64	10.00	-75.64	-32.78
219	2.52	-66.94	10.00	-76.94	-33.34
220	1.80	-71.31	10.00	-81.31	-35.23
221	1.80	-72.57	10.00	-82.57	-35.78
222	1.98	185.23	10.00	175.23	75.93
223	3.24	185.18	10.00	175.18	75.91

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES

(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	198.82	
BB	2	577.88	

NET SYSTEM INFLOW = 776.70
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 776.70

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 1.000

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00267

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	723.56	0.16	171.58	P1	0.00	2.05	1.07
2-FGPU	BB 1	713.44	0.16	171.57	P2	0.00	2.02	1.04
3	3 2	-10.00	0.05	0.00		0.00	0.26	0.08
4	3 4	2.00	0.00	0.00		0.00	0.05	0.00
5	5 1	-1316.76	14.23	0.00		0.00	8.40	23.33
6	6 5	-777.52	5.54	0.00		0.00	4.96	8.79
7	7 6	-485.54	4.41	0.00		0.00	3.10	3.68
8	8 7	-481.54	4.24	0.00		0.00	3.07	3.62
9	9 8	-633.52	5.42	0.00		0.00	4.04	6.02
10	9 10	595.29	6.97	0.00		0.00	3.80	5.36
11	10 11	1.00	0.02	0.00		0.00	0.10	0.03

12	9	12	30.23	0.02	0.00	0.00	0.34	0.09
13	12	13	24.71	15.19	0.00	0.00	2.52	12.65
14	13	14	10.71	6.46	0.00	0.00	1.09	2.69
15	10	15	531.77	5.00	0.00	0.00	3.39	4.35
16	10	16	51.52	0.09	0.00	0.00	0.58	0.23
17	16	17	1.00	0.00	0.00	0.00	0.01	0.00
18	16	18	1.00	0.03	0.00	0.00	0.10	0.03
19	16	19	40.52	0.06	0.00	0.00	0.46	0.15
20	19	20	18.01	7.05	0.00	0.00	1.84	7.05
21	19	21	13.50	3.51	0.00	0.00	1.38	4.13
22	21	20	11.50	3.53	0.00	0.00	1.17	3.07
23	23	22	1.00	0.00	0.00	0.00	0.10	0.03
24	23	24	6.70	0.62	0.00	0.00	0.68	1.13
25	24	25	1.00	0.00	0.00	0.00	0.10	0.03
26	24	26	1.70	0.04	0.00	0.00	0.17	0.09
27	26	27	1.00	0.28	0.00	0.00	0.41	0.97
28	26	28	-1.30	0.02	0.00	0.00	0.13	0.05
29	29	28	-11.00	1.27	0.00	0.00	1.12	2.83
30	29	30	1.00	0.02	0.00	0.00	0.10	0.03
31	28	31	-16.30	3.22	0.00	0.00	1.66	5.86
32	31	32	16.70	0.00	0.00	0.00	0.11	0.01
33	32	23	12.70	2.58	0.00	0.00	1.30	3.69
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	38.00	0.01	0.00	0.00	0.24	0.03
36	34	35	2.24	0.21	0.00	0.00	0.23	0.15
37	35	36	0.24	0.00	0.00	0.00	0.02	0.00
38	37	36	4.76	0.63	0.00	0.00	0.49	0.60
39	38	37	-217.30	0.32	0.00	0.00	1.39	0.83
40	39	38	-209.30	0.08	0.00	0.00	1.34	0.77
41	39	34	55.24	0.02	0.00	0.00	0.35	0.07
42	40	39	-154.06	0.71	0.00	0.00	1.75	1.78
43	40	41	1.00	0.00	0.00	0.00	0.01	0.00
44	8	40	-155.98	0.87	0.00	0.00	1.77	1.82
45	40	42	-7.92	1.80	0.00	0.00	0.81	1.54
46	42	43	0.48	0.00	0.00	0.00	0.01	0.00
47	43	44	244.46	0.21	0.00	0.00	1.56	1.03
48	44	37	235.06	0.48	0.00	0.00	1.50	0.96
49	44	45	6.40	0.57	0.00	0.00	0.65	1.04
50	45	46	1.00	0.01	0.00	0.00	0.10	0.03
51	45	47	1.40	0.04	0.00	0.00	0.14	0.06
52	47	48	9.00	0.68	0.00	0.00	0.92	1.95
53	48	49	4.00	0.17	0.00	0.00	0.41	0.43
54	47	50	-10.60	1.40	0.00	0.00	1.08	2.64
55	50	51	246.98	0.37	0.00	0.00	1.58	1.05
56	51	43	245.98	0.21	0.00	0.00	1.57	1.04
57	51	52	1.00	0.01	0.00	0.00	0.10	0.03
58	50	53	-259.57	0.75	0.00	0.00	1.66	1.15

59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-263.57	1.73	0.00	0.00	2.99	4.81
62	56	42	10.40	3.06	0.00	0.00	1.06	2.55
63	56	57	-279.98	0.32	0.00	0.00	3.18	5.38
64	57	6	-286.98	2.59	0.00	0.00	3.26	5.64
65	57	58	1.00	0.00	0.00	0.00	0.01	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	2.00	0.12	0.00	0.00	0.20	0.12
68	5	61	536.24	2.15	0.00	0.00	6.08	17.94
69	12	62	-2.48	0.00	0.00	0.00	0.03	0.00
70	61	62	16.48	19.36	0.00	0.00	1.68	5.98
71	61	63	430.76	15.54	0.00	0.00	4.89	11.96
72	15	64	519.77	5.42	0.00	0.00	3.32	4.17
73	64	65	472.13	4.19	0.00	0.00	3.01	3.49
74	65	66	451.84	3.86	0.00	0.00	2.88	3.22
75	14	67	-1.29	0.06	0.00	0.00	0.13	0.05
76	67	68	-6.29	0.00	0.00	0.00	0.07	0.00
77	68	69	2.00	0.00	0.00	0.00	0.02	0.00
78	68	65	-19.29	0.01	0.00	0.00	0.22	0.04
79	20	70	14.52	3.31	0.00	0.00	1.48	4.72
80	70	71	-14.70	0.02	0.00	0.00	0.17	0.02
81	71	72	2.00	0.06	0.00	0.00	0.20	0.12
82	71	73	-19.70	0.02	0.00	0.00	0.22	0.04
83	73	74	-31.70	0.03	0.00	0.00	0.36	0.10
84	74	64	-44.65	0.01	0.00	0.00	0.51	0.18
85	74	75	11.95	8.04	0.00	0.00	1.22	3.30
86	73	76	1.00	0.00	0.00	0.00	0.01	0.00
87	73	77	7.00	0.00	0.00	0.00	0.08	0.01
88	77	78	1.00	0.02	0.00	0.00	0.10	0.03
89	70	79	22.21	0.03	0.00	0.00	0.25	0.05
90	79	80	19.21	2.78	0.00	0.00	1.96	7.94
91	80	81	17.21	2.59	0.00	0.00	1.76	6.48
92	81	82	13.21	1.39	0.00	0.00	1.35	3.97
93	82	83	10.21	1.23	0.00	0.00	1.04	2.46
94	83	84	1.00	0.02	0.00	0.00	0.10	0.03
95	83	85	4.21	0.00	0.00	0.00	0.05	0.00
96	85	86	3.21	0.00	0.00	0.00	0.04	0.00
97	86	87	1.00	0.03	0.00	0.00	0.10	0.03
98	86	88	-1.79	0.00	0.00	0.00	0.02	0.00
99	88	89	-0.39	0.01	0.00	0.00	0.04	0.01
100	89	90	-5.39	0.00	0.00	0.00	0.06	0.00
101	90	91	-8.39	0.00	0.00	0.00	0.10	0.01
102	91	92	-22.79	0.02	0.00	0.00	0.26	0.05
103	92	93	1.00	0.02	0.00	0.00	0.10	0.03
104	92	75	-24.79	0.02	0.00	0.00	0.28	0.06
105	90	94	1.00	0.03	0.00	0.00	0.10	0.03

106	91	95	8.39	0.01	0.00	0.00	0.10	0.01
107	95	96	6.39	0.00	0.00	0.00	0.07	0.00
108	96	97	1.00	0.29	0.00	0.00	0.41	0.97
109	96	88	5.39	0.00	0.00	0.00	0.06	0.00
110	66	75	13.84	0.00	0.00	0.00	0.16	0.02
111	66	98	435.00	1.65	0.00	0.00	2.78	3.00
112	98	99	2.00	0.00	0.00	0.00	0.02	0.00
113	98	100	8.00	0.00	0.00	0.00	0.09	0.01
114	100	101	1.00	0.00	0.00	0.00	0.01	0.00
115	98	102	418.00	1.95	0.00	0.00	2.67	2.79
116	102	103	5.00	0.00	0.00	0.00	0.06	0.00
117	102	104	406.00	2.24	0.00	0.00	2.59	2.64
118	104	105	12.00	0.01	0.00	0.00	0.14	0.02
119	105	106	4.79	0.00	0.00	0.00	0.05	0.00
120	106	107	1.79	0.00	0.00	0.00	0.02	0.00
121	107	108	-2.21	0.00	0.00	0.00	0.03	0.00
122	108	105	-5.21	0.00	0.00	0.00	0.06	0.00
123	104	109	394.00	0.25	0.00	0.00	2.51	2.50
124	109	110	391.00	2.59	0.00	0.00	2.50	2.46
125	110	111	274.52	1.19	0.00	0.00	1.75	1.28
126	111	112	271.52	0.19	0.00	0.00	1.73	1.25
127	112	113	349.00	1.00	0.00	0.00	2.23	1.99
128	113	114	325.00	5.07	0.00	0.00	2.07	1.75
129	114	115	325.00	0.52	0.00	0.00	2.07	1.75
130	115	116	308.00	1.35	0.00	0.00	1.97	1.58
131	116	117	305.00	0.08	0.00	0.00	1.95	1.55
132	117	118	282.15	0.07	0.00	0.00	1.80	1.35
133	118	119	286.00	1.38	0.00	0.00	1.83	1.38
134	119	120	281.00	0.07	0.00	0.00	1.79	1.34
135	120	121	276.00	0.71	0.00	0.00	1.76	1.29
136	121	122	208.06	0.46	0.00	0.00	1.33	0.77
137	122	123	182.46	0.36	0.00	0.00	1.16	0.60
138	123	124	195.62	0.41	0.00	0.00	1.25	0.68
139	124	125	252.00	0.65	0.00	0.00	1.61	1.09
140	125	126	187.18	0.38	0.00	0.00	1.19	0.63
141	126	127	160.86	0.33	0.00	0.00	1.03	0.48
142	127	128	146.05	0.28	0.00	0.00	0.93	0.40
143	128	129	130.38	0.06	0.00	0.00	0.83	0.32
144	129	130	125.38	0.25	0.00	0.00	0.80	0.30
145	130	131	123.35	0.04	0.00	0.00	0.79	0.29
146	131	132	121.35	0.17	0.00	0.00	0.77	0.28
147	132	133	115.35	0.03	0.00	0.00	0.74	0.26
148	133	134	106.75	0.13	0.00	0.00	0.68	0.22
149	134	135	103.75	0.08	0.00	0.00	0.66	0.21
150	135	136	101.73	0.08	0.00	0.00	0.65	0.20
151	136	137	96.73	0.07	0.00	0.00	0.62	0.19
152	137	138	88.66	0.09	0.00	0.00	0.57	0.16

153	138	139	82.66	0.03	0.00	0.00	0.53	0.14
154	139	140	72.82	0.04	0.00	0.00	0.46	0.11
155	140	141	69.82	0.06	0.00	0.00	0.45	0.10
156	141	142	92.00	0.10	0.00	0.00	0.59	0.17
157	142	143	34.20	0.01	0.00	0.00	0.22	0.03
158	143	144	31.20	0.02	0.00	0.00	0.20	0.02
159	144	145	27.20	0.01	0.00	0.00	0.17	0.02
160	145	146	17.56	0.01	0.00	0.00	0.11	0.01
161	146	147	19.20	0.00	0.00	0.00	0.12	0.01
162	147	148	23.00	0.00	0.00	0.00	0.15	0.01
163	110	149	109.48	0.33	0.00	0.00	1.24	0.95
164	149	150	100.48	0.39	0.00	0.00	1.14	0.81
165	150	151	93.48	0.42	0.00	0.00	1.06	0.71
166	112	151	-79.48	0.24	0.00	0.00	0.90	0.52
167	117	152	21.85	0.04	0.00	0.00	0.25	0.05
168	152	153	18.85	0.02	0.00	0.00	0.21	0.04
169	153	154	5.00	0.00	0.00	0.00	0.06	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-7.85	0.01	0.00	0.00	0.09	0.01
172	121	156	66.94	0.29	0.00	0.00	0.76	0.38
173	156	157	62.94	0.20	0.00	0.00	0.71	0.34
174	157	158	79.54	0.31	0.00	0.00	0.90	0.52
175	158	159	61.38	0.19	0.00	0.00	0.70	0.32
176	159	124	59.38	0.23	0.00	0.00	0.67	0.30
177	158	123	14.16	0.02	0.00	0.00	0.16	0.02
178	157	122	-19.60	0.03	0.00	0.00	0.22	0.04
179	125	160	61.82	0.23	0.00	0.00	0.70	0.33
180	162	167	-68.14	0.31	0.00	0.00	0.77	0.39
181	167	160	-56.82	0.17	0.00	0.00	0.64	0.28
182	162	163	63.95	0.28	0.00	0.00	0.73	0.35
183	163	164	62.62	0.30	0.00	0.00	0.71	0.34
184	164	165	57.65	0.25	0.00	0.00	0.65	0.29
185	165	166	55.25	0.21	0.00	0.00	0.63	0.27
186	133	165	7.61	0.00	0.00	0.00	0.09	0.01
187	130	164	2.03	0.00	0.00	0.00	0.02	0.00
188	163	128	-9.67	0.01	0.00	0.00	0.11	0.01
189	127	162	8.81	0.01	0.00	0.00	0.10	0.01
190	126	167	16.32	0.02	0.00	0.00	0.19	0.03
191	166	168	45.27	0.16	0.00	0.00	0.51	0.18
192	168	169	39.34	0.13	0.00	0.00	0.45	0.14
193	169	170	33.18	0.09	0.00	0.00	0.38	0.10
194	170	141	25.18	0.02	0.00	0.00	0.29	0.06
195	169	139	2.17	0.00	0.00	0.00	0.02	0.00
196	168	137	-3.07	0.00	0.00	0.00	0.03	0.00
197	166	135	1.98	0.00	0.00	0.00	0.02	0.00
198	142	171	57.80	0.03	0.00	0.00	0.37	0.07
199	171	172	16.80	0.02	0.00	0.00	0.11	0.01

200	172	147	3.80	0.00	0.00	0.00	0.04	0.00
201	145	173	8.64	0.00	0.00	0.00	0.10	0.01
202	173	174	4.64	0.00	0.00	0.00	0.05	0.00
203	174	146	2.64	0.00	0.00	0.00	0.03	0.00
204	63	176	422.76	1.62	0.00	0.00	4.80	11.55
205	176	2	-88.24	33.42	0.00	0.00	9.01	133.66
206	176	177	59.71	0.11	0.00	0.00	0.68	0.31
207	177	178	59.71	0.04	0.00	0.00	0.68	0.31
208	178	179	59.71	0.06	0.00	0.00	0.68	0.31
209	179	180	38.92	0.13	0.00	0.00	0.44	0.14
210	180	181	15.71	9.85	0.00	0.00	1.60	5.47
211	181	182	16.12	12.91	0.00	0.00	1.65	5.74
212	182	183	-5.88	2.08	0.00	0.00	0.60	0.89
213	183	184	8.16	3.82	0.00	0.00	0.83	1.63
214	184	185	-0.84	0.00	0.00	0.00	0.01	0.00
215	185	186	-306.84	1.89	0.00	0.00	1.96	1.57
216	186	187	-315.84	1.99	0.00	0.00	2.02	1.66
217	187	188	-363.88	2.59	0.00	0.00	2.32	2.16
218	188	189	-369.88	2.67	0.00	0.00	2.36	2.22
219	189	190	-375.88	2.75	0.00	0.00	2.40	2.29
220	190	191	-396.88	2.78	0.00	0.00	2.53	2.53
221	191	192	-422.29	4.83	0.00	0.00	2.70	2.84
222	192	193	-438.29	4.26	0.00	0.00	2.80	3.04
223	193	176	-444.29	1.09	0.00	0.00	2.84	3.12
224	192	194	11.00	0.99	0.00	0.00	1.12	2.83
225	194	195	1.00	0.04	0.00	0.00	0.10	0.03
226	191	181	18.41	0.01	0.00	0.00	0.21	0.03
227	191	196	1.00	0.03	0.00	0.00	0.10	0.03
228	190	197	7.00	0.51	0.00	0.00	0.71	1.22
229	188	198	2.00	0.04	0.00	0.00	0.20	0.12
230	183	187	-37.05	0.05	0.00	0.00	0.42	0.13
231	185	199	15.00	1.76	0.00	0.00	1.53	5.02
232	185	200	281.00	5.15	0.00	0.00	3.19	5.42
233	200	201	234.01	4.25	0.00	0.00	2.66	3.86
234	200	202	44.99	3.84	0.00	0.00	4.59	38.39
235	202	203	36.99	0.14	0.00	0.00	0.42	0.13
236	203	201	10.74	0.27	0.00	0.00	1.10	2.71
237	203	204	14.25	6.84	0.00	0.00	1.45	4.56
238	204	205	10.25	0.25	0.00	0.00	1.05	2.48
239	205	201	-242.75	6.82	0.00	0.00	2.75	4.13
240	205	206	246.00	3.39	0.00	0.00	2.79	4.24
241	206	207	241.00	4.08	0.00	0.00	2.73	4.08
242	207	208	217.00	6.38	0.00	0.00	2.46	3.36
243	208	209	200.72	2.33	0.00	0.00	2.28	2.91
244	209	210	194.72	3.30	0.00	0.00	2.21	2.75
245	210	211	-1.28	0.00	0.00	0.00	0.13	0.05
246	211	212	-10.28	5.04	0.00	0.00	1.05	2.49

247	212	208	-16.28	0.58	0.00	0.00	1.66	5.84
248	210	213	192.00	2.28	0.00	0.00	2.18	2.68
249	213	214	121.00	0.46	0.00	0.00	1.37	1.14
250	214	218	58.00	0.07	0.00	0.00	0.66	0.29
251	213	216	68.00	0.08	0.00	0.00	0.77	0.39
252	214	217	51.00	0.05	0.00	0.00	0.58	0.23
253	218	219	30.99	0.03	0.00	0.00	0.35	0.09
254	219	220	16.99	0.04	0.00	0.00	0.19	0.03
255	220	221	6.99	0.00	0.00	0.00	0.08	0.01
256	221	218	-25.01	0.07	0.00	0.00	0.28	0.06
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	13.80	0.47	0.00	0.00	1.41	4.30
259	222	223	2.80	0.23	0.00	0.00	0.29	0.22
260	223	180	-15.20	0.57	0.00	0.00	1.55	5.15
261	1	2	110.24	0.13	0.00	0.00	0.70	0.24

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		10.00	191.41	10.00	181.41	78.61
2		12.00	191.28	10.00	181.28	78.56
3		8.00	191.23	10.00	181.23	78.53
4		2.00	191.23	10.00	181.23	78.53
5		3.00	177.18	10.00	167.18	72.45
6		5.00	171.64	10.00	161.64	70.04
7		4.00	167.23	10.00	157.23	68.13
8		4.00	162.99	10.00	152.99	66.30
9		8.00	157.58	10.00	147.58	63.95
10		11.00	150.60	10.00	140.60	60.93
11		1.00	150.59	10.00	140.59	60.92
12		8.00	155.67	10.00	145.67	63.12
13		14.00	140.48	10.00	130.48	56.54
14		12.00	134.03	10.00	124.03	53.74
15		12.00	145.60	10.00	135.60	58.76
16		9.00	150.51	10.00	140.51	60.89
17		1.00	150.51	10.00	140.51	60.89
18		1.00	150.49	10.00	140.49	60.88
19		9.00	150.45	10.00	140.45	60.86
20		15.00	143.41	10.00	133.41	57.81
21		2.00	146.94	10.00	136.94	59.34
22		1.00	161.96	10.00	151.96	65.85
23		5.00	161.96	10.00	151.96	65.85

24	4.00	161.34	10.00	151.34	65.58
25	1.00	161.34	10.00	151.34	65.58
26	2.00	161.31	10.00	151.31	65.57
27	1.00	161.02	10.00	151.02	65.44
28	4.00	161.33	10.00	151.33	65.57
29	10.00	160.05	10.00	150.05	65.02
30	1.00	160.03	10.00	150.03	65.01
31	5.00	164.55	10.00	154.55	66.97
32	4.00	164.55	10.00	154.55	66.97
33	0.00	164.55	10.00	154.55	66.97
34	15.00	164.56	10.00	154.56	66.98
35	2.00	164.35	10.00	154.35	66.89
36	5.00	164.35	10.00	154.35	66.89
37	13.00	164.98	10.00	154.98	67.16
38	6.00	164.66	10.00	154.66	67.02
39	0.00	164.58	10.00	154.58	66.98
40	5.00	163.87	10.00	153.87	66.68
41	1.00	163.87	10.00	153.87	66.68
42	2.00	165.67	10.00	155.67	67.46
43	2.00	165.67	10.00	155.67	67.46
44	3.00	165.46	10.00	155.46	67.37
45	4.00	164.89	10.00	154.89	67.12
46	1.00	164.88	10.00	154.88	67.11
47	3.00	164.85	10.00	154.85	67.10
48	5.00	164.16	10.00	154.16	66.80
49	4.00	163.99	10.00	153.99	66.73
50	2.00	166.24	10.00	156.24	67.71
51	0.00	165.88	10.00	155.88	67.55
52	1.00	165.87	10.00	155.87	67.54
53	4.00	166.99	10.00	156.99	68.03
54	0.00	166.99	10.00	156.99	68.03
55	0.00	166.99	10.00	156.99	68.03
56	6.00	168.73	10.00	158.73	68.78
57	6.00	169.05	10.00	159.05	68.92
58	1.00	169.05	10.00	159.05	68.92
59	0.00	164.35	10.00	154.35	66.89
60	2.00	164.54	10.00	154.54	66.97
61	89.00	175.03	10.00	165.03	71.51
62	14.00	155.67	10.00	145.67	63.12
63	8.00	159.48	10.00	149.48	64.78
64	3.00	140.18	10.00	130.18	56.41
65	1.00	135.99	10.00	125.99	54.59
66	3.00	132.13	10.00	122.13	52.92
67	5.00	134.08	10.00	124.08	53.77
68	11.00	134.08	10.00	124.08	53.77
69	2.00	134.08	10.00	124.08	53.77
70	7.00	140.10	10.00	130.10	56.38

71	3.00	140.12	10.00	130.12	56.38
72	2.00	140.06	10.00	130.06	56.36
73	4.00	140.13	10.00	130.13	56.39
74	1.00	140.17	10.00	130.17	56.41
75	1.00	132.13	10.00	122.13	52.92
76	1.00	140.13	10.00	130.13	56.39
77	6.00	140.13	10.00	130.13	56.39
78	1.00	140.11	10.00	130.11	56.38
79	3.00	140.07	10.00	130.07	56.36
80	2.00	137.29	10.00	127.29	55.16
81	4.00	134.70	10.00	124.70	54.04
82	3.00	133.31	10.00	123.31	53.43
83	5.00	132.08	10.00	122.08	52.90
84	1.00	132.06	10.00	122.06	52.89
85	1.00	132.08	10.00	122.08	52.90
86	4.00	132.08	10.00	122.08	52.90
87	1.00	132.04	10.00	122.04	52.89
88	4.00	132.08	10.00	122.08	52.90
89	5.00	132.09	10.00	122.09	52.90
90	2.00	132.09	10.00	122.09	52.90
91	6.00	132.09	10.00	122.09	52.91
92	1.00	132.11	10.00	122.11	52.91
93	1.00	132.09	10.00	122.09	52.90
94	1.00	132.06	10.00	122.06	52.89
95	2.00	132.08	10.00	122.08	52.90
96	0.00	132.08	10.00	122.08	52.90
97	1.00	131.78	10.00	121.78	52.77
98	7.00	130.48	10.00	120.48	52.21
99	2.00	130.48	10.00	120.48	52.21
100	7.00	130.47	10.00	120.47	52.20
101	1.00	130.47	10.00	120.47	52.20
102	7.00	128.53	10.00	118.53	51.36
103	5.00	128.52	10.00	118.52	51.36
104	0.00	126.28	10.00	116.28	50.39
105	2.00	126.27	10.00	116.27	50.39
106	3.00	126.27	10.00	116.27	50.38
107	4.00	126.27	10.00	116.27	50.38
108	3.00	126.27	10.00	116.27	50.38
109	3.00	126.03	10.00	116.03	50.28
110	7.00	123.45	10.00	113.45	49.16
111	3.00	122.26	10.00	112.26	48.65
112	2.00	122.07	10.00	112.07	48.56
113	24.00	121.07	10.00	111.07	48.13
114	0.00	116.00	10.00	106.00	45.93
115	17.00	115.48	10.00	105.48	45.71
116	3.00	114.13	10.00	104.13	45.12
117	1.00	114.06	10.00	104.06	45.09

118	4.00	113.99	10.00	103.99	45.06
119	5.00	112.61	10.00	102.61	44.46
120	5.00	112.54	10.00	102.54	44.43
121	1.00	111.83	10.00	101.83	44.13
122	6.00	111.37	10.00	101.37	43.93
123	1.00	111.01	10.00	101.01	43.77
124	3.00	110.60	10.00	100.60	43.59
125	3.00	109.95	10.00	99.95	43.31
126	10.00	109.57	10.00	99.57	43.15
127	6.00	109.24	10.00	99.24	43.00
128	6.00	108.96	10.00	98.96	42.88
129	5.00	108.90	10.00	98.90	42.86
130	0.00	108.65	10.00	98.65	42.75
131	2.00	108.61	10.00	98.61	42.73
132	6.00	108.44	10.00	98.44	42.66
133	1.00	108.41	10.00	98.41	42.65
134	3.00	108.28	10.00	98.28	42.59
135	4.00	108.19	10.00	98.19	42.55
136	5.00	108.11	10.00	98.11	42.52
137	5.00	108.04	10.00	98.04	42.48
138	6.00	107.94	10.00	97.94	42.44
139	12.00	107.91	10.00	97.91	42.43
140	3.00	107.86	10.00	97.86	42.41
141	3.00	107.80	10.00	97.80	42.38
142	0.00	107.70	10.00	97.70	42.34
143	3.00	107.69	10.00	97.69	42.33
144	4.00	107.67	10.00	97.67	42.33
145	1.00	107.66	10.00	97.66	42.32
146	1.00	107.65	10.00	97.65	42.32
147	0.00	107.65	10.00	97.65	42.32
148	23.00	107.65	10.00	97.65	42.32
149	9.00	123.12	10.00	113.12	49.02
150	7.00	122.73	10.00	112.73	48.85
151	14.00	122.31	10.00	112.31	48.67
152	3.00	114.02	10.00	104.02	45.07
153	6.00	113.99	10.00	103.99	45.06
154	5.00	113.99	10.00	103.99	45.06
155	0.00	113.99	10.00	103.99	45.06
156	4.00	111.55	10.00	101.55	44.00
157	3.00	111.34	10.00	101.34	43.91
158	4.00	111.03	10.00	101.03	43.78
159	2.00	110.83	10.00	100.83	43.69
160	5.00	109.72	10.00	99.72	43.21
162	13.00	109.24	10.00	99.24	43.00
163	11.00	108.96	10.00	98.96	42.88
164	7.00	108.65	10.00	98.65	42.75
165	10.00	108.41	10.00	98.41	42.64

166	8.00	108.19	10.00	98.19	42.55
167	5.00	109.55	10.00	99.55	43.14
168	9.00	108.04	10.00	98.04	42.48
169	4.00	107.91	10.00	97.91	42.43
170	8.00	107.82	10.00	97.82	42.39
171	41.00	107.67	10.00	97.67	42.32
172	13.00	107.65	10.00	97.65	42.32
173	4.00	107.66	10.00	97.66	42.32
174	2.00	107.65	10.00	97.65	42.32
176	7.00	157.87	10.00	147.87	64.08
177	0.00	157.76	10.00	147.76	64.03
178	0.00	157.72	10.00	147.72	64.01
179	7.00	157.66	10.00	147.66	63.99
180	8.00	157.53	10.00	147.53	63.93
181	18.00	147.68	10.00	137.68	59.66
182	22.00	134.77	10.00	124.77	54.07
183	23.00	136.86	10.00	126.86	54.97
184	9.00	133.03	10.00	123.03	53.31
185	10.00	133.03	10.00	123.03	53.31
186	9.00	134.92	10.00	124.92	54.13
187	11.00	136.91	10.00	126.91	54.99
188	4.00	139.49	10.00	129.49	56.11
189	6.00	142.16	10.00	132.16	57.27
190	14.00	144.91	10.00	134.91	58.46
191	6.00	147.69	10.00	137.69	59.67
192	5.00	152.52	10.00	142.52	61.76
193	6.00	156.78	10.00	146.78	63.60
194	10.00	151.53	10.00	141.53	61.33
195	1.00	151.48	10.00	141.48	61.31
196	1.00	147.66	10.00	137.66	59.65
197	7.00	144.39	10.00	134.39	58.24
198	2.00	139.45	10.00	129.45	56.10
199	15.00	131.27	10.00	121.27	52.55
200	2.00	127.88	10.00	117.88	51.08
201	2.00	123.63	10.00	113.63	49.24
202	8.00	124.04	10.00	114.04	49.42
203	12.00	123.90	10.00	113.90	49.36
204	4.00	117.06	10.00	107.06	46.39
205	7.00	116.81	10.00	106.81	46.29
206	5.00	113.42	10.00	103.42	44.82
207	24.00	109.34	10.00	99.34	43.05
208	0.00	102.96	10.00	92.96	40.28
209	6.00	100.64	10.00	90.64	39.28
210	4.00	97.34	10.00	87.34	37.85
211	9.00	97.34	10.00	87.34	37.85
212	6.00	102.38	10.00	92.38	40.03
213	3.00	95.06	10.00	85.06	36.86

214	12.00	94.61	10.00	84.61	36.66
215	22.00	94.44	10.00	84.44	36.59
216	68.00	94.98	10.00	84.98	36.83
217	51.00	94.56	10.00	84.56	36.64
218	2.00	94.54	10.00	84.54	36.63
219	14.00	94.51	10.00	84.51	36.62
220	10.00	94.47	10.00	84.47	36.60
221	10.00	94.47	10.00	84.47	36.60
222	11.00	157.19	10.00	147.19	63.78
223	18.00	156.96	10.00	146.96	63.68

SUMMARY OF INFLOWS AND OUTFLOWS

- (+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	723.56	
BB	2	713.44	

NET SYSTEM INFLOW = 1437.00
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1437.00

CHANGES FOR NEXT SIMULATION

DEMAND CHANGES

DEMAND TYPE = 1 - GDF = 1.100

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00

SIMULATION RESULTS

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = 0.00014

SIMULATION DESCRIPTION (LABEL)

