FLOWS ARE EXPRESSED IN LITERS PER SECOND AND PRESSURES IN KPA

A SUMMARY OF THE ORIGINAL DATA FOLLOWS

PIPE NO.	NODE NOS.		LENGTH (METERS)	DIAMETER (CMS)	ROUGHNESS	MINOR LOSS K	FIXED GRADE
1	800	802	5350.0	120.0	120.0	.00	
2	800	801	2200.0	20.0	120.0	.00	
3	802	803	5450.0	50.0	120.0	.00	
4	803	804	180.0	20.0	120.0	.00	
5	803	805	5000.0	50.0	120.0	.00	
7	805	807	5900.0	50.0	120.0	.00	
8	807	808	425.0	30.0	120.0	.00	
9	807	809	1000.0	25.0	120.0	.00	
10	802	850	15500.0	120.0	120.0	.00	
11	850	811	20.0	40.0	120.0	.00	
12	810	812	5250.0	100.0	120.0	.00	
13	812	813	4400.0	100.0	120.0	.00	
15	810	820	4800.0	80.0	120.0	.00	
16	820	821	20.0	80.0	120.0	.00	
19	820	824	300.0	50.0	120.0	.00	
20	800	802	5350.0	120.0	120.0	.00	
21	802	850	15500.0	120.0	120.0	.00	
22	850	810	1500.0	120.0	120.0	.00	
23	810	812	5250.0	110.0	120.0	.00	
24	812	813	4400.0	110.0	120.0	.00	
30	850	810	1500.0	120.0	120.0	.00	
50	805	851	200.0	20.0	120.0	.00	
51	807	852	3000.0	25.0	120.0	.00	
800	800	0	10.0	120.0	999.0	.00	105.00
801	801	0	20.0	20.0	999.0	.00	50.50
804	804	0	20.0	999.0	999.0	.00	51.30
808	808	0	20.0	999.0	999.0	.00	26.00
809	809	0	20.0	999.0	999.0	.00	39.50
811	811	0	20.0	40.0	999.0	.00	45.00
813	813	0	20.0	999.0	999.0	.00	28.00
821	821	0	20.0	70.0	999.0	.00	15.10
824	824	0	20.0	50.0	999.0	.00	35.00
851	851	0	20.0	999.0	999.0	.00	40.00
852	852	0	20.0	999.0	999.0	.00	30.00

JUNCTION NUMBER	DEMAND	ELEVATION	CONNECTING PIPES				
800	.00	100.00	1	2	20	800	
801	12.00	48.00	2	801			
802	.00	15.00	1	3	10	20	21
803	.00	20.00	3	4	5		
804	13.50	35.00	4	804			
805	.00	20.00	5	7	50		
807	.00	25.00	7	8	9	51	
808	22.60	24.00	8	808			
809	10.10	25.00	9	809			
810	.00	20.00	12	15	22	23	30
811	91.00	40.00	11	811			
812	.00	20.00	12	13	23	24	
813	2979.30	25.00	13	24	813		
820	.00	20.00	15	16	19		
821	373.30	12.00	16	821			
824	122.10	30.00	19	824			
850	.00	20.00	10	11	21	22	30
851	6.30	20.00	50	851			
852	8.50	10.00	51	852			

OUTPUT SELECTION: THE FOLLOWING RESULTS ARE OUTPUT

RESULTS ARE OUTPUT FOR ALL PIPES WITH PUMPS - CLOSED PIPES ARE NOTED
RESULTS ARE OUTPUT FOR THE FOLLOWING JUNCTION NODES : 800 801 804 808 809
811 813 821 824 851 852

AN EPS WILL BE CARRIED OUT FOR 24.000 HOURS USING A PERIOD OF 1.000 HOURS

THE SYSTEM CONTAINS 10 VARIABLE HEAD TANKS - TANK DATA IS SUMMARIZED BELOW

TANK NO.	CONNECTING PIPE	MAXIMUM ELEVATION	MINIMUM ELEVATION	TANK DIAMETER
1	801	50.50	46.50	20.00
2	804	51.30	46.80	7.70
3	808	26.00	21.70	30.90
4	809	39.50	35.40	14.40
5	811	45.00	40.00	22.60
6	813	28.00	23.50	83.00
7	821	15.10	10.10	46.90
8	824	35.00	30.00	22.60
9	851	40.00	35.00	8.00
10	852	30.00	25.00	8.00

DEMANDS AT THE FOLLOWING JUNCTION NODES ARE FIXED FOR THE EPS: 813 821

THIS SYSTEM HAS 34 PIPES WITH 19 JUNCTIONS , 5 LOOPS AND 11 FGNS

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = .00003

PERIOD NO. = 0 -- TIME FROM INITIATION OF EPS = .0000 HOURS

Kalu Ganga Water Supply Project
Transmission System - EPS Analysis
EPS for 2020 demand (Constant Q at G.R. - Varied Q at Tower)

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	12.00	102.67	48.00	536.12
804	13.50	93.41	35.00	572.85
808	22.60	91.96	24.00	666.47
809	10.10	91.90	25.00	656.09
811	91.00	66.91	40.00	263.91
813	2979.30	40.57	25.00	152.66
821	373.30	58.50	12.00	455.98
824	122.10	58.24	30.00	276.96
851	6.30	92.81	20.00	713.99
852	8.50	91.60	10.00	800.19

THE NET SYSTEM DEMAND = 3638.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3638.70

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3638.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	102.67	50.50		50.50
+					- - FULL	
2	804	.00	93.41	51.30		51.30
+					- - FULL	
3	808	.00	91.96	26.00		26.00
+					- - FULL	

4	809	.00	91.90	39.50		39.50
+					- - FULL	
5	811	.00	66.91	45.00		45.00
+					- - FULL	
6	813	.00	40.57	28.00		28.00
+					- - FULL	
7	821	.00	58.50	15.10		15.10
+					- - FULL	
8	824	.00	58.24	35.00		35.00
+					- - FULL	
9	851	.00	92.81	40.00		40.00
+					- - FULL	
10	852	.00	91.60	30.00		30.00
+					- - FULL	

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 1 -- TIME FROM INITIATION OF EPS = 1.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	12.00	102.67	48.00	536.12
804	13.50	93.41	35.00	572.85
808	22.60	91.96	24.00	666.47
809	10.10	91.90	25.00	656.09
811	91.00	66.91	40.00	263.91
813	2979.30	40.57	25.00	152.66
821	373.30	58.50	12.00	455.98
824	122.10	58.24	30.00	276.96
851	6.30	92.81	20.00	713.99
852	8.50	91.60	10.00	800.19

THE NET SYSTEM DEMAND = 3638.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3638.70

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3638.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	102.67	50.50		50.50
+					- - FULL	
2	804	.00	93.41	51.30		51.30
+					- - FULL	
3	808	.00	91.96	26.00		26.00
+					- - FULL	
4	809	.00	91.90	39.50		39.50
+					- - FULL	
5	811	.00	66.91	45.00		45.00
+					- - FULL	
6	813	.00	40.57	28.00		28.00
+					- - FULL	
7	821	.00	58.50	15.10		15.10
+					- - FULL	
8	824	.00	58.24	35.00		35.00
+					- - FULL	
9	851	.00	92.81	40.00		40.00
+					- - FULL	

```
    10       852              .00      91.60          30.00                    30.00
+                                                                - - FULL

 THE RESULTS ARE OBTAINED AFTER  1 TRIALS WITH AN ACCURACY =  .00000

 PERIOD NO. =  2 -- TIME FROM INITIATION OF EPS =   2.0000 HOURS

  JUNCTION NUMBER      DEMAND     GRADE LINE    ELEVATION    PRESSURE
        800               .00       105.00       100.00       49.02
        801             12.00       102.67        48.00      536.12
        804             13.50        93.41        35.00      572.85
        808             22.60        91.96        24.00      666.47
        809             10.10        91.90        25.00      656.09
        811             91.00        66.91        40.00      263.91
        813           2979.30        40.57        25.00      152.66
        821            373.30        58.50        12.00      455.98
        824            122.10        58.24        30.00      276.96
        851              6.30        92.81        20.00      713.99
        852              8.50        91.60        10.00      800.19

 THE NET SYSTEM DEMAND =   3638.70

 SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

    PIPE NUMBER     FLOWRATE
       800         3638.70

 THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES =   3638.70
 THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES =       .00

 TANK STATUS REPORT

 TANK NO.  CONN. PIPE  NET FLOW   ADJ. HGL  WATER SURFACE ELE. PROJECTED W.S.E
     1       801            .00     102.67          50.50                50.50
+                                                                - - FULL
     2       804            .00      93.41          51.30                51.30
+                                                                - - FULL
     3       808            .00      91.96          26.00                26.00
+                                                                - - FULL
     4       809            .00      91.90          39.50                39.50
+                                                                - - FULL
     5       811            .00      66.91          45.00                45.00
+                                                                - - FULL
     6       813            .00      40.57          28.00                28.00
+                                                                - - FULL
     7       821            .00      58.50          15.10                15.10
+                                                                - - FULL
     8       824            .00      58.24          35.00                35.00
+                                                                - - FULL
     9       851            .00      92.81          40.00                40.00
+                                                                - - FULL
    10       852            .00      91.60          30.00                30.00
+                                                                - - FULL

 THE RESULTS ARE OBTAINED AFTER  1 TRIALS WITH AN ACCURACY =  .00000

 PERIOD NO. =  3 -- TIME FROM INITIATION OF EPS =   3.0000 HOURS

  JUNCTION NUMBER      DEMAND     GRADE LINE    ELEVATION    PRESSURE
        800               .00       105.00       100.00       49.02
        801             12.00       102.67        48.00      536.12
        804             13.50        93.41        35.00      572.85
```

808	22.60	91.96	24.00	666.47
809	10.10	91.90	25.00	656.09
811	91.00	66.91	40.00	263.91
813	2979.30	40.57	25.00	152.66
821	373.30	58.50	12.00	455.98
824	122.10	58.24	30.00	276.96
851	6.30	92.81	20.00	713.99
852	8.50	91.60	10.00	800.19

THE NET SYSTEM DEMAND = 3638.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3638.70

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3638.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	102.67	50.50		50.50
+					- - FULL	
2	804	.00	93.41	51.30		51.30
+					- - FULL	
3	808	.00	91.96	26.00		26.00
+					- - FULL	
4	809	.00	91.90	39.50		39.50
+					- - FULL	
5	811	.00	66.91	45.00		45.00
+					- - FULL	
6	813	.00	40.57	28.00		28.00
+					- - FULL	
7	821	.00	58.50	15.10		15.10
+					- - FULL	
8	824	.00	58.24	35.00		35.00
+					- - FULL	
9	851	.00	92.81	40.00		40.00
+					- - FULL	
10	852	.00	91.60	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 4 -- TIME FROM INITIATION OF EPS = 4.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	17.40
804	19.60
808	37.60
809	16.80
811	105.40
824	152.70
851	10.60
852	14.10

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 4 -- TIME FROM INITIATION OF EPS = 4.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	17.40	100.36	48.00	513.49
804	19.60	90.81	35.00	547.28
808	37.60	86.94	24.00	617.22
809	16.80	86.79	25.00	605.96
811	105.40	65.82	40.00	253.17
813	2979.30	39.44	25.00	141.60
821	373.30	56.68	12.00	438.19
824	152.70	56.29	30.00	257.81
851	10.60	89.10	20.00	677.68
852	14.10	86.01	10.00	745.42

THE NET SYSTEM DEMAND = 3726.80

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3726.80

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3726.80
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	100.36	50.50		50.50
+					- - FULL	
2	804	.00	90.81	51.30		51.30
+					- - FULL	
3	808	.00	86.94	26.00		26.00
+					- - FULL	
4	809	.00	86.79	39.50		39.50
+					- - FULL	
5	811	.00	65.82	45.00		45.00
+					- - FULL	
6	813	.00	39.44	28.00		28.00
+					- - FULL	
7	821	.00	56.68	15.10		15.10
+					- - FULL	
8	824	.00	56.29	35.00		35.00
+					- - FULL	
9	851	.00	89.10	40.00		40.00
+					- - FULL	
10	852	.00	86.01	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 5 -- TIME FROM INITIATION OF EPS = 5.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	27.80
804	31.40
808	60.20
809	26.80
811	168.60
824	244.20
851	16.90
852	22.60

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 5 -- TIME FROM INITIATION OF EPS = 5.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	27.80	93.95	48.00	450.67
804	31.40	84.43	35.00	484.76
808	60.20	75.20	24.00	502.10
809	26.80	74.86	25.00	488.93
811	168.60	62.30	40.00	218.67
813	2979.30	35.85	25.00	106.40
821	373.30	50.84	12.00	380.85
824	244.20	49.88	30.00	194.94
851	16.90	80.37	20.00	592.07
852	22.60	72.98	10.00	617.60

THE NET SYSTEM DEMAND = 3951.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3951.10

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3951.10
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	93.95	50.50		50.50
+					- - FULL	
2	804	.00	84.43	51.30		51.30
+					- - FULL	
3	808	.00	75.20	26.00		26.00
+					- - FULL	
4	809	.00	74.86	39.50		39.50
+					- - FULL	
5	811	.00	62.30	45.00		45.00
+					- - FULL	
6	813	.00	35.85	28.00		28.00
+					- - FULL	
7	821	.00	50.84	15.10		15.10
+					- - FULL	
8	824	.00	49.88	35.00		35.00
+					- - FULL	
9	851	.00	80.37	40.00		40.00
+					- - FULL	
10	852	.00	72.98	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 6 -- TIME FROM INITIATION OF EPS = 6.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	45.20
804	51.00
808	90.20
809	40.20
811	295.10
824	366.40
851	27.40

852 36.70

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 6 -- TIME FROM INITIATION OF EPS = 6.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	45.20	77.83	48.00	292.54
804	51.00	70.93	35.00	352.32
808	90.20	50.99	24.00	264.72
809	40.20	50.26	25.00	247.72
811	295.10	56.32	40.00	160.01
813	2979.30	29.87	25.00	47.73
821	373.30	41.36	12.00	287.96
824	366.40	39.32	30.00	91.38
851	27.40	62.10	20.00	412.88
852	36.70	45.12	10.00	344.38

THE NET SYSTEM DEMAND = 4304.80

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4304.80

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4304.80
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	77.83	50.50		50.50
+					- - FULL	
2	804	.00	70.93	51.30		51.30
+					- - FULL	
3	808	.00	50.99	26.00		26.00
+					- - FULL	
4	809	.00	50.26	39.50		39.50
+					- - FULL	
5	811	.00	56.32	45.00		45.00
+					- - FULL	
6	813	.00	29.87	28.00		28.00
+					- - FULL	
7	821	.00	41.36	15.10		15.10
+					- - FULL	
8	824	.00	39.32	35.00		35.00
+					- - FULL	
9	851	.00	62.10	40.00		40.00
+					- - FULL	
10	852	.00	45.12	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 7 -- TIME FROM INITIATION OF EPS = 7.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	69.60
804	78.40

808	142.90
809	63.70
811	379.40
824	488.50
851	42.20
852	56.40

THE RESULTS ARE OBTAINED AFTER 6 TRIALS WITH AN ACCURACY = .00199

PERIOD NO. = 7 -- TIME FROM INITIATION OF EPS = 7.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	69.60	50.50	48.00	24.52
804	78.40	58.18	35.00	227.31
808	142.90	33.23	24.00	90.53
809	63.70	39.50	25.00	142.20
811	379.40	53.76	40.00	134.93
813	2979.30	28.00	25.00	29.42
821	373.30	37.54	12.00	250.45
824	488.50	35.00	30.00	49.03
851	42.20	48.31	20.00	277.66
852	56.40	30.00	10.00	196.13

THE NET SYSTEM DEMAND = 4673.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4475.27
801	3.78
809	64.22
813	36.78
824	77.13
852	16.52

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4673.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	-3.78	50.50	50.50		50.46
+					- - FULL	
2	804	.00	58.18	51.30		51.30
+					- - FULL	
3	808	.00	33.23	26.00		26.00
+					- - FULL	
4	809	-64.22	39.50	39.50		38.08
+					- - FULL	
5	811	.00	53.76	45.00		45.00
+					- - FULL	
6	813	-36.78	28.00	28.00		27.98
+					- - FULL	
7	821	.00	37.54	15.10		15.10
+					- - FULL	
8	824	-77.13	35.00	35.00		34.31
+					- - FULL	
9	851	.00	48.31	40.00		40.00
+					- - FULL	
10	852	-16.52	30.00	30.00		28.82
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 8 -- TIME FROM INITIATION OF EPS = 8.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	45.20
804	51.00
808	90.20
809	40.20
811	316.20
824	264.60
851	27.40
852	36.70

THE RESULTS ARE OBTAINED AFTER 3 TRIALS WITH AN ACCURACY = .00047

PERIOD NO. = 8 -- TIME FROM INITIATION OF EPS = 8.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	45.20	50.46	48.00	24.10
804	51.00	66.66	35.00	310.49
808	90.20	41.07	24.00	167.43
809	40.20	38.08	25.00	128.28
811	316.20	54.34	40.00	140.59
813	2979.30	27.98	25.00	29.18
821	373.30	37.13	12.00	246.44
824	264.60	34.31	30.00	42.25
851	27.40	55.07	20.00	343.94
852	36.70	28.82	10.00	184.53

THE NET SYSTEM DEMAND = 4224.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4432.01
801	-20.65
809	-12.91
813	9.39
824	-170.78
852	-12.96

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4441.41
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -217.31

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.	PROJECTED W.S.E
1	801	20.65	50.46	50.46	50.50
2	804	.00	66.66	51.30	51.30
+				- - FULL	
3	808	.00	41.07	26.00	26.00
+				- - FULL	
4	809	12.91	38.08	38.08	38.13
5	811	.00	54.34	45.00	45.00
+				- - FULL	
6	813	-9.39	27.98	27.98	27.97
7	821	.00	37.13	15.10	15.10
+				- - FULL	
8	824	170.78	34.31	34.31	34.59
9	851	.00	55.07	40.00	40.00
+				- - FULL	