PEAK FLOW CAPACITY OF SYSTEM

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	825.74	0.20	162.10	P1	0.00	2.34	1.36
THE PUMP IN LINE 2 IS OPERATING OUT OF RANGE								
2-FGPU	BB 1	752.76	0.17	162.07	P2	0.00	2.14	1.15

3	3	2	-11.00	0.06	0.00	0.00	0.28	0.10
4	3	4	2.20	0.00	0.00	0.00	0.06	0.00
5	5	1	-1446.52	16.94	0.00	0.00	9.23	27.77
6	6	5	-856.22	6.62	0.00	0.00	5.46	10.51
7	7	6	-534.73	5.28	0.00	0.00	3.41	4.40
8	8	7	-530.33	5.07	0.00	0.00	3.38	4.33
9	9	8	-697.82	6.48	0.00	0.00	4.45	7.20
10	9	10	654.82	8.32	0.00	0.00	4.18	6.40
11	10	11	1.10	0.02	0.00	0.00	0.11	0.04
12	9	12	34.20	0.02	0.00	0.00	0.39	0.11
13	12	13	27.18	18.12	0.00	0.00	2.78	15.10
14	13	14	11.78	7.70	0.00	0.00	1.20	3.21
15	10	15	584.95	5.97	0.00	0.00	3.73	5.19
16	10	16	56.67	0.11	0.00	0.00	0.64	0.28
17	16	17	1.10	0.00	0.00	0.00	0.01	0.00
18	16	18	1.10	0.03	0.00	0.00	0.11	0.04
19	16	19	44.57	0.07	0.00	0.00	0.51	0.18
20	19	20	19.81	8.41	0.00	0.00	2.02	8.41
21	19	21	14.85	4.19	0.00	0.00	1.52	4.93
22	21	20	12.65	4.21	0.00	0.00	1.29	3.66
23	23	22	1.10	0.00	0.00	0.00	0.11	0.04
24	23	24	7.37	0.74	0.00	0.00	0.75	1.35
25	24	25	1.10	0.00	0.00	0.00	0.11	0.04
26	24	26	1.87	0.04	0.00	0.00	0.19	0.11
27	26	27	1.10	0.34	0.00	0.00	0.45	1.16
28	26	28	-1.43	0.02	0.00	0.00	0.15	0.06
29	29	28	-12.10	1.52	0.00	0.00	1.24	3.37
30	29	30	1.10	0.03	0.00	0.00	0.11	0.04
31	28	31	-17.93	3.84	0.00	0.00	1.83	6.99
32	31	32	18.37	0.00	0.00	0.00	0.12	0.01
33	32	23	13.97	3.08	0.00	0.00	1.43	4.40
34	32	33	0.00	0.00	0.00	0.00	0.00	0.00
35	34	31	41.80	0.02	0.00	0.00	0.27	0.04
36	34	35	2.47	0.24	0.00	0.00	0.25	0.18
37	35	36	0.27	0.00	0.00	0.00	0.03	0.00
38	37	36	5.23	0.75	0.00	0.00	0.53	0.71
39	38	37	-239.33	0.39	0.00	0.00	1.53	0.99
40	39	38	-230.53	0.09	0.00	0.00	1.47	0.93
41	39	34	60.77	0.02	0.00	0.00	0.39	0.08
42	40	39	-169.76	0.85	0.00	0.00	1.93	2.13
43	40	41	1.10	0.00	0.00	0.00	0.01	0.00
44	8	40	-171.89	1.05	0.00	0.00	1.95	2.18
45	40	42	-8.72	2.15	0.00	0.00	0.89	1.84
46	42	43	0.53	0.00	0.00	0.00	0.01	0.00
47	43	44	269.21	0.25	0.00	0.00	1.72	1.23
48	44	37	258.86	0.57	0.00	0.00	1.65	1.15
49	44	45	7.04	0.68	0.00	0.00	0.72	1.24

50	45	46	1.10	0.01	0.00	0.00	0.11	0.04
51	45	47	1.54	0.05	0.00	0.00	0.16	0.07
52	47	48	9.90	0.81	0.00	0.00	1.01	2.33
53	48	49	4.40	0.21	0.00	0.00	0.45	0.52
54	47	50	-11.66	1.67	0.00	0.00	1.19	3.15
55	50	51	271.97	0.44	0.00	0.00	1.74	1.26
56	51	43	270.87	0.25	0.00	0.00	1.73	1.25
57	51	52	1.10	0.01	0.00	0.00	0.11	0.04
58	50	53	-285.83	0.90	0.00	0.00	1.82	1.38
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-290.23	2.07	0.00	0.00	3.29	5.76
62	56	42	11.46	3.66	0.00	0.00	1.17	3.05
63	56	57	-308.29	0.39	0.00	0.00	3.50	6.44
64	57	6	-315.99	3.10	0.00	0.00	3.59	6.74
65	57	58	1.10	0.00	0.00	0.00	0.01	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	2.20	0.14	0.00	0.00	0.22	0.14
68	5	61	587.00	2.55	0.00	0.00	6.66	21.21
69	12	62	-1.78	0.00	0.00	0.00	0.02	0.00
70	61	62	17.18	20.92	0.00	0.00	1.75	6.46
71	61	63	471.92	18.41	0.00	0.00	5.35	14.16
72	15	64	571.75	6.47	0.00	0.00	3.65	4.98
73	64	65	519.34	5.00	0.00	0.00	3.31	4.16
74	65	66	497.02	4.61	0.00	0.00	3.17	3.84
75	14	67	-1.42	0.07	0.00	0.00	0.14	0.06
76	67	68	-6.92	0.00	0.00	0.00	0.08	0.01
77	68	69	2.20	0.00	0.00	0.00	0.02	0.00
78	68	65	-21.22	0.02	0.00	0.00	0.24	0.05
79	20	70	15.97	3.95	0.00	0.00	1.63	5.64
80	70	71	-16.17	0.02	0.00	0.00	0.18	0.03
81	71	72	2.20	0.07	0.00	0.00	0.22	0.14
82	71	73	-21.67	0.02	0.00	0.00	0.25	0.05
83	73	74	-34.87	0.04	0.00	0.00	0.40	0.11
84	74	64	-49.11	0.01	0.00	0.00	0.56	0.21
85	74	75	13.15	9.59	0.00	0.00	1.34	3.93
86	73	76	1.10	0.00	0.00	0.00	0.01	0.00
87	73	77	7.70	0.00	0.00	0.00	0.09	0.01
88	77	78	1.10	0.03	0.00	0.00	0.11	0.04
89	70	79	24.43	0.04	0.00	0.00	0.28	0.06
90	79	80	21.13	3.32	0.00	0.00	2.16	9.47
91	80	81	18.93	3.09	0.00	0.00	1.93	7.73
92	81	82	14.53	1.66	0.00	0.00	1.48	4.74
93	82	83	11.23	1.47	0.00	0.00	1.15	2.94
94	83	84	1.10	0.02	0.00	0.00	0.11	0.04
95	83	85	4.63	0.00	0.00	0.00	0.05	0.00
96	85	86	3.53	0.00	0.00	0.00	0.04	0.00

97	86	87	1.10	0.04	0.00	0.00	0.11	0.04
98	86	88	-1.97	0.00	0.00	0.00	0.02	0.00
99	88	89	-0.43	0.01	0.00	0.00	0.04	0.01
100	89	90	-5.93	0.00	0.00	0.00	0.07	0.00
101	90	91	-9.23	0.00	0.00	0.00	0.10	0.01
102	91	92	-25.07	0.02	0.00	0.00	0.28	0.06
103	92	93	1.10	0.02	0.00	0.00	0.11	0.04
104	92	75	-27.27	0.02	0.00	0.00	0.31	0.07
105	90	94	1.10	0.03	0.00	0.00	0.11	0.04
106	91	95	9.23	0.01	0.00	0.00	0.10	0.01
107	95	96	7.03	0.00	0.00	0.00	0.08	0.01
108	96	97	1.10	0.35	0.00	0.00	0.45	1.16
109	96	88	5.93	0.00	0.00	0.00	0.07	0.00
110	66	75	15.22	0.00	0.00	0.00	0.17	0.02
111	66	98	478.50	1.97	0.00	0.00	3.05	3.58
112	98	99	2.20	0.00	0.00	0.00	0.02	0.00
113	98	100	8.80	0.01	0.00	0.00	0.10	0.01
114	100	101	1.10	0.00	0.00	0.00	0.01	0.00
115	98	102	459.80	2.33	0.00	0.00	2.93	3.32
116	102	103	5.50	0.00	0.00	0.00	0.06	0.00
117	102	104	446.60	2.68	0.00	0.00	2.85	3.15
118	104	105	13.20	0.01	0.00	0.00	0.15	0.02
119	105	106	5.27	0.00	0.00	0.00	0.06	0.00
120	106	107	1.97	0.00	0.00	0.00	0.02	0.00
121	107	108	-2.43	0.00	0.00	0.00	0.03	0.00
122	108	105	-5.73	0.00	0.00	0.00	0.07	0.00
123	104	109	433.40	0.30	0.00	0.00	2.77	2.98
124	109	110	430.10	3.08	0.00	0.00	2.75	2.94
125	110	111	301.97	1.42	0.00	0.00	1.93	1.53
126	111	112	298.67	0.22	0.00	0.00	1.91	1.50
127	112	113	383.90	1.19	0.00	0.00	2.45	2.38
128	113	114	357.50	6.05	0.00	0.00	2.28	2.09
129	114	115	357.50	0.63	0.00	0.00	2.28	2.09
130	115	116	338.80	1.60	0.00	0.00	2.16	1.89
131	116	117	335.50	0.09	0.00	0.00	2.14	1.85
132	117	118	310.37	0.08	0.00	0.00	1.98	1.61
133	118	119	314.60	1.65	0.00	0.00	2.01	1.65
134	119	120	309.10	0.08	0.00	0.00	1.97	1.59
135	120	121	303.60	0.85	0.00	0.00	1.94	1.54
136	121	122	228.86	0.55	0.00	0.00	1.46	0.91
137	122	123	200.71	0.43	0.00	0.00	1.28	0.72
138	123	124	215.18	0.49	0.00	0.00	1.37	0.81
139	124	125	277.20	0.78	0.00	0.00	1.77	1.30
140	125	126	205.90	0.45	0.00	0.00	1.31	0.75
141	126	127	176.94	0.39	0.00	0.00	1.13	0.57
142	127	128	160.65	0.33	0.00	0.00	1.03	0.47
143	128	129	143.42	0.08	0.00	0.00	0.92	0.38

144	129	130	137.92	0.29	0.00	0.00	0.88	0.36
145	130	131	135.69	0.05	0.00	0.00	0.87	0.35
146	131	132	133.49	0.21	0.00	0.00	0.85	0.34
147	132	133	126.89	0.03	0.00	0.00	0.81	0.31
148	133	134	117.42	0.16	0.00	0.00	0.75	0.27
149	134	135	114.12	0.10	0.00	0.00	0.73	0.25
150	135	136	111.90	0.10	0.00	0.00	0.71	0.24
151	136	137	106.40	0.09	0.00	0.00	0.68	0.22
152	137	138	97.52	0.11	0.00	0.00	0.62	0.19
153	138	139	90.92	0.04	0.00	0.00	0.58	0.17
154	139	140	80.11	0.05	0.00	0.00	0.51	0.13
155	140	141	76.81	0.07	0.00	0.00	0.49	0.12
156	141	142	101.20	0.12	0.00	0.00	0.65	0.20
157	142	143	37.62	0.01	0.00	0.00	0.24	0.03
158	143	144	34.32	0.02	0.00	0.00	0.22	0.03
159	144	145	29.92	0.02	0.00	0.00	0.19	0.02
160	145	146	19.31	0.01	0.00	0.00	0.12	0.01
161	146	147	21.12	0.00	0.00	0.00	0.13	0.01
162	147	148	25.30	0.00	0.00	0.00	0.16	0.02
163	110	149	120.43	0.40	0.00	0.00	1.37	1.13
164	149	150	110.53	0.46	0.00	0.00	1.25	0.96
165	150	151	102.83	0.51	0.00	0.00	1.17	0.84
166	112	151	-87.43	0.28	0.00	0.00	0.99	0.62
167	117	152	24.03	0.05	0.00	0.00	0.27	0.06
168	152	153	20.73	0.03	0.00	0.00	0.24	0.04
169	153	154	5.50	0.00	0.00	0.00	0.06	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-8.63	0.01	0.00	0.00	0.10	0.01
172	121	156	73.64	0.34	0.00	0.00	0.84	0.45
173	156	157	69.24	0.24	0.00	0.00	0.79	0.40
174	157	158	87.49	0.37	0.00	0.00	0.99	0.62
175	158	159	67.52	0.23	0.00	0.00	0.77	0.39
176	159	124	65.32	0.28	0.00	0.00	0.74	0.36
177	158	123	15.57	0.02	0.00	0.00	0.18	0.03
178	157	122	-21.56	0.04	0.00	0.00	0.24	0.05
179	125	160	68.00	0.27	0.00	0.00	0.77	0.39
180	162	167	-74.96	0.38	0.00	0.00	0.85	0.47
181	167	160	-62.50	0.20	0.00	0.00	0.71	0.34
182	162	163	70.35	0.33	0.00	0.00	0.80	0.42
183	163	164	68.88	0.36	0.00	0.00	0.78	0.40
184	164	165	63.41	0.29	0.00	0.00	0.72	0.34
185	165	166	60.78	0.25	0.00	0.00	0.69	0.32
186	133	165	8.37	0.00	0.00	0.00	0.09	0.01
187	130	164	2.23	0.00	0.00	0.00	0.03	0.00
188	163	128	-10.64	0.01	0.00	0.00	0.12	0.01
189	127	162	9.69	0.01	0.00	0.00	0.11	0.01
190	126	167	17.96	0.02	0.00	0.00	0.20	0.03

191	166	168	49.80	0.19	0.00	0.00	0.57	0.22
192	168	169	43.28	0.15	0.00	0.00	0.49	0.17
193	169	170	36.49	0.11	0.00	0.00	0.41	0.12
194	170	141	27.69	0.02	0.00	0.00	0.31	0.07
195	169	139	2.38	0.00	0.00	0.00	0.03	0.00
196	168	137	-3.37	0.00	0.00	0.00	0.04	0.00
197	166	135	2.18	0.00	0.00	0.00	0.02	0.00
198	142	171	63.58	0.03	0.00	0.00	0.41	0.09
199	171	172	18.48	0.02	0.00	0.00	0.12	0.01
200	172	147	4.18	0.00	0.00	0.00	0.05	0.00
201	145	173	9.50	0.00	0.00	0.00	0.11	0.01
202	173	174	5.10	0.00	0.00	0.00	0.06	0.00
203	174	146	2.90	0.00	0.00	0.00	0.03	0.00
204	63	176	463.12	1.91	0.00	0.00	5.25	13.67
205	176	2	-96.78	39.65	0.00	0.00	9.88	158.60
206	176	177	65.60	0.13	0.00	0.00	0.74	0.37
207	177	178	65.60	0.05	0.00	0.00	0.74	0.37
208	178	179	65.60	0.07	0.00	0.00	0.74	0.37
209	179	180	42.73	0.16	0.00	0.00	0.48	0.17
210	180	181	17.20	11.65	0.00	0.00	1.76	6.47
211	181	182	17.68	15.31	0.00	0.00	1.81	6.81
212	182	183	-6.52	2.52	0.00	0.00	0.67	1.07
213	183	184	8.92	4.51	0.00	0.00	0.91	1.92
214	184	185	-0.98	0.00	0.00	0.00	0.01	0.00
215	185	186	-335.38	2.22	0.00	0.00	2.14	1.85
216	186	187	-345.28	2.35	0.00	0.00	2.20	1.96
217	187	188	-398.12	3.05	0.00	0.00	2.54	2.55
218	188	189	-404.72	3.15	0.00	0.00	2.58	2.62
219	189	190	-411.32	3.25	0.00	0.00	2.63	2.70
220	190	191	-434.42	3.29	0.00	0.00	2.77	2.99
221	191	192	-462.40	5.71	0.00	0.00	2.95	3.36
222	192	193	-480.00	5.04	0.00	0.00	3.06	3.60
223	193	176	-486.60	1.29	0.00	0.00	3.11	3.69
224	192	194	12.10	1.18	0.00	0.00	1.24	3.37
225	194	195	1.10	0.05	0.00	0.00	0.11	0.04
226	191	181	20.27	0.01	0.00	0.00	0.23	0.04
227	191	196	1.10	0.03	0.00	0.00	0.11	0.04
228	190	197	7.70	0.61	0.00	0.00	0.79	1.46
229	188	198	2.20	0.05	0.00	0.00	0.22	0.14
230	183	187	-40.75	0.06	0.00	0.00	0.46	0.15
231	185	199	16.50	2.10	0.00	0.00	1.68	5.99
232	185	200	306.90	6.06	0.00	0.00	3.48	6.38
233	200	201	255.54	5.00	0.00	0.00	2.90	4.55
234	200	202	49.16	4.52	0.00	0.00	5.02	45.24
235	202	203	40.36	0.16	0.00	0.00	0.46	0.15
236	203	201	11.62	0.31	0.00	0.00	1.19	3.13
237	203	204	15.54	8.04	0.00	0.00	1.59	5.36

238	204	205	11.14	0.29	0.00	0.00	1.14	2.90
239	205	201	-264.96	8.02	0.00	0.00	3.01	4.86
240	205	206	268.40	3.98	0.00	0.00	3.05	4.98
241	206	207	262.90	4.79	0.00	0.00	2.98	4.79
242	207	208	236.50	7.48	0.00	0.00	2.68	3.94
243	208	209	218.71	2.73	0.00	0.00	2.48	3.41
244	209	210	212.11	3.86	0.00	0.00	2.41	3.22
245	210	211	-1.29	0.00	0.00	0.00	0.13	0.05
246	211	212	-11.19	5.90	0.00	0.00	1.14	2.92
247	212	208	-17.79	0.69	0.00	0.00	1.82	6.89
248	210	213	209.00	2.66	0.00	0.00	2.37	3.13
249	213	214	130.90	0.53	0.00	0.00	1.49	1.32
250	214	218	61.60	0.08	0.00	0.00	0.70	0.33
251	213	216	74.80	0.09	0.00	0.00	0.85	0.47
252	214	217	56.10	0.05	0.00	0.00	0.64	0.27
253	218	219	33.10	0.04	0.00	0.00	0.38	0.10
254	219	220	17.70	0.04	0.00	0.00	0.20	0.03
255	220	221	6.70	0.00	0.00	0.00	0.08	0.01
256	221	218	-26.30	0.08	0.00	0.00	0.30	0.07
257	215	221	-22.00	0.03	0.00	0.00	0.25	0.05
258	179	222	15.17	0.56	0.00	0.00	1.55	5.13
259	222	223	3.07	0.27	0.00	0.00	0.31	0.27
260	223	180	-16.73	0.68	0.00	0.00	1.71	6.14
261	1	2	120.98	0.15	0.00	0.00	0.77	0.28

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
1		11.00	181.89	10.00	171.89	74.49
2		13.20	181.74	10.00	171.74	74.42
3		8.80	181.68	10.00	171.68	74.39
4		2.20	181.68	10.00	171.68	74.39
5		3.30	164.96	10.00	154.96	67.15
6		5.50	158.33	10.00	148.33	64.28
7		4.40	153.06	10.00	143.06	61.99
8		4.40	147.99	10.00	137.99	59.80
9		8.80	141.51	10.00	131.51	56.99
10		12.10	133.20	10.00	123.20	53.39
11		1.10	133.17	10.00	123.17	53.38
12		8.80	141.49	10.00	131.49	56.98
13		15.40	123.38	10.00	113.38	49.13
14		13.20	115.67	10.00	105.67	45.79

15	13.20	127.23	10.00	117.23	50.80
16	9.90	133.08	10.00	123.08	53.34
17	1.10	133.08	10.00	123.08	53.34
18	1.10	133.05	10.00	123.05	53.32
19	9.90	133.01	10.00	123.01	53.31
20	16.50	124.61	10.00	114.61	49.66
21	2.20	128.82	10.00	118.82	51.49
22	1.10	146.77	10.00	136.77	59.26
23	5.50	146.77	10.00	136.77	59.27
24	4.40	146.03	10.00	136.03	58.95
25	1.10	146.02	10.00	136.02	58.94
26	2.20	145.99	10.00	135.99	58.93
27	1.10	145.65	10.00	135.65	58.78
28	4.40	146.01	10.00	136.01	58.94
29	11.00	144.49	10.00	134.49	58.28
30	1.10	144.47	10.00	134.47	58.27
31	5.50	149.85	10.00	139.85	60.60
32	4.40	149.85	10.00	139.85	60.60
33	0.00	149.85	10.00	139.85	60.60
34	16.50	149.87	10.00	139.87	60.61
35	2.20	149.62	10.00	139.62	60.50
36	5.50	149.62	10.00	139.62	60.50
37	14.30	150.37	10.00	140.37	60.83
38	6.60	149.98	10.00	139.98	60.66
39	0.00	149.89	10.00	139.89	60.62
40	5.50	149.04	10.00	139.04	60.25
41	1.10	149.04	10.00	139.04	60.25
42	2.20	151.19	10.00	141.19	61.18
43	2.20	151.19	10.00	141.19	61.18
44	3.30	150.95	10.00	140.95	61.08
45	4.40	150.26	10.00	140.26	60.78
46	1.10	150.25	10.00	140.25	60.78
47	3.30	150.21	10.00	140.21	60.76
48	5.50	149.40	10.00	139.40	60.41
49	4.40	149.19	10.00	139.19	60.32
50	2.20	151.88	10.00	141.88	61.48
51	0.00	151.44	10.00	141.44	61.29
52	1.10	151.43	10.00	141.43	61.29
53	4.40	152.78	10.00	142.78	61.87
54	0.00	152.78	10.00	142.78	61.87
55	0.00	152.78	10.00	142.78	61.87
56	6.60	154.85	10.00	144.85	62.77
57	6.60	155.23	10.00	145.23	62.94
58	1.10	155.23	10.00	145.23	62.94
59	0.00	149.62	10.00	139.62	60.50
60	2.20	149.84	10.00	139.84	60.60
61	97.90	162.41	10.00	152.41	66.05

62	15.40	141.49	10.00	131.49	56.98
63	8.80	144.00	10.00	134.00	58.07
64	3.30	120.76	10.00	110.76	47.99
65	1.10	115.76	10.00	105.76	45.83
66	3.30	111.15	10.00	101.15	43.83
67	5.50	115.74	10.00	105.74	45.82
68	12.10	115.74	10.00	105.74	45.82
69	2.20	115.74	10.00	105.74	45.82
70	7.70	120.66	10.00	110.66	47.95
71	3.30	120.69	10.00	110.69	47.96
72	2.20	120.61	10.00	110.61	47.93
73	4.40	120.70	10.00	110.70	47.97
74	1.10	120.74	10.00	110.74	47.99
75	1.10	111.15	10.00	101.15	43.83
76	1.10	120.70	10.00	110.70	47.97
77	6.60	120.70	10.00	110.70	47.97
78	1.10	120.67	10.00	110.67	47.96
79	3.30	120.63	10.00	110.63	47.94
80	2.20	117.31	10.00	107.31	46.50
81	4.40	114.22	10.00	104.22	45.16
82	3.30	112.56	10.00	102.56	44.44
83	5.50	111.09	10.00	101.09	43.81
84	1.10	111.07	10.00	101.07	43.80
85	1.10	111.09	10.00	101.09	43.81
86	4.40	111.09	10.00	101.09	43.81
87	1.10	111.05	10.00	101.05	43.79
88	4.40	111.09	10.00	101.09	43.81
89	5.50	111.10	10.00	101.10	43.81
90	2.20	111.10	10.00	101.10	43.81
91	6.60	111.11	10.00	101.11	43.81
92	1.10	111.13	10.00	101.13	43.82
93	1.10	111.10	10.00	101.10	43.81
94	1.10	111.07	10.00	101.07	43.80
95	2.20	111.10	10.00	101.10	43.81
96	0.00	111.09	10.00	101.09	43.81
97	1.10	110.74	10.00	100.74	43.66
98	7.70	109.18	10.00	99.18	42.98
99	2.20	109.18	10.00	99.18	42.98
100	7.70	109.18	10.00	99.18	42.98
101	1.10	109.18	10.00	99.18	42.98
102	7.70	106.86	10.00	96.86	41.97
103	5.50	106.85	10.00	96.85	41.97
104	0.00	104.18	10.00	94.18	40.81
105	2.20	104.17	10.00	94.17	40.81
106	3.30	104.17	10.00	94.17	40.81
107	4.40	104.17	10.00	94.17	40.81
108	3.30	104.17	10.00	94.17	40.81

109	3.30	103.88	10.00	93.88	40.68
110	7.70	100.80	10.00	90.80	39.35
111	3.30	99.38	10.00	89.38	38.73
112	2.20	99.15	10.00	89.15	38.63
113	26.40	97.96	10.00	87.96	38.12
114	0.00	91.91	10.00	81.91	35.50
115	18.70	91.29	10.00	81.29	35.23
116	3.30	89.68	10.00	79.68	34.53
117	1.10	89.59	10.00	79.59	34.49
118	4.40	89.51	10.00	79.51	34.45
119	5.50	87.87	10.00	77.87	33.74
120	5.50	87.79	10.00	77.79	33.71
121	1.10	86.94	10.00	76.94	33.34
122	6.60	86.39	10.00	76.39	33.10
123	1.10	85.96	10.00	75.96	32.92
124	3.30	85.47	10.00	75.47	32.70
125	3.30	84.69	10.00	74.69	32.37
126	11.00	84.24	10.00	74.24	32.17
127	6.60	83.85	10.00	73.85	32.00
128	6.60	83.52	10.00	73.52	31.86
129	5.50	83.44	10.00	73.44	31.82
130	0.00	83.15	10.00	73.15	31.70
131	2.20	83.09	10.00	73.09	31.67
132	6.60	82.89	10.00	72.89	31.59
133	1.10	82.86	10.00	72.86	31.57
134	3.30	82.70	10.00	72.70	31.50
135	4.40	82.60	10.00	72.60	31.46
136	5.50	82.50	10.00	72.50	31.42
137	5.50	82.41	10.00	72.41	31.38
138	6.60	82.30	10.00	72.30	31.33
139	13.20	82.26	10.00	72.26	31.31
140	3.30	82.21	10.00	72.21	31.29
141	3.30	82.13	10.00	72.13	31.26
142	0.00	82.01	10.00	72.01	31.20
143	3.30	82.00	10.00	72.00	31.20
144	4.40	81.98	10.00	71.98	31.19
145	1.10	81.96	10.00	71.96	31.18
146	1.10	81.95	10.00	71.95	31.18
147	0.00	81.95	10.00	71.95	31.18
148	25.30	81.95	10.00	71.95	31.18
149	9.90	100.40	10.00	90.40	39.17
150	7.70	99.94	10.00	89.94	38.97
151	15.40	99.43	10.00	89.43	38.75
152	3.30	89.54	10.00	79.54	34.47
153	6.60	89.52	10.00	79.52	34.46
154	5.50	89.52	10.00	79.52	34.46
155	0.00	89.52	10.00	79.52	34.46

156	4.40	86.60	10.00	76.60	33.19
157	3.30	86.35	10.00	76.35	33.09
158	4.40	85.98	10.00	75.98	32.92
159	2.20	85.75	10.00	75.75	32.82
160	5.50	84.42	10.00	74.42	32.25
162	14.30	83.84	10.00	73.84	32.00
163	12.10	83.51	10.00	73.51	31.85
164	7.70	83.15	10.00	73.15	31.70
165	11.00	82.85	10.00	72.85	31.57
166	8.80	82.60	10.00	72.60	31.46
167	5.50	84.22	10.00	74.22	32.16
168	9.90	82.41	10.00	72.41	31.38
169	4.40	82.26	10.00	72.26	31.31
170	8.80	82.15	10.00	72.15	31.27
171	45.10	81.98	10.00	71.98	31.19
172	14.30	81.95	10.00	71.95	31.18
173	4.40	81.96	10.00	71.96	31.18
174	2.20	81.96	10.00	71.96	31.18
176	7.70	142.09	10.00	132.09	57.24
177	0.00	141.96	10.00	131.96	57.18
178	0.00	141.91	10.00	131.91	57.16
179	7.70	141.84	10.00	131.84	57.13
180	8.80	141.68	10.00	131.68	57.06
181	19.80	130.03	10.00	120.03	52.02
182	24.20	114.72	10.00	104.72	45.38
183	25.30	117.25	10.00	107.25	46.47
184	9.90	112.74	10.00	102.74	44.52
185	11.00	112.74	10.00	102.74	44.52
186	9.90	114.96	10.00	104.96	45.48
187	12.10	117.31	10.00	107.31	46.50
188	4.40	120.36	10.00	110.36	47.82
189	6.60	123.51	10.00	113.51	49.19
190	15.40	126.76	10.00	116.76	50.59
191	6.60	130.05	10.00	120.05	52.02
192	5.50	135.76	10.00	125.76	54.50
193	6.60	140.80	10.00	130.80	56.68
194	11.00	134.58	10.00	124.58	53.98
195	1.10	134.53	10.00	124.53	53.96
196	1.10	130.02	10.00	120.02	52.01
197	7.70	126.14	10.00	116.14	50.33
198	2.20	120.31	10.00	110.31	47.80
199	16.50	110.64	10.00	100.64	43.61
200	2.20	106.67	10.00	96.67	41.89
201	2.20	101.67	10.00	91.67	39.72
202	8.80	102.15	10.00	92.15	39.93
203	13.20	101.99	10.00	91.99	39.86
204	4.40	93.94	10.00	83.94	36.37

205	7.70	93.65	10.00	83.65	36.25
206	5.50	89.67	10.00	79.67	34.52
207	26.40	84.88	10.00	74.88	32.45
208	0.00	77.39	10.00	67.39	29.20
209	6.60	74.67	10.00	64.67	28.02
210	4.40	70.80	10.00	60.80	26.35
211	9.90	70.81	10.00	60.81	26.35
212	6.60	76.70	10.00	66.70	28.90
213	3.30	68.14	10.00	58.14	25.19
214	13.20	67.61	10.00	57.61	24.97
215	22.00	67.43	10.00	57.43	24.89
216	74.80	68.05	10.00	58.05	25.15
217	56.10	67.56	10.00	57.56	24.94
218	2.20	67.54	10.00	57.54	24.93
219	15.40	67.50	10.00	57.50	24.92
220	11.00	67.46	10.00	57.46	24.90
221	11.00	67.46	10.00	57.46	24.90
222	12.10	141.28	10.00	131.28	56.89
223	19.80	141.01	10.00	131.01	56.77

SUMMARY OF INFLOWS AND OUTFLOWS

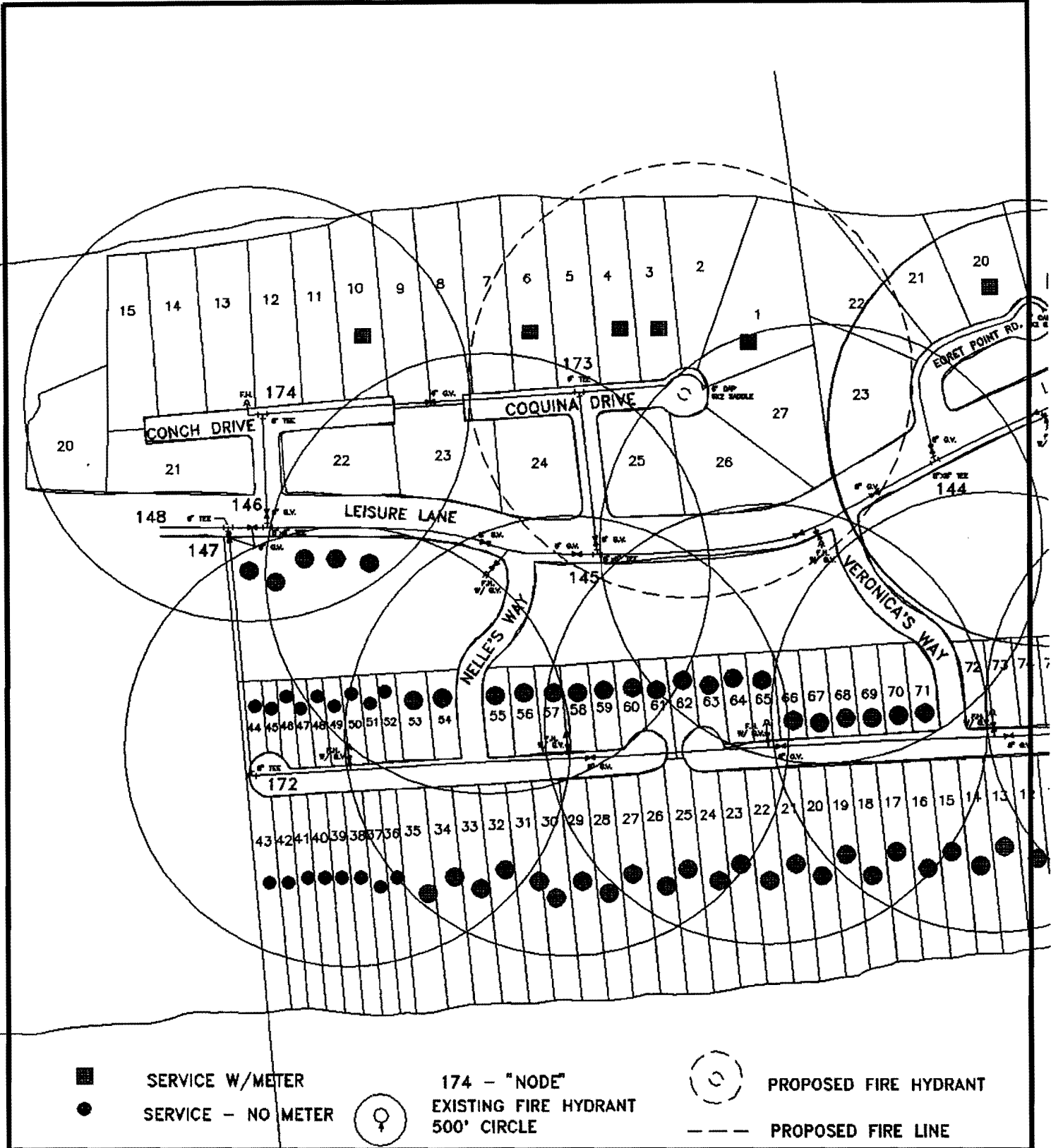
(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	825.74	
BB	2	752.76	

NET SYSTEM INFLOW = 1578.50
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1578.50

**** KYPIPE SIMULATION COMPLETED ****

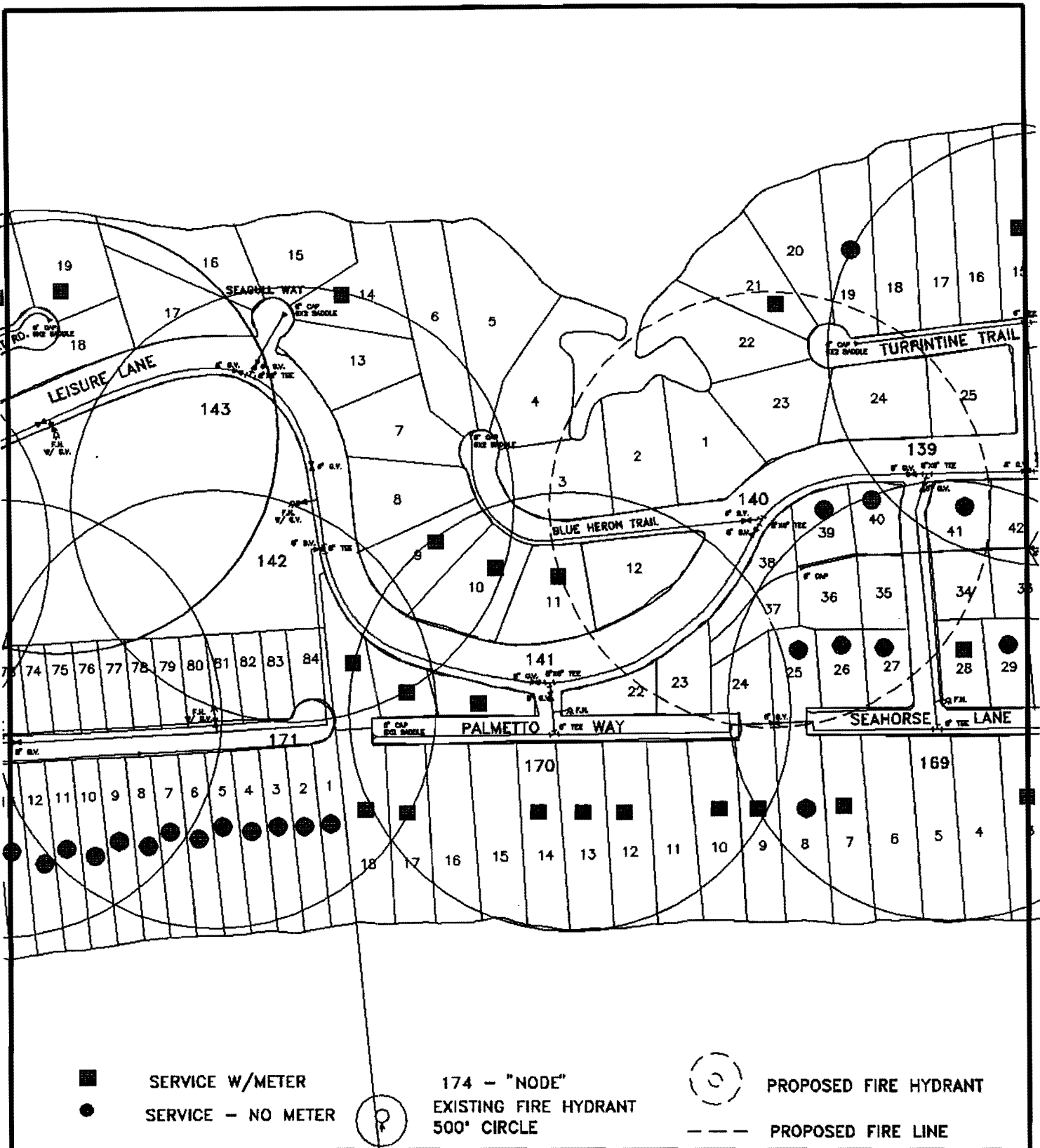
DATE: 04/19/95
 TIME: 15:51:33.29



- SERVICE W/METER
- SERVICE - NO METER
- (with dot) 174 - "NODE" EXISTING FIRE HYDRANT 500' CIRCLE
- (with dashed circle) PROPOSED FIRE HYDRANT
- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS 4049 McLEOD DR. TALLAHASSEE, FL 32303 (904) 582-1610 FAX (904) 582-9741	PROJECT: WATER SYSTEM ANALYSIS SHEET TITLE: SYSTEM MAP - FIRE COVERAGE	DATE: 4/19/05 SCALE: 1"=300' 2
--	---	---



- SERVICE W/METER
- SERVICE - NO METER



174 - "NODE"
EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT

--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
SCALE: 1"=300'
3



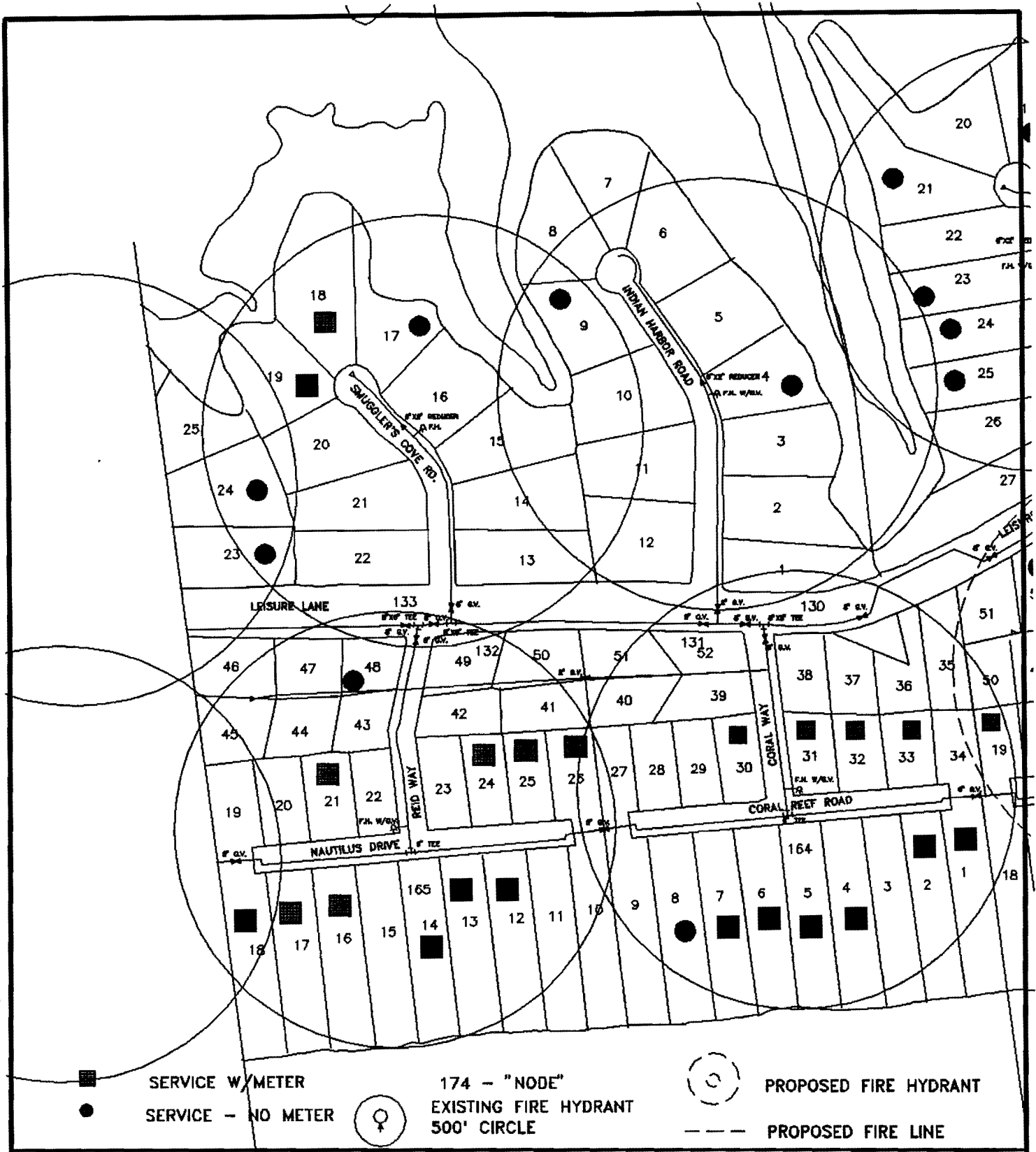
- SERVICE W/METER
- SERVICE - NO METER
- ⊙ 174 - "NODE" EXISTING FIRE HYDRANT 500' CIRCLE
- ⊙ PROPOSED FIRE HYDRANT
- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
 SCALE: 1"=300'
4



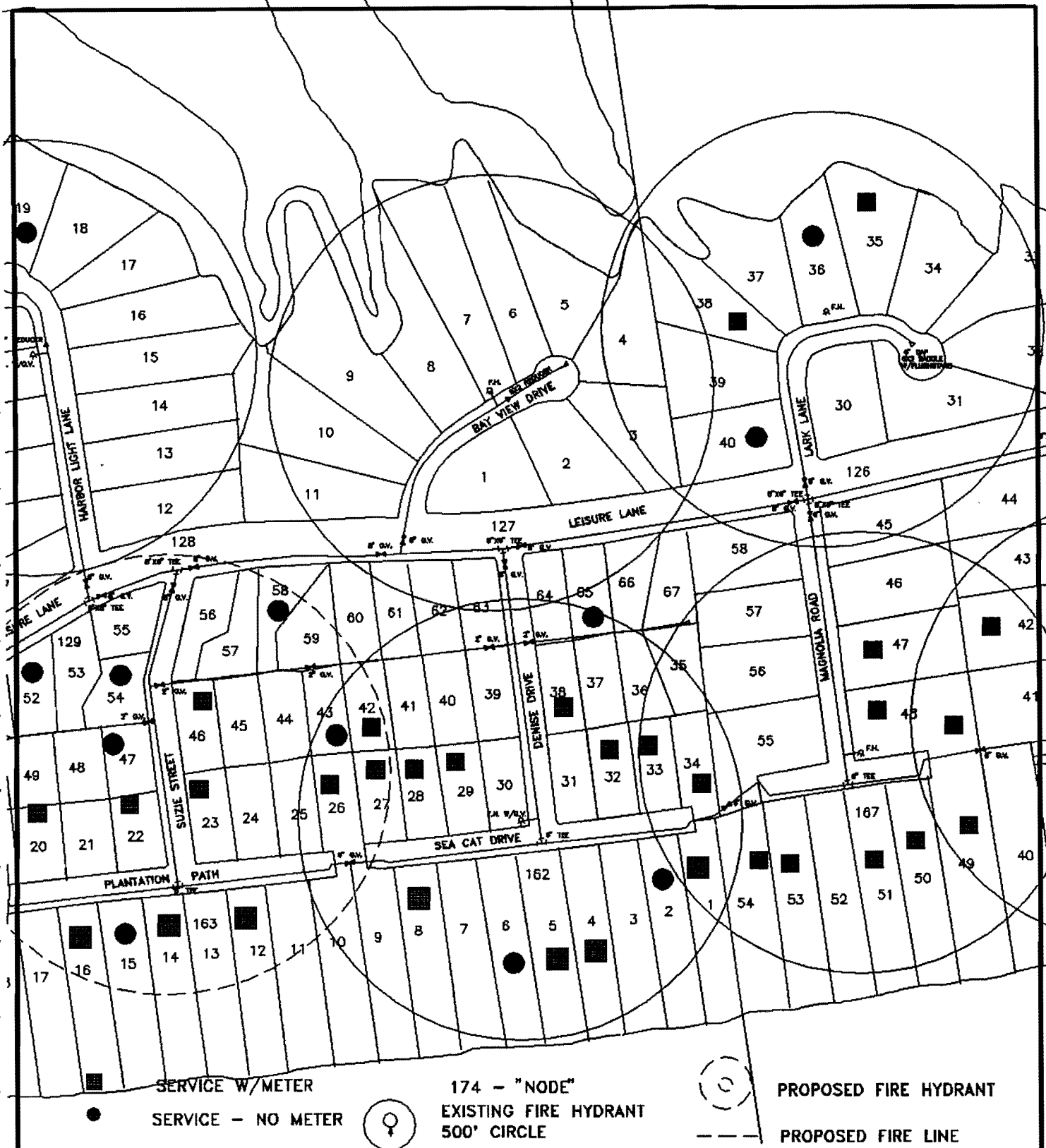
■ SERVICE W/METER
 ● SERVICE - NO METER
 ○ (with cross) 174 - "NODE" EXISTING FIRE HYDRANT 500' CIRCLE
 ○ (with dot) PROPOSED FIRE HYDRANT
 --- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
 SCALE: 1"=300'
5



● SERVICE - NO METER ○ 174 - "NODE" EXISTING FIRE HYDRANT 500' CIRCLE ○ PROPOSED FIRE HYDRANT
 ○ SERVICE W/METER --- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 582-1810 FAX (904) 582-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DWD 4/19/96
 SCALE: 1"=800'
6



- SERVICE W/METER
- SERVICE - NO METER
- 174 - "NODE"
- EXISTING FIRE HYDRANT
- 500' CIRCLE
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS 4049 McLEOD DR. (904) 562-1810	TALLAHASSEE, FL 32303 FAX (904) 562-9741	PROJECT: WATER SYSTEM ANALYSIS	DATE: 4/19/95 SCALE: 1"=300' 7
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE			

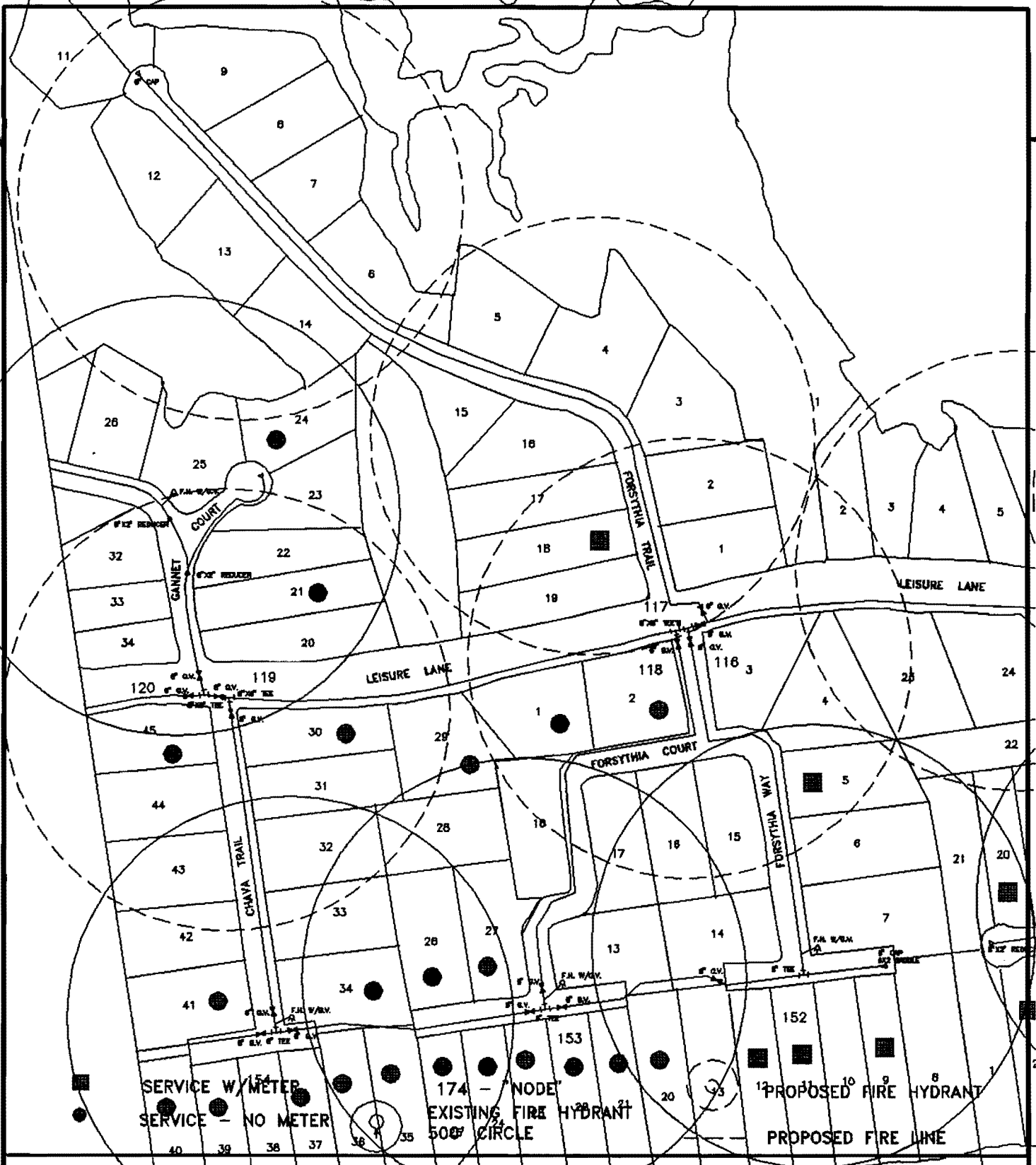


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR.
 TALLAHASSEE, FL 32303
 (904) 582-1810 FAX (904) 582-8741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DWG 4/19/95
 SCALE 1"=800'
8

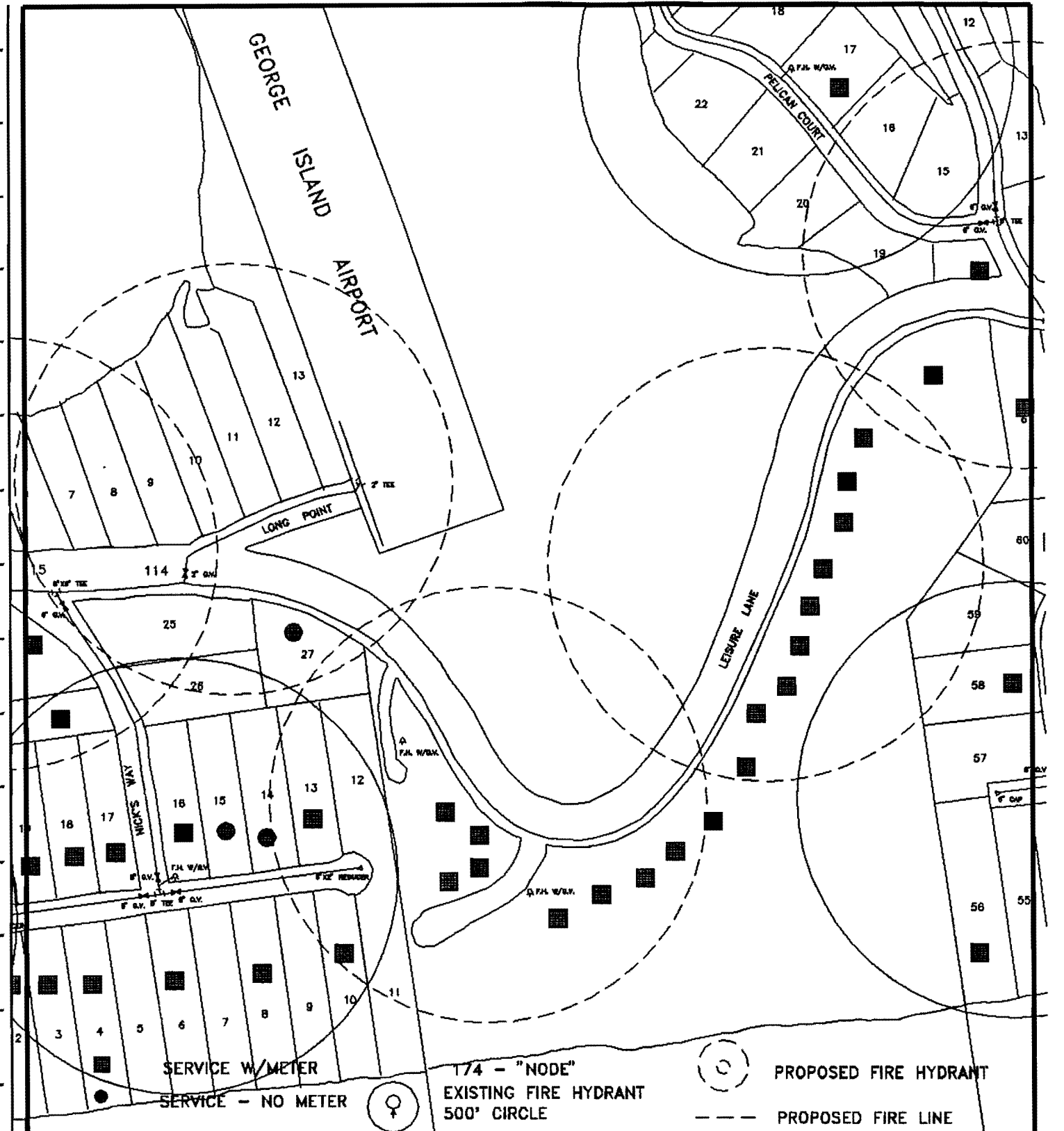


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1810 FAX (904) 562-8741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/10/95
 SCALE: 1" = 300'
 9



SERVICE W/METER
 SERVICE - NO METER



174 - "NODE"
 EXISTING FIRE HYDRANT
 500' CIRCLE



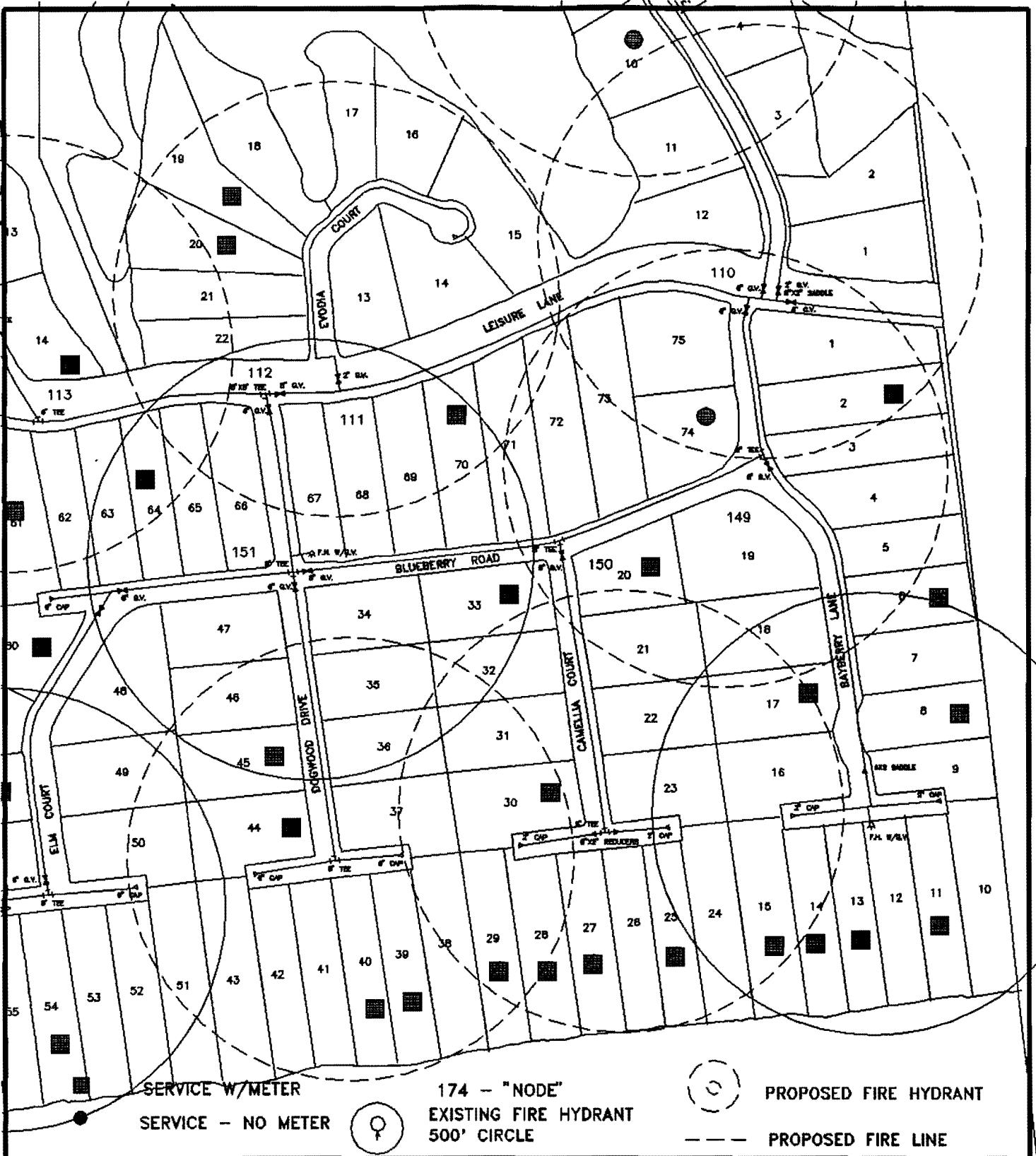
PROPOSED FIRE HYDRANT
 --- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1910 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
 SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/96
 SCALE: 1"=300'
10



SERVICE W/METER
 SERVICE - NO METER



174 - "NODE"
 EXISTING FIRE HYDRANT
 500' CIRCLE



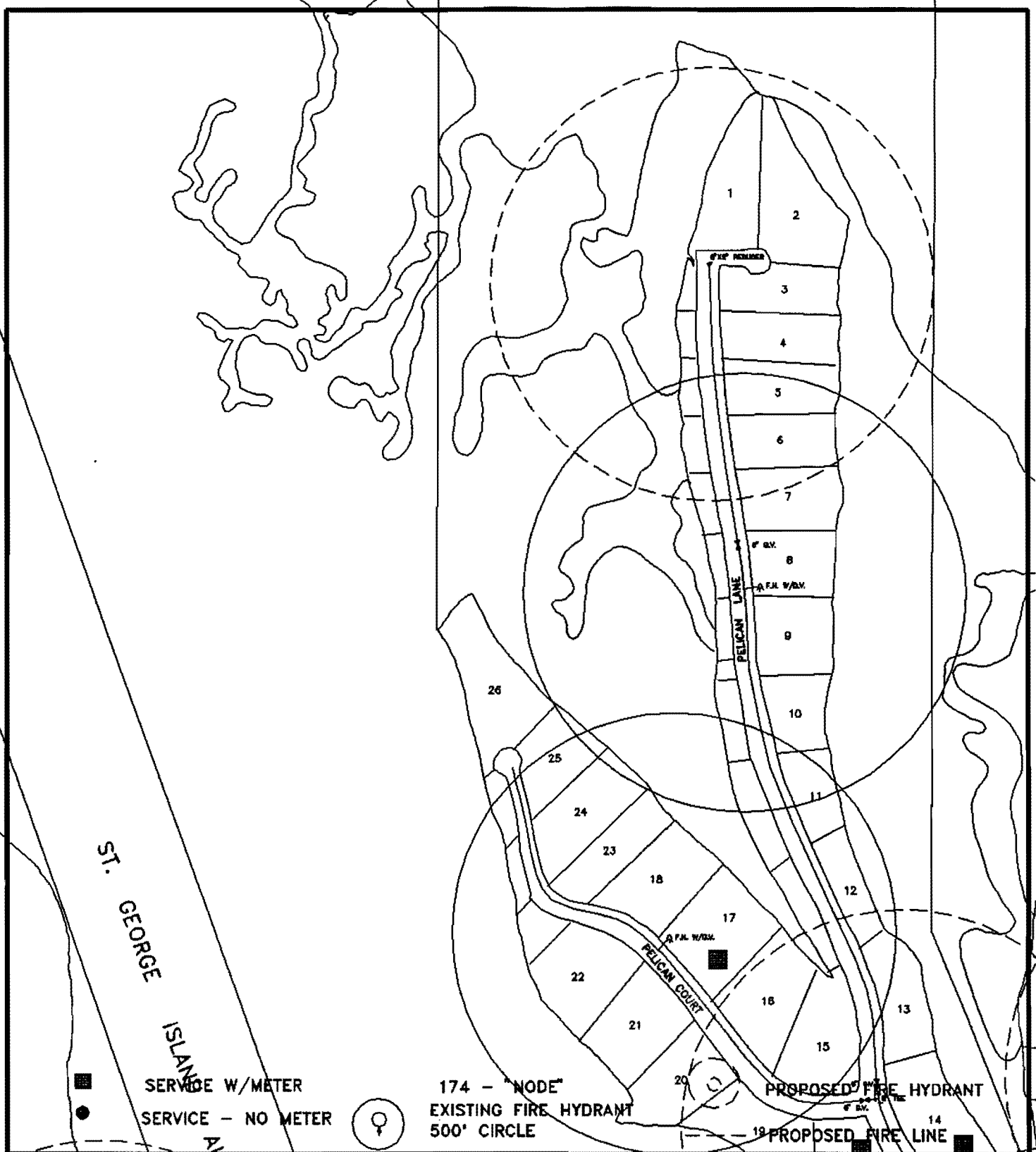
PROPOSED FIRE HYDRANT
 --- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 582-1810 FAX (904) 582-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
 SCALE: 1" = 300'
 11