10	852	12.96	28.82	28.82	28.99

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00133

PERIOD NO. = 8 -- TIME FROM INITIATION OF EPS = 8.1828 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	45.20	50.50	48.00	24.53
804	51.00	66.69	35.00	310.81
808	90.20	41.14	24.00	168.07
809	40.20	38.13	25.00	128.79
811	316.20	54.38	40.00	141.02
813	2979.30	27.97	25.00	29.17
821	373.30	37.35	12.00	248.58
824	264.60	34.59	30.00	45.00
851	27.40	55.12	20.00	344.42
852	36.70	28.99	10.00	186.19

THE NET SYSTEM DEMAND = 4224.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4429.92
801	-20.62
809	-12.96
813	6.15
824	-165.62
852	-12.77

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4436.07
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -211.97

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	20.62	50.50	50.50		50.50
2	804	.00	66.69	51.30		51.30
+					- - FULL	
3	808	.00	41.14	26.00		26.00
+					- - FULL	
4	809	12.96	38.13	38.13		38.37
5	811	.00	54.38	45.00		45.00
+					- - FULL	
6	813	-6.15	27.97	27.97		27.97
7	821	.00	37.35	15.10		15.10
+					- - FULL	
8	824	165.62	34.59	34.59		35.00
9	851	.00	55.12	40.00		40.00
+					- - FULL	
10	852	12.77	28.99	28.99		29.73

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 9 -- TIME FROM INITIATION OF EPS = 9.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	34.80
804	39.20
808	75.20

809	33.50
811	210.80
824	305.30
851	21.10
852	28.20

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00058

PERIOD NO. = 9 -- TIME FROM INITIATION OF EPS = 9.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	34.80	88.26	48.00	394.80
804	39.20	70.66	35.00	349.73
808	75.20	44.97	24.00	205.64
809	33.50	38.37	25.00	131.08
811	210.80	56.66	40.00	163.35
813	2979.30	27.97	25.00	29.14
821	373.30	43.28	12.00	306.79
824	305.30	41.83	30.00	116.00
851	21.10	58.84	20.00	380.94
852	28.20	29.73	10.00	193.52

THE NET SYSTEM DEMAND = 4100.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4291.89
809	-32.82
813	-133.02
852	-25.35

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4291.89
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -191.19

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	88.26	50.50		50.50
+					- - FULL	
2	804	.00	70.66	51.30		51.30
+					- - FULL	
3	808	.00	44.97	26.00		26.00
+					- - FULL	
4	809	32.82	38.37	38.37		38.47
5	811	.00	56.66	45.00		45.00
+					- - FULL	
6	813	133.02	27.97	27.97		27.98
7	821	.00	43.28	15.10		15.10
+					- - FULL	
8	824	.00	41.83	35.00		35.00
+					- - FULL	
9	851	.00	58.84	40.00		40.00
+					- - FULL	
10	852	25.35	29.73	29.73		30.00

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00016

PERIOD NO. = 9 -- TIME FROM INITIATION OF EPS = 9.1466 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	34.80	88.26	48.00	394.80
804	39.20	70.70	35.00	350.14
808	75.20	45.07	24.00	206.68
809	33.50	38.47	25.00	132.13
811	210.80	56.66	40.00	163.43
813	2979.30	27.98	25.00	29.26
821	373.30	43.29	12.00	306.87
824	305.30	41.84	30.00	116.08
851	21.10	58.92	20.00	381.65
852	28.20	30.00	10.00	196.13

THE NET SYSTEM DEMAND = 4100.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4291.32
809	-32.82
813	-132.73
852	-25.08

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4291.32
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -190.62

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	88.26	50.50		50.50
+					- - FULL	
2	804	.00	70.70	51.30		51.30
+					- - FULL	
3	808	.00	45.07	26.00		26.00
+					- - FULL	
4	809	32.82	38.47	38.47		39.09
5	811	.00	56.66	45.00		45.00
+					- - FULL	
6	813	132.73	27.98	27.98		28.00
7	821	.00	43.29	15.10		15.10
+					- - FULL	
8	824	.00	41.84	35.00		35.00
+					- - FULL	
9	851	.00	58.92	40.00		40.00
+					- - FULL	
10	852	25.08	30.00	30.00		30.00

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 10 -- TIME FROM INITIATION OF EPS = 10.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	27.80
804	31.40
808	60.20
809	26.80
811	168.60
824	244.20
851	16.90
852	22.60

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00082

PERIOD NO. = 10 -- TIME FROM INITIATION OF EPS = 10.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	27.80	93.95	48.00	450.66
804	31.40	76.44	35.00	406.40
808	60.20	54.78	24.00	301.83
809	26.80	39.09	25.00	138.20
811	168.60	61.92	40.00	214.92
813	2979.30	35.47	25.00	102.64
821	373.30	50.45	12.00	377.09
824	244.20	49.50	30.00	191.18
851	16.90	66.39	20.00	454.91
852	22.60	52.55	10.00	417.32

THE NET SYSTEM DEMAND = 3951.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4020.69
809	-69.59

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4020.69
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -69.59

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	93.95	50.50		50.50
+					- - FULL	
2	804	.00	76.44	51.30		51.30
+					- - FULL	
3	808	.00	54.78	26.00		26.00
+					- - FULL	
4	809	69.59	39.09	39.09		39.50
5	811	.00	61.92	45.00		45.00
+					- - FULL	
6	813	.00	35.47	28.00		28.00
+					- - FULL	
7	821	.00	50.45	15.10		15.10
+					- - FULL	
8	824	.00	49.50	35.00		35.00
+					- - FULL	
9	851	.00	66.39	40.00		40.00
+					- - FULL	
10	852	.00	52.55	30.00		30.00
+					- - FULL	

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00019

PERIOD NO. = 10 -- TIME FROM INITIATION OF EPS = 10.2650 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	27.80	93.95	48.00	450.66
804	31.40	76.52	35.00	407.20
808	60.20	54.99	24.00	303.91
809	26.80	39.50	25.00	142.20
811	168.60	61.92	40.00	214.96
813	2979.30	35.47	25.00	102.68
821	373.30	50.46	12.00	377.13

824	244.20	49.50	30.00	191.22
851	16.90	66.53	20.00	456.33
852	22.60	52.77	10.00	419.41

THE NET SYSTEM DEMAND = 3951.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4020.06
809	-68.96

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4020.06
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -68.96

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	93.95	50.50		50.50
+					- - FULL	
2	804	.00	76.52	51.30		51.30
+					- - FULL	
3	808	.00	54.99	26.00		26.00
+					- - FULL	
4	809	68.96	39.50	39.50		39.50
5	811	.00	61.92	45.00		45.00
+					- - FULL	
6	813	.00	35.47	28.00		28.00
+					- - FULL	
7	821	.00	50.46	15.10		15.10
+					- - FULL	
8	824	.00	49.50	35.00		35.00
+					- - FULL	
9	851	.00	66.53	40.00		40.00
+					- - FULL	
10	852	.00	52.77	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 11 -- TIME FROM INITIATION OF EPS = 11.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	31.30
804	35.30
808	67.70
809	30.20
811	189.70
824	274.80
851	19.00
852	25.40

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 11 -- TIME FROM INITIATION OF EPS = 11.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	31.30	91.24	48.00	424.07
804	35.30	81.85	35.00	459.44
808	67.70	70.37	24.00	454.72
809	30.20	69.93	25.00	440.65

811	189.70	61.09	40.00	206.81
813	2979.30	34.62	25.00	94.33
821	373.30	48.78	12.00	360.71
824	274.80	47.59	30.00	172.47
851	19.00	76.80	20.00	557.04
852	25.40	67.61	10.00	564.96

THE NET SYSTEM DEMAND = 4026.00

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4026.00

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4026.00
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	91.24	50.50		50.50
+					- - FULL	
2	804	.00	81.85	51.30		51.30
+					- - FULL	
3	808	.00	70.37	26.00		26.00
+					- - FULL	
4	809	.00	69.93	39.50		39.50
+					- - FULL	
5	811	.00	61.09	45.00		45.00
+					- - FULL	
6	813	.00	34.62	28.00		28.00
+					- - FULL	
7	821	.00	48.78	15.10		15.10
+					- - FULL	
8	824	.00	47.59	35.00		35.00
+					- - FULL	
9	851	.00	76.80	40.00		40.00
+					- - FULL	
10	852	.00	67.61	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 12 -- TIME FROM INITIATION OF EPS = 12.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	48.70
804	54.90
808	101.50
809	45.20
811	274.00
824	412.20
851	29.50
852	39.50

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 12 -- TIME FROM INITIATION OF EPS = 12.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	48.70	73.81	48.00	253.07

804	54.90	66.70	35.00	310.92
808	101.50	42.19	24.00	178.42
809	45.20	41.29	25.00	159.73
811	274.00	55.66	40.00	153.56
813	2979.30	29.11	25.00	40.28
821	373.30	39.16	12.00	266.35
824	412.20	36.61	30.00	64.84
851	29.50	55.90	20.00	352.05
852	39.50	35.72	10.00	252.20

THE NET SYSTEM DEMAND = 4358.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4358.10

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4358.10
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.	PROJECTED W.S.E
1	801	.00	73.81	50.50	50.50
+				- - FULL	
2	804	.00	66.70	51.30	51.30
+				- - FULL	
3	808	.00	42.19	26.00	26.00
+				- - FULL	
4	809	.00	41.29	39.50	39.50
+				- - FULL	
5	811	.00	55.66	45.00	45.00
+				- - FULL	
6	813	.00	29.11	28.00	28.00
+				- - FULL	
7	821	.00	39.16	15.10	15.10
+				- - FULL	
8	824	.00	36.61	35.00	35.00
+				- - FULL	
9	851	.00	55.90	40.00	40.00
+				- - FULL	
10	852	.00	35.72	30.00	30.00
+				- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 13 -- TIME FROM INITIATION OF EPS = 13.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	45.20
804	51.00
808	97.80
809	43.60
811	253.00
824	396.90
851	27.40
852	36.70

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 13 -- TIME FROM INITIATION OF EPS = 13.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	45.20	77.83	48.00	292.54
804	51.00	69.42	35.00	337.57
808	97.80	46.74	24.00	223.01
809	43.60	45.89	25.00	204.83
811	253.00	56.57	40.00	162.54
813	2979.30	30.01	25.00	49.16
821	373.30	40.56	12.00	280.04
824	396.90	38.18	30.00	80.23
851	27.40	59.46	20.00	386.95
852	36.70	41.29	10.00	306.82

THE NET SYSTEM DEMAND = 4304.20

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4304.20

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4304.20
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	77.83	50.50		50.50
+					- - FULL	
2	804	.00	69.42	51.30		51.30
+					- - FULL	
3	808	.00	46.74	26.00		26.00
+					- - FULL	
4	809	.00	45.89	39.50		39.50
+					- - FULL	
5	811	.00	56.57	45.00		45.00
+					- - FULL	
6	813	.00	30.01	28.00		28.00
+					- - FULL	
7	821	.00	40.56	15.10		15.10
+					- - FULL	
8	824	.00	38.18	35.00		35.00
+					- - FULL	
9	851	.00	59.46	40.00		40.00
+					- - FULL	
10	852	.00	41.29	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 14 -- TIME FROM INITIATION OF EPS = 14.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	31.30
804	35.30
808	30.20
809	25.40
811	168.60
824	274.80
851	19.00
852	25.40

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 14 -- TIME FROM INITIATION OF EPS = 14.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	31.30	91.24	48.00	424.07
804	35.30	86.07	35.00	500.85
808	30.20	81.56	24.00	564.46
809	25.40	80.47	25.00	543.99
811	168.60	61.79	40.00	213.65
813	2979.30	35.29	25.00	100.94
821	373.30	49.46	12.00	367.32
824	274.80	48.26	30.00	179.08
851	19.00	83.88	20.00	626.48
852	25.40	77.61	10.00	662.99

THE NET SYSTEM DEMAND = 3962.60

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3962.60

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3962.60
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	91.24	50.50		50.50
+					- - FULL	
2	804	.00	86.07	51.30		51.30
+					- - FULL	
3	808	.00	81.56	26.00		26.00
+					- - FULL	
4	809	.00	80.47	39.50		39.50
+					- - FULL	
5	811	.00	61.79	45.00		45.00
+					- - FULL	
6	813	.00	35.29	28.00		28.00
+					- - FULL	
7	821	.00	49.46	15.10		15.10
+					- - FULL	
8	824	.00	48.26	35.00		35.00
+					- - FULL	
9	851	.00	83.88	40.00		40.00
+					- - FULL	
10	852	.00	77.61	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 15 -- TIME FROM INITIATION OF EPS = 15.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	31.30
804	35.30
808	67.70
809	30.20
811	147.60
824	274.80
851	19.00

```
      852                25.40

THE RESULTS ARE OBTAINED AFTER  2 TRIALS WITH AN ACCURACY =  .00000

PERIOD NO. = 15 -- TIME FROM INITIATION OF EPS =  15.0000 HOURS

 JUNCTION NUMBER      DEMAND     GRADE LINE    ELEVATION    PRESSURE
      800                .00       105.00       100.00       49.02
      801              31.30        91.24        48.00      424.07
      804              35.30        82.08        35.00      461.72
      808              67.70        70.60        24.00      456.99
      809              30.20        70.17        25.00      442.93
      811             147.60        62.01        40.00      215.87
      813            2979.30        35.50        25.00      102.96
      821             373.30        49.66        12.00      369.33
      824             274.80        48.47        30.00      181.09
      851              19.00        77.03        20.00      559.32
      852              25.40        67.84        10.00      567.24

THE NET SYSTEM DEMAND =   3983.90

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

   PIPE NUMBER     FLOWRATE
      800          3983.90

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES =   3983.90
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES =       .00

TANK STATUS REPORT

 TANK NO.  CONN. PIPE  NET FLOW   ADJ. HGL  WATER SURFACE ELE. PROJECTED W.S.E
     1        801          .00     91.24        50.50                50.50
+                                                      - - FULL
     2        804          .00     82.08        51.30                51.30
+                                                      - - FULL
     3        808          .00     70.60        26.00                26.00
+                                                      - - FULL
     4        809          .00     70.17        39.50                39.50
+                                                      - - FULL
     5        811          .00     62.01        45.00                45.00
+                                                      - - FULL
     6        813          .00     35.50        28.00                28.00
+                                                      - - FULL
     7        821          .00     49.66        15.10                15.10
+                                                      - - FULL
     8        824          .00     48.47        35.00                35.00
+                                                      - - FULL
     9        851          .00     77.03        40.00                40.00
+                                                      - - FULL
    10        852          .00     67.84        30.00                30.00
+                                                      - - FULL

THE RESULTS ARE OBTAINED AFTER  1 TRIALS WITH AN ACCURACY =  .00000

PERIOD NO. = 16 -- TIME FROM INITIATION OF EPS =  16.0000 HOURS

 JUNCTION NUMBER      DEMAND     GRADE LINE    ELEVATION    PRESSURE
      800                .00       105.00       100.00       49.02
      801              31.30        91.24        48.00      424.07
      804              35.30        82.08        35.00      461.72
      808              67.70        70.60        24.00      456.99
      809              30.20        70.17        25.00      442.93
```

811	147.60	62.01	40.00	215.87
813	2979.30	35.50	25.00	102.96
821	373.30	49.66	12.00	369.33
824	274.80	48.47	30.00	181.09
851	19.00	77.03	20.00	559.32
852	25.40	67.84	10.00	567.24

THE NET SYSTEM DEMAND = 3983.90

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3983.90

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3983.90
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	91.24	50.50		50.50
+					- - FULL	
2	804	.00	82.08	51.30		51.30
+					- - FULL	
3	808	.00	70.60	26.00		26.00
+					- - FULL	
4	809	.00	70.17	39.50		39.50
+					- - FULL	
5	811	.00	62.01	45.00		45.00
+					- - FULL	
6	813	.00	35.50	28.00		28.00
+					- - FULL	
7	821	.00	49.66	15.10		15.10
+					- - FULL	
8	824	.00	48.47	35.00		35.00
+					- - FULL	
9	851	.00	77.03	40.00		40.00
+					- - FULL	
10	852	.00	67.84	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 17 -- TIME FROM INITIATION OF EPS = 17.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	31.30
804	35.30
808	67.70
809	30.20
811	189.70
824	290.00
851	19.00
852	25.40

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 17 -- TIME FROM INITIATION OF EPS = 17.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	31.30	91.24	48.00	424.07

804	35.30	81.77	35.00	458.61
808	67.70	70.28	24.00	453.89
809	30.20	69.85	25.00	439.82
811	189.70	60.77	40.00	203.67
813	2979.30	34.28	25.00	90.98
821	373.30	48.02	12.00	353.22
824	290.00	46.70	30.00	163.74
851	19.00	76.72	20.00	556.22
852	25.40	67.53	10.00	564.13

THE NET SYSTEM DEMAND = 4041.20

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4041.20

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4041.20
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	91.24	50.50		50.50
+					- - FULL	
2	804	.00	81.77	51.30		51.30
+					- - FULL	
3	808	.00	70.28	26.00		26.00
+					- - FULL	
4	809	.00	69.85	39.50		39.50
+					- - FULL	
5	811	.00	60.77	45.00		45.00
+					- - FULL	
6	813	.00	34.28	28.00		28.00
+					- - FULL	
7	821	.00	48.02	15.10		15.10
+					- - FULL	
8	824	.00	46.70	35.00		35.00
+					- - FULL	
9	851	.00	76.72	40.00		40.00
+					- - FULL	
10	852	.00	67.53	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 18 -- TIME FROM INITIATION OF EPS = 18.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	41.80
804	47.00
808	105.30
809	46.90
811	253.00
824	427.40
851	25.30
852	33.80

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 18 -- TIME FROM INITIATION OF EPS = 18.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	41.80	81.49	48.00	328.46
804	47.00	69.37	35.00	337.06
808	105.30	44.34	24.00	199.46
809	46.90	43.37	25.00	180.12
811	253.00	55.89	40.00	155.85
813	2979.30	29.29	25.00	42.03
821	373.30	38.84	12.00	263.24
824	427.40	36.12	30.00	59.98
851	25.30	58.53	20.00	377.83
852	33.80	40.53	10.00	299.42

THE NET SYSTEM DEMAND = 4333.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4333.10