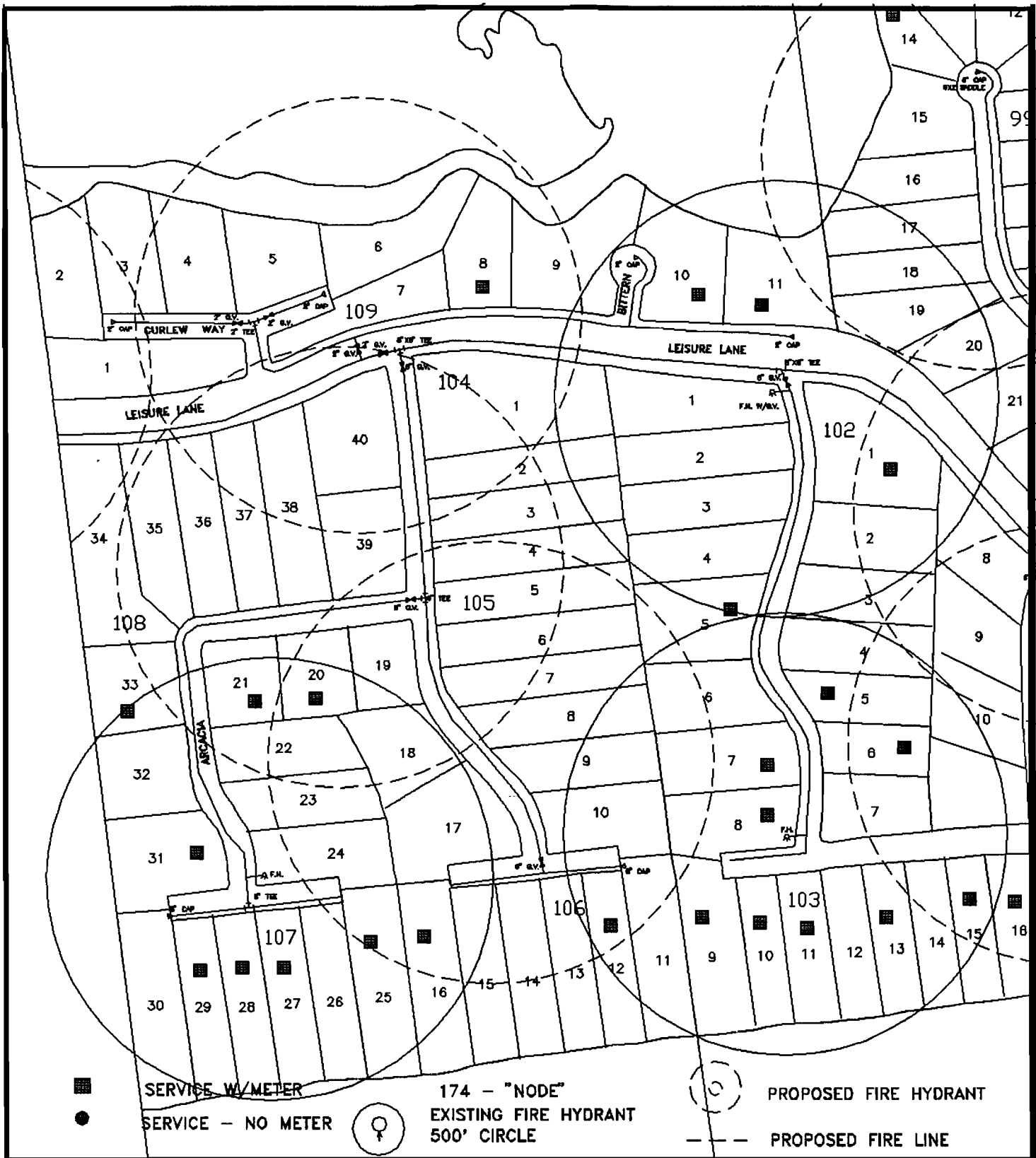


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR.₁₃
 (904) 562-1810
 TALLAHASSEE, FL 32303
 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
SCALE: 1" = 300'
12



SERVICE W/METER
 SERVICE - NO METER
♀ 174 - "NODE"
♀ EXISTING FIRE HYDRANT
♀ 500' CIRCLE
♀ PROPOSED FIRE HYDRANT
 PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR.
 (904) 568-1810
 TALLAHASSEE, FL 32303
 FAX (904) 568-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE 4/19/95
 SCALE 1"=300'
13

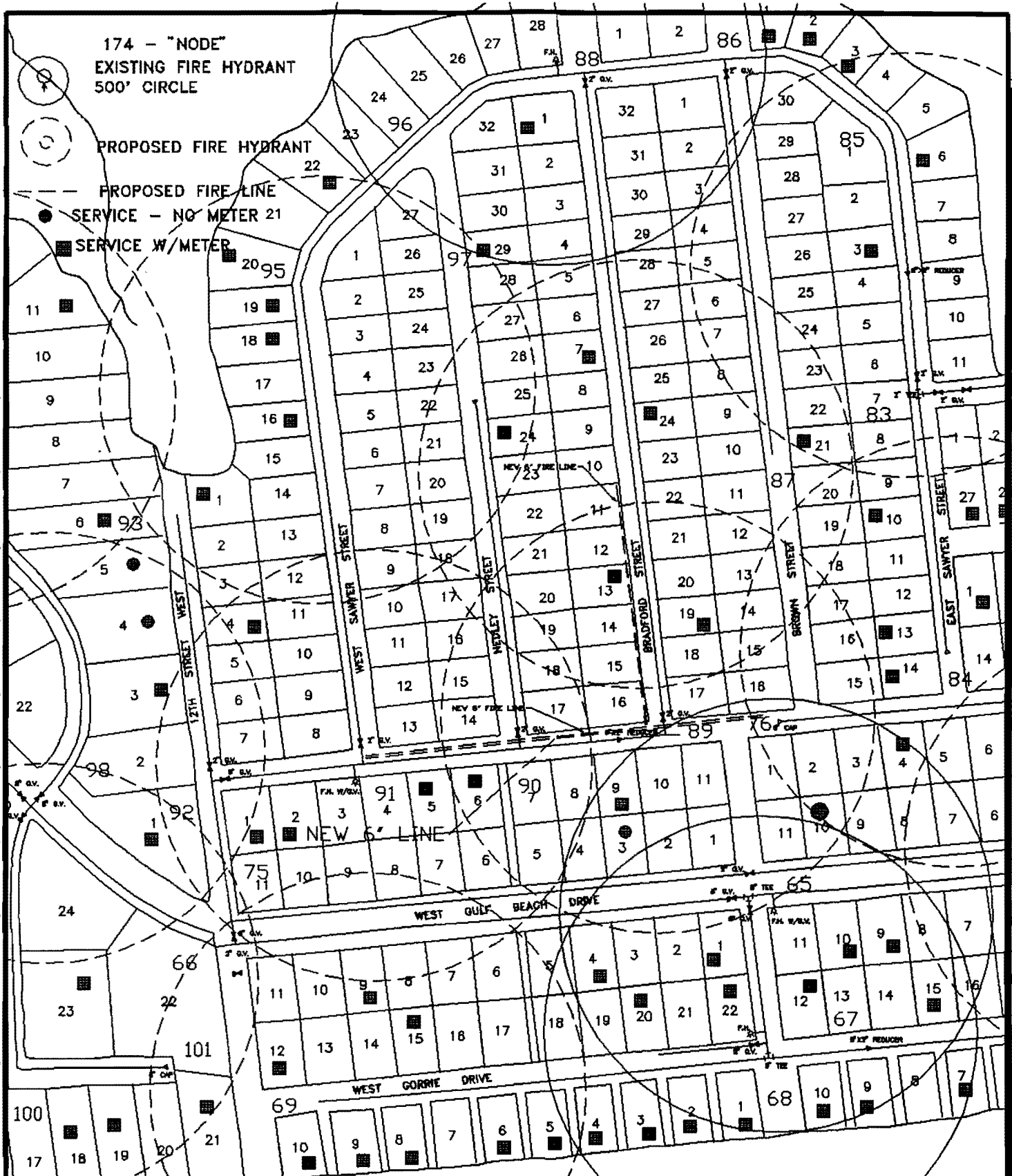
174 - "NODE"
EXISTING FIRE HYDRANT
500' CIRCLE

PROPOSED FIRE HYDRANT

PROPOSED FIRE LINE

SERVICE - NO METER 21

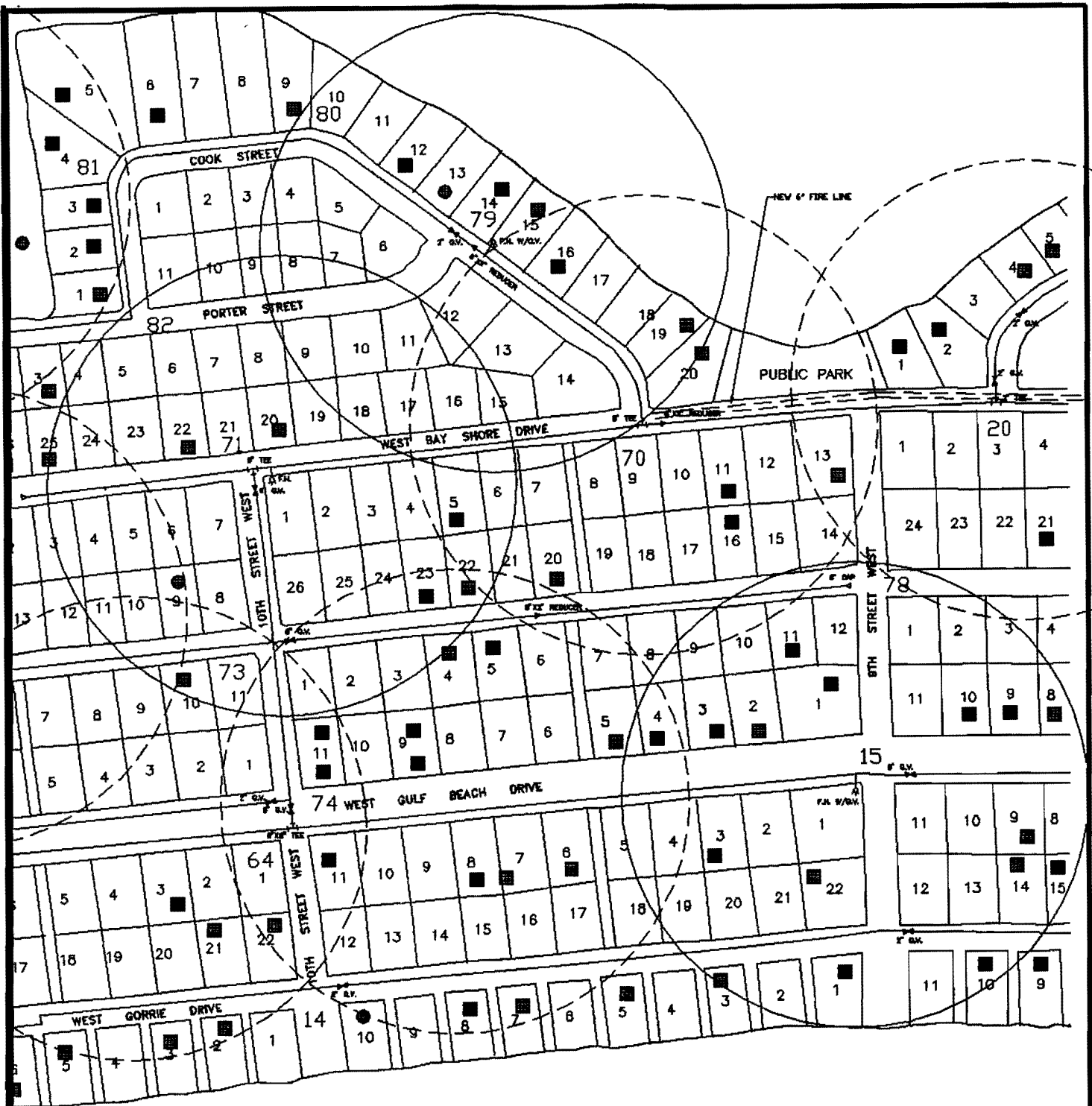
SERVICE W/METER



LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR.
(904) 562-1810
TALLAHASSEE, FL 32303
FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

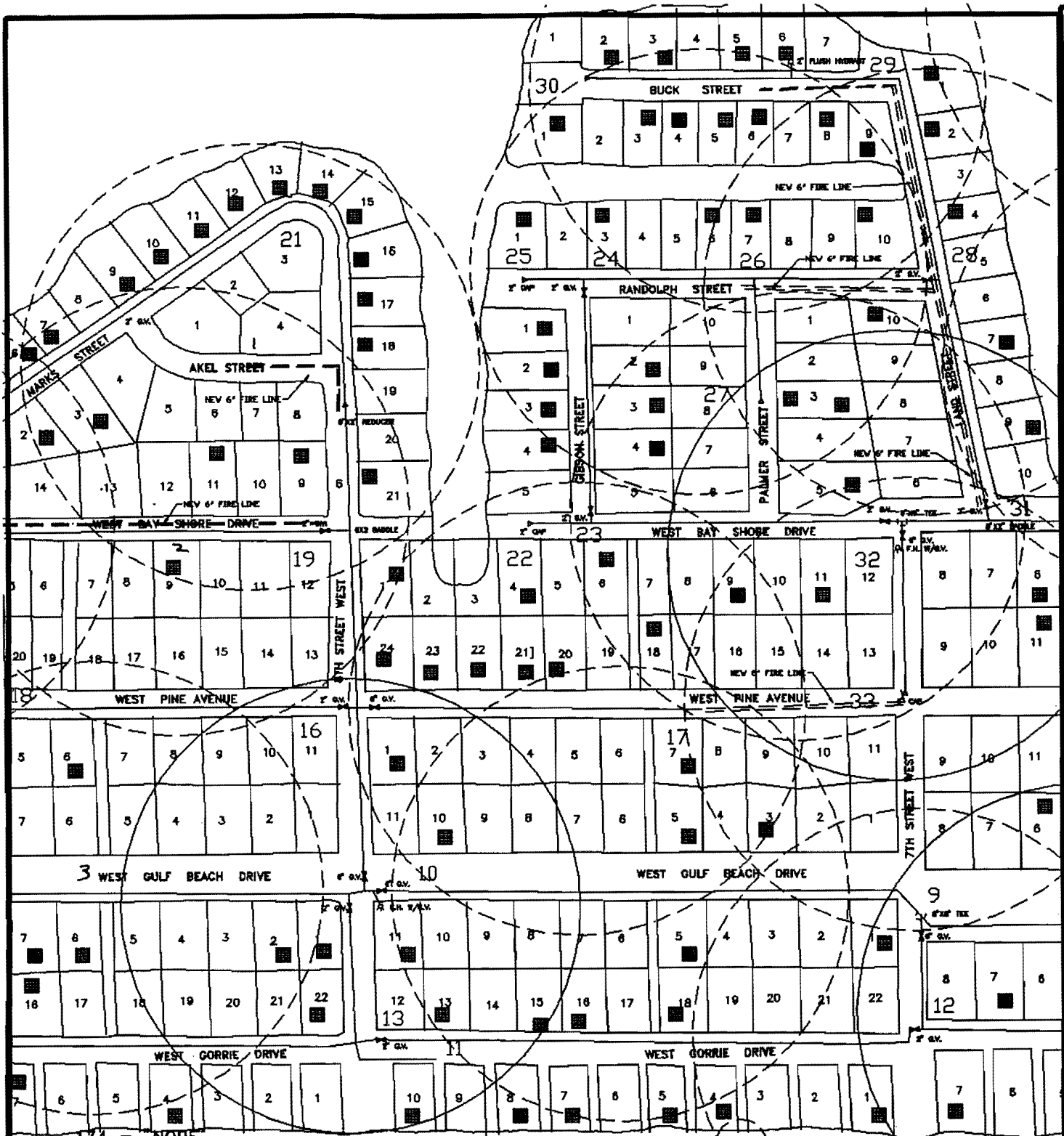
NOV 4/19/95
SCALE: 1"=300'
14



- SERVICE W/METER
- SERVICE - NO METER
- ⊕ 174 - "NODE"
- ⊙ EXISTING FIRE HYDRANT
- ⊙ 500' CIRCLE
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS 4049 McLEOD DR. (904) 582-1810	PROJECT: WATER SYSTEM ANALYSIS SHEET TITLE: SYSTEM MAP - FIRE COVERAGE	REV 4/19/95 SCALE 1"=300' 15
TALLAHASSEE, FL 32303 FAX (904) 582-9741		



174 - NODE

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



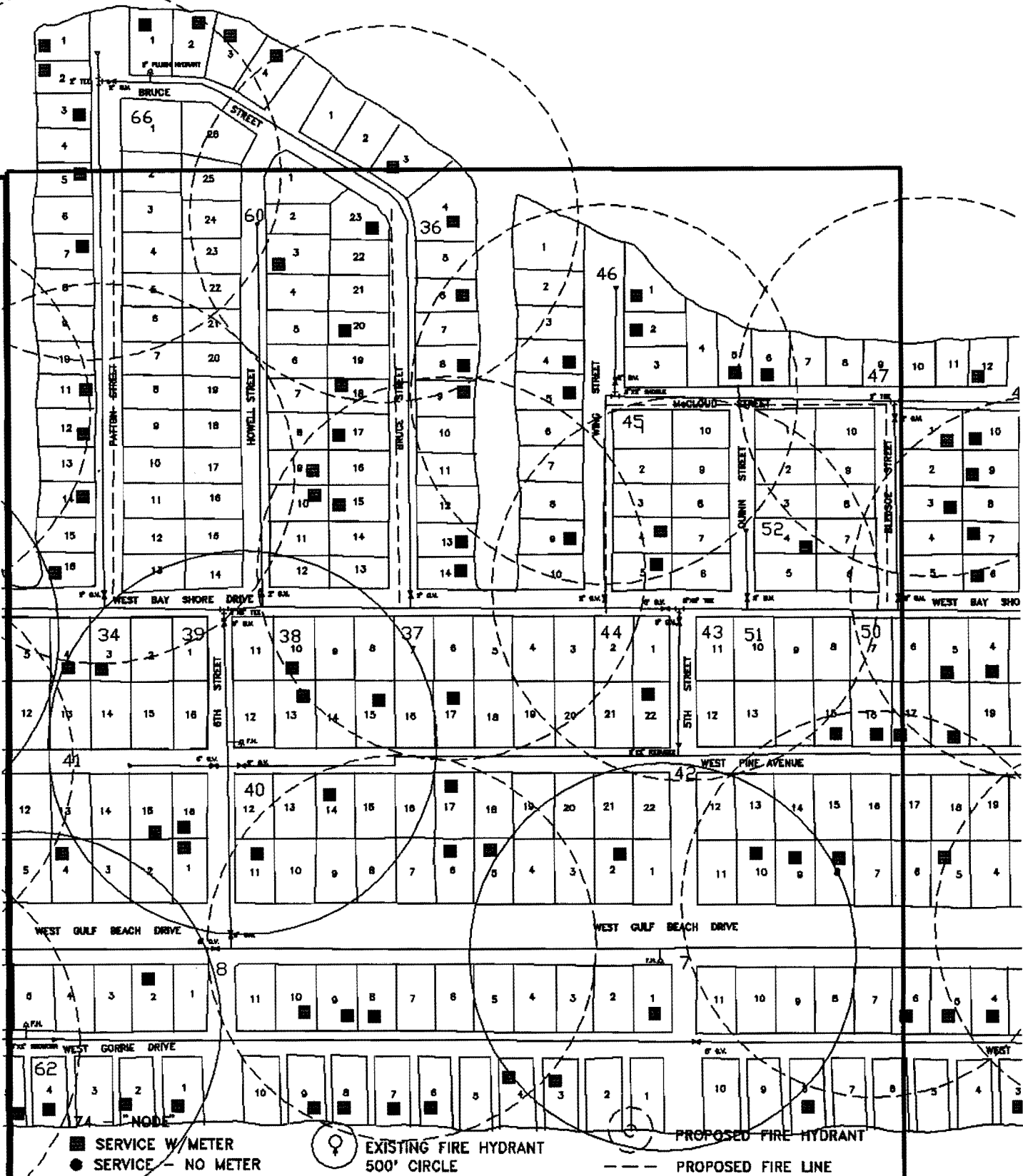
PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 582-1810 FAX (904) 582-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/06
SCALE: 1"=300'
16

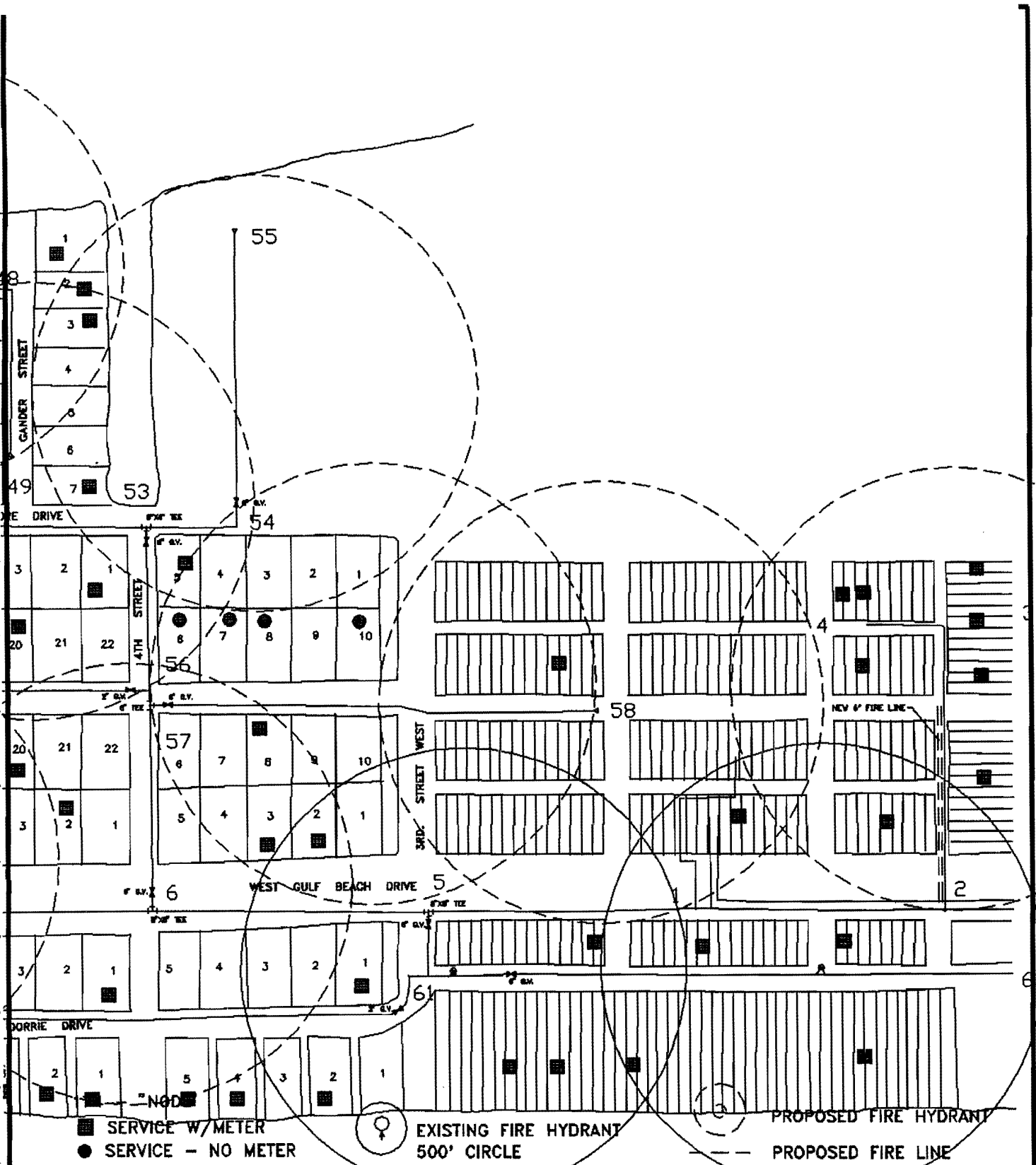


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/96
 SCALE: 1"=300'
 17

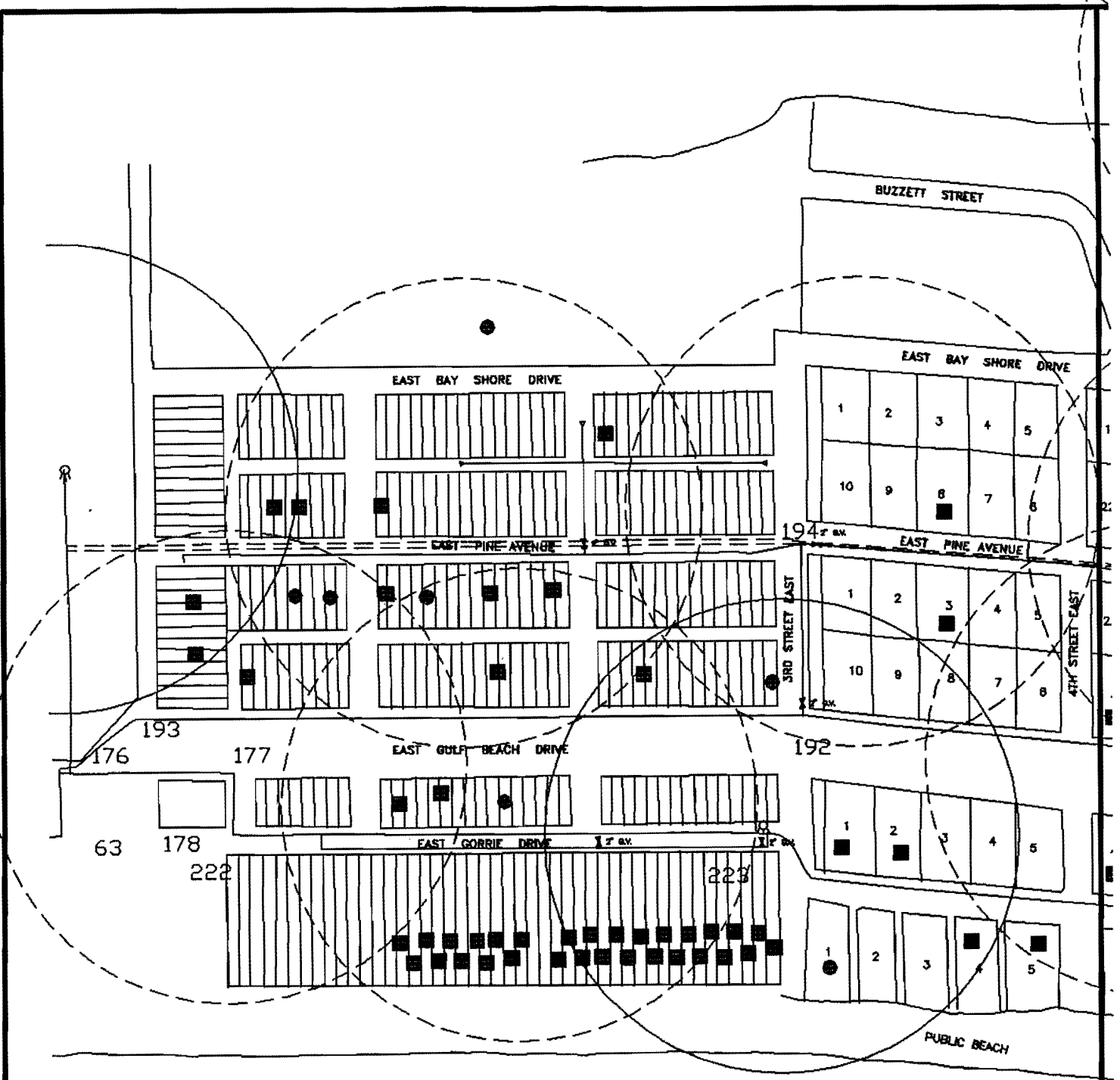


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLBOD DR. TALLAHASSEE, FL 32303
 (904) 582-1810 FAX (904) 582-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

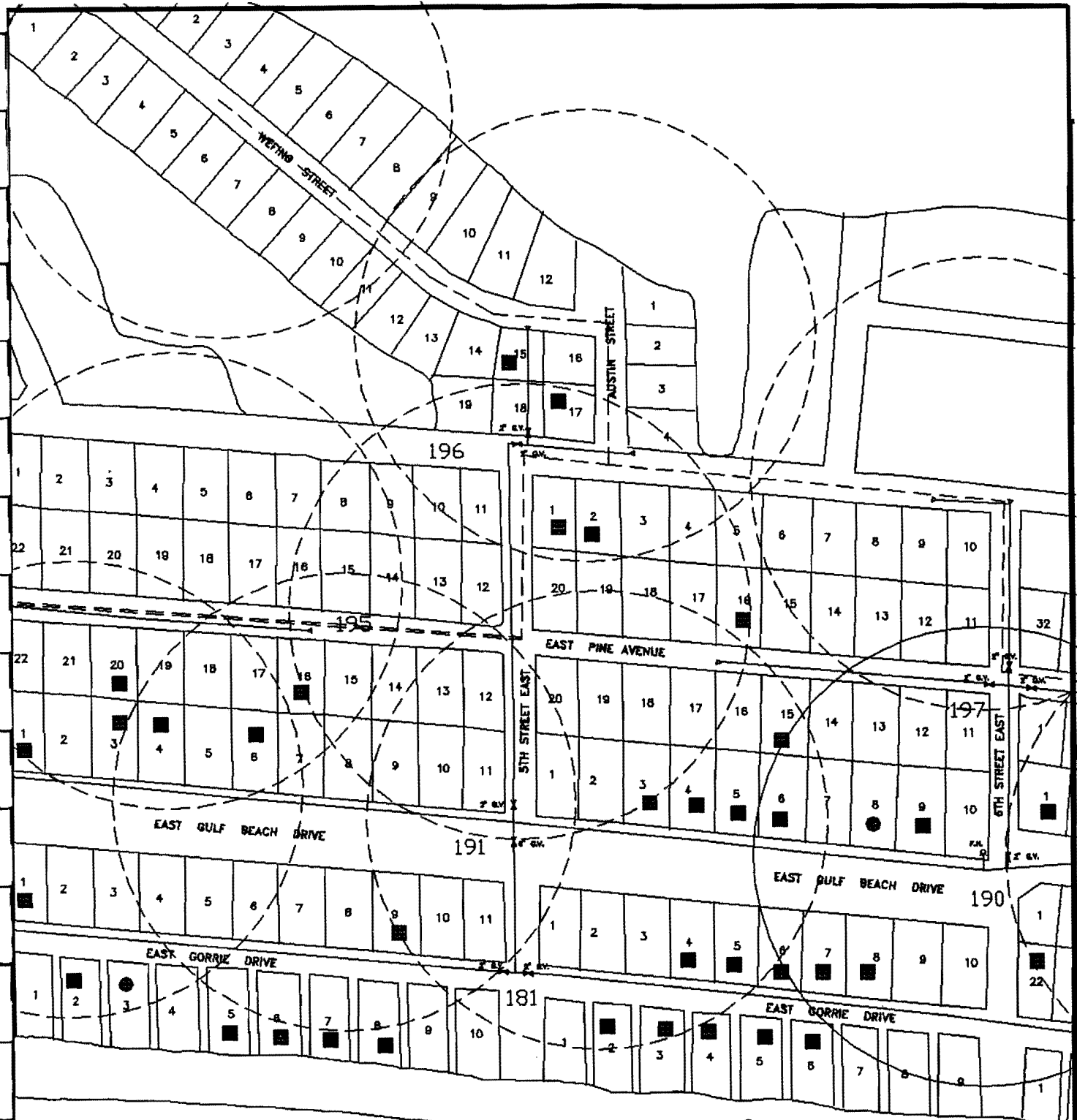
DATE: 4/19/95
 SCALE: 1"=300'
 18



- 174 - "NODE"
- SERVICE W/METER
- SERVICE - NO METER
- (with female symbol) EXISTING FIRE HYDRANT
- (with dot) PROPOSED FIRE HYDRANT
- (with dashed line) 500' CIRCLE
- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS 4049 McLEOD DR. (904) 588-1810	PROJECT: WATER SYSTEM ANALYSIS SHEET TITLE: SYSTEM MAP - FIRE COVERAGE	DATE 4/10/96 SCALE 1" = 300' 19
TALLAHASSEE, FL 32303 FAX (904) 588-9741		



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT

--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
SCALE: 1"=300'
20



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

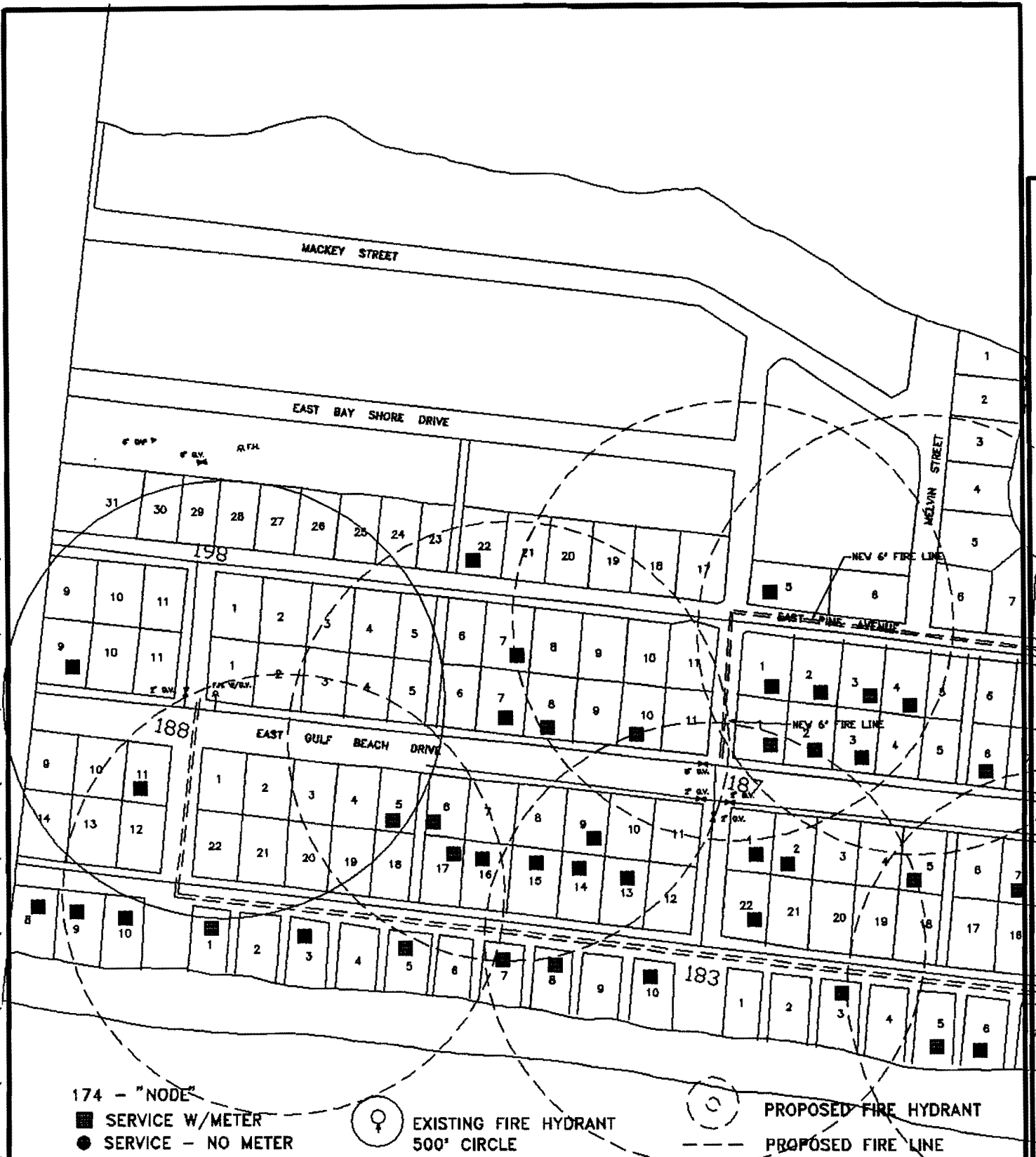
PROJECT: WATER SYSTEM ANALYSIS

DATE: 4/19/95

SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

SCALE: 1"=300'

21

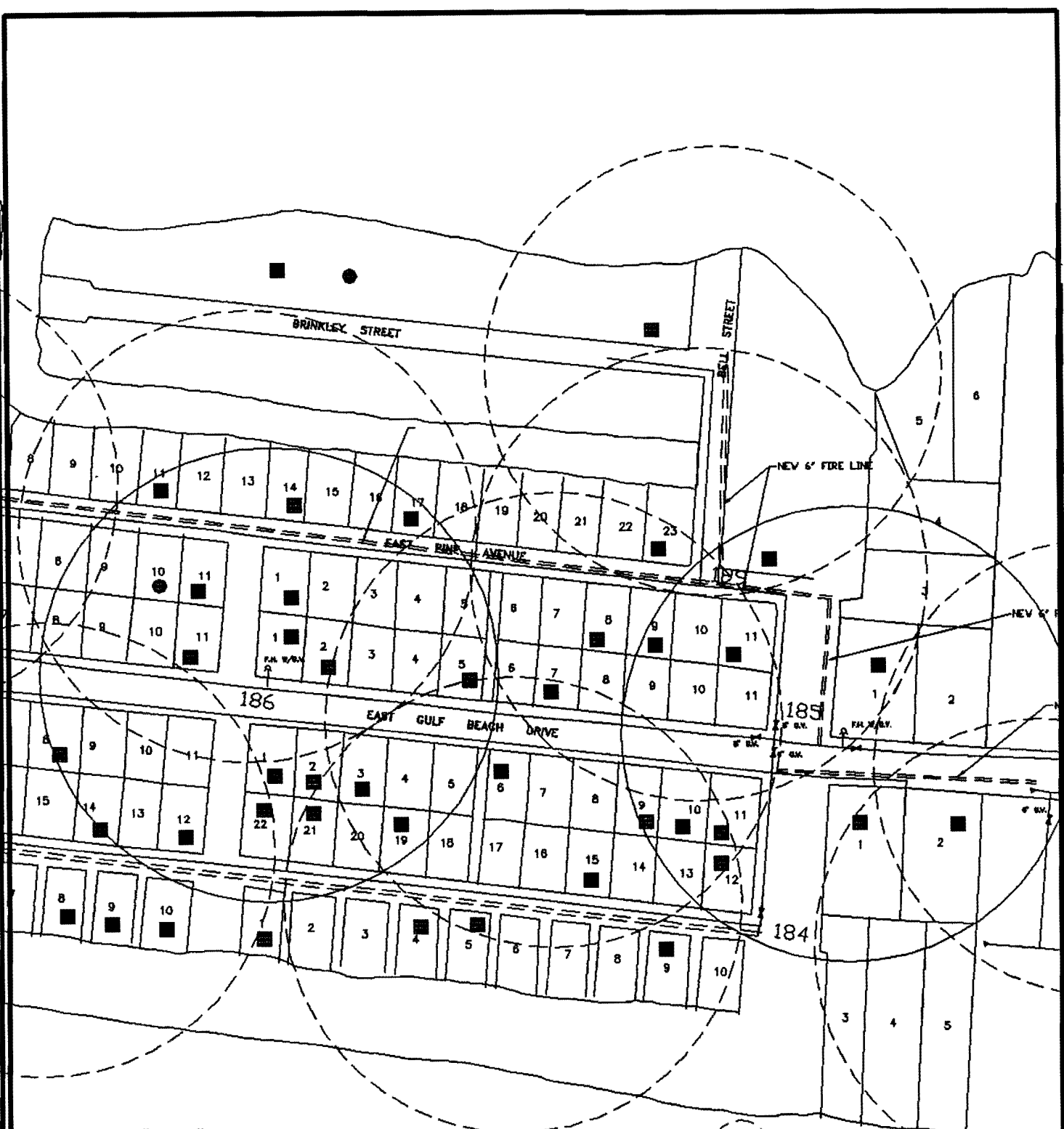


ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
 4049 McLEOD DR. TALLAHASSEE, FL 32303
 (904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE 4/19/95
 SCALE 1"=300'
 22



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 568-1810 FAX (904) 568-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/96
SCALE: 1"=300'
23



174 - "NODE"

■ SERVICE W/METER

● SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT

--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS

4049 McLEOD DR.
(904) 568-1810

TALLAHASSEE, FL 32303
FAX (904) 568-9741

PROJECT: WATER SYSTEM ANALYSIS

SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE 4/18/95

SCALE 1"=300'

24



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

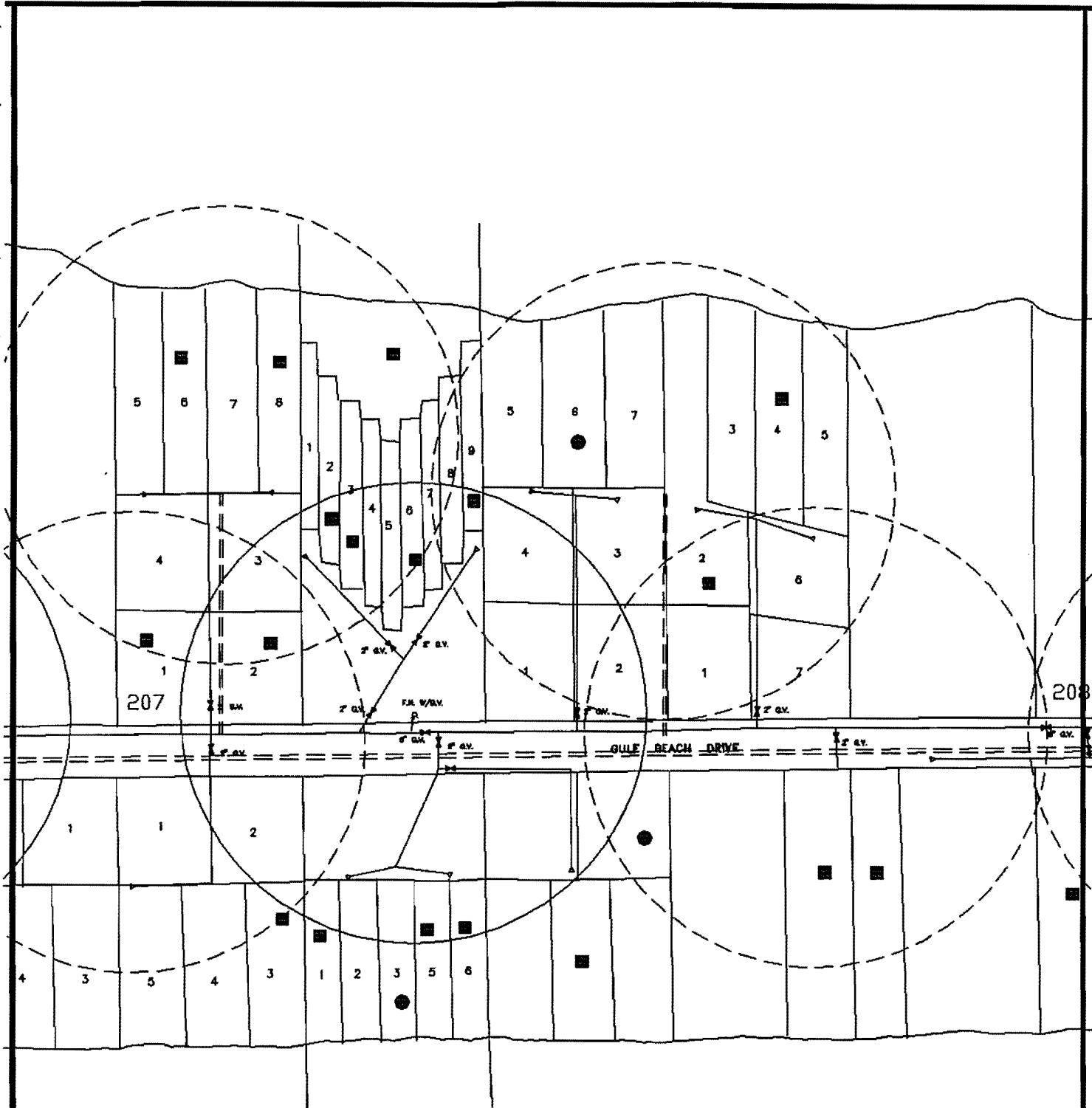
PROJECT: WATER SYSTEM ANALYSIS

DATE: 4/18/95

SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

SCALE: 1"=300'

25



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



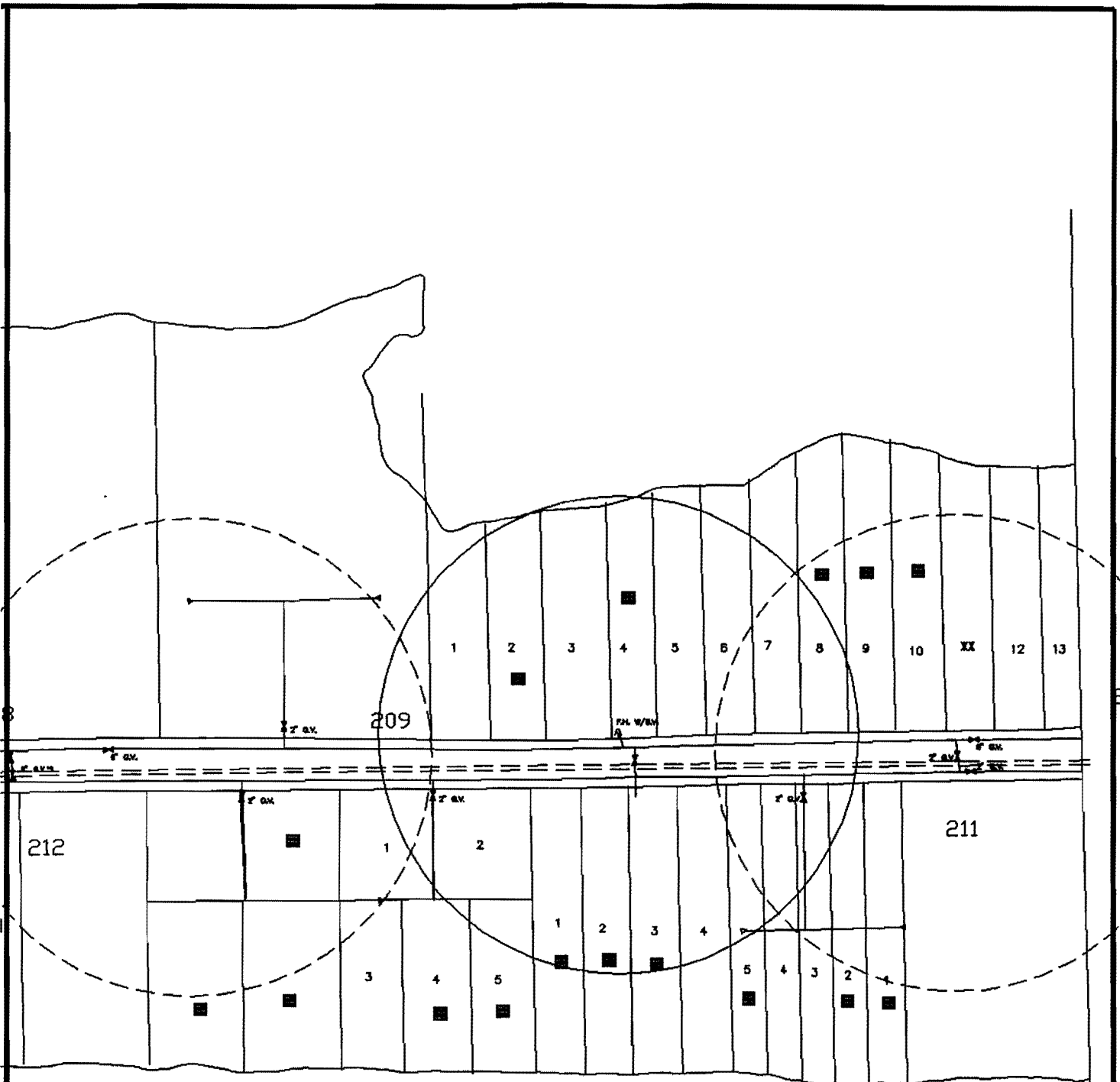
PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/85
SCALE: 1"=300'
26



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 568-1810 FAX (904) 568-9741

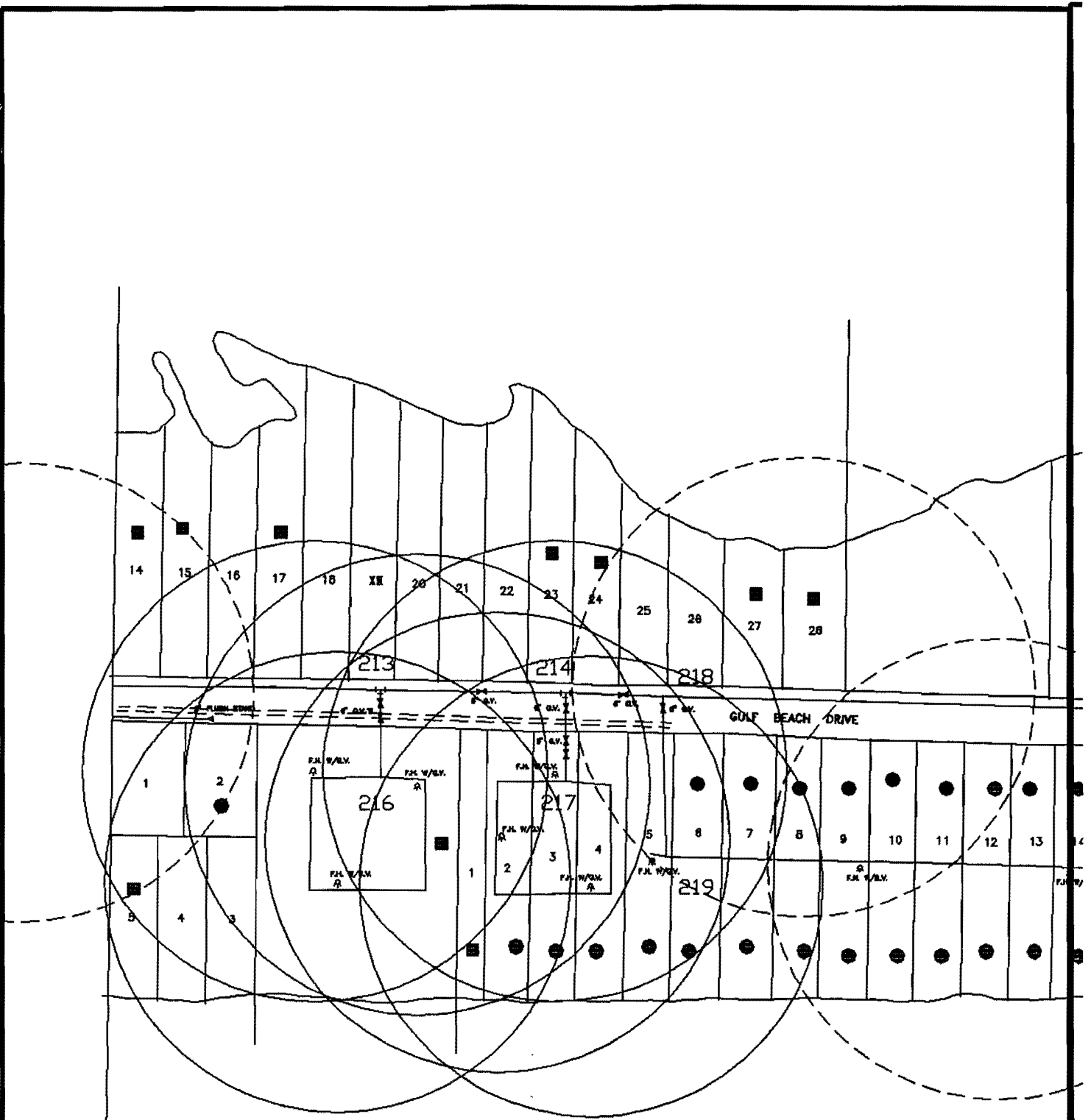
PROJECT: WATER SYSTEM ANALYSIS

SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/85

SCALE: 1"=300'

27



174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER



EXISTING FIRE HYDRANT
500' CIRCLE



PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 682-1810 FAX (904) 682-9741

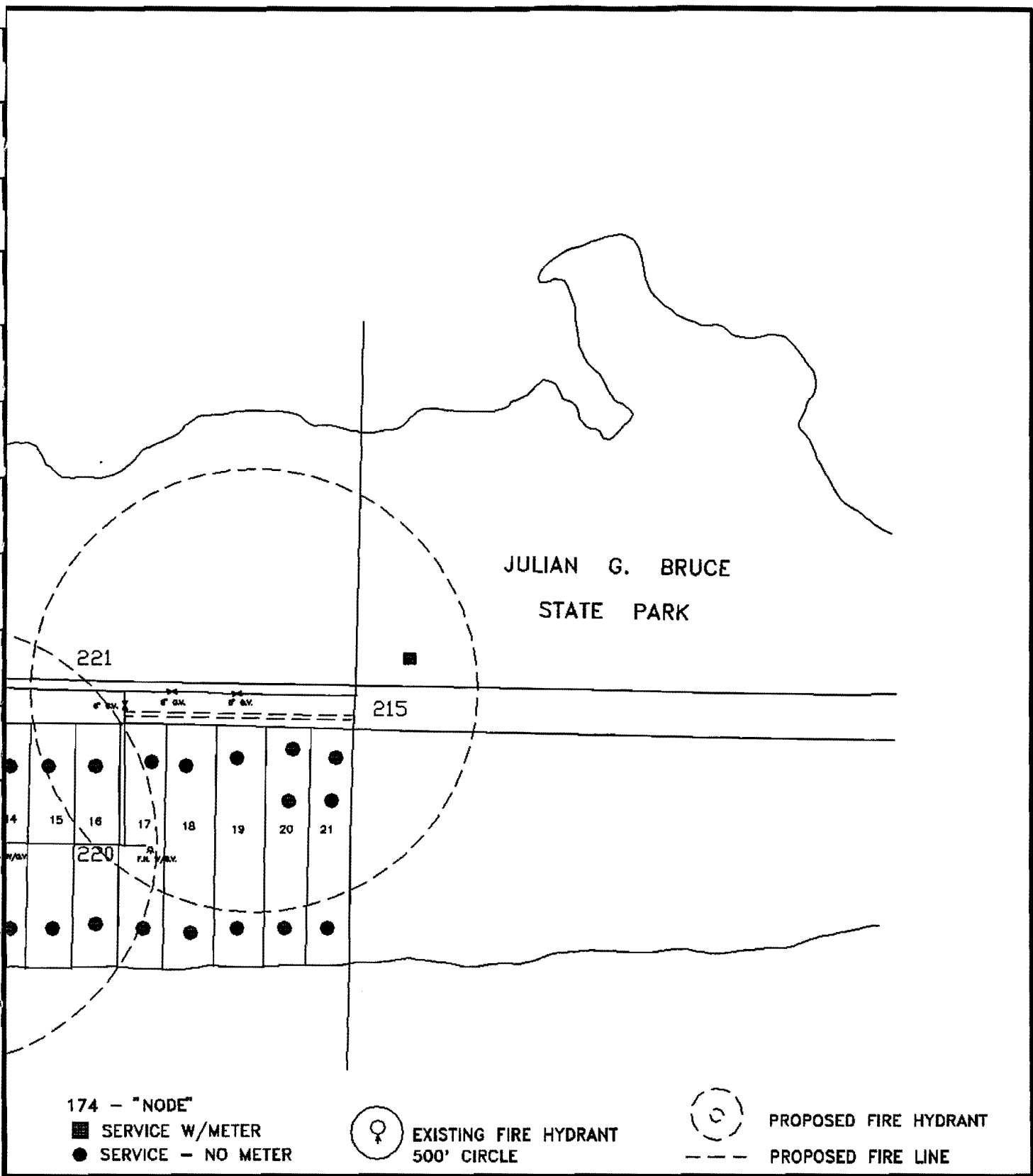
PROJECT: WATER SYSTEM ANALYSIS

DATE: 4/19/95

SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

SCALE: 1"=300'

28



JULIAN G. BRUCE
STATE PARK

174 - "NODE"

- SERVICE W/METER
- SERVICE - NO METER

⊙ EXISTING FIRE HYDRANT
500' CIRCLE

⊙ PROPOSED FIRE HYDRANT
--- PROPOSED FIRE LINE

ST. GEORGE ISLAND UTILITY COMPANY, INC.