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4333.10
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	81.49	50.50		50.50
+					- - FULL	
2	804	.00	69.37	51.30		51.30
+					- - FULL	
3	808	.00	44.34	26.00		26.00
+					- - FULL	
4	809	.00	43.37	39.50		39.50
+					- - FULL	
5	811	.00	55.89	45.00		45.00
+					- - FULL	
6	813	.00	29.29	28.00		28.00
+					- - FULL	
7	821	.00	38.84	15.10		15.10
+					- - FULL	
8	824	.00	36.12	35.00		35.00
+					- - FULL	
9	851	.00	58.53	40.00		40.00
+					- - FULL	
10	852	.00	40.53	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 19 -- TIME FROM INITIATION OF EPS = 19.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	45.20
804	51.00
808	109.00
809	48.60
811	316.20
824	458.00
851	27.40
852	36.70

THE RESULTS ARE OBTAINED AFTER 4 TRIALS WITH AN ACCURACY = .00012

PERIOD NO. = 19 -- TIME FROM INITIATION OF EPS = 19.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	45.20	77.83	48.00	292.54
804	51.00	66.78	35.00	311.61
808	109.00	40.21	24.00	158.98
809	48.60	39.50	25.00	142.20
811	316.20	54.46	40.00	141.80
813	2979.30	28.00	25.00	29.42
821	373.30	37.67	12.00	251.76
824	458.00	35.00	30.00	49.03
851	27.40	55.25	20.00	345.65
852	36.70	35.43	10.00	249.42

THE NET SYSTEM DEMAND = 4444.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4405.49
809	1.87
813	2.21
824	35.13

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4444.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	77.83	50.50		50.50
+					- - FULL	
2	804	.00	66.78	51.30		51.30
+					- - FULL	
3	808	.00	40.21	26.00		26.00
+					- - FULL	
4	809	-1.87	39.50	39.50		39.46
+					- - FULL	
5	811	.00	54.46	45.00		45.00
+					- - FULL	
6	813	-2.21	28.00	28.00		28.00
+					- - FULL	
7	821	.00	37.67	15.10		15.10
+					- - FULL	
8	824	-35.13	35.00	35.00		34.68
+					- - FULL	
9	851	.00	55.25	40.00		40.00
+					- - FULL	
10	852	.00	35.43	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 20 -- TIME FROM INITIATION OF EPS = 20.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	69.60
804	78.40
808	142.90
809	63.70

811	379.40
824	488.50
851	42.20
852	56.40

THE RESULTS ARE OBTAINED AFTER 4 TRIALS WITH AN ACCURACY = .00071

PERIOD NO. = 20 -- TIME FROM INITIATION OF EPS = 20.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	69.60	50.50	48.00	24.52
804	78.40	58.21	35.00	227.59
808	142.90	33.32	24.00	91.39
809	63.70	39.46	25.00	141.79
811	379.40	53.71	40.00	134.43
813	2979.30	28.00	25.00	29.41
821	373.30	37.29	12.00	248.03
824	488.50	34.68	30.00	45.94
851	42.20	48.37	20.00	278.24
852	56.40	30.00	10.00	196.13

THE NET SYSTEM DEMAND = 4673.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4477.39
801	3.57
809	63.53
813	40.38
824	71.20
852	17.47

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4673.55
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	-3.57	50.50	50.50		50.46
+					- - FULL	
2	804	.00	58.21	51.30		51.30
+					- - FULL	
3	808	.00	33.32	26.00		26.00
+					- - FULL	
4	809	-63.53	39.46	39.46		38.05
5	811	.00	53.71	45.00		45.00
+					- - FULL	
6	813	-40.38	28.00	28.00		27.97
7	821	.00	37.29	15.10		15.10
+					- - FULL	
8	824	-71.20	34.68	34.68		34.05
9	851	.00	48.37	40.00		40.00
+					- - FULL	
10	852	-17.47	30.00	30.00		28.75
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 21 -- TIME FROM INITIATION OF EPS = 21.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	45.20
804	51.00
808	97.80
809	43.60
811	316.20
824	427.40
851	27.40
852	36.70

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00480

PERIOD NO. = 21 -- TIME FROM INITIATION OF EPS = 21.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	45.20	50.46	48.00	24.13
804	51.00	66.16	35.00	305.57
808	97.80	39.41	24.00	151.15
809	43.60	38.05	25.00	128.02
811	316.20	54.29	40.00	140.10
813	2979.30	27.97	25.00	29.14
821	373.30	36.92	12.00	244.42
824	427.40	34.05	30.00	39.68
851	27.40	54.21	20.00	335.49
852	36.70	28.75	10.00	183.86

THE NET SYSTEM DEMAND = 4397.90

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4436.77
801	-20.62
809	-6.64
813	12.68
824	-12.62
852	-11.64

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4449.45
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -51.52

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	20.62	50.46	50.46		50.50
2	804	.00	66.16	51.30		51.30
+					- - FULL	
3	808	.00	39.41	26.00		26.00
+					- - FULL	
4	809	6.64	38.05	38.05		38.08
5	811	.00	54.29	45.00		45.00
+					- - FULL	
6	813	-12.68	27.97	27.97		27.97
7	821	.00	36.92	15.10		15.10
+					- - FULL	
8	824	12.62	34.05	34.05		34.07
9	851	.00	54.21	40.00		40.00
+					- - FULL	
10	852	11.64	28.75	28.75		28.89

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00049

PERIOD NO. = 21 -- TIME FROM INITIATION OF EPS = 21.1729 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.01
801	45.20	50.50	48.00	24.53
804	51.00	66.35	35.00	307.44
808	97.80	39.88	24.00	155.72
809	43.60	38.08	25.00	128.27
811	316.20	54.29	40.00	140.15
813	2979.30	27.97	25.00	29.13
821	373.30	36.94	12.00	244.57
824	427.40	34.07	30.00	39.87
851	27.40	54.54	20.00	338.69
852	36.70	28.89	10.00	185.27

THE NET SYSTEM DEMAND = 4397.90

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4435.45
801	-20.53
809	-5.44
813	12.23
824	-12.30
852	-11.41

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4447.68
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -49.69

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	20.53	50.50	50.50		50.50
2	804	.00	66.35	51.30		51.30
+					- - FULL	
3	808	.00	39.88	26.00		26.00
+					- - FULL	
4	809	5.44	38.08	38.08		38.18
5	811	.00	54.29	45.00		45.00
+					- - FULL	
6	813	-12.23	27.97	27.97		27.96
7	821	.00	36.94	15.10		15.10
+					- - FULL	
8	824	12.30	34.07	34.07		34.16
9	851	.00	54.54	40.00		40.00
+					- - FULL	
10	852	11.41	28.89	28.89		29.57

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 22 -- TIME FROM INITIATION OF EPS = 22.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	38.30
804	43.10
808	75.20
809	33.50
811	210.80
824	305.30
851	23.20
852	31.00

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00028

PERIOD NO. = 22 -- TIME FROM INITIATION OF EPS = 22.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	38.30	85.01	48.00	362.92
804	43.10	69.46	35.00	337.92
808	75.20	44.40	24.00	200.02
809	33.50	38.18	25.00	129.24
811	210.80	55.35	40.00	150.54
813	2979.30	27.96	25.00	29.06
821	373.30	37.22	12.00	247.32
824	305.30	34.16	30.00	40.77
851	23.20	57.88	20.00	371.46
852	31.00	29.57	10.00	191.90

THE NET SYSTEM DEMAND = 4113.00

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4357.27
809	-31.18
813	-41.58
824	-149.66
852	-21.86

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4357.27
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -244.27

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	85.01	50.50		50.50
+					- - FULL	
2	804	.00	69.46	51.30		51.30
+					- - FULL	
3	808	.00	44.40	26.00		26.00
+					- - FULL	
4	809	31.18	38.18	38.18		38.37
5	811	.00	55.35	45.00		45.00
+					- - FULL	
6	813	41.58	27.96	27.96		27.97
7	821	.00	37.22	15.10		15.10
+					- - FULL	
8	824	149.66	34.16	34.16		34.53
9	851	.00	57.88	40.00		40.00
+					- - FULL	
10	852	21.86	29.57	29.57		30.00

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00176

PERIOD NO. = 22 -- TIME FROM INITIATION OF EPS = 22.2754 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	38.30	85.01	48.00	362.92
804	43.10	69.54	35.00	338.72
808	75.20	44.58	24.00	201.83
809	33.50	38.37	25.00	131.10
811	210.80	55.41	40.00	151.15

813	2979.30	27.97	25.00	29.14
821	373.30	37.51	12.00	250.14
824	305.30	34.53	30.00	44.40
851	23.20	58.01	20.00	372.75
852	31.00	30.00	10.00	196.13

THE NET SYSTEM DEMAND = 4113.00

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4354.16
809	-31.15
813	-45.47
824	-143.10
852	-21.44

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4354.16
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -241.16

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	85.01	50.50		50.50
+					- - FULL	
2	804	.00	69.54	51.30		51.30
+					- - FULL	
3	808	.00	44.58	26.00		26.00
+					- - FULL	
4	809	31.15	38.37	38.37		38.87
5	811	.00	55.41	45.00		45.00
+					- - FULL	
6	813	45.47	27.97	27.97		27.99
7	821	.00	37.51	15.10		15.10
+					- - FULL	
8	824	143.10	34.53	34.53		35.00
9	851	.00	58.01	40.00		40.00
+					- - FULL	
10	852	21.44	30.00	30.00		30.00

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 23 -- TIME FROM INITIATION OF EPS = 23.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	27.80
804	31.40
808	60.20
809	26.80
811	168.60
824	244.20
851	16.90
852	22.60

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00122

PERIOD NO. = 23 -- TIME FROM INITIATION OF EPS = 23.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	27.80	93.95	48.00	450.66
804	31.40	75.50	35.00	397.18

808	60.20	54.12	24.00	295.39
809	26.80	38.87	25.00	136.00
811	168.60	57.73	40.00	173.85
813	2979.30	27.99	25.00	29.35
821	373.30	45.98	12.00	333.21
824	244.20	45.02	30.00	147.30
851	16.90	65.58	20.00	447.02
852	22.60	51.90	10.00	410.88

THE NET SYSTEM DEMAND = 3951.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4216.65
809	-68.26
813	-197.29

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4216.65
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -265.55

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	93.95	50.50		50.50
+					- - FULL	
2	804	.00	75.50	51.30		51.30
+					- - FULL	
3	808	.00	54.12	26.00		26.00
+					- - FULL	
4	809	68.26	38.87	38.87		38.95
5	811	.00	57.73	45.00		45.00
+					- - FULL	
6	813	197.29	27.99	27.99		28.00
7	821	.00	45.98	15.10		15.10
+					- - FULL	
8	824	.00	45.02	35.00		35.00
+					- - FULL	
9	851	.00	65.58	40.00		40.00
+					- - FULL	
10	852	.00	51.90	30.00		30.00
+					- - FULL	

THE RESULTS ARE OBTAINED AFTER 1 TRIALS WITH AN ACCURACY = .00009

PERIOD NO. = 23 -- TIME FROM INITIATION OF EPS = 23.0532 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	27.80	93.95	48.00	450.66
804	31.40	75.52	35.00	397.36
808	60.20	54.17	24.00	295.83
809	26.80	38.95	25.00	136.78
811	168.60	57.73	40.00	173.90
813	2979.30	28.00	25.00	29.42
821	373.30	45.98	12.00	333.26
824	244.20	45.03	30.00	147.35
851	16.90	65.61	20.00	447.32
852	22.60	51.94	10.00	411.32

THE NET SYSTEM DEMAND = 3951.10

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	4216.34
809	-68.11
813	-197.13

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 4216.34
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = -265.24

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	93.95	50.50		50.50
+					- - FULL	
2	804	.00	75.52	51.30		51.30
+					- - FULL	
3	808	.00	54.17	26.00		26.00
+					- - FULL	
4	809	68.11	38.95	38.95		39.50
5	811	.00	57.73	45.00		45.00
+					- - FULL	
6	813	197.13	28.00	28.00		28.00
7	821	.00	45.98	15.10		15.10
+					- - FULL	
8	824	.00	45.03	35.00		35.00
+					- - FULL	
9	851	.00	65.61	40.00		40.00
+					- - FULL	
10	852	.00	51.94	30.00		30.00
+					- - FULL	

A SUMMARY OF CONDITIONS SPECIFIED FOR THE NEXT SIMULATION FOLLOWS

PERIOD NO. = 24 -- TIME FROM INITIATION OF EPS = 24.0000 HOURS

THE FOLLOWING SPECIFIC DEMAND CHANGES ARE MADE :

JUNCTION NUMBER	DEMAND
801	17.40
804	19.60
808	52.60
809	23.50
811	147.60
824	213.70
851	10.60
852	14.10

THE RESULTS ARE OBTAINED AFTER 2 TRIALS WITH AN ACCURACY = .00000

PERIOD NO. = 24 -- TIME FROM INITIATION OF EPS = 24.0000 HOURS

JUNCTION NUMBER	DEMAND	GRADE LINE	ELEVATION	PRESSURE
800	.00	105.00	100.00	49.02
801	17.40	100.36	48.00	513.49
804	19.60	88.68	35.00	526.42
808	52.60	82.02	24.00	568.99
809	23.50	81.75	25.00	556.48
811	147.60	63.58	40.00	231.27
813	2979.30	37.16	25.00	119.20
821	373.30	52.93	12.00	401.37
824	213.70	52.18	30.00	217.54
851	10.60	85.84	20.00	645.66
852	14.10	81.54	10.00	701.58

THE NET SYSTEM DEMAND = 3851.70

SUMMARY OF INFLOWS(+) AND OUTFLOWS(-) FROM FIXED GRADE NODES

PIPE NUMBER	FLOWRATE
800	3851.70

THE NET FLOW INTO THE SYSTEM FROM FIXED GRADE NODES = 3851.70
THE NET FLOW OUT OF THE SYSTEM INTO FIXED GRADE NODES = .00

TANK STATUS REPORT

TANK NO.	CONN. PIPE	NET FLOW	ADJ. HGL	WATER SURFACE ELE.		PROJECTED W.S.E
1	801	.00	100.36	50.50		50.50
+					- - FULL	
2	804	.00	88.68	51.30		51.30
+					- - FULL	
3	808	.00	82.02	26.00		26.00
+					- - FULL	
4	809	.00	81.75	39.50		39.50
+					- - FULL	
5	811	.00	63.58	45.00		45.00
+					- - FULL	
6	813	.00	37.16	28.00		28.00
+					- - FULL	
7	821	.00	52.93	15.10		15.10
+					- - FULL	
8	824	.00	52.18	35.00		35.00
+					- - FULL	
9	851	.00	85.84	40.00		40.00
+					- - FULL	
10	852	.00	81.54	30.00		30.00
+					- - FULL	

CHAPTER 9

Ref. No. 9.4

Subject : **Distribution System**

Title : **Distribution Network Analysis**

Contents : **Distribution Network Analysis for 2010 Demand**
Distribution Network Analysis for 2020 Demand

T I T L E : Dehiwela High Zone (2010 demand)

NO. OF PIPES : 46
NO. OF NODES : 36
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	20.00	800	100
2	1	111	87.00	600	100
3	111	112	408.00	150	130
4	1	21	32.00	800	100
5	21	22	156.00	800	100
6	22	23	424.00	600	100
7	23	25	198.00	600	100
8	25	26	354.00	250	100
9	25	30	490.00	600	100
10	30	31	474.00	600	100
11	31	32	266.00	500	100
12	32	34	216.00	500	100
13	34	35	249.00	500	100
14	35	36	265.00	500	100
15	36	37	238.00	250	100
16	36	40	351.00	450	120
17	40	41	275.00	450	120
18	41	42	113.00	450	120
19	42	43	128.00	400	120
20	43	81	150.00	250	100
22	43	44	292.00	400	120
24	44	45	107.00	400	120
25	45	51	140.00	200	100
26	45	47	125.00	400	120
27	47	48	266.00	200	100
30	47	52	486.00	350	120
31	52	53	158.00	250	100
32	53	54	354.00	250	100
33	54	55	300.00	200	100
34	55	56	550.00	150	100
35	52	57	508.00	350	120
41	57	61	550.00	300	100
42	61	62	392.00	300	100
43	62	63	168.00	250	100
44	63	64	280.00	200	100
82	55	56	550.00	150	130
83	57	61	550.00	200	130
84	51	53	610.00	300	120
85	45	51	140.00	250	120
86	54	55	300.00	200	130
87	55	61	300.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
88	53	54	354.00	200	130
89	61	62	392.00	100	130
90	62	63	168.00	100	130
100	51	53	610.00	150	100
101	55	61	300.00	100	100

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	30.00
1	0.0	0.000	24.00
21	0.0	-6.350	24.00
22	0.0	0.000	20.00
23	0.0	-9.970	20.00
25	0.0	-9.970	22.50
26	0.0	-6.350	10.00
30	0.0	-3.810	8.00
31	0.0	-7.130	5.50
32	0.0	-4.690	10.00
34	0.0	-4.690	16.00
35	0.0	-7.820	15.00
36	0.0	-11.240	12.00
37	0.0	-9.090	12.00
40	0.0	-10.650	15.40
41	0.0	-10.650	16.00
42	0.0	-5.180	12.00
43	0.0	0.000	8.00
81	0.0	-3.810	12.00
111	0.0	-21.400	24.00
112	0.0	-5.080	20.50
44	0.0	-8.400	8.50
45	0.0	-6.350	7.50
47	0.0	-3.320	7.00
48	0.0	-3.620	8.50
51	0.0	-12.020	6.50
52	0.0	-5.960	7.00
53	0.0	-12.020	5.00
54	0.0	-5.960	5.00
55	0.0	-3.030	3.00
56	0.0	-6.840	5.00
57	0.0	-22.380	5.00
61	0.0	-13.190	3.00
62	0.0	-14.660	5.00
63	0.0	-7.820	5.00
64	0.0	-9.970	6.00

REFERENCE NODE	GRADE LINE
100	45.00

T I T L E : Dehiwela High Zone (2010 demand)
NO. OF PIPES : 46
NO. OF NODES : 36
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : 0