LES THOMAS CONSULTING ENGINEERS
4049 McLEOD DR. TALLAHASSEE, FL 32303
(904) 562-1810 FAX (904) 562-9741

PROJECT: WATER SYSTEM ANALYSIS
SHEET TITLE: SYSTEM MAP - FIRE COVERAGE

DATE: 4/19/95
SCALE: 1"=300'
29

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.180

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	522.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 4 TRIALS WITH AN ACCURACY = 0.00161

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

FIRE FLOW @ STATE PARK, 1/2 MAX. DAY DEMAND

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	198.82	0.01	196.68	P1	0.00	0.56	0.10
2-FGPU	BB 1	577.88	0.11	196.78	P2	0.00	1.64	0.70
3	3 2	-1.80	0.00	0.00		0.00	0.05	0.00

4	3	4	0.36	0.00	0.00	0.00	0.01	0.00
5	5	1	-685.80	4.25	0.00	0.00	4.38	6.97
6	6	5	-147.42	0.25	0.00	0.00	0.94	0.40
7	7	6	-88.45	0.19	0.00	0.00	0.56	0.16
8	8	7	-87.73	0.18	0.00	0.00	0.56	0.15
9	9	8	-82.50	0.12	0.00	0.00	0.53	0.14
10	9	10	69.04	0.13	0.00	0.00	0.44	0.10
11	10	11	0.18	0.00	0.00	0.00	0.02	0.00
12	9	12	12.03	0.00	0.00	0.00	0.14	0.02
13	12	13	3.57	0.42	0.00	0.00	0.36	0.35
14	13	14	1.05	0.09	0.00	0.00	0.11	0.04
15	10	15	70.28	0.12	0.00	0.00	0.45	0.10
16	10	16	-3.40	0.00	0.00	0.00	0.04	0.00
17	17	16	38.82	0.10	0.00	0.00	0.44	0.14
18	16	18	0.18	0.00	0.00	0.00	0.02	0.00
19	16	19	33.62	0.04	0.00	0.00	0.38	0.11
20	19	20	2.04	0.12	0.00	0.00	0.21	0.12
21	19	21	1.60	0.07	0.00	0.00	0.16	0.08
22	21	20	1.24	0.06	0.00	0.00	0.13	0.05
23	23	22	0.18	0.00	0.00	0.00	0.02	0.00
24	23	24	1.17	0.02	0.00	0.00	0.12	0.04
25	24	25	0.18	0.00	0.00	0.00	0.02	0.00
26	26	24	-0.27	0.00	0.00	0.00	0.03	0.00
27	26	27	0.18	0.01	0.00	0.00	0.07	0.04
28	28	26	0.27	0.00	0.00	0.00	0.03	0.00
29	28	29	1.98	0.05	0.00	0.00	0.20	0.12
30	29	30	0.18	0.00	0.00	0.00	0.02	0.00
31	31	28	2.97	0.14	0.00	0.00	0.30	0.25
32	31	32	41.97	0.01	0.00	0.00	0.27	0.04
33	32	23	2.25	0.10	0.00	0.00	0.23	0.15
34	32	33	39.00	0.05	0.00	0.00	0.44	0.14
35	34	31	45.84	0.02	0.00	0.00	0.29	0.05
36	34	35	0.20	0.00	0.00	0.00	0.02	0.00
37	35	36	-0.16	0.00	0.00	0.00	0.02	0.00
38	37	36	1.06	0.04	0.00	0.00	0.11	0.04
39	38	37	-45.51	0.02	0.00	0.00	0.29	0.05
40	39	38	-44.07	0.00	0.00	0.00	0.28	0.04
41	39	34	48.73	0.02	0.00	0.00	0.31	0.05
42	40	39	4.67	0.00	0.00	0.00	0.05	0.00
43	40	41	0.18	0.00	0.00	0.00	0.00	0.00
44	8	40	4.50	0.00	0.00	0.00	0.05	0.00
45	40	42	-1.24	0.06	0.00	0.00	0.13	0.05
46	42	43	0.51	0.00	0.00	0.00	0.01	0.00
47	43	44	50.52	0.01	0.00	0.00	0.32	0.06
48	44	37	48.91	0.03	0.00	0.00	0.31	0.05
49	44	45	1.07	0.02	0.00	0.00	0.11	0.04
50	45	46	0.18	0.00	0.00	0.00	0.02	0.00

51	45	47	0.17	0.00	0.00	0.00	0.02	0.00
52	47	48	1.62	0.03	0.00	0.00	0.17	0.08
53	48	49	0.72	0.01	0.00	0.00	0.07	0.02
54	47	50	-1.99	0.06	0.00	0.00	0.20	0.12
55	50	51	50.54	0.02	0.00	0.00	0.32	0.06
56	51	43	50.36	0.01	0.00	0.00	0.32	0.06
57	51	52	0.18	0.00	0.00	0.00	0.02	0.00
58	50	53	-52.89	0.04	0.00	0.00	0.34	0.06
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-53.61	0.09	0.00	0.00	0.61	0.25
62	56	42	2.12	0.16	0.00	0.00	0.22	0.13
63	56	57	-56.81	0.02	0.00	0.00	0.64	0.28
64	57	6	-58.07	0.13	0.00	0.00	0.66	0.29
65	57	58	0.18	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.36	0.01	0.00	0.00	0.04	0.01
68	5	61	537.84	2.16	0.00	0.00	6.10	18.04
69	12	62	7.02	0.00	0.00	0.00	0.08	0.01
70	61	62	-4.50	1.75	0.00	0.00	0.46	0.54
71	61	63	526.32	22.53	0.00	0.00	5.97	17.33
72	15	64	68.12	0.13	0.00	0.00	0.43	0.10
73	64	65	60.86	0.09	0.00	0.00	0.39	0.08
74	65	66	56.33	0.08	0.00	0.00	0.36	0.07
75	14	67	-1.11	0.04	0.00	0.00	0.11	0.04
76	67	68	-2.01	0.00	0.00	0.00	0.02	0.00
77	68	69	0.36	0.00	0.00	0.00	0.00	0.00
78	68	65	-4.35	0.00	0.00	0.00	0.05	0.00
79	20	70	0.58	0.01	0.00	0.00	0.06	0.01
80	70	71	24.28	0.05	0.00	0.00	0.28	0.06
81	71	72	0.36	0.00	0.00	0.00	0.04	0.01
82	71	73	23.38	0.02	0.00	0.00	0.27	0.05
83	73	74	-5.03	0.00	0.00	0.00	0.06	0.00
84	74	64	-6.71	0.00	0.00	0.00	0.08	0.01
85	74	75	1.50	0.17	0.00	0.00	0.15	0.07
86	73	76	26.43	0.07	0.00	0.00	0.30	0.07
87	73	77	1.26	0.00	0.00	0.00	0.01	0.00
88	77	78	0.18	0.00	0.00	0.00	0.02	0.00
89	70	79	3.39	0.00	0.00	0.00	0.04	0.00
90	79	80	2.85	0.08	0.00	0.00	0.29	0.23
91	80	81	2.49	0.07	0.00	0.00	0.25	0.18
92	81	82	1.77	0.03	0.00	0.00	0.18	0.10
93	82	83	1.23	0.02	0.00	0.00	0.13	0.05
94	83	84	0.18	0.00	0.00	0.00	0.02	0.00
95	83	85	0.15	0.00	0.00	0.00	0.00	0.00
96	85	86	-0.03	0.00	0.00	0.00	0.00	0.00
97	86	87	0.18	0.00	0.00	0.00	0.02	0.00

98	86	88	-0.93	0.00	0.00	0.00	0.01	0.00
99	88	89	-0.61	0.02	0.00	0.00	0.06	0.01
100	89	90	-1.51	0.00	0.00	0.00	0.02	0.00
101	90	91	24.20	0.02	0.00	0.00	0.27	0.06
102	91	92	21.55	0.02	0.00	0.00	0.24	0.05
103	92	93	0.18	0.00	0.00	0.00	0.02	0.00
104	92	75	21.19	0.01	0.00	0.00	0.24	0.05
105	90	94	0.18	0.00	0.00	0.00	0.02	0.00
106	91	95	1.58	0.00	0.00	0.00	0.02	0.00
107	95	96	1.22	0.00	0.00	0.00	0.01	0.00
108	96	97	0.18	0.01	0.00	0.00	0.07	0.04
109	96	88	1.04	0.00	0.00	0.00	0.01	0.00
110	66	75	-22.51	0.00	0.00	0.00	0.26	0.05
111	66	98	78.30	0.07	0.00	0.00	0.50	0.13
112	98	99	0.36	0.00	0.00	0.00	0.00	0.00
113	98	100	1.44	0.00	0.00	0.00	0.02	0.00
114	100	101	0.18	0.00	0.00	0.00	0.00	0.00
115	98	102	75.24	0.08	0.00	0.00	0.48	0.12
116	102	103	0.90	0.00	0.00	0.00	0.01	0.00
117	102	104	73.08	0.09	0.00	0.00	0.47	0.11
118	104	105	2.16	0.00	0.00	0.00	0.02	0.00
119	105	106	0.86	0.00	0.00	0.00	0.01	0.00
120	106	107	0.32	0.00	0.00	0.00	0.00	0.00
121	107	108	-0.40	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.94	0.00	0.00	0.00	0.01	0.00
123	104	109	70.92	0.01	0.00	0.00	0.45	0.10
124	109	110	70.38	0.11	0.00	0.00	0.45	0.10
125	110	111	49.41	0.05	0.00	0.00	0.32	0.05
126	111	112	48.87	0.01	0.00	0.00	0.31	0.05
127	112	113	62.82	0.04	0.00	0.00	0.40	0.08
128	113	114	58.50	0.21	0.00	0.00	0.37	0.07
129	114	115	58.50	0.02	0.00	0.00	0.37	0.07
130	115	116	55.44	0.06	0.00	0.00	0.35	0.07
131	116	117	54.90	0.00	0.00	0.00	0.35	0.06
132	117	118	50.79	0.00	0.00	0.00	0.32	0.06
133	118	119	51.48	0.06	0.00	0.00	0.33	0.06
134	119	120	50.58	0.00	0.00	0.00	0.32	0.06
135	120	121	49.68	0.03	0.00	0.00	0.32	0.05
136	121	122	37.45	0.02	0.00	0.00	0.24	0.03
137	122	123	32.84	0.02	0.00	0.00	0.21	0.03
138	123	124	35.21	0.02	0.00	0.00	0.22	0.03
139	124	125	45.36	0.03	0.00	0.00	0.29	0.05
140	125	126	33.69	0.02	0.00	0.00	0.22	0.03
141	126	127	28.95	0.01	0.00	0.00	0.18	0.02
142	127	128	26.29	0.01	0.00	0.00	0.17	0.02
143	128	129	23.47	0.00	0.00	0.00	0.15	0.01
144	129	130	22.57	0.01	0.00	0.00	0.14	0.01

145	130	131	22.20	0.00	0.00	0.00	0.14	0.01
146	131	132	21.84	0.01	0.00	0.00	0.14	0.01
147	132	133	20.76	0.00	0.00	0.00	0.13	0.01
148	133	134	19.21	0.01	0.00	0.00	0.12	0.01
149	134	135	18.67	0.00	0.00	0.00	0.12	0.01
150	135	136	18.31	0.00	0.00	0.00	0.12	0.01
151	136	137	17.41	0.00	0.00	0.00	0.11	0.01
152	137	138	15.96	0.00	0.00	0.00	0.10	0.01
153	138	139	14.88	0.00	0.00	0.00	0.09	0.01
154	139	140	13.11	0.00	0.00	0.00	0.08	0.00
155	140	141	12.57	0.00	0.00	0.00	0.08	0.00
156	141	142	16.56	0.00	0.00	0.00	0.11	0.01
157	142	143	6.16	0.00	0.00	0.00	0.04	0.00
158	143	144	5.62	0.00	0.00	0.00	0.04	0.00
159	144	145	4.90	0.00	0.00	0.00	0.03	0.00
160	145	146	3.16	0.00	0.00	0.00	0.02	0.00
161	146	147	3.46	0.00	0.00	0.00	0.02	0.00
162	147	148	4.14	0.00	0.00	0.00	0.03	0.00
163	110	149	19.71	0.01	0.00	0.00	0.22	0.04
164	149	150	18.09	0.02	0.00	0.00	0.21	0.03
165	150	151	16.83	0.02	0.00	0.00	0.19	0.03
166	112	151	-14.31	0.01	0.00	0.00	0.16	0.02
167	117	152	3.93	0.00	0.00	0.00	0.04	0.00
168	152	153	3.39	0.00	0.00	0.00	0.04	0.00
169	153	154	0.90	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-1.41	0.00	0.00	0.00	0.02	0.00
172	121	156	12.05	0.01	0.00	0.00	0.14	0.02
173	156	157	11.33	0.01	0.00	0.00	0.13	0.01
174	157	158	14.32	0.01	0.00	0.00	0.16	0.02
175	158	159	11.05	0.01	0.00	0.00	0.13	0.01
176	159	124	10.69	0.01	0.00	0.00	0.12	0.01
177	158	123	2.55	0.00	0.00	0.00	0.03	0.00
178	157	122	-3.53	0.00	0.00	0.00	0.04	0.00
179	125	160	11.13	0.01	0.00	0.00	0.13	0.01
180	162	167	-12.27	0.01	0.00	0.00	0.14	0.02
181	167	160	-10.23	0.01	0.00	0.00	0.12	0.01
182	162	163	11.51	0.01	0.00	0.00	0.13	0.01
183	163	164	11.27	0.01	0.00	0.00	0.13	0.01
184	164	165	10.38	0.01	0.00	0.00	0.12	0.01
185	165	166	9.95	0.01	0.00	0.00	0.11	0.01
186	133	165	1.37	0.00	0.00	0.00	0.02	0.00
187	130	164	0.36	0.00	0.00	0.00	0.00	0.00
188	163	128	-1.74	0.00	0.00	0.00	0.02	0.00
189	127	162	1.59	0.00	0.00	0.00	0.02	0.00
190	126	167	2.94	0.00	0.00	0.00	0.03	0.00
191	166	168	8.15	0.01	0.00	0.00	0.09	0.01

192	168	169	7.08	0.01	0.00	0.00	0.08	0.01
193	169	170	5.97	0.00	0.00	0.00	0.07	0.00
194	170	141	4.53	0.00	0.00	0.00	0.05	0.00
195	169	139	0.39	0.00	0.00	0.00	0.00	0.00
196	168	137	-0.55	0.00	0.00	0.00	0.01	0.00
197	166	135	0.36	0.00	0.00	0.00	0.00	0.00
198	142	171	10.40	0.00	0.00	0.00	0.07	0.00
199	171	172	3.02	0.00	0.00	0.00	0.02	0.00
200	172	147	0.68	0.00	0.00	0.00	0.01	0.00
201	145	173	1.55	0.00	0.00	0.00	0.02	0.00
202	173	174	0.83	0.00	0.00	0.00	0.01	0.00
203	174	146	0.47	0.00	0.00	0.00	0.01	0.00
204	63	176	524.88	2.41	0.00	0.00	5.96	17.24
205	176	2	-85.14	31.27	0.00	0.00	8.69	125.09
206	176	177	22.07	0.02	0.00	0.00	0.25	0.05
207	177	178	22.07	0.01	0.00	0.00	0.25	0.05
208	178	179	22.07	0.01	0.00	0.00	0.25	0.05
209	179	180	17.98	0.03	0.00	0.00	0.20	0.03
210	180	181	14.15	8.11	0.00	0.00	1.44	4.50
211	181	182	11.77	7.21	0.00	0.00	1.20	3.21
212	182	183	7.81	3.53	0.00	0.00	0.80	1.50
213	183	184	9.62	5.19	0.00	0.00	0.98	2.21
214	184	185	8.00	0.00	0.00	0.00	0.09	0.01
215	185	186	-363.76	2.58	0.00	0.00	2.32	2.15
216	186	187	-365.38	2.61	0.00	0.00	2.33	2.17
217	187	188	-373.31	2.71	0.00	0.00	2.38	2.26
218	188	189	-374.39	2.73	0.00	0.00	2.39	2.27
219	189	190	-375.47	2.74	0.00	0.00	2.40	2.28
220	190	191	-379.25	2.56	0.00	0.00	2.42	2.33
221	191	192	-381.38	4.00	0.00	0.00	2.43	2.35
222	192	193	-384.26	3.34	0.00	0.00	2.45	2.38
223	193	176	-385.34	0.84	0.00	0.00	2.46	2.40
224	192	194	1.98	0.04	0.00	0.00	0.20	0.12
225	194	195	0.18	0.00	0.00	0.00	0.02	0.00
226	191	181	0.87	0.00	0.00	0.00	0.01	0.00
227	191	196	0.18	0.00	0.00	0.00	0.02	0.00
228	190	197	1.26	0.02	0.00	0.00	0.13	0.05
229	188	198	0.36	0.00	0.00	0.00	0.04	0.01
230	183	187	-5.95	0.00	0.00	0.00	0.07	0.00
231	185	199	2.70	0.07	0.00	0.00	0.28	0.21
232	185	200	367.27	8.46	0.00	0.00	4.17	8.90
233	200	201	318.37	7.51	0.00	0.00	3.61	6.83
234	200	202	48.53	4.42	0.00	0.00	4.96	44.17
235	202	203	248.45	4.75	0.00	0.00	2.82	4.32
236	203	201	-28.52	1.65	0.00	0.00	2.91	16.50
237	203	204	274.80	7.80	0.00	0.00	3.12	5.20
238	204	205	-0.45	0.00	0.00	0.00	0.05	0.01

239	205	201	-289.50	9.45	0.00	0.00	3.28	5.73
240	205	206	287.78	4.53	0.00	0.00	3.27	5.67
241	206	207	286.88	5.63	0.00	0.00	3.26	5.63
242	207	208	282.56	10.41	0.00	0.00	3.21	5.48
243	208	209	267.33	3.95	0.00	0.00	3.03	4.94
244	209	210	266.25	5.89	0.00	0.00	3.02	4.91
245	210	211	-12.53	0.22	0.00	0.00	1.28	3.60
246	211	212	-14.15	9.11	0.00	0.00	1.45	4.51
247	212	208	-15.23	0.52	0.00	0.00	1.56	5.17
248	210	213	278.06	4.52	0.00	0.00	3.16	5.32
249	213	214	265.28	1.95	0.00	0.00	3.01	4.87
250	214	218	253.94	1.03	0.00	0.00	2.88	4.49
251	213	216	12.24	0.00	0.00	0.00	0.14	0.02
252	214	217	9.18	0.00	0.00	0.00	0.10	0.01
253	230	215	258.39	2.41	0.00	0.00	2.93	4.64
254	219	220	86.28	0.73	0.00	0.00	0.98	0.61
255	220	230	84.48	13.66	0.00	0.00	0.96	0.59
256	218	221	439.32	14.14	0.00	0.00	4.98	12.40
257	221	215	263.61	2.65	0.00	0.00	2.99	4.82
258	179	222	2.83	0.03	0.00	0.00	0.29	0.23
259	222	223	0.85	0.02	0.00	0.00	0.09	0.02
260	223	180	-2.39	0.02	0.00	0.00	0.24	0.17
261	1	2	89.10	0.09	0.00	0.00	0.57	0.16
262	90	76	-26.25	0.05	0.00	0.00	0.30	0.07
263	70	19	-28.36	0.13	0.00	0.00	0.32	0.08
264	33	17	39.00	0.05	0.00	0.00	0.44	0.14
265	176	161	201.35	2.18	0.00	0.00	2.28	2.92
266	161	175	201.35	9.69	0.00	0.00	2.28	2.92
267	175	224	201.35	0.85	0.00	0.00	2.28	2.92
268	224	225	201.35	1.89	0.00	0.00	2.28	2.92
269	225	226	201.35	3.73	0.00	0.00	2.28	2.92
270	226	227	201.35	14.77	0.00	0.00	2.28	2.92
271	227	228	201.35	1.11	0.00	0.00	2.28	2.92
272	228	202	201.35	2.78	0.00	0.00	2.28	2.92
273	204	229	274.54	37.72	0.00	0.00	3.12	5.19
274	229	218	185.74	0.19	0.00	0.00	2.11	2.52
275	229	219	88.80	0.18	0.00	0.00	1.01	0.64
276	230	221	-173.91	0.24	0.00	0.00	1.97	2.23

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
--------------------	-------------------	-----------------------------	----------------------------	-------------------------------	--------------------------	-------------------------------

1	1.80	216.67	10.00	206.67	89.56
2	2.16	216.58	10.00	206.58	89.52
3	1.44	216.58	10.00	206.58	89.52
4	0.36	216.58	10.00	206.58	89.52
5	0.54	212.42	10.00	202.42	87.71
6	0.90	212.16	10.00	202.16	87.60
7	0.72	211.97	10.00	201.97	87.52
8	0.72	211.79	10.00	201.79	87.44
9	1.44	211.67	10.00	201.67	87.39
10	1.98	211.54	10.00	201.54	87.33
11	0.18	211.54	10.00	201.54	87.33
12	1.44	212.00	10.00	202.00	87.54
13	2.52	211.58	10.00	201.58	87.35
14	2.16	211.50	10.00	201.50	87.32
15	2.16	211.42	10.00	201.42	87.28
16	1.62	211.54	10.00	201.54	87.33
17	0.18	211.65	10.00	201.65	87.38
18	0.18	211.54	10.00	201.54	87.33
19	1.62	211.50	10.00	201.50	87.32
20	2.70	211.37	10.00	201.37	87.26
21	0.36	211.43	10.00	201.43	87.29
22	0.18	211.64	10.00	201.64	87.38
23	0.90	211.64	10.00	201.64	87.38
24	0.72	211.62	10.00	201.62	87.37
25	0.18	211.62	10.00	201.62	87.37
26	0.36	211.62	10.00	201.62	87.37
27	0.18	211.61	10.00	201.61	87.36
28	0.72	211.62	10.00	201.62	87.37
29	1.80	211.57	10.00	201.57	87.35
30	0.18	211.57	10.00	201.57	87.34
31	0.90	211.76	10.00	201.76	87.43
32	0.72	211.75	10.00	201.75	87.42
33	0.00	211.70	10.00	201.70	87.40
34	2.70	211.78	10.00	201.78	87.44
35	0.36	211.77	10.00	201.77	87.44
36	0.90	211.77	10.00	201.77	87.44
37	2.34	211.81	10.00	201.81	87.45
38	1.08	211.80	10.00	201.80	87.44
39	0.00	211.79	10.00	201.79	87.44
40	0.90	211.79	10.00	201.79	87.44
41	0.18	211.79	10.00	201.79	87.44
42	0.36	211.85	10.00	201.85	87.47
43	0.36	211.85	10.00	201.85	87.47
44	0.54	211.84	10.00	201.84	87.46
45	0.72	211.82	10.00	201.82	87.45
46	0.18	211.82	10.00	201.82	87.45
47	0.54	211.82	10.00	201.82	87.45

48	0.90	211.79	10.00	201.79	87.44
49	0.72	211.78	10.00	201.78	87.44
50	0.36	211.88	10.00	201.88	87.48
51	0.00	211.86	10.00	201.86	87.47
52	0.18	211.86	10.00	201.86	87.47
53	0.72	211.92	10.00	201.92	87.50
54	0.00	211.92	10.00	201.92	87.50
55	0.00	211.92	10.00	201.92	87.50
56	1.08	212.01	10.00	202.01	87.54
57	1.08	212.03	10.00	202.03	87.55
58	0.18	212.03	10.00	202.03	87.55
59	0.00	211.77	10.00	201.77	87.44
60	0.36	211.79	10.00	201.79	87.44
61	16.02	210.25	10.00	200.25	86.78
62	2.52	212.00	10.00	202.00	87.53
63	1.44	187.72	10.00	177.72	77.01
64	0.54	211.30	10.00	201.30	87.23
65	0.18	211.20	10.00	201.20	87.19
66	0.54	211.12	10.00	201.12	87.15
67	0.90	211.54	10.00	201.54	87.33
68	1.98	211.54	10.00	201.54	87.33
69	0.36	211.54	10.00	201.54	87.33
70	1.26	211.37	10.00	201.37	87.26
71	0.54	211.32	10.00	201.32	87.24
72	0.36	211.31	10.00	201.31	87.24
73	0.72	211.30	10.00	201.30	87.23
74	0.18	211.30	10.00	201.30	87.23
75	0.18	211.12	10.00	201.12	87.15
76	0.18	211.22	10.00	201.22	87.20
77	1.08	211.30	10.00	201.30	87.23
78	0.18	211.29	10.00	201.29	87.23
79	0.54	211.36	10.00	201.36	87.26
80	0.36	211.28	10.00	201.28	87.22
81	0.72	211.21	10.00	201.21	87.19
82	0.54	211.18	10.00	201.18	87.18
83	0.90	211.15	10.00	201.15	87.17
84	0.18	211.15	10.00	201.15	87.17
85	0.18	211.15	10.00	201.15	87.17
86	0.72	211.15	10.00	201.15	87.17
87	0.18	211.15	10.00	201.15	87.17
88	0.72	211.15	10.00	201.15	87.17
89	0.90	211.17	10.00	201.17	87.18
90	0.36	211.17	10.00	201.17	87.18
91	1.08	211.15	10.00	201.15	87.17
92	0.18	211.14	10.00	201.14	87.16
93	0.18	211.14	10.00	201.14	87.16
94	0.18	211.17	10.00	201.17	87.17

95	0.36	211.15	10.00	201.15	87.17
96	0.00	211.15	10.00	201.15	87.17
97	0.18	211.14	10.00	201.14	87.16
98	1.26	211.05	10.00	201.05	87.12
99	0.36	211.05	10.00	201.05	87.12
100	1.26	211.05	10.00	201.05	87.12
101	0.18	211.05	10.00	201.05	87.12
102	1.26	210.97	10.00	200.97	87.09
103	0.90	210.97	10.00	200.97	87.09
104	0.00	210.88	10.00	200.88	87.05
105	0.36	210.88	10.00	200.88	87.05
106	0.54	210.88	10.00	200.88	87.05
107	0.72	210.88	10.00	200.88	87.05
108	0.54	210.88	10.00	200.88	87.05
109	0.54	210.87	10.00	200.87	87.04
110	1.26	210.76	10.00	200.76	87.00
111	0.54	210.71	10.00	200.71	86.97
112	0.36	210.70	10.00	200.70	86.97
113	4.32	210.66	10.00	200.66	86.95
114	0.00	210.45	10.00	200.45	86.86
115	3.06	210.43	10.00	200.43	86.85
116	0.54	210.37	10.00	200.37	86.83
117	0.18	210.37	10.00	200.37	86.83
118	0.72	210.36	10.00	200.36	86.82
119	0.90	210.31	10.00	200.31	86.80
120	0.90	210.30	10.00	200.30	86.80
121	0.18	210.27	10.00	200.27	86.79
122	1.08	210.25	10.00	200.25	86.78
123	0.18	210.24	10.00	200.24	86.77
124	0.54	210.22	10.00	200.22	86.76
125	0.54	210.19	10.00	200.19	86.75
126	1.80	210.18	10.00	200.18	86.74
127	1.08	210.17	10.00	200.17	86.74
128	1.08	210.15	10.00	200.15	86.73
129	0.90	210.15	10.00	200.15	86.73
130	0.00	210.14	10.00	200.14	86.73
131	0.36	210.14	10.00	200.14	86.73
132	1.08	210.13	10.00	200.13	86.72
133	0.18	210.13	10.00	200.13	86.72
134	0.54	210.12	10.00	200.12	86.72
135	0.72	210.12	10.00	200.12	86.72
136	0.90	210.12	10.00	200.12	86.72
137	0.90	210.11	10.00	200.11	86.72
138	1.08	210.11	10.00	200.11	86.71
139	2.16	210.11	10.00	200.11	86.71
140	0.54	210.11	10.00	200.11	86.71
141	0.54	210.11	10.00	200.11	86.71

142	0.00	210.10	10.00	200.10	86.71
143	0.54	210.10	10.00	200.10	86.71
144	0.72	210.10	10.00	200.10	86.71
145	0.18	210.10	10.00	200.10	86.71
146	0.18	210.10	10.00	200.10	86.71
147	0.00	210.10	10.00	200.10	86.71
148	4.14	210.10	10.00	200.10	86.71
149	1.62	210.74	10.00	200.74	86.99
150	1.26	210.73	10.00	200.73	86.98
151	2.52	210.71	10.00	200.71	86.97
152	0.54	210.36	10.00	200.36	86.82
153	1.08	210.36	10.00	200.36	86.82
154	0.90	210.36	10.00	200.36	86.82
155	0.00	210.36	10.00	200.36	86.82
156	0.72	210.26	10.00	200.26	86.78
157	0.54	210.25	10.00	200.25	86.78
158	0.72	210.24	10.00	200.24	86.77
159	0.36	210.23	10.00	200.23	86.77
160	0.90	210.18	10.00	200.18	86.75
161	0.00	183.13			
162	2.34	210.16	10.00	200.16	86.74
163	1.98	210.15	10.00	200.15	86.73
164	1.26	210.14	10.00	200.14	86.73
165	1.80	210.13	10.00	200.13	86.72
166	1.44	210.12	10.00	200.12	86.72
167	0.90	210.18	10.00	200.18	86.74
168	1.62	210.11	10.00	200.11	86.72
169	0.72	210.11	10.00	200.11	86.71
170	1.44	210.11	10.00	200.11	86.71
171	7.38	210.10	10.00	200.10	86.71
172	2.34	210.10	10.00	200.10	86.71
173	0.72	210.10	10.00	200.10	86.71
174	0.36	210.10	10.00	200.10	86.71
175	0.00	173.44			
176	1.26	185.31	10.00	175.31	75.97
177	0.00	185.29	10.00	175.29	75.96
178	0.00	185.29	10.00	175.29	75.96
179	1.26	185.28	10.00	175.28	75.95
180	1.44	185.24	10.00	175.24	75.94
181	3.24	177.14	10.00	167.14	72.43
182	3.96	169.92	10.00	159.92	69.30
183	4.14	166.40	10.00	156.40	67.77
184	1.62	161.21	10.00	151.21	65.52
185	1.80	161.21	10.00	151.21	65.52
186	1.62	163.79	10.00	153.79	66.64
187	1.98	166.40	10.00	156.40	67.77
188	0.72	169.11	10.00	159.11	68.95

189	1.08	171.84	10.00	161.84	70.13
190	2.52	174.58	10.00	164.58	71.32
191	1.08	177.14	10.00	167.14	72.43
192	0.90	181.13	10.00	171.13	74.16
193	1.08	184.47	10.00	174.47	75.60
194	1.80	181.09	10.00	171.09	74.14
195	0.18	181.09	10.00	171.09	74.14
196	0.18	177.14	10.00	167.14	72.43
197	1.26	174.56	10.00	164.56	71.31
198	0.36	169.11	10.00	159.11	68.95
199	2.70	161.13	10.00	151.13	65.49
200	0.36	152.75	10.00	142.75	61.86
201	0.36	145.24	10.00	135.24	58.60
202	1.44	148.33	10.00	138.33	59.94
203	2.16	143.59	10.00	133.59	57.89
204	0.72	135.79	10.00	125.79	54.51
205	1.26	135.79	10.00	125.79	54.51
206	0.90	131.25	10.00	121.25	52.54
207	4.32	125.62	10.00	115.62	50.10
208	0.00	115.22	10.00	105.22	45.59
209	1.08	111.26	10.00	101.26	43.88
210	0.72	105.38	10.00	95.38	41.33
211	1.62	105.59	10.00	95.59	41.42
212	1.08	114.70	10.00	104.70	45.37
213	0.54	100.86	10.00	90.86	39.37
214	2.16	98.91	10.00	88.91	38.53
215	522.00	81.09	10.00	71.09	30.80
216	12.24	100.85	10.00	90.85	39.37
217	9.18	98.91	10.00	88.91	38.53
218	0.36	97.87	10.00	87.87	38.08
219	2.52	97.89	10.00	87.89	38.08
220	1.80	97.16	10.00	87.16	37.77
221	1.80	83.74	10.00	73.74	31.95
222	1.98	185.25	10.00	175.25	75.94
223	3.24	185.23	10.00	175.23	75.93
224	0.00	172.60			
225	0.00	170.71			
226	0.00	166.99			
227	0.00	152.22			
228	0.00	151.11			
229	0.00	98.07			
230	0.00	83.50			

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	198.82	
BB	2	577.88	

NET SYSTEM INFLOW = 776.70
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 776.70

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 0.180

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
148	500.00
215	22.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = 0.00036

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

FIRE FLOW - 1/2 MAXIMUM DAY + 500 GPM FIRE DEMAND AT BOB SIKES CUT

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	195.08	0.01	196.74	P1	0.00	0.55	0.09
2-FGPU	BB 1	577.48	0.11	196.83	P2	0.00	1.64	0.70

3	3	2	-1.80	0.00	0.00	0.00	0.05	0.00
4	3	4	0.36	0.00	0.00	0.00	0.01	0.00
5	5	1	-733.10	4.81	0.00	0.00	4.68	7.89
6	6	5	-626.37	3.71	0.00	0.00	4.00	5.89
7	7	6	-383.64	2.85	0.00	0.00	2.45	2.38
8	8	7	-382.92	2.77	0.00	0.00	2.44	2.37
9	9	8	-392.72	2.23	0.00	0.00	2.51	2.48
10	9	10	386.72	3.14	0.00	0.00	2.47	2.41
11	10	11	0.18	0.00	0.00	0.00	0.02	0.00
12	9	12	4.56	0.00	0.00	0.00	0.05	0.00
13	12	13	13.02	4.63	0.00	0.00	1.33	3.86
14	13	14	10.50	6.22	0.00	0.00	1.07	2.59
15	10	15	411.65	3.11	0.00	0.00	2.63	2.71
16	10	16	-27.09	0.03	0.00	0.00	0.31	0.07
17	17	16	207.54	2.32	0.00	0.00	2.35	3.09
18	16	18	0.18	0.00	0.00	0.00	0.02	0.00
19	16	19	178.66	0.94	0.00	0.00	2.03	2.34
20	19	20	7.98	1.56	0.00	0.00	0.82	1.56
21	19	21	5.70	0.71	0.00	0.00	0.58	0.84
22	21	20	5.34	0.85	0.00	0.00	0.54	0.74
23	23	22	0.18	0.00	0.00	0.00	0.02	0.00
24	23	24	0.50	0.00	0.00	0.00	0.05	0.01
25	24	25	0.18	0.00	0.00	0.00	0.02	0.00
26	26	24	0.40	0.00	0.00	0.00	0.04	0.01
27	26	27	0.18	0.01	0.00	0.00	0.07	0.04
28	28	26	0.94	0.01	0.00	0.00	0.10	0.03
29	28	29	1.98	0.05	0.00	0.00	0.20	0.12
30	29	30	0.18	0.00	0.00	0.00	0.02	0.00
31	31	28	3.64	0.20	0.00	0.00	0.37	0.37
32	31	32	210.02	0.16	0.00	0.00	1.34	0.78
33	32	23	1.58	0.05	0.00	0.00	0.16	0.08
34	32	33	207.72	1.15	0.00	0.00	2.36	3.10
35	34	31	214.56	0.33	0.00	0.00	1.37	0.81
36	34	35	-2.07	0.18	0.00	0.00	0.21	0.13
37	35	36	-2.43	0.16	0.00	0.00	0.25	0.17
38	37	36	3.33	0.33	0.00	0.00	0.34	0.31
39	38	37	-222.29	0.34	0.00	0.00	1.42	0.87
40	39	38	-220.85	0.09	0.00	0.00	1.41	0.85
41	39	34	215.19	0.24	0.00	0.00	1.37	0.81
42	40	39	-5.66	0.00	0.00	0.00	0.06	0.00
43	40	41	0.18	0.00	0.00	0.00	0.00	0.00
44	8	40	-10.52	0.01	0.00	0.00	0.12	0.01
45	40	42	-5.94	1.06	0.00	0.00	0.61	0.90
46	42	43	2.88	0.00	0.00	0.00	0.03	0.00
47	43	44	226.27	0.18	0.00	0.00	1.44	0.89
48	44	37	227.97	0.45	0.00	0.00	1.45	0.91
49	44	45	-2.23	0.08	0.00	0.00	0.23	0.15

50	45	46	0.18	0.00	0.00	0.00	0.02	0.00
51	45	47	-3.13	0.19	0.00	0.00	0.32	0.28
52	47	48	1.62	0.03	0.00	0.00	0.17	0.08
53	48	49	0.72	0.01	0.00	0.00	0.07	0.02
54	47	50	-5.29	0.39	0.00	0.00	0.54	0.73
55	50	51	223.93	0.31	0.00	0.00	1.43	0.88
56	51	43	223.75	0.18	0.00	0.00	1.43	0.88
57	51	52	0.18	0.00	0.00	0.00	0.02	0.00
58	50	53	-229.58	0.60	0.00	0.00	1.47	0.92
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-230.30	1.35	0.00	0.00	2.61	3.75
62	56	42	9.18	2.43	0.00	0.00	0.94	2.02
63	56	57	-240.57	0.24	0.00	0.00	2.73	4.07
64	57	6	-241.83	1.89	0.00	0.00	2.74	4.10
65	57	58	0.18	0.00	0.00	0.00	0.00	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	0.36	0.01	0.00	0.00	0.04	0.01
68	5	61	106.19	0.11	0.00	0.00	1.20	0.89
69	12	62	-9.89	0.00	0.00	0.00	0.11	0.01
70	61	62	12.41	11.46	0.00	0.00	1.27	3.54
71	61	63	77.76	0.65	0.00	0.00	0.88	0.50
72	15	64	409.49	3.49	0.00	0.00	2.61	2.68
73	64	65	387.98	2.91	0.00	0.00	2.48	2.43
74	65	66	392.89	2.98	0.00	0.00	2.51	2.48
75	14	67	8.34	1.79	0.00	0.00	0.85	1.69
76	67	68	7.44	0.00	0.00	0.00	0.08	0.01
77	68	69	0.36	0.00	0.00	0.00	0.00	0.00
78	68	65	5.10	0.00	0.00	0.00	0.06	0.00
79	20	70	10.62	1.85	0.00	0.00	1.08	2.65
80	70	71	157.91	1.55	0.00	0.00	1.79	1.86
81	71	72	0.36	0.00	0.00	0.00	0.04	0.01
82	71	73	157.01	0.74	0.00	0.00	1.78	1.84
83	73	74	-10.80	0.00	0.00	0.00	0.12	0.01
84	74	64	-20.97	0.00	0.00	0.00	0.24	0.04
85	74	75	9.99	5.77	0.00	0.00	1.02	2.36
86	73	76	165.84	2.25	0.00	0.00	1.88	2.04
87	73	77	1.26	0.00	0.00	0.00	0.01	0.00
88	77	78	0.18	0.00	0.00	0.00	0.02	0.00
89	70	79	14.80	0.01	0.00	0.00	0.17	0.02
90	79	80	14.26	1.60	0.00	0.00	1.46	4.57
91	80	81	13.90	1.74	0.00	0.00	1.42	4.36
92	81	82	13.18	1.38	0.00	0.00	1.35	3.95
93	82	83	12.64	1.83	0.00	0.00	1.29	3.66
94	83	84	0.18	0.00	0.00	0.00	0.02	0.00
95	83	85	11.56	0.01	0.00	0.00	0.13	0.01
96	85	86	11.38	0.01	0.00	0.00	0.13	0.01

97	86	87	0.18	0.00	0.00	0.00	0.02	0.00
98	86	88	10.48	0.00	0.00	0.00	0.12	0.01
99	88	89	-3.87	0.63	0.00	0.00	0.39	0.41
100	89	90	-4.77	0.00	0.00	0.00	0.05	0.00
101	90	91	160.35	0.67	0.00	0.00	1.82	1.92
102	91	92	172.36	0.77	0.00	0.00	1.96	2.19
103	92	93	0.18	0.00	0.00	0.00	0.02	0.00
104	92	75	172.00	0.66	0.00	0.00	1.95	2.18
105	90	94	0.18	0.00	0.00	0.00	0.02	0.00
106	91	95	-13.09	0.02	0.00	0.00	0.15	0.02
107	95	96	-13.45	0.01	0.00	0.00	0.15	0.02
108	96	97	0.18	0.01	0.00	0.00	0.07	0.04
109	96	88	-13.63	0.01	0.00	0.00	0.15	0.02
110	66	75	-181.81	0.12	0.00	0.00	2.06	2.42
111	66	98	574.16	2.76	0.00	0.00	3.66	5.02
112	98	99	0.36	0.00	0.00	0.00	0.00	0.00
113	98	100	1.44	0.00	0.00	0.00	0.02	0.00
114	100	101	0.18	0.00	0.00	0.00	0.00	0.00
115	98	102	571.10	3.48	0.00	0.00	3.64	4.97
116	102	103	0.90	0.00	0.00	0.00	0.01	0.00
117	102	104	568.94	4.19	0.00	0.00	3.63	4.93
118	104	105	2.16	0.00	0.00	0.00	0.02	0.00
119	105	106	0.86	0.00	0.00	0.00	0.01	0.00
120	106	107	0.32	0.00	0.00	0.00	0.00	0.00
121	107	108	-0.40	0.00	0.00	0.00	0.00	0.00
122	108	105	-0.94	0.00	0.00	0.00	0.01	0.00
123	104	109	566.78	0.49	0.00	0.00	3.62	4.90
124	109	110	566.24	5.13	0.00	0.00	3.61	4.89
125	110	111	417.23	2.58	0.00	0.00	2.66	2.78
126	111	112	416.69	0.42	0.00	0.00	2.66	2.77
127	112	113	558.68	2.38	0.00	0.00	3.57	4.77
128	113	114	554.36	13.63	0.00	0.00	3.54	4.70
129	114	115	554.36	1.41	0.00	0.00	3.54	4.70
130	115	116	551.30	3.95	0.00	0.00	3.52	4.65
131	116	117	550.76	0.23	0.00	0.00	3.52	4.64
132	117	118	518.63	0.21	0.00	0.00	3.31	4.15
133	118	119	547.34	4.59	0.00	0.00	3.49	4.59
134	119	120	546.44	0.23	0.00	0.00	3.49	4.58
135	120	121	545.54	2.51	0.00	0.00	3.48	4.56
136	121	122	415.47	1.65	0.00	0.00	2.65	2.75
137	122	123	378.33	1.39	0.00	0.00	2.41	2.32
138	123	124	413.55	1.64	0.00	0.00	2.64	2.73
139	124	125	541.22	2.70	0.00	0.00	3.45	4.50
140	125	126	410.42	1.62	0.00	0.00	2.62	2.69
141	126	127	377.22	1.59	0.00	0.00	2.41	2.30
142	127	128	370.82	1.56	0.00	0.00	2.37	2.23
143	128	129	354.11	0.41	0.00	0.00	2.26	2.05

144	129	130	353.21	1.67	0.00	0.00	2.25	2.04
145	130	131	358.63	0.31	0.00	0.00	2.29	2.10
146	131	132	358.27	1.28	0.00	0.00	2.29	2.09
147	132	133	357.19	0.21	0.00	0.00	2.28	2.08
148	133	134	344.30	1.17	0.00	0.00	2.20	1.95
149	134	135	343.76	0.78	0.00	0.00	2.19	1.94
150	135	136	358.69	0.84	0.00	0.00	2.29	2.10
151	136	137	357.79	0.84	0.00	0.00	2.28	2.09
152	137	138	356.77	1.25	0.00	0.00	2.28	2.08
153	138	139	355.69	0.52	0.00	0.00	2.27	2.07
154	139	140	357.50	0.86	0.00	0.00	2.28	2.09
155	140	141	356.96	1.25	0.00	0.00	2.28	2.08
156	141	142	512.42	2.48	0.00	0.00	3.27	4.06
157	142	143	306.01	0.69	0.00	0.00	1.95	1.56
158	143	144	305.47	1.09	0.00	0.00	1.95	1.56
159	144	145	304.75	1.16	0.00	0.00	1.95	1.55
160	145	146	229.58	0.66	0.00	0.00	1.47	0.92
161	146	147	303.31	0.15	0.00	0.00	1.94	1.54
162	147	148	500.00	0.78	0.00	0.00	3.19	3.88
163	110	149	147.75	0.58	0.00	0.00	1.68	1.65
164	149	150	146.13	0.78	0.00	0.00	1.66	1.61
165	150	151	144.87	0.95	0.00	0.00	1.64	1.59
166	112	151	-142.35	0.69	0.00	0.00	1.62	1.54
167	117	152	31.95	0.08	0.00	0.00	0.36	0.10
168	152	153	31.41	0.06	0.00	0.00	0.36	0.09
169	153	154	0.90	0.00	0.00	0.00	0.01	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-29.43	0.07	0.00	0.00	0.33	0.08
172	121	156	129.89	0.97	0.00	0.00	1.47	1.30
173	156	157	129.17	0.77	0.00	0.00	1.47	1.29
174	157	158	164.69	1.21	0.00	0.00	1.87	2.02
175	158	159	128.57	0.76	0.00	0.00	1.46	1.27
176	159	124	128.21	0.96	0.00	0.00	1.45	1.27
177	158	123	35.40	0.09	0.00	0.00	0.40	0.12
178	157	122	-36.05	0.09	0.00	0.00	0.41	0.12
179	125	160	130.26	0.91	0.00	0.00	1.48	1.31
180	162	167	-159.86	1.53	0.00	0.00	1.81	1.91
181	167	160	-129.36	0.77	0.00	0.00	1.47	1.29
182	162	163	162.84	1.58	0.00	0.00	1.85	1.97
183	163	164	176.49	2.06	0.00	0.00	2.00	2.29
184	164	165	169.81	1.81	0.00	0.00	1.93	2.13
185	165	166	180.72	1.91	0.00	0.00	2.05	2.39
186	133	165	12.71	0.01	0.00	0.00	0.14	0.02
187	130	164	-5.42	0.00	0.00	0.00	0.06	0.00
188	163	128	-15.62	0.02	0.00	0.00	0.18	0.03
189	127	162	5.32	0.00	0.00	0.00	0.06	0.00
190	126	167	31.40	0.07	0.00	0.00	0.36	0.09

191	166	168	163.63	1.69	0.00	0.00	1.86	1.99
192	168	169	162.13	1.76	0.00	0.00	1.84	1.96
193	169	170	157.44	1.58	0.00	0.00	1.79	1.85
194	170	141	156.00	0.53	0.00	0.00	1.77	1.82
195	169	139	3.97	0.00	0.00	0.00	0.05	0.00
196	168	137	-0.12	0.00	0.00	0.00	0.00	0.00
197	166	135	15.65	0.02	0.00	0.00	0.18	0.03
198	142	171	206.41	0.30	0.00	0.00	1.32	0.75
199	171	172	199.03	1.75	0.00	0.00	1.27	0.71
200	172	147	196.69	1.71	0.00	0.00	2.23	2.80
201	145	173	74.99	0.19	0.00	0.00	0.85	0.47
202	173	174	74.27	0.33	0.00	0.00	0.84	0.46
203	174	146	73.91	0.15	0.00	0.00	0.84	0.46
204	63	176	76.32	0.07	0.00	0.00	0.87	0.48
205	176	2	-33.70	5.62	0.00	0.00	3.44	22.48
206	176	177	10.38	0.00	0.00	0.00	0.12	0.01
207	177	178	10.38	0.00	0.00	0.00	0.12	0.01
208	178	179	10.38	0.00	0.00	0.00	0.12	0.01
209	179	180	6.65	0.01	0.00	0.00	0.08	0.01
210	180	181	2.46	0.32	0.00	0.00	0.25	0.18
211	181	182	2.67	0.46	0.00	0.00	0.27	0.21
212	182	183	-1.29	0.13	0.00	0.00	0.13	0.05
213	183	184	1.21	0.11	0.00	0.00	0.12	0.05
214	184	185	-0.41	0.00	0.00	0.00	0.00	0.00
215	185	186	-45.34	0.05	0.00	0.00	0.29	0.05
216	186	187	-46.96	0.06	0.00	0.00	0.30	0.05
217	187	188	-55.58	0.08	0.00	0.00	0.35	0.07
218	188	189	-56.66	0.08	0.00	0.00	0.36	0.07
219	189	190	-57.74	0.09	0.00	0.00	0.37	0.07
220	190	191	-61.52	0.09	0.00	0.00	0.39	0.08
221	191	192	-66.23	0.16	0.00	0.00	0.42	0.09
222	192	193	-69.11	0.14	0.00	0.00	0.44	0.10
223	193	176	-70.19	0.04	0.00	0.00	0.45	0.10
224	192	194	1.98	0.04	0.00	0.00	0.20	0.12
225	194	195	0.18	0.00	0.00	0.00	0.02	0.00
226	191	181	3.45	0.00	0.00	0.00	0.04	0.00
227	191	196	0.18	0.00	0.00	0.00	0.02	0.00
228	190	197	1.26	0.02	0.00	0.00	0.13	0.05
229	188	198	0.36	0.00	0.00	0.00	0.04	0.01
230	183	187	-6.64	0.00	0.00	0.00	0.08	0.01
231	185	199	2.70	0.07	0.00	0.00	0.28	0.21
232	185	200	40.43	0.14	0.00	0.00	0.46	0.15
233	200	201	35.87	0.13	0.00	0.00	0.41	0.12
234	200	202	4.20	0.05	0.00	0.00	0.43	0.48
235	202	203	30.95	0.10	0.00	0.00	0.35	0.09
236	203	201	-2.34	0.02	0.00	0.00	0.24	0.16
237	203	204	31.13	0.14	0.00	0.00	0.35	0.09

238	204	205	2.40	0.02	0.00	0.00	0.24	0.17
239	205	201	-33.17	0.17	0.00	0.00	0.38	0.10
240	205	206	34.31	0.09	0.00	0.00	0.39	0.11
241	206	207	33.41	0.11	0.00	0.00	0.38	0.11
242	207	208	29.09	0.15	0.00	0.00	0.33	0.08
243	208	209	26.67	0.06	0.00	0.00	0.30	0.07
244	209	210	25.59	0.08	0.00	0.00	0.29	0.06
245	210	211	0.28	0.00	0.00	0.00	0.03	0.00
246	211	212	-1.34	0.12	0.00	0.00	0.14	0.06
247	212	208	-2.42	0.02	0.00	0.00	0.25	0.17
248	210	213	24.59	0.05	0.00	0.00	0.28	0.06
249	213	214	11.81	0.01	0.00	0.00	0.13	0.02
250	214	218	0.47	0.00	0.00	0.00	0.01	0.00
251	213	216	12.24	0.00	0.00	0.00	0.14	0.02
252	214	217	9.18	0.00	0.00	0.00	0.10	0.01
253	230	215	10.90	0.01	0.00	0.00	0.12	0.01
254	219	220	5.58	0.00	0.00	0.00	0.06	0.00
255	220	230	3.78	0.04	0.00	0.00	0.04	0.00
256	218	221	20.02	0.05	0.00	0.00	0.23	0.04
257	221	215	11.10	0.01	0.00	0.00	0.13	0.01
258	179	222	2.48	0.02	0.00	0.00	0.25	0.18
259	222	223	0.50	0.01	0.00	0.00	0.05	0.01
260	223	180	-2.74	0.02	0.00	0.00	0.28	0.22
261	1	2	37.66	0.02	0.00	0.00	0.24	0.03
262	90	76	-165.66	1.43	0.00	0.00	1.88	2.04
263	70	19	-163.36	3.41	0.00	0.00	1.85	1.99
264	33	17	207.72	1.15	0.00	0.00	2.36	3.10
265	176	161	28.19	0.06	0.00	0.00	0.32	0.08
266	161	175	28.19	0.25	0.00	0.00	0.32	0.08
267	175	224	28.19	0.02	0.00	0.00	0.32	0.08
268	224	225	28.19	0.05	0.00	0.00	0.32	0.08
269	225	226	28.19	0.10	0.00	0.00	0.32	0.08
270	226	227	28.19	0.39	0.00	0.00	0.32	0.08
271	227	228	28.19	0.03	0.00	0.00	0.32	0.08
272	228	202	28.19	0.07	0.00	0.00	0.32	0.08
273	204	229	28.01	0.55	0.00	0.00	0.32	0.08
274	229	218	19.91	0.00	0.00	0.00	0.23	0.04
275	229	219	8.10	0.00	0.00	0.00	0.09	0.01
276	230	221	-7.12	0.00	0.00	0.00	0.08	0.01

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
-----------------	----------------	-----------------------	----------------------	-------------------------	--------------------	-------------------------

1	1.80	216.73	10.00	206.73	89.58
2	2.16	216.71	10.00	206.71	89.57
3	1.44	216.71	10.00	206.71	89.57
4	0.36	216.71	10.00	206.71	89.57
5	0.54	211.92	10.00	201.92	87.50
6	0.90	208.20	10.00	198.20	85.89
7	0.72	205.35	10.00	195.35	84.65
8	0.72	202.58	10.00	192.58	83.45
9	1.44	200.35	10.00	190.35	82.48
10	1.98	197.21	10.00	187.21	81.12
11	0.18	197.21	10.00	187.21	81.12
12	1.44	200.34	10.00	190.34	82.48
13	2.52	195.71	10.00	185.71	80.48
14	2.16	189.49	10.00	179.49	77.78
15	2.16	194.09	10.00	184.09	79.77
16	1.62	197.24	10.00	187.24	81.14
17	0.18	199.56	10.00	189.56	82.14
18	0.18	197.24	10.00	187.24	81.14
19	1.62	196.30	10.00	186.30	80.73
20	2.70	194.74	10.00	184.74	80.05
21	0.36	195.59	10.00	185.59	80.42
22	0.18	201.80	10.00	191.80	83.11
23	0.90	201.80	10.00	191.80	83.11
24	0.72	201.80	10.00	191.80	83.11
25	0.18	201.80	10.00	191.80	83.11
26	0.36	201.80	10.00	191.80	83.11
27	0.18	201.79	10.00	191.79	83.11
28	0.72	201.81	10.00	191.81	83.12
29	1.80	201.76	10.00	191.76	83.09
30	0.18	201.76	10.00	191.76	83.09
31	0.90	202.01	10.00	192.01	83.20
32	0.72	201.85	10.00	191.85	83.14
33	0.00	200.71	10.00	190.71	82.64
34	2.70	202.34	10.00	192.34	83.35
35	0.36	202.52	10.00	192.52	83.43
36	0.90	202.68	10.00	192.68	83.50
37	2.34	203.01	10.00	193.01	83.64
38	1.08	202.67	10.00	192.67	83.49
39	0.00	202.59	10.00	192.59	83.45
40	0.90	202.59	10.00	192.59	83.45
41	0.18	202.59	10.00	192.59	83.45
42	0.36	203.64	10.00	193.64	83.91
43	0.36	203.64	10.00	193.64	83.91
44	0.54	203.46	10.00	193.46	83.83
45	0.72	203.54	10.00	193.54	83.87
46	0.18	203.54	10.00	193.54	83.87

47	0.54	203.74	10.00	193.74	83.95
48	0.90	203.71	10.00	193.71	83.94
49	0.72	203.70	10.00	193.70	83.94
50	0.36	204.12	10.00	194.12	84.12
51	0.00	203.82	10.00	193.82	83.99
52	0.18	203.82	10.00	193.82	83.99
53	0.72	204.72	10.00	194.72	84.38
54	0.00	204.72	10.00	194.72	84.38
55	0.00	204.72	10.00	194.72	84.38
56	1.08	206.07	10.00	196.07	84.96
57	1.08	206.31	10.00	196.31	85.07
58	0.18	206.31	10.00	196.31	85.07
59	0.00	202.52	10.00	192.52	83.43
60	0.36	202.67	10.00	192.67	83.49
61	16.02	211.81	10.00	201.81	87.45
62	2.52	200.35	10.00	190.35	82.48
63	1.44	211.16	10.00	201.16	87.17
64	0.54	190.61	10.00	180.61	78.26
65	0.18	187.70	10.00	177.70	77.00
66	0.54	184.71	10.00	174.71	75.71
67	0.90	187.70	10.00	177.70	77.00
68	1.98	187.70	10.00	177.70	77.00
69	0.36	187.70	10.00	177.70	77.00
70	1.26	192.89	10.00	182.89	79.25
71	0.54	191.34	10.00	181.34	78.58
72	0.36	191.34	10.00	181.34	78.58
73	0.72	190.60	10.00	180.60	78.26
74	0.18	190.61	10.00	180.61	78.26
75	0.18	184.84	10.00	174.84	75.76
76	0.18	188.36	10.00	178.36	77.29
77	1.08	190.60	10.00	180.60	78.26
78	0.18	190.60	10.00	180.60	78.26
79	0.54	192.87	10.00	182.87	79.24
80	0.36	191.27	10.00	181.27	78.55
81	0.72	189.53	10.00	179.53	77.80
82	0.54	188.14	10.00	178.14	77.20
83	0.90	186.32	10.00	176.32	76.40
84	0.18	186.31	10.00	176.31	76.40
85	0.18	186.31	10.00	176.31	76.40
86	0.72	186.30	10.00	176.30	76.40
87	0.18	186.30	10.00	176.30	76.40
88	0.72	186.30	10.00	176.30	76.40
89	0.90	186.93	10.00	176.93	76.67
90	0.36	186.93	10.00	176.93	76.67
91	1.08	186.26	10.00	176.26	76.38
92	0.18	185.49	10.00	175.49	76.05
93	0.18	185.49	10.00	175.49	76.05

94	0.18	186.93	10.00	176.93	76.67
95	0.36	186.28	10.00	176.28	76.39
96	0.00	186.29	10.00	176.29	76.39
97	0.18	186.28	10.00	176.28	76.39
98	1.26	181.96	10.00	171.96	74.51
99	0.36	181.96	10.00	171.96	74.51
100	1.26	181.96	10.00	171.96	74.51
101	0.18	181.96	10.00	171.96	74.51
102	1.26	178.48	10.00	168.48	73.01
103	0.90	178.48	10.00	168.48	73.01
104	0.00	174.29	10.00	164.29	71.19
105	0.36	174.29	10.00	164.29	71.19
106	0.54	174.29	10.00	164.29	71.19
107	0.72	174.29	10.00	164.29	71.19
108	0.54	174.29	10.00	164.29	71.19
109	0.54	173.80	10.00	163.80	70.98
110	1.26	168.67	10.00	158.67	68.76
111	0.54	166.08	10.00	156.08	67.64
112	0.36	165.67	10.00	155.67	67.46
113	4.32	163.28	10.00	153.28	66.42
114	0.00	149.65	10.00	139.65	60.52
115	3.06	148.24	10.00	138.24	59.91
116	0.54	144.29	10.00	134.29	58.19
117	0.18	144.06	10.00	134.06	58.09
118	0.72	143.85	10.00	133.85	58.00
119	0.90	139.26	10.00	129.26	56.01
120	0.90	139.03	10.00	129.03	55.91
121	0.18	136.52	10.00	126.52	54.83
122	1.08	134.87	10.00	124.87	54.11
123	0.18	133.48	10.00	123.48	53.51
124	0.54	131.84	10.00	121.84	52.80
125	0.54	129.14	10.00	119.14	51.63
126	1.80	127.53	10.00	117.53	50.93
127	1.08	125.94	10.00	115.94	50.24
128	1.08	124.37	10.00	114.37	49.56
129	0.90	123.96	10.00	113.96	49.38
130	0.00	122.29	10.00	112.29	48.66
131	0.36	121.98	10.00	111.98	48.52
132	1.08	120.70	10.00	110.70	47.97
133	0.18	120.49	10.00	110.49	47.88
134	0.54	119.32	10.00	109.32	47.37
135	0.72	118.55	10.00	108.55	47.04
136	0.90	117.71	10.00	107.71	46.67
137	0.90	116.87	10.00	106.87	46.31
138	1.08	115.63	10.00	105.63	45.77
139	2.16	115.11	10.00	105.11	45.55
140	0.54	114.25	10.00	104.25	45.18

141	0.54	113.01	10.00	103.01	44.64
142	0.00	110.53	10.00	100.53	43.56
143	0.54	109.84	10.00	99.84	43.26
144	0.72	108.75	10.00	98.75	42.79
145	0.18	107.59	10.00	97.59	42.29
146	0.18	106.92	10.00	96.92	42.00
147	0.00	106.77	10.00	96.77	41.93
148	500.00	105.99	10.00	95.99	41.60
149	1.62	168.09	10.00	158.09	68.51
150	1.26	167.31	10.00	157.31	68.17
151	2.52	166.36	10.00	156.36	67.76
152	0.54	143.98	10.00	133.98	58.06
153	1.08	143.92	10.00	133.92	58.03
154	0.90	143.92	10.00	133.92	58.03
155	0.00	143.92	10.00	133.92	58.03
156	0.72	135.55	10.00	125.55	54.40
157	0.54	134.78	10.00	124.78	54.07
158	0.72	133.57	10.00	123.57	53.55
159	0.36	132.80	10.00	122.80	53.21
160	0.90	128.23	10.00	118.23	51.23
161	0.00	211.03			
162	2.34	125.93	10.00	115.93	50.24
163	1.98	124.35	10.00	114.35	49.55
164	1.26	122.29	10.00	112.29	48.66
165	1.80	120.48	10.00	110.48	47.87
166	1.44	118.57	10.00	108.57	47.05
167	0.90	127.46	10.00	117.46	50.90
168	1.62	116.87	10.00	106.87	46.31
169	0.72	115.11	10.00	105.11	45.55
170	1.44	113.54	10.00	103.54	44.87
171	7.38	110.23	10.00	100.23	43.43
172	2.34	108.48	10.00	98.48	42.67
173	0.72	107.40	10.00	97.40	42.21
174	0.36	107.07	10.00	97.07	42.06
175	0.00	210.78			
176	1.26	211.09	10.00	201.09	87.14
177	0.00	211.08	10.00	201.08	87.14
178	0.00	211.08	10.00	201.08	87.14
179	1.26	211.08	10.00	201.08	87.13
180	1.44	211.07	10.00	201.07	87.13
181	3.24	210.76	10.00	200.76	86.99
182	3.96	210.29	10.00	200.29	86.79
183	4.14	210.42	10.00	200.42	86.85
184	1.62	210.31	10.00	200.31	86.80
185	1.80	210.31	10.00	200.31	86.80
186	1.62	210.36	10.00	200.36	86.82
187	1.98	210.42	10.00	200.42	86.85

188	0.72	210.50	10.00	200.50	86.88
189	1.08	210.58	10.00	200.58	86.92
190	2.52	210.67	10.00	200.67	86.96
191	1.08	210.76	10.00	200.76	86.99
192	0.90	210.91	10.00	200.91	87.06
193	1.08	211.05	10.00	201.05	87.12
194	1.80	210.87	10.00	200.87	87.04
195	0.18	210.87	10.00	200.87	87.04
196	0.18	210.76	10.00	200.76	86.99
197	1.26	210.65	10.00	200.65	86.95
198	0.36	210.50	10.00	200.50	86.88
199	2.70	210.23	10.00	200.23	86.77
200	0.36	210.17	10.00	200.17	86.74
201	0.36	210.03	10.00	200.03	86.68
202	1.44	210.12	10.00	200.12	86.72
203	2.16	210.02	10.00	200.02	86.67
204	0.72	209.88	10.00	199.88	86.61
205	1.26	209.86	10.00	199.86	86.61
206	0.90	209.77	10.00	199.77	86.57
207	4.32	209.67	10.00	199.67	86.52
208	0.00	209.52	10.00	199.52	86.46
209	1.08	209.46	10.00	199.46	86.43
210	0.72	209.38	10.00	199.38	86.40
211	1.62	209.38	10.00	199.38	86.40
212	1.08	209.50	10.00	199.50	86.45
213	0.54	209.33	10.00	199.33	86.38
214	2.16	209.33	10.00	199.33	86.37
215	22.00	209.27	10.00	199.27	86.35
216	12.24	209.33	10.00	199.33	86.38
217	9.18	209.32	10.00	199.32	86.37
218	0.36	209.33	10.00	199.33	86.37
219	2.52	209.33	10.00	199.33	86.38
220	1.80	209.32	10.00	199.32	86.37
221	1.80	209.28	10.00	199.28	86.35
222	1.98	211.06	10.00	201.06	87.13
223	3.24	211.05	10.00	201.05	87.12
224	0.00	210.75			
225	0.00	210.71			
226	0.00	210.61			
227	0.00	210.22			
228	0.00	210.19			
229	0.00	209.33			
230	0.00	209.28			

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	195.08	
BB	2	577.48	

NET SYSTEM INFLOW = 772.56
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 772.56

C H A N G E S F O R N E X T S I M U L A T I O N

D E M A N D C H A N G E S

DEMAND TYPE = 1 - GDF = 1.250

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND (gpm)
215	22.00

S I M U L A T I O N R E S U L T S

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = 0.00079

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

PEAK FLOW CAPACITY OF SYSTEM

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE FG -FIXED GRADE NODE PU -PUMP LINE
 CV -CHECK VALVE RV -REGULATING VALVE TK -STORAGE TANK

PIPE NUMBER	NODE NOS. #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	PUMP HEAD (ft)	PUMP LABEL	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL/ 1000 (ft/ft)
1-FGPU	AA 1	970.45	0.28	145.77	P1	0.00	2.75	1.84
THE PUMP IN LINE 2 IS OPERATING OUT OF RANGE								
2-FGPU	BB 1	820.30	0.20	145.71	P2	0.00	2.33	1.35