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	100	1	20.00	800	100	437.47	0.87	1.36	0.03
2	1	111	87.00	600	100	42.37	0.15LO	0.07	0.01
3	111	112	408.00	150	130	8.13	0.46	1.83	0.75
4	1	21	32.00	800	100	395.10	0.79	1.13	0.04
5	21	22	156.00	800	100	384.94	0.77	1.08	0.17
6	22	23	424.00	600	100	384.94	1.36	4.37	1.85
7	23	25	198.00	600	100	368.99	1.31	4.04	0.80
8	25	26	354.00	250	100	10.16	0.21LO	0.37	0.13
9	25	30	490.00	600	100	342.88	1.21	3.53	1.73
10	30	31	474.00	600	100	336.78	1.19	3.41	1.62
11	31	32	266.00	500	100	325.38	1.66	7.78	2.07
12	32	34	216.00	500	100	317.87	1.62	7.45	1.61
13	34	35	249.00	500	100	310.37	1.58	7.13	1.78
14	35	36	265.00	500	100	297.86	1.52	6.61	1.75
15	36	37	238.00	250	100	14.54	0.30LO	0.72	0.17
16	36	40	351.00	450	120	265.33	1.67	6.36	2.23
17	40	41	275.00	450	120	248.29	1.56	5.63	1.55
18	41	42	113.00	450	120	231.25	1.45	4.93	0.56
19	42	43	128.00	400	120	222.96	1.77	8.18	1.05
20	43	81	150.00	250	100	6.10	0.12LO	0.15	0.02
22	43	44	292.00	400	120	216.86	1.73	7.77	2.27
24	44	45	107.00	400	120	203.42	1.62	6.90	0.74
25	45	51	140.00	200	100	24.79	0.79	5.76	0.81
26	45	47	125.00	400	120	114.94	0.91	2.40	0.30
27	47	48	266.00	200	100	5.79	0.18LO	0.39	0.10
30	47	52	486.00	350	120	103.84	1.08	3.81	1.85
31	52	53	158.00	250	100	6.84	0.14LO	0.18	0.03
32	53	54	354.00	250	100	27.11	0.55	2.29	0.81
33	54	55	300.00	200	100	16.16	0.51	2.61	0.78
34	55	56	550.00	150	100	4.76	0.27LO	1.10	0.61
35	52	57	508.00	350	120	87.47	0.91	2.78	1.41
41	57	61	550.00	300	100	35.70	0.51	1.57	0.86
42	61	62	392.00	300	100	48.43	0.69	2.76	1.08
43	62	63	168.00	250	100	25.49	0.52	2.05	0.34
44	63	64	280.00	200	100	15.95	0.51	2.55	0.71
82	55	56	550.00	150	130	6.19	0.35	1.10	0.61
83	57	61	550.00	200	130	15.96	0.51	1.57	0.86
84	51	53	610.00	300	120	52.09	0.74	2.25	1.38
85	45	51	140.00	250	120	53.53	1.09	5.76	0.81
86	54	55	300.00	200	130	21.00	0.67	2.61	0.78
87	55	61	300.00	200	130	19.01	0.61	2.17	0.65

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
88	53	54	354.00	200	130	19.59	0.62	2.29	0.81
89	61	62	392.00	100	130	3.49	0.44	2.76	1.08
90	62	63	168.00	100	130	2.97	0.38	2.05	0.34
100	51	53	610.00	150	100	7.00	0.40	2.25	1.38
101	55	61	300.00	100	100	2.36	0.30	2.17	0.65

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	437.472	30.00	45.00	15.00
1	0.000	24.00	44.97	20.97
21	-10.160	24.00	44.94	20.94
22	0.000	20.00	44.77	24.77
23	-15.952	20.00	42.92	22.92
25	-15.952	22.50	42.12	19.62
26	-10.160	10.00	41.98	31.98
30	-6.096	8.00	40.39	32.39
31	-11.408	5.50	38.77	33.27
32	-7.504	10.00	36.70	26.70
34	-7.504	16.00	35.09	19.09
35	-12.512	15.00	33.31	18.31
36	-17.984	12.00	31.56	19.56
37	-14.544	12.00	31.39	19.39
40	-17.040	15.40	29.33	13.93
41	-17.040	16.00	27.78	11.78
42	-8.288	12.00	27.23	15.23
43	0.000	8.00	26.18	18.18
81	-6.096	12.00	26.16	14.16
111	-34.240	24.00	44.97	20.97
112	-8.128	20.50	44.22	23.72
44	-13.440	8.50	23.91	15.41
45	-10.160	7.50	23.17	15.67
47	-5.312	7.00	22.87	15.87
48	-5.792	8.50	22.77	14.27
51	-19.232	6.50	22.36	15.86
52	-9.536	7.00	21.02	14.02
53	-19.232	5.00	20.99	15.99
54	-9.536	5.00	20.18	15.18
55	-4.848	3.00	19.39	16.39
56	-10.944	5.00	18.79	13.79
57	-35.808	5.00	19.61	14.61
61	-21.104	3.00	18.74	15.74
62	-23.456	5.00	17.66	12.66
63	-12.512	5.00	17.32	12.32
64	-15.952	6.00	16.60	10.60

T I T L E : Dehiwela High Zone (2020 demand)

NO. OF PIPES : 46
NO. OF NODES : 36
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	20.00	800	100
2	1	111	87.00	600	100
3	111	112	408.00	150	130
4	1	21	32.00	800	100
5	21	22	156.00	800	100
6	22	23	424.00	600	100
7	23	25	198.00	600	100
8	25	26	354.00	250	100
9	25	30	490.00	600	100
10	30	31	474.00	600	100
11	31	32	266.00	500	100
12	32	34	216.00	500	100
13	34	35	249.00	500	100
14	35	36	265.00	500	100
15	36	37	238.00	250	100
16	36	40	351.00	450	120
17	40	41	275.00	450	120
18	41	42	113.00	450	120
19	42	43	128.00	400	120
20	43	81	150.00	250	100
22	43	44	292.00	400	120
24	44	45	107.00	400	120
25	45	51	140.00	200	100
26	45	47	125.00	400	120
27	47	48	266.00	200	100
30	47	52	486.00	350	120
31	52	53	158.00	250	100
32	53	54	354.00	250	100
33	54	55	300.00	200	100
34	55	56	550.00	150	100
35	52	57	508.00	350	120
41	57	61	550.00	300	100
42	61	62	392.00	300	100
43	62	63	168.00	250	100
44	63	64	280.00	200	100
82	55	56	550.00	150	130
83	57	61	550.00	200	130
84	51	53	610.00	300	120
85	45	51	140.00	250	120
86	54	55	300.00	200	130
87	55	61	300.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
88	53	54	354.00	200	130
89	61	62	392.00	100	130
90	62	63	168.00	100	130
100	51	53	610.00	150	100
101	55	61	300.00	100	100

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	30.00
1	0.0	0.000	24.00
21	0.0	-6.585	24.00
22	0.0	0.000	20.00
23	0.0	-10.339	20.00
25	0.0	-10.339	22.50
26	0.0	-6.585	10.00
30	0.0	-3.951	8.00
31	0.0	-7.394	5.50
32	0.0	-4.864	10.00
34	0.0	-4.864	16.00
35	0.0	-8.110	15.00
36	0.0	-11.656	12.00
37	0.0	-9.427	12.00
40	0.0	-11.045	15.40
41	0.0	-11.045	16.00
42	0.0	-5.372	12.00
43	0.0	0.000	8.00
81	0.0	-3.951	12.00
111	0.0	-22.192	24.00
112	0.0	-5.268	20.50
44	0.0	-8.711	8.50
45	0.0	-6.585	7.50
47	0.0	-3.443	7.00
48	0.0	-3.754	8.50
51	0.0	-12.465	6.50
52	0.0	-6.181	7.00
53	0.0	-12.465	5.00
54	0.0	-6.181	5.00
55	0.0	-3.143	3.00
56	0.0	-7.094	5.00
57	0.0	-23.209	5.00
61	0.0	-13.679	3.00
62	0.0	-15.203	5.00
63	0.0	-8.110	5.00
64	0.0	-10.339	6.00

REFERENCE NODE	GRADE LINE
100	45.00

T I T L E : Dehiwela High Zone (2020 demand)
NO. OF PIPES : 46
NO. OF NODES : 36
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : 0

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	100	1	20.00	800	100	453.68	0.90	1.46	0.03
2	1	111	87.00	600	100	43.94	0.16LO	0.08	0.01
3	111	112	408.00	150	130	8.43	0.48	1.96	0.80
4	1	21	32.00	800	100	409.74	0.82	1.21	0.04
5	21	22	156.00	800	100	399.21	0.79	1.15	0.18
6	22	23	424.00	600	100	399.21	1.41	4.67	1.98
7	23	25	198.00	600	100	382.66	1.35	4.32	0.86
8	25	26	354.00	250	100	10.54	0.21LO	0.40	0.14
9	25	30	490.00	600	100	355.59	1.26	3.77	1.85
10	30	31	474.00	600	100	349.26	1.24	3.65	1.73
11	31	32	266.00	500	100	337.43	1.72	8.32	2.21
12	32	34	216.00	500	100	329.65	1.68	7.97	1.72
13	34	35	249.00	500	100	321.87	1.64	7.63	1.90
14	35	36	265.00	500	100	308.89	1.57	7.07	1.87
15	36	37	238.00	250	100	15.08	0.31	0.78	0.18
16	36	40	351.00	450	120	275.16	1.73	6.80	2.39
17	40	41	275.00	450	120	257.49	1.62	6.02	1.65
18	41	42	113.00	450	120	239.82	1.51	5.28	0.60
19	42	43	128.00	400	120	231.22	1.84	8.75	1.12
20	43	81	150.00	250	100	6.32	0.13LO	0.16	0.02
22	43	44	292.00	400	120	224.90	1.79	8.31	2.43
24	44	45	107.00	400	120	210.96	1.68	7.39	0.79
25	45	51	140.00	200	100	25.71	0.82	6.16	0.86
26	45	47	125.00	400	120	119.20	0.95	2.57	0.32
27	47	48	266.00	200	100	6.01	0.19LO	0.42	0.11
30	47	52	486.00	350	120	107.69	1.12	4.08	1.98
31	52	53	158.00	250	100	7.09	0.14LO	0.19	0.03
32	53	54	354.00	250	100	28.11	0.57	2.45	0.87
33	54	55	300.00	200	100	16.76	0.53	2.79	0.84
34	55	56	550.00	150	100	4.94	0.28LO	1.18	0.65
35	52	57	508.00	350	120	90.71	0.94	2.97	1.51
41	57	61	550.00	300	100	37.02	0.52	1.68	0.92
42	61	62	392.00	300	100	50.22	0.71	2.95	1.16
43	62	63	168.00	250	100	26.44	0.54	2.19	0.37
44	63	64	280.00	200	100	16.54	0.53	2.73	0.76
82	55	56	550.00	150	130	6.42	0.36	1.18	0.65
83	57	61	550.00	200	130	16.55	0.53	1.68	0.92
84	51	53	610.00	300	120	54.02	0.76	2.41	1.47
85	45	51	140.00	250	120	55.51	1.13	6.16	0.86
86	54	55	300.00	200	130	21.78	0.69	2.79	0.84
87	55	61	300.00	200	130	19.71	0.63	2.32	0.70

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
88	53	54	354.00	200	130	20.31	0.65	2.45	0.87
89	61	62	392.00	100	130	3.62	0.46	2.95	1.16
90	62	63	168.00	100	130	3.08	0.39	2.19	0.37
100	51	53	610.00	150	100	7.26	0.41	2.41	1.47
101	55	61	300.00	100	100	2.45	0.31	2.32	0.70

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	453.678	30.00	45.00	15.00
1	0.000	24.00	44.97	20.97
21	-10.536	24.00	44.93	20.93
22	0.000	20.00	44.75	24.75
23	-16.542	20.00	42.77	22.77
25	-16.542	22.50	41.91	19.41
26	-10.536	10.00	41.77	31.77
30	-6.322	8.00	40.07	32.07
31	-11.830	5.50	38.34	32.84
32	-7.782	10.00	36.12	26.12
34	-7.782	16.00	34.40	18.40
35	-12.976	15.00	32.50	17.50
36	-18.650	12.00	30.63	18.63
37	-15.083	12.00	30.44	18.44
40	-17.672	15.40	28.24	12.84
41	-17.672	16.00	26.58	10.58
42	-8.595	12.00	25.99	13.99
43	0.000	8.00	24.87	16.87
81	-6.322	12.00	24.85	12.85
111	-35.507	24.00	44.96	20.96
112	-8.429	20.50	44.17	23.67
44	-13.938	8.50	22.44	13.94
45	-10.536	7.50	21.65	14.15
47	-5.509	7.00	21.33	14.33
48	-6.006	8.50	21.22	12.72
51	-19.944	6.50	20.79	14.29
52	-9.890	7.00	19.35	12.35
53	-19.944	5.00	19.32	14.32
54	-9.890	5.00	18.45	13.45
55	-5.029	3.00	17.61	14.61
56	-11.350	5.00	16.96	11.96
57	-37.134	5.00	17.84	12.84
61	-21.886	3.00	16.92	13.92
62	-24.325	5.00	15.76	10.76
63	-12.976	5.00	15.39	10.39
64	-16.542	6.00	14.63	8.63

T I T L E : Dehiwala Low Zone (2010 demand)

NO. OF PIPES : 42
NO. OF NODES : 35
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	11	30.00	800	100
2	11	12	408.00	350	100
3	12	13	176.00	250	100
4	12	14	410.00	250	100
5	14	15	182.00	200	100
6	16	15	190.00	250	100
7	116	16	125.00	200	100
8	116	17	238.00	200	100
9	15	18	266.00	200	100
10	18	130	260.00	250	100
11	130	131	474.00	200	130
12	12	116	485.00	350	120
13	11	24	910.00	700	120
14	24	127	430.00	600	120
15	127	28	162.00	600	120
16	28	133	415.00	600	120
17	133	33	290.00	150	130
18	133	38	412.00	600	120
19	38	80	858.00	600	120
20	80	46	506.00	500	120
36	57	58	678.00	200	120
37	58	59	358.00	150	120
38	58	59	358.00	200	120
39	59	60	390.00	150	120
40	59	60	390.00	150	120
45	24	70	183.00	250	120
46	70	71	985.00	250	120
47	71	72	963.00	250	120
48	72	73	290.00	200	130
49	73	74	420.00	200	130
50	74	76	626.00	200	130
51	77	76	218.00	150	130
52	79	77	378.00	150	130
53	80	79	280.00	100	130
54	80	79	280.00	200	130
55	46	49	186.00	450	120
56	49	157	1120.00	450	120
58	157	158	490.00	350	120
59	158	58	550.00	350	120
80	11	12	408.00	300	120
81	15	18	266.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
57	157	57	290.00	200	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	25.00
11	0.0	0.000	24.00
12	0.0	0.000	20.50
13	0.0	-31.080	6.00
14	0.0	-6.060	11.00
15	0.0	-13.390	6.00
16	0.0	-8.800	6.00
17	0.0	-23.450	6.00
18	0.0	-4.400	5.00
24	0.0	-13.970	4.50
28	0.0	-10.550	7.00
33	0.0	-4.010	5.00
38	0.0	-9.280	10.00
46	0.0	-3.710	5.50
49	0.0	-1.760	8.50
58	0.0	-23.450	6.00
59	0.0	-14.170	6.00
60	0.0	-9.380	7.00
70	0.0	0.000	3.00
71	0.0	-1.860	4.50
72	0.0	-6.650	10.00
73	0.0	-3.130	5.50
74	0.0	-8.700	8.00
76	0.0	-5.370	4.00
77	0.0	-7.920	3.00
79	0.0	-4.300	9.00
80	0.0	-3.320	4.00
116	0.0	-20.330	6.00
127	0.0	-8.800	4.50
130	0.0	-8.890	8.00
131	0.0	-12.020	6.00
133	0.0	-5.570	5.00
157	0.0	-13.580	5.00
158	0.0	-9.480	6.50
57	0.0	0.000	5.00

REFERENCE NODE	GRADE LINE
200	25.70

T I T L E : Dehiwala Low Zone (2010 demand)
NO. OF PIPES : 42
NO. OF NODES : 35
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : 0

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	11	30.00	800	100	475.81	0.95	1.59	0.05
2	11	12	408.00	350	100	114.17	1.19	6.37	2.60
3	12	13	176.00	250	100	49.73	1.01	7.04	1.24
4	12	14	410.00	250	100	44.68	0.91	5.78	2.37
5	14	15	182.00	200	100	34.99	1.11	10.90HI	1.98
6	16	15	190.00	250	100	26.93	0.55	2.27	0.43
7	116	16	125.00	200	100	41.01	1.31	14.62HI	1.83
8	116	17	238.00	200	100	37.52	1.19	12.40HI	2.95
9	15	18	266.00	200	100	17.61	0.56	3.06	0.81
10	18	130	260.00	250	100	33.46	0.68	3.38	0.88
11	130	131	474.00	200	130	19.23	0.61	2.22	1.05
12	12	116	485.00	350	120	111.06	1.15	4.32	2.09
13	11	24	910.00	700	120	270.34	0.70	0.77	0.70
14	24	127	430.00	600	120	213.78	0.76	1.05	0.45
15	127	28	162.00	600	120	199.70	0.71	0.93	0.15
16	28	133	415.00	600	120	182.82	0.65	0.79	0.33
17	133	33	290.00	150	130	6.42	0.36	1.18	0.34
18	133	38	412.00	600	120	167.49	0.59	0.67	0.28
19	38	80	858.00	600	120	152.65	0.54	0.56	0.48
20	80	46	506.00	500	120	120.85	0.62	0.89	0.45
36	57	58	678.00	200	120	16.21	0.52	1.87	1.27
37	58	59	358.00	150	120	12.03	0.68	4.38	1.57
38	58	59	358.00	200	120	25.65	0.82	4.38	1.57
39	59	60	390.00	150	120	7.50	0.42	1.83	0.71
40	59	60	390.00	150	120	7.50	0.42	1.83	0.71
45	24	70	183.00	250	120	34.20	0.70	2.52	0.46
46	70	71	985.00	250	120	34.20	0.70	2.52	2.48
47	71	72	963.00	250	120	31.23	0.64	2.13	2.05
48	72	73	290.00	200	130	20.59	0.66	2.51	0.73
49	73	74	420.00	200	130	15.58	0.50	1.50	0.63
50	74	76	626.00	200	130	1.66	0.05LO	0.02	0.01
51	77	76	218.00	150	130	6.93	0.39	1.36	0.30
52	79	77	378.00	150	130	19.61	1.11	9.33	3.52
53	80	79	280.00	100	130	3.68	0.47	3.04	0.85
54	80	79	280.00	200	130	22.81	0.73	3.04	0.85
55	46	49	186.00	450	120	114.91	0.72	1.35	0.25
56	49	157	1120.00	450	120	112.10	0.70	1.29	1.45
58	157	158	490.00	350	120	74.16	0.77	2.05	1.00
59	158	58	550.00	350	120	58.99	0.61	1.34	0.74
80	11	12	408.00	300	120	91.31	1.29	6.37	2.60
81	15	18	266.00	200	130	22.89	0.73	3.06	0.81