3	3	2	-12.50	0.08	0.00	0.00	0.32	0.12
4	3	4	2.50	0.00	0.00	0.00	0.06	0.01
5	5	1	-1641.17	21.40	0.00	0.00	10.47	35.08
6	6	5	-975.13	8.43	0.00	0.00	6.22	13.38
7	7	6	-583.69	6.21	0.00	0.00	3.73	5.17
8	8	7	-578.69	5.95	0.00	0.00	3.69	5.09
9	9	8	-532.27	3.92	0.00	0.00	3.40	4.36
10	9	10	487.28	4.81	0.00	0.00	3.11	3.70
11	10	11	1.25	0.03	0.00	0.00	0.13	0.05
12	9	12	34.99	0.02	0.00	0.00	0.40	0.11
13	12	13	24.86	15.36	0.00	0.00	2.54	12.80
14	13	14	7.36	3.23	0.00	0.00	0.75	1.34
15	10	15	488.07	4.27	0.00	0.00	3.12	3.71
16	10	16	-15.79	0.01	0.00	0.00	0.18	0.03
17	17	16	261.61	3.56	0.00	0.00	2.97	4.75
18	16	18	1.25	0.04	0.00	0.00	0.13	0.05
19	16	19	233.32	1.54	0.00	0.00	2.65	3.84
20	19	20	14.16	4.51	0.00	0.00	1.45	4.51
21	19	21	11.11	2.45	0.00	0.00	1.13	2.88
22	21	20	8.61	2.07	0.00	0.00	0.88	1.80
23	23	22	1.25	0.01	0.00	0.00	0.13	0.05
24	23	24	8.15	0.89	0.00	0.00	0.83	1.62
25	24	25	1.25	0.01	0.00	0.00	0.13	0.05
26	26	24	-1.90	0.04	0.00	0.00	0.19	0.11
27	26	27	1.25	0.43	0.00	0.00	0.51	1.47
28	28	26	1.85	0.04	0.00	0.00	0.19	0.10
29	28	29	13.75	1.92	0.00	0.00	1.40	4.27
30	29	30	1.25	0.03	0.00	0.00	0.13	0.05
31	31	28	20.60	4.97	0.00	0.00	2.10	9.04
32	31	32	283.51	0.27	0.00	0.00	1.81	1.36
33	32	23	15.65	3.80	0.00	0.00	1.60	5.43
34	32	33	262.86	1.77	0.00	0.00	2.98	4.79
35	34	31	310.36	0.66	0.00	0.00	1.98	1.61
36	34	35	1.58	0.11	0.00	0.00	0.16	0.08
37	35	36	-0.92	0.03	0.00	0.00	0.09	0.03
38	37	36	7.17	1.34	0.00	0.00	0.73	1.28
39	38	37	-298.64	0.58	0.00	0.00	1.91	1.49
40	39	38	-288.64	0.14	0.00	0.00	1.84	1.40
41	39	34	330.69	0.54	0.00	0.00	2.11	1.81
42	40	39	42.04	0.06	0.00	0.00	0.48	0.16
43	40	41	1.25	0.00	0.00	0.00	0.01	0.00
44	8	40	41.42	0.08	0.00	0.00	0.47	0.16
45	40	42	-8.12	1.89	0.00	0.00	0.83	1.61
46	42	43	3.40	0.00	0.00	0.00	0.04	0.00
47	43	44	333.48	0.37	0.00	0.00	2.13	1.83
48	44	37	322.07	0.86	0.00	0.00	2.06	1.72
49	44	45	7.66	0.80	0.00	0.00	0.78	1.45

50	45	46	1.25	0.02	0.00	0.00	0.13	0.05
51	45	47	1.41	0.04	0.00	0.00	0.14	0.06
52	47	48	11.25	1.03	0.00	0.00	1.15	2.95
53	48	49	5.00	0.26	0.00	0.00	0.51	0.66
54	47	50	-13.59	2.22	0.00	0.00	1.39	4.18
55	50	51	333.83	0.64	0.00	0.00	2.13	1.84
56	51	43	332.58	0.36	0.00	0.00	2.12	1.82
57	51	52	1.25	0.01	0.00	0.00	0.13	0.05
58	50	53	-349.92	1.30	0.00	0.00	2.23	2.00
59	53	54	0.00	0.00	0.00	0.00	0.00	0.00
60	54	55	0.00	0.00	0.00	0.00	0.00	0.00
61	53	56	-354.92	3.01	0.00	0.00	4.03	8.35
62	56	42	14.02	5.32	0.00	0.00	1.43	4.43
63	56	57	-376.44	0.56	0.00	0.00	4.27	9.32
64	57	6	-385.19	4.47	0.00	0.00	4.37	9.72
65	57	58	1.25	0.00	0.00	0.00	0.01	0.00
66	35	59	0.00	0.00	0.00	0.00	0.00	0.00
67	38	60	2.50	0.18	0.00	0.00	0.26	0.18
68	5	61	662.29	3.18	0.00	0.00	7.51	26.52
69	12	62	0.13	0.00	0.00	0.00	0.00	0.00
70	61	62	17.37	21.35	0.00	0.00	1.77	6.59
71	61	63	533.67	23.12	0.00	0.00	6.06	17.78
72	15	64	473.07	4.56	0.00	0.00	3.02	3.50
73	64	65	422.58	3.41	0.00	0.00	2.70	2.84
74	65	66	391.20	2.96	0.00	0.00	2.50	2.46
75	14	67	-7.64	1.52	0.00	0.00	0.78	1.44
76	67	68	-13.89	0.00	0.00	0.00	0.16	0.02
77	68	69	2.50	0.00	0.00	0.00	0.03	0.00
78	68	65	-30.14	0.03	0.00	0.00	0.34	0.09
79	20	70	4.02	0.31	0.00	0.00	0.41	0.44
80	70	71	168.51	1.75	0.00	0.00	1.91	2.10
81	71	72	2.50	0.09	0.00	0.00	0.26	0.18
82	71	73	162.26	0.78	0.00	0.00	1.84	1.96
83	73	74	-35.04	0.04	0.00	0.00	0.40	0.11
84	74	64	-46.73	0.01	0.00	0.00	0.53	0.20
85	74	75	10.44	6.27	0.00	0.00	1.07	2.57
86	73	76	183.55	2.71	0.00	0.00	2.08	2.46
87	73	77	8.75	0.00	0.00	0.00	0.10	0.01
88	77	78	1.25	0.04	0.00	0.00	0.13	0.05
89	70	79	23.56	0.03	0.00	0.00	0.27	0.05
90	79	80	19.81	2.94	0.00	0.00	2.02	8.40
91	80	81	17.31	2.62	0.00	0.00	1.77	6.54
92	81	82	12.31	1.22	0.00	0.00	1.26	3.48
93	82	83	8.56	0.89	0.00	0.00	0.87	1.78
94	83	84	1.25	0.03	0.00	0.00	0.13	0.05
95	83	85	1.06	0.00	0.00	0.00	0.01	0.00
96	85	86	-0.19	0.00	0.00	0.00	0.00	0.00

97	86	87	1.25	0.05	0.00	0.00	0.13	0.05
98	86	88	-6.44	0.00	0.00	0.00	0.07	0.00
99	88	89	-4.24	0.75	0.00	0.00	0.43	0.48
100	89	90	-10.49	0.00	0.00	0.00	0.12	0.01
101	90	91	168.06	0.73	0.00	0.00	1.91	2.09
102	91	92	149.61	0.59	0.00	0.00	1.70	1.69
103	92	93	1.25	0.03	0.00	0.00	0.13	0.05
104	92	75	147.11	0.49	0.00	0.00	1.67	1.63
105	90	94	1.25	0.04	0.00	0.00	0.13	0.05
106	91	95	10.95	0.02	0.00	0.00	0.12	0.01
107	95	96	8.45	0.00	0.00	0.00	0.10	0.01
108	96	97	1.25	0.44	0.00	0.00	0.51	1.47
109	96	88	7.20	0.00	0.00	0.00	0.08	0.01
110	66	75	-156.30	0.09	0.00	0.00	1.77	1.83
111	66	98	543.75	2.49	0.00	0.00	3.47	4.53
112	98	99	2.50	0.00	0.00	0.00	0.03	0.00
113	98	100	10.00	0.01	0.00	0.00	0.11	0.01
114	100	101	1.25	0.00	0.00	0.00	0.01	0.00
115	98	102	522.50	2.95	0.00	0.00	3.33	4.21
116	102	103	6.25	0.01	0.00	0.00	0.07	0.00
117	102	104	507.50	3.39	0.00	0.00	3.24	3.99
118	104	105	15.00	0.01	0.00	0.00	0.17	0.02
119	105	106	5.99	0.00	0.00	0.00	0.07	0.00
120	106	107	2.24	0.00	0.00	0.00	0.03	0.00
121	107	108	-2.76	0.00	0.00	0.00	0.03	0.00
122	108	105	-6.51	0.00	0.00	0.00	0.07	0.01
123	104	109	492.50	0.38	0.00	0.00	3.14	3.78
124	109	110	488.75	3.91	0.00	0.00	3.12	3.72
125	110	111	343.15	1.80	0.00	0.00	2.19	1.93
126	111	112	339.40	0.28	0.00	0.00	2.17	1.89
127	112	113	436.25	1.51	0.00	0.00	2.78	3.02
128	113	114	406.25	7.66	0.00	0.00	2.59	2.64
129	114	115	406.25	0.79	0.00	0.00	2.59	2.64
130	115	116	385.00	2.03	0.00	0.00	2.46	2.39
131	116	117	381.25	0.12	0.00	0.00	2.43	2.35
132	117	118	352.69	0.10	0.00	0.00	2.25	2.03
133	118	119	357.50	2.09	0.00	0.00	2.28	2.09
134	119	120	351.25	0.10	0.00	0.00	2.24	2.02
135	120	121	345.00	1.07	0.00	0.00	2.20	1.95
136	121	122	260.07	0.69	0.00	0.00	1.66	1.16
137	122	123	228.07	0.54	0.00	0.00	1.46	0.91
138	123	124	244.52	0.62	0.00	0.00	1.56	1.03
139	124	125	315.00	0.99	0.00	0.00	2.01	1.65
140	125	126	233.97	0.57	0.00	0.00	1.49	0.95
141	126	127	201.07	0.50	0.00	0.00	1.28	0.72
142	127	128	182.56	0.42	0.00	0.00	1.17	0.60
143	128	129	162.98	0.10	0.00	0.00	1.04	0.49

144	129	130	156.73	0.37	0.00	0.00	1.00	0.45
145	130	131	154.19	0.07	0.00	0.00	0.98	0.44
146	131	132	151.69	0.26	0.00	0.00	0.97	0.43
147	132	133	144.19	0.04	0.00	0.00	0.92	0.39
148	133	134	133.43	0.20	0.00	0.00	0.85	0.34
149	134	135	129.68	0.13	0.00	0.00	0.83	0.32
150	135	136	127.16	0.12	0.00	0.00	0.81	0.31
151	136	137	120.91	0.11	0.00	0.00	0.77	0.28
152	137	138	110.82	0.14	0.00	0.00	0.71	0.24
153	138	139	103.32	0.05	0.00	0.00	0.66	0.21
154	139	140	91.03	0.07	0.00	0.00	0.58	0.17
155	140	141	87.28	0.09	0.00	0.00	0.56	0.15
156	141	142	115.00	0.16	0.00	0.00	0.73	0.26
157	142	143	42.75	0.02	0.00	0.00	0.27	0.04
158	143	144	39.00	0.02	0.00	0.00	0.25	0.03
159	144	145	34.00	0.02	0.00	0.00	0.22	0.03
160	145	146	21.95	0.01	0.00	0.00	0.14	0.01
161	146	147	24.00	0.00	0.00	0.00	0.15	0.01
162	147	148	28.75	0.00	0.00	0.00	0.18	0.02
163	110	149	136.85	0.50	0.00	0.00	1.55	1.43
164	149	150	125.60	0.59	0.00	0.00	1.43	1.22
165	150	151	116.85	0.64	0.00	0.00	1.33	1.07
166	112	151	-99.35	0.36	0.00	0.00	1.13	0.79
167	117	152	27.31	0.06	0.00	0.00	0.31	0.07
168	152	153	23.56	0.03	0.00	0.00	0.27	0.05
169	153	154	6.25	0.00	0.00	0.00	0.07	0.00
170	154	155	0.00	0.00	0.00	0.00	0.00	0.00
171	118	153	-9.81	0.01	0.00	0.00	0.11	0.01
172	121	156	83.68	0.43	0.00	0.00	0.95	0.58
173	156	157	78.68	0.31	0.00	0.00	0.89	0.51
174	157	158	99.43	0.47	0.00	0.00	1.13	0.79
175	158	159	76.73	0.29	0.00	0.00	0.87	0.49
176	159	124	74.23	0.35	0.00	0.00	0.84	0.46
177	158	123	17.70	0.02	0.00	0.00	0.20	0.03
178	157	122	-24.50	0.04	0.00	0.00	0.28	0.06
179	125	160	77.28	0.35	0.00	0.00	0.88	0.50
180	162	167	-85.18	0.48	0.00	0.00	0.97	0.59
181	167	160	-71.03	0.25	0.00	0.00	0.81	0.42
182	162	163	79.94	0.42	0.00	0.00	0.91	0.53
183	163	164	78.27	0.46	0.00	0.00	0.89	0.51
184	164	165	72.06	0.37	0.00	0.00	0.82	0.44
185	165	166	69.07	0.32	0.00	0.00	0.78	0.40
186	133	165	9.51	0.01	0.00	0.00	0.11	0.01
187	130	164	2.53	0.00	0.00	0.00	0.03	0.00
188	163	128	-12.09	0.01	0.00	0.00	0.14	0.02
189	127	162	11.01	0.01	0.00	0.00	0.12	0.01
190	126	167	20.40	0.03	0.00	0.00	0.23	0.04

191	166	168	56.59	0.24	0.00	0.00	0.64	0.28
192	168	169	49.18	0.19	0.00	0.00	0.56	0.21
193	169	170	41.47	0.13	0.00	0.00	0.47	0.16
194	170	141	31.47	0.03	0.00	0.00	0.36	0.09
195	169	139	2.71	0.00	0.00	0.00	0.03	0.00
196	168	137	-3.83	0.00	0.00	0.00	0.04	0.00
197	166	135	2.47	0.00	0.00	0.00	0.03	0.00
198	142	171	72.25	0.04	0.00	0.00	0.46	0.11
199	171	172	21.00	0.03	0.00	0.00	0.13	0.01
200	172	147	4.75	0.00	0.00	0.00	0.05	0.00
201	145	173	10.80	0.01	0.00	0.00	0.12	0.01
202	173	174	5.80	0.00	0.00	0.00	0.07	0.00
203	174	146	3.30	0.00	0.00	0.00	0.04	0.00
204	63	176	523.67	2.40	0.00	0.00	5.94	17.17
205	176	2	-109.58	49.91	0.00	0.00	11.19	199.62
206	176	177	69.00	0.14	0.00	0.00	0.78	0.40
207	177	178	69.00	0.05	0.00	0.00	0.78	0.40
208	178	179	69.00	0.08	0.00	0.00	0.78	0.40
209	179	180	43.12	0.16	0.00	0.00	0.49	0.17
210	180	181	14.00	7.95	0.00	0.00	1.43	4.42
211	181	182	16.91	14.10	0.00	0.00	1.73	6.27
212	182	183	-10.59	6.20	0.00	0.00	1.08	2.64
213	183	184	6.14	2.26	0.00	0.00	0.63	0.96
214	184	185	-5.11	0.00	0.00	0.00	0.06	0.00
215	185	186	-230.86	1.11	0.00	0.00	1.47	0.93
216	186	187	-242.11	1.22	0.00	0.00	1.55	1.01
217	187	188	-301.35	1.82	0.00	0.00	1.92	1.52
218	188	189	-308.85	1.91	0.00	0.00	1.97	1.59
219	189	190	-316.35	2.00	0.00	0.00	2.02	1.66
220	190	191	-342.60	2.12	0.00	0.00	2.19	1.93
221	191	192	-376.75	3.91	0.00	0.00	2.40	2.30
222	192	193	-396.75	3.54	0.00	0.00	2.53	2.53
223	193	176	-404.25	0.92	0.00	0.00	2.58	2.62
224	192	194	13.75	1.50	0.00	0.00	1.40	4.27
225	194	195	1.25	0.07	0.00	0.00	0.13	0.05
226	191	181	25.41	0.02	0.00	0.00	0.29	0.06
227	191	196	1.25	0.04	0.00	0.00	0.13	0.05
228	190	197	8.75	0.78	0.00	0.00	0.89	1.85
229	188	198	2.50	0.06	0.00	0.00	0.26	0.18
230	183	187	-45.48	0.07	0.00	0.00	0.52	0.19
231	185	199	18.75	2.66	0.00	0.00	1.91	7.59
232	185	200	194.50	2.61	0.00	0.00	2.21	2.74
233	200	201	175.25	2.49	0.00	0.00	1.99	2.26
234	200	202	16.75	0.62	0.00	0.00	1.71	6.16
235	202	203	158.00	2.05	0.00	0.00	1.79	1.87
236	203	201	-8.65	0.18	0.00	0.00	0.88	1.81
237	203	204	151.65	2.59	0.00	0.00	1.72	1.73

238	204	205	15.40	0.53	0.00	0.00	1.57	5.27
239	205	201	-164.10	3.30	0.00	0.00	1.86	2.00
240	205	206	170.75	1.72	0.00	0.00	1.94	2.15
241	206	207	164.50	2.01	0.00	0.00	1.87	2.01
242	207	208	134.50	2.63	0.00	0.00	1.53	1.38
243	208	209	121.16	0.91	0.00	0.00	1.37	1.14
244	209	210	113.66	1.22	0.00	0.00	1.29	1.01
245	210	211	5.40	0.05	0.00	0.00	0.55	0.76
246	211	212	-5.85	1.77	0.00	0.00	0.60	0.88
247	212	208	-13.35	0.40	0.00	0.00	1.36	4.04
248	210	213	103.25	0.72	0.00	0.00	1.17	0.85
249	213	214	14.50	0.01	0.00	0.00	0.16	0.02
250	214	218	-64.25	0.08	0.00	0.00	0.73	0.35
251	213	216	85.00	0.12	0.00	0.00	0.96	0.59
252	214	217	63.75	0.07	0.00	0.00	0.72	0.35
253	230	215	10.99	0.01	0.00	0.00	0.12	0.01
254	219	220	17.74	0.04	0.00	0.00	0.20	0.03
255	220	230	5.24	0.08	0.00	0.00	0.06	0.00
256	218	221	29.26	0.09	0.00	0.00	0.33	0.08
257	221	215	11.01	0.01	0.00	0.00	0.12	0.01
258	179	222	17.13	0.71	0.00	0.00	1.75	6.42
259	222	223	3.38	0.32	0.00	0.00	0.34	0.32
260	223	180	-19.12	0.87	0.00	0.00	1.95	7.87
261	1	2	137.08	0.19	0.00	0.00	0.87	0.35
262	90	76	-182.30	1.70	0.00	0.00	2.07	2.43
263	70	19	-196.80	4.82	0.00	0.00	2.23	2.80
264	33	17	262.86	1.78	0.00	0.00	2.98	4.79
265	176	161	151.25	1.28	0.00	0.00	1.72	1.72
266	161	175	151.25	5.70	0.00	0.00	1.72	1.72
267	175	224	151.25	0.50	0.00	0.00	1.72	1.72
268	224	225	151.25	1.11	0.00	0.00	1.72	1.72
269	225	226	151.25	2.19	0.00	0.00	1.72	1.72
270	226	227	151.25	8.69	0.00	0.00	1.72	1.72
271	227	228	151.25	0.65	0.00	0.00	1.72	1.72
272	228	202	151.25	1.63	0.00	0.00	1.72	1.72
273	204	229	131.25	9.62	0.00	0.00	1.49	1.32
274	229	218	96.01	0.06	0.00	0.00	1.09	0.74
275	229	219	35.24	0.03	0.00	0.00	0.40	0.12
276	230	221	-5.75	0.00	0.00	0.00	0.07	0.00

JUNCTION NODE RESULTS

JUNCTION NUMBER	JUNCTION TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	JUNCTION ELEVATION (ft)	PRESSURE HEAD (ft)	JUNCTION PRESSURE (psi)
-----------------	----------------	-----------------------	----------------------	-------------------------	--------------------	-------------------------

1	12.50	165.51	10.00	155.51	67.39
2	15.00	165.31	10.00	155.31	67.30
3	10.00	165.23	10.00	155.23	67.27
4	2.50	165.23	10.00	155.23	67.27
5	3.75	144.11	10.00	134.11	58.11
6	6.25	135.68	10.00	125.68	54.46
7	5.00	129.48	10.00	119.48	51.77
8	5.00	123.52	10.00	113.52	49.19
9	10.00	119.60	10.00	109.60	47.49
10	13.75	114.79	10.00	104.79	45.41
11	1.25	114.76	10.00	104.76	45.40
12	10.00	119.57	10.00	109.57	47.48
13	17.50	104.21	10.00	94.21	40.83
14	15.00	100.99	10.00	90.99	39.43
15	15.00	110.52	10.00	100.52	43.56
16	11.25	114.80	10.00	104.80	45.41
17	1.25	118.36	10.00	108.36	46.96
18	1.25	114.76	10.00	104.76	45.40
19	11.25	113.26	10.00	103.26	44.75
20	18.75	108.75	10.00	98.75	42.79
21	2.50	110.81	10.00	100.81	43.69
22	1.25	118.10	10.00	108.10	46.85
23	6.25	118.11	10.00	108.11	46.85
24	5.00	117.22	10.00	107.22	46.46
25	1.25	117.21	10.00	107.21	46.46
26	2.50	117.17	10.00	107.17	46.44
27	1.25	116.75	10.00	106.75	46.26
28	5.00	117.21	10.00	107.21	46.46
29	12.50	115.29	10.00	105.29	45.63
30	1.25	115.26	10.00	105.26	45.61
31	6.25	122.18	10.00	112.18	48.61
32	5.00	121.91	10.00	111.91	48.49
33	0.00	120.14	10.00	110.14	47.73
34	18.75	122.84	10.00	112.84	48.90
35	2.50	122.73	10.00	112.73	48.85
36	6.25	122.76	10.00	112.76	48.86
37	16.25	124.11	10.00	114.11	49.45
38	7.50	123.52	10.00	113.52	49.19
39	0.00	123.38	10.00	113.38	49.13
40	6.25	123.45	10.00	113.45	49.16
41	1.25	123.45	10.00	113.45	49.16
42	2.50	125.33	10.00	115.33	49.98
43	2.50	125.33	10.00	115.33	49.98
44	3.75	124.97	10.00	114.97	49.82
45	5.00	124.17	10.00	114.17	49.47
46	1.25	124.15	10.00	114.15	49.47

47	3.75	124.13	10.00	114.13	49.45
48	6.25	123.09	10.00	113.09	49.01
49	5.00	122.83	10.00	112.83	48.89
50	2.50	126.34	10.00	116.34	50.41
51	0.00	125.70	10.00	115.70	50.14
52	1.25	125.69	10.00	115.69	50.13
53	5.00	127.64	10.00	117.64	50.98
54	0.00	127.64	10.00	117.64	50.98
55	0.00	127.64	10.00	117.64	50.98
56	7.50	130.65	10.00	120.65	52.28
57	7.50	131.21	10.00	121.21	52.52
58	1.25	131.21	10.00	121.21	52.52
59	0.00	122.73	10.00	112.73	48.85
60	2.50	123.34	10.00	113.34	49.11
61	111.25	140.93	10.00	130.93	56.73
62	17.50	119.57	10.00	109.57	47.48
63	10.00	117.81	10.00	107.81	46.72
64	3.75	105.96	10.00	95.96	41.58
65	1.25	102.55	10.00	92.55	40.11
66	3.75	99.59	10.00	89.59	38.82
67	6.25	102.51	10.00	92.51	40.09
68	13.75	102.52	10.00	92.52	40.09
69	2.50	102.52	10.00	92.52	40.09
70	8.75	108.44	10.00	98.44	42.66
71	3.75	106.70	10.00	96.70	41.90
72	2.50	106.60	10.00	96.60	41.86
73	5.00	105.91	10.00	95.91	41.56
74	1.25	105.95	10.00	95.95	41.58
75	1.25	99.69	10.00	89.69	38.86
76	1.25	103.20	10.00	93.20	40.39
77	7.50	105.91	10.00	95.91	41.56
78	1.25	105.87	10.00	95.87	41.54
79	3.75	108.41	10.00	98.41	42.64
80	2.50	105.47	10.00	95.47	41.37
81	5.00	102.85	10.00	92.85	40.23
82	3.75	101.63	10.00	91.63	39.71
83	6.25	100.74	10.00	90.74	39.32
84	1.25	100.71	10.00	90.71	39.31
85	1.25	100.74	10.00	90.74	39.32
86	5.00	100.74	10.00	90.74	39.32
87	1.25	100.69	10.00	90.69	39.30
88	5.00	100.74	10.00	90.74	39.32
89	6.25	101.49	10.00	91.49	39.65
90	2.50	101.50	10.00	91.50	39.65
91	7.50	100.77	10.00	90.77	39.33
92	1.25	100.18	10.00	90.18	39.08
93	1.25	100.15	10.00	90.15	39.06

94	1.25	101.46	10.00	91.46	39.63
95	2.50	100.75	10.00	90.75	39.33
96	0.00	100.75	10.00	90.75	39.32
97	1.25	100.30	10.00	90.30	39.13
98	8.75	97.10	10.00	87.10	37.74
99	2.50	97.10	10.00	87.10	37.74
100	8.75	97.09	10.00	87.09	37.74
101	1.25	97.09	10.00	87.09	37.74
102	8.75	94.15	10.00	84.15	36.47
103	6.25	94.15	10.00	84.15	36.46
104	0.00	90.76	10.00	80.76	35.00
105	2.50	90.75	10.00	80.75	34.99
106	3.75	90.74	10.00	80.74	34.99
107	5.00	90.74	10.00	80.74	34.99
108	3.75	90.74	10.00	80.74	34.99
109	3.75	90.38	10.00	80.38	34.83
110	8.75	86.47	10.00	76.47	33.14
111	3.75	84.68	10.00	74.68	32.36
112	2.50	84.39	10.00	74.39	32.24
113	30.00	82.88	10.00	72.88	31.58
114	0.00	75.22	10.00	65.22	28.26
115	21.25	74.43	10.00	64.43	27.92
116	3.75	72.39	10.00	62.39	27.04
117	1.25	72.28	10.00	62.28	26.99
118	5.00	72.17	10.00	62.17	26.94
119	6.25	70.09	10.00	60.09	26.04
120	6.25	69.99	10.00	59.99	25.99
121	1.25	68.91	10.00	58.91	25.53
122	7.50	68.22	10.00	58.22	25.23
123	1.25	67.67	10.00	57.67	24.99
124	3.75	67.05	10.00	57.05	24.72
125	3.75	66.06	10.00	56.06	24.29
126	12.50	65.49	10.00	55.49	24.05
127	7.50	65.00	10.00	55.00	23.83
128	7.50	64.58	10.00	54.58	23.65
129	6.25	64.48	10.00	54.48	23.61
130	0.00	64.11	10.00	54.11	23.45
131	2.50	64.04	10.00	54.04	23.42
132	7.50	63.78	10.00	53.78	23.31
133	1.25	63.74	10.00	53.74	23.29
134	3.75	63.54	10.00	53.54	23.20
135	5.00	63.41	10.00	53.41	23.15
136	6.25	63.29	10.00	53.29	23.09
137	6.25	63.18	10.00	53.18	23.04
138	7.50	63.04	10.00	53.04	22.98
139	15.00	62.98	10.00	52.98	22.96
140	3.75	62.92	10.00	52.92	22.93

141	3.75	62.82	10.00	52.82	22.89
142	0.00	62.67	10.00	52.67	22.82
143	3.75	62.65	10.00	52.65	22.82
144	5.00	62.63	10.00	52.63	22.81
145	1.25	62.61	10.00	52.61	22.80
146	1.25	62.60	10.00	52.60	22.79
147	0.00	62.60	10.00	52.60	22.79
148	28.75	62.59	10.00	52.59	22.79
149	11.25	85.97	10.00	75.97	32.92
150	8.75	85.39	10.00	75.39	32.67
151	17.50	84.75	10.00	74.75	32.39
152	3.75	72.22	10.00	62.22	26.96
153	7.50	72.18	10.00	62.18	26.95
154	6.25	72.18	10.00	62.18	26.94
155	0.00	72.18	10.00	62.18	26.94
156	5.00	68.48	10.00	58.48	25.34
157	3.75	68.17	10.00	58.17	25.21
158	5.00	67.70	10.00	57.70	25.00
159	2.50	67.40	10.00	57.40	24.88
160	6.25	65.72	10.00	55.72	24.14
161	0.00	114.12			
162	16.25	64.99	10.00	54.99	23.83
163	13.75	64.57	10.00	54.57	23.65
164	8.75	64.11	10.00	54.11	23.45
165	12.50	63.74	10.00	53.74	23.29
166	10.00	63.42	10.00	53.42	23.15
167	6.25	65.46	10.00	55.46	24.03
168	11.25	63.18	10.00	53.18	23.04
169	5.00	62.99	10.00	52.99	22.96
170	10.00	62.85	10.00	52.85	22.90
171	51.25	62.63	10.00	52.63	22.80
172	16.25	62.60	10.00	52.60	22.79
173	5.00	62.60	10.00	52.60	22.79
174	2.50	62.60	10.00	52.60	22.79
175	0.00	108.42			
176	8.75	115.41	10.00	105.41	45.68
177	0.00	115.27	10.00	105.27	45.62
178	0.00	115.21	10.00	105.21	45.59
179	8.75	115.13	10.00	105.13	45.56
180	10.00	114.97	10.00	104.97	45.49
181	22.50	107.02	10.00	97.02	42.04
182	27.50	92.92	10.00	82.92	35.93
183	28.75	99.12	10.00	89.12	38.62
184	11.25	96.86	10.00	86.86	37.64
185	12.50	96.86	10.00	86.86	37.64
186	11.25	97.98	10.00	87.98	38.12
187	13.75	99.19	10.00	89.19	38.65

188	5.00	101.02	10.00	91.02	39.44
189	7.50	102.93	10.00	92.93	40.27
190	17.50	104.92	10.00	94.92	41.13
191	7.50	107.04	10.00	97.04	42.05
192	6.25	110.95	10.00	100.95	43.74
193	7.50	114.49	10.00	104.49	45.28
194	12.50	109.45	10.00	99.45	43.10
195	1.25	109.39	10.00	99.39	43.07
196	1.25	107.00	10.00	97.00	42.03
197	8.75	104.14	10.00	94.14	40.80
198	2.50	100.96	10.00	90.96	39.41
199	18.75	94.21	10.00	84.21	36.49
200	2.50	94.26	10.00	84.26	36.51
201	2.50	91.77	10.00	81.77	35.43
202	10.00	93.64	10.00	83.64	36.24
203	15.00	91.59	10.00	81.59	35.36
204	5.00	88.99	10.00	78.99	34.23
205	8.75	88.47	10.00	78.47	34.00
206	6.25	86.74	10.00	76.74	33.26
207	30.00	84.73	10.00	74.73	32.38
208	0.00	82.10	10.00	72.10	31.24
209	7.50	81.19	10.00	71.19	30.85
210	5.00	79.97	10.00	69.97	30.32
211	11.25	79.93	10.00	69.93	30.30
212	7.50	81.70	10.00	71.70	31.07
213	3.75	79.25	10.00	69.25	30.01
214	15.00	79.24	10.00	69.24	30.00
215	22.00	79.22	10.00	69.22	30.00
216	85.00	79.13	10.00	69.13	29.96
217	63.75	79.17	10.00	69.17	29.97
218	2.50	79.32	10.00	69.32	30.04
219	17.50	79.35	10.00	69.35	30.05
220	12.50	79.31	10.00	69.31	30.03
221	12.50	79.23	10.00	69.23	30.00
222	13.75	114.43	10.00	104.43	45.25
223	22.50	114.11	10.00	104.11	45.11
224	0.00	107.92			
225	0.00	106.81			
226	0.00	104.62			
227	0.00	95.93			
228	0.00	95.28			
229	0.00	79.38			
230	0.00	79.23			

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM FIXED GRADE NODES
(-) OUTFLOWS FROM THE SYSTEM INTO FIXED GRADE NODES

NODE LABEL	PIPE NUMBER	FLOWRATE (gpm)	NODE TITLE
AA	1	970.45	
BB	2	820.30	

NET SYSTEM INFLOW = 1790.75
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1790.75

**** KYPIPE SIMULATION COMPLETED ****

DATE: 04/19/95
TIME: 16:29:55.32