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
57	157	57	290.00	200	130	16.21	0.52	1.62	0.47

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	475.808	25.00	25.70	0.70
11	0.000	24.00	25.65	1.65
12	0.000	20.50	23.05	2.55
13	-49.728	6.00	21.81	15.81
14	-9.696	11.00	20.68	9.68
15	-21.424	6.00	18.70	12.70
16	-14.080	6.00	19.13	13.13
17	-37.520	6.00	18.01	12.01
18	-7.040	5.00	17.89	12.89
24	-22.352	4.50	24.96	20.46
28	-16.880	7.00	24.35	17.35
33	-6.416	5.00	23.68	18.68
38	-14.848	10.00	23.75	13.75
46	-5.936	5.50	22.82	17.32
49	-2.816	8.50	22.57	14.07
58	-37.520	6.00	19.38	13.38
59	-22.672	6.00	17.81	11.81
60	-15.008	7.00	17.10	10.10
70	0.000	3.00	24.50	21.50
71	-2.976	4.50	22.02	17.52
72	-10.640	10.00	19.97	9.97
73	-5.008	5.50	19.24	13.74
74	-13.920	8.00	18.61	10.61
76	-8.592	4.00	18.60	14.60
77	-12.672	3.00	18.89	15.89
79	-6.880	9.00	22.42	13.42
80	-5.312	4.00	23.27	19.27
116	-32.528	6.00	20.96	14.96
127	-14.080	4.50	24.50	20.00
130	-14.224	8.00	17.01	9.01
131	-19.232	6.00	15.96	9.96
133	-8.912	5.00	24.03	19.03
157	-21.728	5.00	21.12	16.12
158	-15.168	6.50	20.12	13.62
57	0.000	5.00	20.65	15.65

T I T L E : Dehiwala Low Zone (2020 demand)

NO. OF PIPES : 42
NO. OF NODES : 35
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	11	30.00	800	100
2	11	12	408.00	350	100
3	12	13	176.00	250	100
4	12	14	410.00	250	100
5	14	15	182.00	200	100
6	16	15	190.00	250	100
7	116	16	125.00	200	100
8	116	17	238.00	200	100
9	15	18	266.00	200	100
10	18	130	260.00	250	100
11	130	131	474.00	200	130
12	12	116	485.00	350	120
13	11	24	910.00	700	120
14	24	127	430.00	600	120
15	127	28	162.00	600	120
16	28	133	415.00	600	120
17	133	33	290.00	150	130
18	133	38	412.00	600	120
19	38	80	858.00	600	120
20	80	46	506.00	500	120
36	57	58	678.00	200	120
37	58	59	358.00	150	120
38	58	59	358.00	200	120
39	59	60	390.00	150	120
40	59	60	390.00	150	120
45	24	70	183.00	250	120
46	70	71	985.00	250	120
47	71	72	963.00	250	120
48	72	73	290.00	200	130
49	73	74	420.00	200	130
50	74	76	626.00	200	130
51	77	76	218.00	150	130
52	79	77	378.00	150	130
53	80	79	280.00	100	130
54	80	79	280.00	200	130
55	46	49	186.00	450	120
56	49	157	1120.00	450	120
58	157	158	490.00	350	120
59	158	58	550.00	350	120
80	11	12	408.00	300	120
81	15	18	266.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
57	157	57	290.00	200	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	25.00
11	0.0	0.000	24.00
12	0.0	0.000	20.50
13	0.0	-32.230	6.00
14	0.0	-6.285	11.00
15	0.0	-13.886	6.00
16	0.0	-9.126	6.00
17	0.0	-24.318	6.00
18	0.0	-4.563	5.00
24	0.0	-14.487	4.50
28	0.0	-10.941	7.00
33	0.0	-4.159	5.00
38	0.0	-9.624	10.00
46	0.0	-3.848	5.50
49	0.0	-1.826	8.50
58	0.0	-24.318	6.00
59	0.0	-14.695	6.00
60	0.0	-9.728	7.00
70	0.0	0.000	3.00
71	0.0	-1.929	4.50
72	0.0	-6.897	10.00
73	0.0	-3.246	5.50
74	0.0	-9.022	8.00
76	0.0	-5.569	4.00
77	0.0	-8.214	3.00
79	0.0	-4.460	9.00
80	0.0	-3.443	4.00
116	0.0	-21.083	6.00
127	0.0	-9.126	4.50
130	0.0	-9.219	8.00
131	0.0	-12.465	6.00
133	0.0	-5.777	5.00
157	0.0	-14.083	5.00
158	0.0	-9.831	6.50
57	0.0	0.000	5.00

REFERENCE NODE	GRADE LINE
200	25.70

T I T L E : Dehiwala Low Zone (2020 demand)
NO. OF PIPES : 42
NO. OF NODES : 35
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : 0

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	11	30.00	800	100	493.44	0.98	1.70	0.05
2	11	12	408.00	350	100	118.40	1.23	6.81	2.78
3	12	13	176.00	250	100	51.57	1.05	7.53	1.33
4	12	14	410.00	250	100	46.34	0.94	6.18	2.53
5	14	15	182.00	200	100	36.28	1.15	11.65HI	2.12
6	16	15	190.00	250	100	27.93	0.57	2.42	0.46
7	116	16	125.00	200	100	42.53	1.35	15.64HI	1.96
8	116	17	238.00	200	100	38.91	1.24	13.26HI	3.16
9	15	18	266.00	200	100	18.26	0.58	3.27	0.87
10	18	130	260.00	250	100	34.69	0.71	3.62	0.94
11	130	131	474.00	200	130	19.94	0.63	2.37	1.12
12	12	116	485.00	350	120	115.18	1.20	4.62	2.24
13	11	24	910.00	700	120	280.36	0.73	0.82	0.75
14	24	127	430.00	600	120	221.71	0.78	1.12	0.48
15	127	28	162.00	600	120	207.10	0.73	0.99	0.16
16	28	133	415.00	600	120	189.60	0.67	0.84	0.35
17	133	33	290.00	150	130	6.65	0.38	1.26	0.37
18	133	38	412.00	600	120	173.70	0.61	0.72	0.29
19	38	80	858.00	600	120	158.30	0.56	0.60	0.52
20	80	46	506.00	500	120	125.33	0.64	0.95	0.48
36	57	58	678.00	200	120	16.81	0.54	2.00	1.36
37	58	59	358.00	150	120	12.47	0.71	4.69	1.68
38	58	59	358.00	200	120	26.60	0.85	4.69	1.68
39	59	60	390.00	150	120	7.78	0.44	1.96	0.76
40	59	60	390.00	150	120	7.78	0.44	1.96	0.76
45	24	70	183.00	250	120	35.47	0.72	2.69	0.49
46	70	71	985.00	250	120	35.47	0.72	2.69	2.65
47	71	72	963.00	250	120	32.38	0.66	2.27	2.19
48	72	73	290.00	200	130	21.35	0.68	2.69	0.78
49	73	74	420.00	200	130	16.16	0.51	1.61	0.67
50	74	76	626.00	200	130	1.72	0.05LO	0.03	0.02
51	77	76	218.00	150	130	7.19	0.41	1.46	0.32
52	79	77	378.00	150	130	20.33	1.15	9.97	3.77
53	80	79	280.00	100	130	3.81	0.49	3.25	0.91
54	80	79	280.00	200	130	23.65	0.75	3.25	0.91
55	46	49	186.00	450	120	119.17	0.75	1.45	0.27
56	49	157	1120.00	450	120	116.25	0.73	1.38	1.55
58	157	158	490.00	350	120	76.90	0.80	2.19	1.07
59	158	58	550.00	350	120	61.17	0.64	1.43	0.79
80	11	12	408.00	300	120	94.69	1.34	6.81	2.78
81	15	18	266.00	200	130	23.74	0.76	3.27	0.87

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
57	157	57	290.00	200	130	16.81	0.54	1.73	0.50

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	493.437	25.00	25.70	0.70
11	0.000	24.00	25.65	1.65
12	0.000	20.50	22.87	2.37
13	-51.568	6.00	21.54	15.54
14	-10.056	11.00	20.34	9.34
15	-22.218	6.00	18.21	12.21
16	-14.602	6.00	18.67	12.67
17	-38.909	6.00	17.47	11.47
18	-7.301	5.00	17.34	12.34
24	-23.179	4.50	24.90	20.40
28	-17.506	7.00	24.26	17.26
33	-6.654	5.00	23.54	18.54
38	-15.398	10.00	23.62	13.62
46	-6.157	5.50	22.62	17.12
49	-2.922	8.50	22.35	13.85
58	-38.909	6.00	18.94	12.94
59	-23.512	6.00	17.26	11.26
60	-15.565	7.00	16.50	9.50
70	0.000	3.00	24.41	21.41
71	-3.086	4.50	21.76	17.26
72	-11.035	10.00	19.57	9.57
73	-5.194	5.50	18.79	13.29
74	-14.435	8.00	18.12	10.12
76	-8.910	4.00	18.10	14.10
77	-13.142	3.00	18.42	15.12
79	-7.136	9.00	22.19	13.19
80	-5.509	4.00	23.10	19.10
116	-33.733	6.00	20.63	14.63
127	-14.602	4.50	24.42	19.92
130	-14.750	8.00	16.40	8.40
131	-19.944	6.00	15.28	9.28
133	-9.243	5.00	23.91	18.91
157	-22.533	5.00	20.80	15.80
158	-15.730	6.50	19.73	13.23
57	0.000	5.00	20.30	15.30

T I T L E : Dehiwela North (G9 Tower, 2010 demand)

NO. OF PIPES : 58
NO. OF NODES : 38
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	201	10.00	500	100
2	201	202	120.00	450	100
3	202	203	220.00	250	100
4	203	204	500.00	250	100
5	204	205	200.00	100	100
6	204	206	290.00	150	100
7	201	207	190.00	250	100
8	207	203	320.00	150	100
9	207	208	210.00	200	100
10	208	209	310.00	150	100
11	209	210	420.00	150	100
12	210	211	270.00	150	100
13	211	212	450.00	150	100
14	212	213	410.00	100	100
15	202	214	310.00	450	100
16	214	215	280.00	350	100
17	215	209	520.00	100	100
18	215	216	110.00	350	100
19	216	217	520.00	200	100
20	210	217	320.00	110	100
21	217	218	410.00	200	100
22	218	211	280.00	150	100
23	216	219	280.00	300	100
24	219	220	330.00	250	100
25	220	236	380.00	100	100
26	236	223	590.00	100	100
27	223	213	330.00	100	100
28	220	221	130.00	200	100
29	221	222	330.00	150	100
30	222	223	360.00	150	100
31	219	224	210.00	200	100
32	224	225	190.00	150	100
33	225	221	640.00	150	100
34	203	226	360.00	80	100
35	226	227	330.00	80	100
36	227	229	690.00	100	100
37	214	228	320.00	300	100
38	228	229	360.00	250	100
39	228	230	220.00	150	100
40	230	231	660.00	150	100
41	232	231	430.00	100	100

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	229	232	690.00	250	100
43	232	233	160.00	250	100
44	233	234	660.00	150	100
45	233	235	320.00	250	100
46	230	237	220.00	150	100
47	237	225	410.00	80	100
80	203	226	360.00	250	120
81	227	229	690.00	150	130
82	220	236	380.00	200	130
83	236	223	590.00	150	130
84	208	209	310.00	200	130
85	209	210	420.00	150	130
86	226	227	330.00	200	130
87	228	229	360.00	200	130
88	228	230	220.00	200	130
89	229	232	690.00	150	130
90	202	203	220.00	150	130

NODE #	FIX F L O W	ELEVATION
200	0.0 0.000	21.00
201	0.0 0.000	21.00
202	0.0 -4.050	22.00
203	0.0 -6.980	24.00
204	0.0 -4.750	10.00
205	0.0 -4.400	12.00
206	0.0 -3.640	15.00
207	0.0 -3.250	18.00
208	0.0 -3.690	11.00
209	0.0 -4.840	20.00
210	0.0 -3.110	9.00
211	0.0 -2.490	5.00
212	0.0 -4.600	3.00
213	0.0 -4.870	7.00
214	0.0 -4.430	13.00
215	0.0 -6.220	18.00
216	0.0 -4.780	17.00
217	0.0 -5.860	17.00
218	0.0 -5.920	17.00
219	0.0 -4.660	10.00
220	0.0 -3.690	10.00
221	0.0 -4.690	12.00
222	0.0 -5.950	5.00
223	0.0 -6.860	13.00
224	0.0 -3.550	5.00
225	0.0 -2.580	3.50
226	0.0 -7.540	14.00

NODE #	FIX	F L O W	ELEVATION
227	0.0	-10.260	12.00
228	0.0	-7.510	13.00
229	0.0	-12.140	10.00
230	0.0	-5.860	12.00
231	0.0	-6.740	5.00
232	0.0	-7.510	22.00
233	0.0	-4.020	12.00
234	0.0	-6.100	10.00
235	0.0	-3.660	16.00
236	0.0	-6.270	15.00
237	0.0	-5.720	5.00

REFERENCE NODE	GRADE LINE
200	34.00

T I T L E : Dehiwela North (G9 Tower, 2010 demand)
NO. OF PIPES : 58
NO. OF NODES : 38
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .007

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	201	10.00	500	100	309.10	1.57	7.08	0.07
2	201	202	120.00	450	100	261.60	1.64	8.68	1.04
3	202	203	220.00	250	100	45.85	0.93	6.06	1.33
4	203	204	500.00	250	100	20.46	0.42	1.36	0.68
5	204	205	200.00	100	100	7.04	0.90	16.41HI	3.28
6	204	206	290.00	150	100	5.82	0.33	1.60	0.47
7	201	207	190.00	250	100	47.50	0.97	6.47	1.23
8	207	203	320.00	150	100	8.98	0.51	3.58	1.14
9	207	208	210.00	200	100	33.32	1.06	9.96	2.09
10	208	209	310.00	150	100	7.27	0.41	2.42	0.75
11	209	210	420.00	150	100	8.76	0.50	3.41	1.43
12	210	211	270.00	150	100	11.92	0.67	6.04	1.63
13	211	212	450.00	150	100	11.22	0.64	5.40	2.43
14	212	213	410.00	100	100	3.86	0.49	5.41	2.22
15	202	214	310.00	450	100	193.74	1.22	4.98	1.54
16	214	215	280.00	350	100	101.37	1.05	5.11	1.43
17	215	209	520.00	100	100	0.46	0.06LO	0.11	0.06
18	215	216	110.00	350	100	90.95	0.95	4.18	0.46
19	216	217	520.00	200	100	18.89	0.60	3.49	1.81
20	210	217	320.00	110	100	3.24	0.34	2.45	0.78
21	217	218	410.00	200	100	12.76	0.41	1.69	0.69
22	218	211	280.00	150	100	3.28	0.19LO	0.56	0.16
23	216	219	280.00	300	100	64.41	0.91	4.68	1.31
24	219	220	330.00	250	100	42.46	0.86	5.26	1.74
25	220	236	380.00	100	100	2.47	0.31	2.37	0.90
26	236	223	590.00	100	100	2.59	0.33	2.58	1.52
27	223	213	330.00	100	100	3.93	0.50	5.58	1.84
28	220	221	130.00	200	100	14.15	0.45	2.04	0.27
29	221	222	330.00	150	100	12.05	0.68	6.16	2.03
30	222	223	360.00	150	100	2.53	0.14LO	0.34	0.12
31	219	224	210.00	200	100	14.50	0.46	2.14	0.45
32	224	225	190.00	150	100	8.82	0.50	3.46	0.66
33	225	221	640.00	150	100	5.41	0.31	1.40	0.90
34	203	226	360.00	80	100	1.54	0.31	2.94	1.06
35	226	227	330.00	80	100	1.72	0.34	3.59	1.18
36	227	229	690.00	100	100	2.15	0.27LO	1.82	1.26
37	214	228	320.00	300	100	85.28	1.21	7.86	2.52
38	228	229	360.00	250	100	26.16	0.53	2.15	0.77
39	228	230	220.00	150	100	7.48	0.42	2.55	0.56
40	230	231	660.00	150	100	8.95	0.51	3.55	2.35
41	232	231	430.00	100	100	1.83	0.23LO	1.36	0.58

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
42	229	232	690.00	250	100	26.81	0.55	2.25	1.55
43	232	233	160.00	250	100	22.05	0.45	1.56	0.25
44	233	234	660.00	150	100	9.76	0.55	4.17	2.75
45	233	235	320.00	250	100	5.86	0.12LO	0.13	0.04
46	230	237	220.00	150	100	9.87	0.56	4.26	0.94
47	237	225	410.00	80	100	0.72	0.14LO	0.71	0.29
80	203	226	360.00	250	120	37.19	0.76	2.94	1.06
81	227	229	690.00	150	130	8.11	0.46	1.82	1.26
82	220	236	380.00	200	130	19.93	0.63	2.37	0.90
83	236	223	590.00	150	130	9.78	0.55	2.58	1.52
84	208	209	310.00	200	130	20.15	0.64	2.42	0.75
85	209	210	420.00	150	130	11.38	0.64	3.41	1.43
86	226	227	330.00	200	130	24.95	0.79	3.59	1.18
87	228	229	360.00	200	130	18.90	0.60	2.15	0.77
88	228	230	220.00	200	130	20.73	0.66	2.55	0.56
89	229	232	690.00	150	130	9.08	0.51	2.25	1.55
90	202	203	220.00	150	130	15.53	0.88	6.06	1.33

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	309.104	21.00	34.00	13.00
201	0.000	21.00	33.93	12.93
202	-6.480	22.00	32.89	10.89
203	-11.168	24.00	31.55	7.55
204	-7.600	10.00	30.87	20.87
205	-7.040	12.00	27.59	15.59
206	-5.824	15.00	30.41	15.41
207	-5.200	18.00	32.70	14.70
208	-5.904	11.00	30.61	19.61
209	-7.744	20.00	29.86	9.86
210	-4.976	9.00	28.43	19.43
211	-3.984	5.00	26.80	21.80
212	-7.360	3.00	24.37	21.37
213	-7.792	7.00	22.15	15.15
214	-7.088	13.00	31.34	18.34
215	-9.952	18.00	29.91	11.91
216	-7.648	17.00	29.45	12.45
217	-9.376	17.00	27.64	10.64
218	-9.472	17.00	26.95	9.95
219	-7.456	10.00	28.14	18.14
220	-5.904	10.00	26.41	16.41
221	-7.504	12.00	26.14	14.14
222	-9.520	5.00	24.11	19.11
223	-10.976	13.00	23.99	10.99
224	-5.680	5.00	27.69	22.69
225	-4.128	3.50	27.04	23.54

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
226	-12.064	14.00	30.50	16.50
227	-16.416	12.00	29.31	17.31
228	-12.016	13.00	28.83	15.83
229	-19.424	10.00	28.05	18.05
230	-9.376	12.00	28.27	16.27
231	-10.784	5.00	25.92	20.92
232	-12.016	22.00	26.50	4.50
233	-6.432	12.00	26.25	14.25
234	-9.760	10.00	23.50	13.50
235	-5.856	16.00	26.21	10.21
236	-10.032	15.00	25.51	10.51
237	-9.152	5.00	27.33	22.33

T I T L E : Dehiwela North (G9 Tower, 2020 demand)

NO. OF PIPES : 58
NO. OF NODES : 38
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	NODE FROM	NODE TO	LENGTH	DIA	HWC
1	200	201	10.00	500	100
2	201	202	120.00	450	100
3	202	203	220.00	250	100
4	203	204	500.00	250	100
5	204	205	200.00	100	100
6	204	206	290.00	150	100
7	201	207	190.00	250	100
8	207	203	320.00	150	100
9	207	208	210.00	200	100
10	208	209	310.00	150	100
11	209	210	420.00	150	100
12	210	211	270.00	150	100
13	211	212	450.00	150	100
14	212	213	410.00	100	100
15	202	214	310.00	450	100
16	214	215	280.00	350	100
17	215	209	520.00	100	100
18	215	216	110.00	350	100
19	216	217	520.00	200	100
20	210	217	320.00	110	100
21	217	218	410.00	200	100
22	218	211	280.00	150	100
23	216	219	280.00	300	100
24	219	220	330.00	250	100
25	220	236	380.00	100	100
26	236	223	590.00	100	100
27	223	213	330.00	100	100
28	220	221	130.00	200	100
29	221	222	330.00	150	100
30	222	223	360.00	150	100
31	219	224	210.00	200	100
32	224	225	190.00	150	100
33	225	221	640.00	150	100
34	203	226	360.00	80	100
35	226	227	330.00	80	100
36	227	229	690.00	100	100
37	214	228	320.00	300	100
38	228	229	360.00	250	100
39	228	230	220.00	150	100
40	230	231	660.00	150	100
41	232	231	430.00	100	100

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	229	232	690.00	250	100
43	232	233	160.00	250	100
44	233	234	660.00	150	100
45	233	235	320.00	250	100
46	230	237	220.00	150	100
47	237	225	410.00	80	100
80	203	226	360.00	250	120
81	227	229	690.00	150	130
82	220	236	380.00	200	130
83	236	223	590.00	150	130
84	208	209	310.00	200	130
85	209	210	420.00	150	130
86	226	227	330.00	200	130
87	228	229	360.00	200	130
88	228	230	220.00	200	130
89	229	232	690.00	150	130
90	202	203	220.00	150	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	21.00
201	0.0	0.000	21.00
202	0.0	-4.200	22.00
203	0.0	-7.239	24.00
204	0.0	-4.926	10.00
205	0.0	-4.563	12.00
206	0.0	-3.775	15.00
207	0.0	-3.371	18.00
208	0.0	-3.827	11.00
209	0.0	-5.020	20.00
210	0.0	-3.226	9.00
211	0.0	-2.583	5.00
212	0.0	-4.771	3.00
213	0.0	-5.051	7.00
214	0.0	-4.594	13.00
215	0.0	-6.451	18.00
216	0.0	-4.957	17.00
217	0.0	-6.077	17.00
218	0.0	-6.140	17.00
219	0.0	-4.833	10.00
220	0.0	-3.827	10.00
221	0.0	-4.864	12.00
222	0.0	-6.171	5.00
223	0.0	-7.114	13.00
224	0.0	-3.682	5.00
225	0.0	-2.676	3.50
226	0.0	-7.819	14.00

NODE #	FIX	F L O W	ELEVATION
227	0.0	-10.640	12.00
228	0.0	-7.788	13.00
229	0.0	-12.590	10.00
230	0.0	-6.077	12.00
231	0.0	-6.990	5.00
232	0.0	-7.788	22.00
233	0.0	-4.169	12.00
234	0.0	-6.326	10.00
235	0.0	-3.796	16.00
236	0.0	-6.502	15.00
237	0.0	-5.932	5.00

REFERENCE NODE	GRADE LINE
200	34.00

T I T L E : Dehiwela North (G9 Tower, 2020 demand)
NO. OF PIPES : 58
NO. OF NODES : 38
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .007

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	201	10.00	500	100	320.57	1.63	7.57	0.08
2	201	202	120.00	450	100	271.30	1.71	9.29	1.11
3	202	203	220.00	250	100	47.55	0.97	6.48	1.43
4	203	204	500.00	250	100	21.22	0.43	1.46	0.73
5	204	205	200.00	100	100	7.30	0.93	17.55HI	3.51
6	204	206	290.00	150	100	6.04	0.34	1.72	0.50
7	201	207	190.00	250	100	49.27	1.00	6.92	1.32
8	207	203	320.00	150	100	9.32	0.53	3.82	1.22
9	207	208	210.00	200	100	34.56	1.10	10.65HI	2.24
10	208	209	310.00	150	100	7.54	0.43	2.58	0.80
11	209	210	420.00	150	100	9.08	0.51	3.65	1.53
12	210	211	270.00	150	100	12.37	0.70	6.46	1.74
13	211	212	450.00	150	100	11.64	0.66	5.78	2.60
14	212	213	410.00	100	100	4.01	0.51	5.79	2.37
15	202	214	310.00	450	100	200.92	1.26	5.33	1.65
16	214	215	280.00	350	100	105.13	1.09	5.47	1.53
17	215	209	520.00	100	100	0.48	0.06LO	0.12	0.06
18	215	216	110.00	350	100	94.33	0.98	4.47	0.49
19	216	217	520.00	200	100	19.60	0.62	3.73	1.94
20	210	217	320.00	110	100	3.36	0.35	2.62	0.84
21	217	218	410.00	200	100	13.23	0.42	1.80	0.74
22	218	211	280.00	150	100	3.41	0.19LO	0.59	0.17
23	216	219	280.00	300	100	66.80	0.95	5.00	1.40
24	219	220	330.00	250	100	44.03	0.90	5.62	1.86
25	220	236	380.00	100	100	2.56	0.33	2.53	0.96
26	236	223	590.00	100	100	2.68	0.34	2.76	1.63
27	223	213	330.00	100	100	4.07	0.52	5.97	1.97
28	220	221	130.00	200	100	14.67	0.47	2.18	0.28
29	221	222	330.00	150	100	12.50	0.71	6.59	2.17
30	222	223	360.00	150	100	2.62	0.15LO	0.37	0.13
31	219	224	210.00	200	100	15.04	0.48	2.28	0.48
32	224	225	190.00	150	100	9.15	0.52	3.70	0.70
33	225	221	640.00	150	100	5.61	0.32	1.50	0.96
34	203	226	360.00	80	100	1.60	0.32	3.14	1.13
35	226	227	330.00	80	100	1.78	0.35	3.84	1.27
36	227	229	690.00	100	100	2.22	0.28LO	1.95	1.34
37	214	228	320.00	300	100	88.44	1.25	8.41	2.69
38	228	229	360.00	250	100	27.13	0.55	2.30	0.83
39	228	230	220.00	150	100	7.75	0.44	2.72	0.60
40	230	231	660.00	150	100	9.29	0.53	3.80	2.51
41	232	231	430.00	100	100	1.90	0.24LO	1.45	0.62

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
42	229	232	690.00	250	100	27.80	0.57	2.40	1.66
43	232	233	160.00	250	100	22.87	0.47	1.67	0.27
44	233	234	660.00	150	100	10.12	0.57	4.46	2.94
45	233	235	320.00	250	100	6.07	0.12LO	0.14	0.05
46	230	237	220.00	150	100	10.24	0.58	4.55	1.00
47	237	225	410.00	80	100	0.75	0.15LO	0.76	0.31
80	203	226	360.00	250	120	38.57	0.79	3.14	1.13
81	227	229	690.00	150	130	8.41	0.48	1.95	1.34
82	220	236	380.00	200	130	20.67	0.66	2.53	0.96
83	236	223	590.00	150	130	10.15	0.57	2.76	1.63
84	208	209	310.00	200	130	20.90	0.67	2.58	0.80
85	209	210	420.00	150	130	11.80	0.67	3.65	1.53
86	226	227	330.00	200	130	25.88	0.82	3.84	1.27
87	228	229	360.00	200	130	19.60	0.62	2.30	0.83
88	228	230	220.00	200	130	21.49	0.68	2.72	0.60
89	229	232	690.00	150	130	9.42	0.53	2.40	1.66
90	202	203	220.00	150	130	16.11	0.91	6.48	1.43

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	320.568	21.00	34.00	13.00
201	0.000	21.00	33.92	12.92
202	-6.720	22.00	32.81	10.81
203	-11.582	24.00	31.38	7.38
204	-7.882	10.00	30.65	20.65
205	-7.301	12.00	27.14	15.14
206	-6.040	15.00	30.16	15.16
207	-5.394	18.00	32.61	14.61
208	-6.123	11.00	30.37	19.37
209	-8.032	20.00	29.57	9.57
210	-5.162	9.00	28.04	19.04
211	-4.133	5.00	26.29	21.29
212	-7.634	3.00	23.69	20.69
213	-8.082	7.00	21.32	14.32
214	-7.350	13.00	31.16	18.16
215	-10.322	18.00	29.63	11.63
216	-7.931	17.00	29.14	12.14
217	-9.723	17.00	27.20	10.20
218	-9.824	17.00	26.46	9.46
219	-7.733	10.00	27.73	17.73
220	-6.123	10.00	25.88	15.88
221	-7.782	12.00	25.59	13.59
222	-9.874	5.00	23.42	18.42
223	-11.382	13.00	23.29	10.29
224	-5.891	5.00	27.25	22.25
225	-4.282	3.50	26.55	23.05

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
226	-12.510	14.00	30.25	16.25
227	-17.024	12.00	28.99	16.99
228	-12.461	13.00	28.47	15.47
229	-20.144	10.00	27.64	17.64
230	-9.723	12.00	27.87	15.87
231	-11.184	5.00	25.36	20.36
232	-12.461	22.00	25.98	3.98
233	-6.670	12.00	25.71	13.71
234	-10.122	10.00	22.77	12.77
235	-6.074	16.00	25.67	9.67
236	-10.403	15.00	24.92	9.92
237	-9.491	5.00	26.87	21.87

T I T L E : Moratuwa High Zone (2010 demand)

NO. OF PIPES : 46
NO. OF NODES : 41
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	20.00	600	100
2	1	2	152.00	450	100
3	2	3	452.00	200	100
4	3	4	582.00	200	100
5	4	5	130.00	150	100
6	3	6	680.00	150	100
7	1	7	90.00	350	100
8	7	8	250.00	150	100
9	7	9	264.00	350	100
10	9	10	364.00	150	100
11	9	11	156.00	300	100
12	11	12	40.00	300	100
13	12	13	406.00	250	100
14	13	14	220.00	150	100
15	14	18	600.00	80	100
16	13	15	242.00	250	100
17	15	16	344.00	100	120
18	16	17	334.00	100	120
19	15	18	388.00	150	100
20	18	19	406.00	150	120
21	19	20	298.00	100	120
22	2	231	632.00	450	100
23	231	80	1270.00	350	120
24	80	81	668.00	300	120
25	81	82	610.00	300	120
26	82	83	714.00	300	120
27	83	84	728.00	300	120
28	84	85	388.00	300	120
29	85	86	658.00	300	120
30	86	87	700.00	250	120
31	87	88	676.00	200	120
32	88	98	766.00	200	120
33	98	89	510.00	200	120
80	15	16	344.00	150	130
81	15	18	388.00	150	130
90	80	90	650.00	250	120
91	90	91	610.00	200	130
92	91	92	714.00	200	130
93	92	93	730.00	200	130
94	93	94	390.00	200	130
95	94	95	660.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
96	95	96	700.00	150	130
97	96	97	680.00	150	130
98	98	97	850.00	100	130
100	84	93	330.00	150	130
101	90	81	330.00	100	130

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	25.00
1	0.0	-2.520	25.00
2	0.0	-5.110	20.00
3	0.0	-5.870	17.00
4	0.0	-3.430	20.00
5	0.0	-5.030	22.00
6	0.0	-5.110	7.00
7	0.0	-2.520	24.00
8	0.0	-7.630	18.00
9	0.0	-5.190	16.00
10	0.0	-10.200	16.00
11	0.0	-2.210	11.00
12	0.0	-4.500	11.00
13	0.0	-9.760	20.00
14	0.0	-4.730	17.00
15	0.0	-5.340	17.00
16	0.0	-4.040	22.00
17	0.0	-5.420	17.00
18	0.0	-5.340	4.00
19	0.0	-6.030	23.00
20	0.0	-1.980	10.00
80	0.0	0.000	4.00
81	0.0	-1.720	4.00
82	0.0	-5.400	4.00
83	0.0	-7.600	4.00
84	0.0	-3.900	4.00
85	0.0	-1.400	3.00
86	0.0	-4.600	4.00
87	0.0	-4.900	5.00
88	0.0	-6.500	5.00
89	0.0	-3.900	4.00
90	0.0	-1.720	4.00
91	0.0	-5.400	4.00
92	0.0	-7.600	4.00
93	0.0	-3.900	4.00
94	0.0	-1.400	4.00
95	0.0	-4.600	4.00
96	0.0	-4.900	4.00
97	0.0	-6.500	4.00

NODE #	FIX	F L O W	ELEVATION
98	0.0	-3.900	4.00
231	0.0	0.000	2.00

REFERENCE NODE	GRADE LINE
100	47.50

T I T L E : Moratuwa High Zone (2010 demand)
NO. OF PIPES : 46
NO. OF NODES : 41
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .007

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	100	1	20.00	600	100	290.88	1.03	2.60	0.05
2	1	2	152.00	450	100	167.02	1.05	3.79	0.58
3	2	3	452.00	200	100	31.10	0.99	8.77	3.96
4	3	4	582.00	200	100	13.54	0.43	1.88	1.09
5	4	5	130.00	150	100	8.05	0.46	2.92	0.38
6	3	6	680.00	150	100	8.18	0.46	3.00	2.04
7	1	7	90.00	350	100	119.82	1.25	6.96	0.63
8	7	8	250.00	150	100	12.21	0.69	6.31	1.58
9	7	9	264.00	350	100	103.58	1.08	5.32	1.40
10	9	10	364.00	150	100	16.32	0.92	10.79HI	3.93
11	9	11	156.00	300	100	78.96	1.12	6.82	1.06
12	11	12	40.00	300	100	75.42	1.07	6.27	0.25
13	12	13	406.00	250	100	68.22	1.39	12.65HI	5.13
14	13	14	220.00	150	100	9.13	0.52	3.68	0.81
15	14	18	600.00	80	100	1.56	0.31	3.00	1.80
16	13	15	242.00	250	100	43.48	0.89	5.49	1.33
17	15	16	344.00	100	120	3.65	0.46	3.47	1.19
18	16	17	334.00	100	120	8.67	1.10	17.22HI	5.75
19	15	18	388.00	150	100	8.61	0.49	3.30	1.28
20	18	19	406.00	150	120	12.82	0.73	4.93	2.00
21	19	20	298.00	100	120	3.17	0.40	2.67	0.80
22	2	231	632.00	450	100	127.74	0.80	2.31	1.46
23	231	80	1270.00	350	120	127.74	1.33	5.59	7.10
24	80	81	668.00	300	120	82.24	1.16	5.25	3.51
25	81	82	610.00	300	120	82.59	1.17	5.29	3.23
26	82	83	714.00	300	120	73.95	1.05	4.31	3.08
27	83	84	728.00	300	120	61.79	0.87	3.09	2.25
28	84	85	388.00	300	120	43.46	0.61	1.61	0.63
29	85	86	658.00	300	120	41.22	0.58	1.46	0.96
30	86	87	700.00	250	120	33.86	0.69	2.47	1.73
31	87	88	676.00	200	120	26.02	0.83	4.50	3.04
32	88	98	766.00	200	120	15.62	0.50	1.75	1.34
33	98	89	510.00	200	120	6.24	0.20LO	0.32	0.16
80	15	16	344.00	150	130	11.49	0.65	3.47	1.19
81	15	18	388.00	150	130	11.19	0.63	3.30	1.28
90	80	90	650.00	250	120	45.51	0.93	4.27	2.77
91	90	91	610.00	200	130	39.65	1.26	8.45	5.16
92	91	92	714.00	200	130	31.01	0.99	5.37	3.83
93	92	93	730.00	200	130	18.85	0.60	2.14	1.56
94	93	94	390.00	200	130	24.70	0.79	3.52	1.37
95	94	95	660.00	200	130	22.46	0.71	2.95	1.95

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
96	95	96	700.00	150	130	15.10	0.85	5.75	4.03
97	96	97	680.00	150	130	7.26	0.41	1.49	1.01
98	98	97	850.00	100	130	3.14	0.40	2.26	1.93
100	84	93	330.00	150	130	12.09	0.68	3.81	1.26
101	90	81	330.00	100	130	3.10	0.40	2.22	0.73

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	290.880	25.00	47.50	22.50
1	-4.032	25.00	47.45	22.45
2	-8.176	20.00	46.87	26.87
3	-9.392	17.00	42.91	25.91
4	-5.488	20.00	41.82	21.82
5	-8.048	22.00	41.44	19.44
6	-8.176	7.00	40.87	33.87
7	-4.032	24.00	46.82	22.82
8	-12.208	18.00	45.24	27.24
9	-8.304	16.00	45.42	29.42
10	-16.320	16.00	41.49	25.49
11	-3.536	11.00	44.35	33.35
12	-7.200	11.00	44.10	33.10
13	-15.616	20.00	38.97	18.97
14	-7.568	17.00	38.16	21.16
15	-8.544	17.00	37.64	20.64
16	-6.464	22.00	36.45	14.45
17	-8.672	17.00	30.69	13.69
18	-8.544	4.00	36.36	32.36
19	-9.648	23.00	34.36	11.36
20	-3.168	10.00	33.56	23.56
80	0.000	4.00	38.31	34.31
81	-2.752	4.00	34.81	30.81
82	-8.640	4.00	31.58	27.58
83	-12.160	4.00	28.50	24.50
84	-6.240	4.00	26.25	22.25
85	-2.240	3.00	25.62	22.62
86	-7.360	4.00	24.66	20.66
87	-7.840	5.00	22.93	17.93
88	-10.400	5.00	19.89	14.89
89	-6.240	4.00	18.39	14.39
90	-2.752	4.00	35.54	31.54
91	-8.640	4.00	30.38	26.38
92	-12.160	4.00	26.55	22.55
93	-6.240	4.00	24.99	20.99
94	-2.240	4.00	23.62	19.62
95	-7.360	4.00	21.67	17.67
96	-7.840	4.00	17.64	13.64

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
97	-10.400	4.00	16.63	12.63
98	-6.240	4.00	18.55	14.55
231	0.000	2.00	45.42	43.42

T I T L E : Moratuwa High Zone (2020 demand)

NO. OF PIPES : 46
NO. OF NODES : 41
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	20.00	600	100
2	1	2	152.00	450	100
3	2	3	452.00	200	100
4	3	4	582.00	200	100
5	4	5	130.00	150	100
6	3	6	680.00	150	100
7	1	7	90.00	350	100
8	7	8	250.00	150	100
9	7	9	264.00	350	100
10	9	10	364.00	150	100
11	9	11	156.00	300	100
12	11	12	40.00	300	100
13	12	13	406.00	250	100
14	13	14	220.00	150	100
15	14	18	600.00	80	100
16	13	15	242.00	250	100
17	15	16	344.00	100	120
18	16	17	334.00	100	120
19	15	18	388.00	150	100
20	18	19	406.00	150	120
21	19	20	298.00	100	120
22	2	231	632.00	450	100
23	231	80	1270.00	350	120
24	80	81	668.00	300	120
25	81	82	610.00	300	120
26	82	83	714.00	300	120
27	83	84	728.00	300	120
28	84	85	388.00	300	120
29	85	86	658.00	300	120
30	86	87	700.00	250	120
31	87	88	676.00	200	120
32	88	98	766.00	200	120
33	98	89	510.00	200	120
80	15	16	344.00	150	130
81	15	18	388.00	150	130
90	80	90	650.00	250	120
91	90	91	610.00	200	130
92	91	92	714.00	200	130
93	92	93	730.00	200	130
94	93	94	390.00	200	130
95	94	95	660.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
96	95	96	700.00	150	130
97	96	97	680.00	150	130
98	98	97	850.00	100	130
100	84	93	330.00	150	130
101	90	81	330.00	100	130

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	25.00
1	0.0	-2.833	25.00
2	0.0	-5.744	20.00
3	0.0	-6.598	17.00
4	0.0	-3.856	20.00
5	0.0	-5.654	22.00
6	0.0	-5.744	7.00
7	0.0	-2.833	24.00
8	0.0	-8.577	18.00
9	0.0	-5.834	16.00
10	0.0	-11.465	16.00
11	0.0	-2.485	11.00
12	0.0	-5.058	11.00
13	0.0	-10.971	20.00
14	0.0	-5.317	17.00
15	0.0	-6.003	17.00
16	0.0	-4.541	22.00
17	0.0	-6.093	17.00
18	0.0	-6.003	4.00
19	0.0	-6.778	23.00
20	0.0	-2.226	10.00
80	0.0	0.000	4.00
81	0.0	-1.934	4.00
82	0.0	-6.070	4.00
83	0.0	-8.543	4.00
84	0.0	-4.384	4.00
85	0.0	-1.574	3.00
86	0.0	-5.171	4.00
87	0.0	-5.508	5.00
88	0.0	-7.306	5.00
89	0.0	-4.384	4.00
90	0.0	-1.934	4.00
91	0.0	-6.070	4.00
92	0.0	-8.543	4.00
93	0.0	-4.384	4.00
94	0.0	-1.574	4.00
95	0.0	-5.171	4.00
96	0.0	-5.508	4.00
97	0.0	-7.306	4.00

NODE #	FIX	F L O W	ELEVATION
98	0.0	-4.384	4.00
231	0.0	0.000	2.00

REFERENCE NODE	GRADE LINE
100	47.50

T I T L E : Moratuwa High Zone (2020 demand)
NO. OF PIPES : 46
NO. OF NODES : 41
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .008

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	100	1	20.00	600	100	326.98	1.16	3.23	0.06
2	1	2	152.00	450	100	187.75	1.18	4.70	0.71
3	2	3	452.00	200	100	34.96	1.11	10.88HI	4.92
4	3	4	582.00	200	100	15.22	0.48	2.34	1.36
5	4	5	130.00	150	100	9.05	0.51	3.62	0.47
6	3	6	680.00	150	100	9.19	0.52	3.73	2.54
7	1	7	90.00	350	100	134.69	1.40	8.65	0.78
8	7	8	250.00	150	100	13.72	0.78	7.83	1.96
9	7	9	264.00	350	100	116.44	1.21	6.60	1.74
10	9	10	364.00	150	100	18.34	1.04	13.40HI	4.88
11	9	11	156.00	300	100	88.76	1.26	8.47	1.32
12	11	12	40.00	300	100	84.78	1.20	7.78	0.31
13	12	13	406.00	250	100	76.69	1.56	15.70HI	6.37
14	13	14	220.00	150	100	10.26	0.58	4.58	1.01
15	14	18	600.00	80	100	1.76	0.35	3.73	2.24
16	13	15	242.00	250	100	48.87	1.00	6.82	1.65
17	15	16	344.00	100	120	4.10	0.52	4.31	1.48
18	16	17	334.00	100	120	9.75	1.24	21.39HI	7.14
19	15	18	388.00	150	100	9.68	0.55	4.10	1.59
20	18	19	406.00	150	120	14.41	0.82	6.12	2.48
21	19	20	298.00	100	120	3.56	0.45	3.32	0.99
22	2	231	632.00	450	100	143.60	0.90	2.86	1.81
23	231	80	1270.00	350	120	143.60	1.49	6.95	8.82
24	80	81	668.00	300	120	92.44	1.31	6.52	4.35
25	81	82	610.00	300	120	92.84	1.31	6.57	4.01
26	82	83	714.00	300	120	83.13	1.18	5.35	3.82
27	83	84	728.00	300	120	69.46	0.98	3.84	2.79
28	84	85	388.00	300	120	48.85	0.69	2.00	0.78
29	85	86	658.00	300	120	46.33	0.66	1.82	1.19
30	86	87	700.00	250	120	38.06	0.78	3.07	2.15
31	87	88	676.00	200	120	29.25	0.93	5.58	3.77
32	88	98	766.00	200	120	17.56	0.56	2.17	1.66
33	98	89	510.00	200	120	7.01	0.22LO	0.40	0.20
80	15	16	344.00	150	130	12.91	0.73	4.31	1.48
81	15	18	388.00	150	130	12.58	0.71	4.10	1.59
90	80	90	650.00	250	120	51.15	1.04	5.30	3.44
91	90	91	610.00	200	130	44.57	1.42	10.50HI	6.40
92	91	92	714.00	200	130	34.86	1.11	6.66	4.76
93	92	93	730.00	200	130	21.19	0.67	2.65	1.94
94	93	94	390.00	200	130	27.77	0.88	4.37	1.71
95	94	95	660.00	200	130	25.25	0.80	3.67	2.42

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
96	95	96	700.00	150	130	16.98	0.96	7.14	5.00
97	96	97	680.00	150	130	8.16	0.46	1.84	1.25
98	98	97	850.00	100	130	3.53	0.45	2.81	2.39
100	84	93	330.00	150	130	13.59	0.77	4.74	1.56
101	90	81	330.00	100	130	3.49	0.44	2.76	0.91

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	326.978	25.00	47.50	22.50
1	-4.533	25.00	47.44	22.44
2	-9.190	20.00	46.72	26.72
3	-10.557	17.00	41.80	24.80
4	-6.170	20.00	40.44	20.44
5	-9.046	22.00	39.97	17.97
6	-9.190	7.00	39.26	32.26
7	-4.533	24.00	46.66	22.66
8	-13.723	18.00	44.70	26.70
9	-9.334	16.00	44.91	28.91
10	-18.344	16.00	40.04	24.04
11	-3.976	11.00	43.59	32.59
12	-8.093	11.00	43.28	32.28
13	-17.554	20.00	36.91	16.91
14	-8.507	17.00	35.90	18.90
15	-9.605	17.00	35.26	18.26
16	-7.266	22.00	33.77	11.77
17	-9.749	17.00	26.63	9.63
18	-9.605	4.00	33.66	29.66
19	-10.845	23.00	31.18	8.18
20	-3.562	10.00	30.19	20.19
80	0.000	4.00	36.09	32.09
81	-3.094	4.00	31.74	27.74
82	-9.712	4.00	27.73	23.73
83	-13.669	4.00	23.91	19.91
84	-7.014	4.00	21.12	17.12
85	-2.518	3.00	20.34	17.34
86	-8.274	4.00	19.14	15.14
87	-8.813	5.00	17.00	12.00
88	-11.690	5.00	13.23	8.23
89	-7.014	4.00	11.36	7.36
90	-3.094	4.00	32.65	28.65
91	-9.712	4.00	26.24	22.24
92	-13.669	4.00	21.49	17.49
93	-7.014	4.00	19.55	15.55
94	-2.518	4.00	17.85	13.85
95	-8.274	4.00	15.43	11.43
96	-8.813	4.00	10.42	6.42

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
97	-11.690	4.00	9.17	5.17
98	-7.014	4.00	11.56	7.56
231	0.000	2.00	44.91	42.91

T I T L E : Moratuwa Low Zone (2010 demand)

NO. OF PIPES : 68
NO. OF NODES : 51
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	127	80.00	600	120
2	127	27	80.00	500	120
3	27	111	280.00	150	130
4	111	22	180.00	150	130
5	22	23	362.00	100	130
6	24	23	336.00	100	130
7	127	25	480.00	400	120
8	25	26	290.00	150	130
9	25	24	224.00	400	120
10	24	121	620.00	400	120
11	121	38	310.00	300	120
12	121	21	270.00	150	130
13	121	41	1030.00	300	120
14	41	43	540.00	300	120
15	43	45	450.00	200	130
16	45	49	450.00	200	130
17	49	48	468.00	100	100
18	47	48	558.00	80	100
19	27	33	550.00	500	120
20	33	34	40.00	300	120
21	34	35	246.00	280	120
22	35	36	222.00	280	120
23	36	37	280.00	280	120
24	37	38	364.00	250	100
25	38	39	192.00	250	100
26	39	42	638.00	200	100
27	42	44	276.00	200	100
28	44	46	364.00	200	100
29	46	47	90.00	100	100
30	47	56	638.00	100	100
31	54	56	430.00	150	130
32	46	55	654.00	200	120
33	54	55	382.00	80	100
34	53	54	662.00	200	130
35	42	53	1254.00	150	130
36	52	53	440.00	300	120
37	51	52	140.00	300	120
38	50	51	532.00	150	100
39	39	50	498.00	200	100
40	61	51	360.00	300	120
41	60	61	670.00	300	120

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	34	60	444.00	200	100
43	60	62	504.00	200	130
44	62	63	440.00	150	130
45	62	64	670.00	200	130
46	64	65	220.00	150	130
47	64	67	576.00	150	130
48	67	66	364.00	150	130
49	32	31	328.00	380	120
50	33	32	550.00	330	120
51	32	68	352.00	250	100
52	68	67	230.00	150	100
53	67	70	680.00	150	130
54	68	69	550.00	200	120
55	69	70	180.00	150	100
56	69	71	366.00	200	100
57	71	72	248.00	150	100
58	31	331	300.00	150	130
59	38	39	192.00	250	120
60	39	40	150.00	200	130
61	42	44	276.00	200	130
62	44	46	364.00	150	130
63	46	47	90.00	150	130
64	34	60	444.00	300	120
65	43	42	660.00	250	120
66	40	42	538.00	200	130
67	55	56	85.00	150	130
80	49	47	1026.00	200	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	30.00
21	0.0	-1.980	2.00
22	0.0	-3.740	6.00
23	0.0	-1.980	7.00
24	0.0	-1.980	3.00
25	0.0	-1.680	6.00
26	0.0	-3.660	7.00
27	0.0	-4.960	15.00
31	0.0	-10.200	3.00
32	0.0	-8.090	3.00
33	0.0	-3.280	7.00
34	0.0	-3.280	7.00
35	0.0	-3.280	7.00
36	0.0	-3.280	7.00
37	0.0	-3.280	6.00
38	0.0	-5.340	7.00
39	0.0	-1.600	7.00

NODE #	FIX	F L O W	ELEVATION
40	0.0	-1.980	7.00
41	0.0	-3.740	4.00
42	0.0	-14.000	6.00
43	0.0	-5.420	3.00
44	0.0	-10.200	7.00
45	0.0	-3.430	4.00
46	0.0	-15.900	7.00
47	0.0	-9.000	7.00
48	0.0	-2.290	6.00
49	0.0	-2.290	4.00
50	0.0	-9.610	6.00
51	0.0	-4.810	4.00
52	0.0	-3.200	5.00
53	0.0	-25.700	6.00
54	0.0	-6.710	5.00
55	0.0	-6.640	6.00
56	0.0	-6.640	6.00
60	0.0	-4.880	4.00
61	0.0	-3.200	3.00
62	0.0	-5.800	4.00
63	0.0	-5.800	4.00
64	0.0	-5.800	4.00
65	0.0	-4.350	4.00
66	0.0	-4.580	4.00
67	0.0	-4.580	4.00
68	0.0	-7.930	2.00
69	0.0	-7.630	4.00
70	0.0	-6.870	5.00
71	0.0	-6.870	4.00
72	0.0	-3.430	5.00
111	0.0	-2.290	13.00
121	0.0	0.000	5.00
127	0.0	0.000	3.00
331	0.0	-3.810	3.00

REFERENCE NODE	GRADE LINE
200	32.00

T I T L E : Moratuwa Low Zone (2010 demand)
NO. OF PIPES : 68
NO. OF NODES : 51
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .008

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	127	80.00	600	120	433.58	1.53	3.89	0.31
2	127	27	80.00	500	120	288.57	1.47	4.45	0.36
3	27	111	280.00	150	130	12.45	0.70	4.02	1.13
4	111	22	180.00	150	130	8.78	0.50	2.11	0.38
5	22	23	362.00	100	130	2.80	0.36	1.83	0.66
6	24	23	336.00	100	130	0.37	0.05LO	0.04	0.01
7	127	25	480.00	400	120	145.02	1.15	3.69	1.77
8	25	26	290.00	150	130	5.86	0.33	1.00	0.29
9	25	24	224.00	400	120	136.47	1.09	3.30	0.74
10	24	121	620.00	400	120	132.93	1.06	3.14	1.95
11	121	38	310.00	300	120	65.06	0.92	3.40	1.05
12	121	21	270.00	150	130	3.17	0.18LO	0.32	0.09
13	121	41	1030.00	300	120	64.70	0.92	3.37	3.47
14	41	43	540.00	300	120	58.72	0.83	2.81	1.52
15	43	45	450.00	200	130	26.09	0.83	3.90	1.75
16	45	49	450.00	200	130	20.61	0.66	2.52	1.13
17	49	48	468.00	100	100	3.01	0.38	3.40	1.59
18	47	48	558.00	80	100	0.66	0.13LO	0.61	0.34
19	27	33	550.00	500	120	268.19	1.37	3.88	2.14
20	33	34	40.00	300	120	164.30	2.32	18.88HI	0.76
21	34	35	246.00	280	120	44.01	0.71	2.31	0.57
22	35	36	222.00	280	120	38.76	0.63	1.83	0.41
23	36	37	280.00	280	120	33.51	0.54	1.40	0.39
24	37	38	364.00	250	100	28.27	0.58	2.48	0.90
25	38	39	192.00	250	100	38.54	0.79	4.40	0.84
26	39	42	638.00	200	100	25.76	0.82	6.19	3.95
27	42	44	276.00	200	100	23.31	0.74	5.14	1.42
28	44	46	364.00	200	100	23.17	0.74	5.09	1.85
29	46	47	90.00	100	100	0.50	0.06LO	0.12	0.01
30	47	56	638.00	100	100	1.27	0.16LO	0.69	0.44
31	54	56	430.00	150	130	9.09	0.51	2.25	0.97
32	46	55	654.00	200	120	9.46	0.30	0.69	0.45
33	54	55	382.00	80	100	1.42	0.28LO	2.53	0.97
34	53	54	662.00	200	130	21.25	0.68	2.67	1.76
35	42	53	1254.00	150	130	5.14	0.29LO	0.78	0.98
36	52	53	440.00	300	120	57.22	0.81	2.68	1.18
37	51	52	140.00	300	120	62.34	0.88	3.14	0.44
38	50	51	532.00	150	100	6.47	0.37	1.95	1.04
39	39	50	498.00	200	100	21.85	0.70	4.56	2.27
40	61	51	360.00	300	120	63.57	0.90	3.26	1.17
41	60	61	670.00	300	120	68.69	0.97	3.76	2.52

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
42	34	60	444.00	200	100	25.63	0.82	6.13	2.72
43	60	62	504.00	200	130	38.55	1.23	8.03	4.04
44	62	63	440.00	150	130	9.28	0.53	2.34	1.03
45	62	64	670.00	200	130	19.99	0.64	2.38	1.60
46	64	65	220.00	150	130	6.96	0.39	1.37	0.30
47	64	67	576.00	150	130	3.75	0.21LO	0.44	0.25
48	67	66	364.00	150	130	7.33	0.41	1.51	0.55
49	32	31	328.00	380	120	22.42	0.20LO	0.15	0.05
50	33	32	550.00	330	120	98.63	1.15	4.62	2.54
51	32	68	352.00	250	100	63.27	1.29	11.00HI	3.87
52	68	67	230.00	150	100	17.93	1.01	12.85HI	2.96
53	67	70	680.00	150	130	7.03	0.40	1.40	0.95
54	68	69	550.00	200	120	32.65	1.04	6.84	3.76
55	69	70	180.00	150	100	3.96	0.22LO	0.79	0.14
56	69	71	366.00	200	100	16.48	0.52	2.71	0.99
57	71	72	248.00	150	100	5.49	0.31	1.44	0.36
58	31	331	300.00	150	130	6.10	0.34	1.07	0.32
59	38	39	192.00	250	120	46.25	0.94	4.40	0.84
60	39	40	150.00	200	130	34.62	1.10	6.58	0.99
61	42	44	276.00	200	130	30.31	0.96	5.14	1.42
62	44	46	364.00	150	130	14.13	0.80	5.09	1.85
63	46	47	90.00	150	130	1.89	0.11LO	0.12	0.01
64	34	60	444.00	300	120	89.42	1.27	6.13	2.72
65	43	42	660.00	250	120	23.95	0.49	1.30	0.86
66	40	42	538.00	200	130	31.45	1.00	5.51	2.96
67	55	56	85.00	150	130	0.26	0.01LO	0.00	0.00
80	49	47	1026.00	200	130	13.94	0.44	1.22	1.25

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	433.584	30.00	32.00	2.00
21	-3.168	2.00	27.14	25.14
22	-5.984	6.00	29.83	23.83
23	-3.168	7.00	29.16	22.16
24	-3.168	3.00	29.18	26.18
25	-2.688	6.00	29.92	23.92
26	-5.856	7.00	29.63	22.63
27	-7.936	15.00	31.33	16.33
31	-16.320	3.00	26.61	23.61
32	-12.944	3.00	26.66	23.66
33	-5.248	7.00	29.20	22.20
34	-5.248	7.00	28.44	21.44
35	-5.248	7.00	27.87	20.87
36	-5.248	7.00	27.47	20.47
37	-5.248	6.00	27.08	21.08
38	-8.544	7.00	26.17	19.17

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
39	-2.560	7.00	25.33	18.33
40	-3.168	7.00	24.34	17.34
41	-5.984	4.00	23.76	19.76
42	-22.400	6.00	21.38	15.38
43	-8.672	3.00	22.24	19.24
44	-16.320	7.00	19.96	12.96
45	-5.488	4.00	20.49	16.49
46	-25.440	7.00	18.11	11.11
47	-14.400	7.00	18.10	11.10
48	-3.664	6.00	17.76	11.76
49	-3.664	4.00	19.35	15.35
50	-15.376	6.00	23.06	17.06
51	-7.696	4.00	22.03	18.03
52	-5.120	5.00	21.59	16.59
53	-41.120	6.00	20.40	14.40
54	-10.736	5.00	18.64	13.64
55	-10.624	6.00	17.66	11.66
56	-10.624	6.00	17.67	11.67
60	-7.808	4.00	25.72	21.72
61	-5.120	3.00	23.20	20.20
62	-9.280	4.00	21.68	17.68
63	-9.280	4.00	20.65	16.65
64	-9.280	4.00	20.08	16.08
65	-6.960	4.00	19.78	15.78
66	-7.328	4.00	19.28	15.28
67	-7.328	4.00	19.83	15.83
68	-12.688	2.00	22.79	20.79
69	-12.208	4.00	19.02	15.02
70	-10.992	5.00	18.88	13.88
71	-10.992	4.00	18.03	14.03
72	-5.488	5.00	17.67	12.67
111	-3.664	13.00	30.21	17.21
121	0.000	5.00	27.23	22.23
127	0.000	3.00	31.69	28.69
331	-6.096	3.00	26.29	23.29

T I T L E : Moratuwa Low Zone (2020 demand)

NO. OF PIPES : 68
NO. OF NODES : 51
PEAK FACTOR : 1.6
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	127	80.00	600	120
2	127	27	80.00	500	120
3	27	111	280.00	150	130
4	111	22	180.00	150	130
5	22	23	362.00	100	130
6	24	23	336.00	100	130
7	127	25	480.00	400	120
8	25	26	290.00	150	130
9	25	24	224.00	400	120
10	24	121	620.00	400	120
11	121	38	310.00	300	120
12	121	21	270.00	150	130
13	121	41	1030.00	300	120
14	41	43	540.00	300	120
15	43	45	450.00	200	130
16	45	49	450.00	200	130
17	49	48	468.00	100	100
18	47	48	558.00	80	100
19	27	33	550.00	500	120
20	33	34	40.00	300	120
21	34	35	246.00	280	120
22	35	36	222.00	280	120
23	36	37	280.00	280	120
24	37	38	364.00	250	100
25	38	39	192.00	250	100
26	39	42	638.00	200	100
27	42	44	276.00	200	100
28	44	46	364.00	200	100
29	46	47	90.00	100	100
30	47	56	638.00	100	100
31	54	56	430.00	150	130
32	46	55	654.00	200	120
33	54	55	382.00	80	100
34	53	54	662.00	200	130
35	42	53	1254.00	150	130
36	52	53	440.00	300	120
37	51	52	140.00	300	120
38	50	51	532.00	150	100
39	39	50	498.00	200	100
40	61	51	360.00	300	120
41	60	61	670.00	300	120

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	34	60	444.00	200	100
43	60	62	504.00	200	130
44	62	63	440.00	150	130
45	62	64	670.00	200	130
46	64	65	220.00	150	130
47	64	67	576.00	150	130
48	67	66	364.00	150	130
49	32	31	328.00	380	120
50	33	32	550.00	330	120
51	32	68	352.00	250	100
52	68	67	230.00	150	100
53	67	70	680.00	150	130
54	68	69	550.00	200	120
55	69	70	180.00	150	100
56	69	71	366.00	200	100
57	71	72	248.00	150	100
58	31	331	300.00	150	130
59	38	39	192.00	250	120
60	39	40	150.00	200	130
61	42	44	276.00	200	130
62	44	46	364.00	150	130
63	46	47	90.00	150	130
64	34	60	444.00	300	120
65	43	42	660.00	250	120
66	40	42	538.00	200	130
67	55	56	85.00	150	130
80	49	47	1026.00	200	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	30.00
21	0.0	-2.226	2.00
22	0.0	-4.204	6.00
23	0.0	-2.226	7.00
24	0.0	-2.226	3.00
25	0.0	-1.889	6.00
26	0.0	-4.114	7.00
27	0.0	-5.576	15.00
31	0.0	-11.465	3.00
32	0.0	-9.094	3.00
33	0.0	-3.687	7.00
34	0.0	-3.687	7.00
35	0.0	-3.687	7.00
36	0.0	-3.687	7.00
37	0.0	-3.687	6.00
38	0.0	-6.003	7.00
39	0.0	-1.799	7.00

NODE #	FIX	F L O W	ELEVATION
40	0.0	-2.226	7.00
41	0.0	-4.204	4.00
42	0.0	-15.736	6.00
43	0.0	-6.093	3.00
44	0.0	-11.465	7.00
45	0.0	-3.856	4.00
46	0.0	-17.872	7.00
47	0.0	-10.116	7.00
48	0.0	-2.574	6.00
49	0.0	-2.574	4.00
50	0.0	-10.802	6.00
51	0.0	-5.407	4.00
52	0.0	-3.597	5.00
53	0.0	-28.887	6.00
54	0.0	-7.543	5.00
55	0.0	-7.464	6.00
56	0.0	-7.464	6.00
60	0.0	-5.486	4.00
61	0.0	-3.597	3.00
62	0.0	-6.520	4.00
63	0.0	-6.520	4.00
64	0.0	-6.520	4.00
65	0.0	-4.890	4.00
66	0.0	-5.148	4.00
67	0.0	-5.148	4.00
68	0.0	-8.914	2.00
69	0.0	-8.577	4.00
70	0.0	-7.722	5.00
71	0.0	-7.722	4.00
72	0.0	-3.856	5.00
111	0.0	-2.574	13.00
121	0.0	0.000	5.00
127	0.0	0.000	3.00
331	0.0	-4.283	3.00

REFERENCE NODE	GRADE LINE
200	32.00

T I T L E : Moratuwa Low Zone (2020 demand)
NO. OF PIPES : 68
NO. OF NODES : 51
PEAK FACTOR : 1.6
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .007

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	127	80.00	600	120	487.38	1.72	4.83	0.39
2	127	27	80.00	500	120	324.38	1.65	5.52	0.44
3	27	111	280.00	150	130	13.99	0.79	5.00	1.40
4	111	22	180.00	150	130	9.87	0.56	2.62	0.47
5	22	23	362.00	100	130	3.15	0.40	2.28	0.82
6	24	23	336.00	100	130	0.42	0.05LO	0.05	0.02
7	127	25	480.00	400	120	163.00	1.30	4.58	2.20
8	25	26	290.00	150	130	6.58	0.37	1.24	0.36
9	25	24	224.00	400	120	153.40	1.22	4.10	0.92
10	24	121	620.00	400	120	149.42	1.19	3.90	2.42
11	121	38	310.00	300	120	73.13	1.03	4.22	1.31
12	121	21	270.00	150	130	3.56	0.20LO	0.40	0.11
13	121	41	1030.00	300	120	72.73	1.03	4.18	4.31
14	41	43	540.00	300	120	66.00	0.93	3.49	1.89
15	43	45	450.00	200	130	29.33	0.93	4.84	2.18
16	45	49	450.00	200	130	23.16	0.74	3.13	1.41
17	49	48	468.00	100	100	3.38	0.43	4.22	1.98
18	47	48	558.00	80	100	0.74	0.15LO	0.75	0.42
19	27	33	550.00	500	120	301.47	1.54	4.82	2.65
20	33	34	40.00	300	120	184.70	2.61	23.44HI	0.94
21	34	35	246.00	280	120	49.47	0.80	2.87	0.71
22	35	36	222.00	280	120	43.57	0.71	2.27	0.50
23	36	37	280.00	280	120	37.67	0.61	1.73	0.48
24	37	38	364.00	250	100	31.77	0.65	3.08	1.12
25	38	39	192.00	250	100	43.32	0.88	5.46	1.05
26	39	42	638.00	200	100	28.96	0.92	7.68	4.90
27	42	44	276.00	200	100	26.20	0.83	6.38	1.76
28	44	46	364.00	200	100	26.05	0.83	6.31	2.30
29	46	47	90.00	100	100	0.56	0.07LO	0.15	0.01
30	47	56	638.00	100	100	1.43	0.18LO	0.86	0.55
31	54	56	430.00	150	130	10.22	0.58	2.79	1.20
32	46	55	654.00	200	120	10.63	0.34	0.86	0.56
33	54	55	382.00	80	100	1.60	0.32	3.14	1.20
34	53	54	662.00	200	130	23.89	0.76	3.31	2.19
35	42	53	1254.00	150	130	5.78	0.33	0.97	1.22
36	52	53	440.00	300	120	64.33	0.91	3.33	1.47
37	51	52	140.00	300	120	70.08	0.99	3.90	0.55
38	50	51	532.00	150	100	7.27	0.41	2.42	1.29
39	39	50	498.00	200	100	24.56	0.78	5.66	2.82
40	61	51	360.00	300	120	71.46	1.01	4.05	1.46
41	60	61	670.00	300	120	77.22	1.09	4.67	3.13

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
42	34	60	444.00	200	100	28.81	0.92	7.61	3.38
43	60	62	504.00	200	130	43.33	1.38	9.96	5.02
44	62	63	440.00	150	130	10.43	0.59	2.90	1.28
45	62	64	670.00	200	130	22.47	0.72	2.96	1.98
46	64	65	220.00	150	130	7.82	0.44	1.70	0.37
47	64	67	576.00	150	130	4.21	0.24LO	0.54	0.31
48	67	66	364.00	150	130	8.24	0.47	1.87	0.68
49	32	31	328.00	380	120	25.20	0.22LO	0.19	0.06
50	33	32	550.00	330	120	110.87	1.30	5.73	3.15
51	32	68	352.00	250	100	71.12	1.45	13.66HI	4.81
52	68	67	230.00	150	100	20.16	1.14	15.95HI	3.67
53	67	70	680.00	150	130	7.90	0.45	1.74	1.18
54	68	69	550.00	200	120	36.70	1.17	8.50	4.67
55	69	70	180.00	150	100	4.45	0.25LO	0.98	0.18
56	69	71	366.00	200	100	18.52	0.59	3.36	1.23
57	71	72	248.00	150	100	6.17	0.35	1.78	0.44
58	31	331	300.00	150	130	6.85	0.39	1.33	0.40
59	38	39	192.00	250	120	51.98	1.06	5.46	1.05
60	39	40	150.00	200	130	38.91	1.24	8.16	1.22
61	42	44	276.00	200	130	34.06	1.08	6.38	1.76
62	44	46	364.00	150	130	15.88	0.90	6.31	2.30
63	46	47	90.00	150	130	2.13	0.12LO	0.15	0.01
64	34	60	444.00	300	120	100.52	1.42	7.61	3.38
65	43	42	660.00	250	120	26.92	0.55	1.62	1.07
66	40	42	538.00	200	130	35.35	1.13	6.84	3.68
67	55	56	85.00	150	130	0.29	0.02LO	0.00	0.00
80	49	47	1026.00	200	130	15.66	0.50	1.52	1.56

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	487.382	30.00	32.00	2.00
21	-3.562	2.00	25.97	23.97
22	-6.726	6.00	29.30	23.30
23	-3.562	7.00	28.48	21.48
24	-3.562	3.00	28.50	25.50
25	-3.022	6.00	29.41	23.41
26	-6.582	7.00	29.05	22.05
27	-8.922	15.00	31.17	16.17
31	-18.344	3.00	25.31	22.31
32	-14.550	3.00	25.37	22.37
33	-5.899	7.00	28.52	21.52
34	-5.899	7.00	27.58	20.58
35	-5.899	7.00	26.88	19.88
36	-5.899	7.00	26.37	19.37
37	-5.899	6.00	25.89	19.89
38	-9.605	7.00	24.77	17.77

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
39	-2.878	7.00	23.72	16.72
40	-3.562	7.00	22.50	15.50
41	-6.726	4.00	21.77	17.77
42	-25.178	6.00	18.82	12.82
43	-9.749	3.00	19.89	16.89
44	-18.344	7.00	17.06	10.06
45	-6.170	4.00	17.71	13.71
46	-28.595	7.00	14.76	7.76
47	-16.186	7.00	14.74	7.74
48	-4.118	6.00	14.33	8.33
49	-4.118	4.00	16.30	12.30
50	-17.283	6.00	20.90	14.90
51	-8.651	4.00	19.62	15.62
52	-5.755	5.00	19.07	14.07
53	-46.219	6.00	17.60	11.60
54	-12.069	5.00	15.41	10.41
55	-11.942	6.00	14.20	8.20
56	-11.942	6.00	14.21	8.21
60	-8.778	4.00	24.20	20.20
61	-5.755	3.00	21.08	18.08
62	-10.432	4.00	19.18	15.18
63	-10.432	4.00	17.91	13.91
64	-10.432	4.00	17.20	13.20
65	-7.824	4.00	16.83	12.83
66	-8.237	4.00	16.21	12.21
67	-8.237	4.00	16.89	12.89
68	-14.262	2.00	20.56	18.56
69	-13.723	4.00	15.89	11.89
70	-12.355	5.00	15.71	10.71
71	-12.355	4.00	14.66	10.66
72	-6.170	5.00	14.21	9.21
111	-4.118	13.00	29.77	16.77
121	0.000	5.00	26.08	21.08
127	0.000	3.00	31.61	28.61
331	-6.853	3.00	24.91	21.91

T I T L E : Panadura UC High Zone (2010 demand)

NO. OF PIPES : 23
NO. OF NODES : 16
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	10.00	200	100
2	1	2	130.00	150	100
3	2	3	400.00	150	100
4	3	4	910.00	100	100
5	2	5	180.00	80	100
6	5	7	240.00	80	100
7	7	8	250.00	150	100
8	8	9	510.00	150	100
9	9	10	230.00	100	100
10	10	11	630.00	100	100
11	1	18	90.00	150	100
12	18	19	710.00	100	100
13	19	20	410.00	80	100
14	12	7	280.00	150	100
56	18	12	330.00	80	100
80	1	2	130.00	200	120
82	2	5	180.00	200	120
83	5	7	240.00	200	120
84	1	18	90.00	200	120
85	18	19	710.00	150	130
86	19	20	410.00	100	130
92	18	12	330.00	200	120
93	19	33	500.00	100	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	20.00
2	0.0	-2.140	25.00
3	0.0	-3.370	18.00
4	0.0	-2.190	8.00
5	0.0	-1.871	16.00
7	0.0	-1.090	6.00
8	0.0	-2.311	5.00
9	0.0	-2.291	5.00
10	0.0	-2.060	5.00
11	0.0	-1.621	5.00
12	0.0	-1.651	4.00
18	0.0	-2.510	15.00
19	0.0	-3.650	20.00

NODE #	FIX	F L O W	ELEVATION
20	0.0	-2.661	20.00
33	0.0	-1.100	16.00
100	0.0	0.000	30.00

REFERENCE NODE	GRADE LINE
100	38.00

T I T L E : Panadura UC High Zone (2010 demand)
NO. OF PIPES : 23
NO. OF NODES : 16
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .002

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	10.00	200	100	57.98	1.85	27.74HI	0.2
2	1	2	130.00	150	100	8.44	0.48	3.19	0.4
3	2	3	400.00	150	100	10.56	0.60	4.83	1.9
4	3	4	910.00	100	100	4.16	0.53	6.20	5.6
5	2	5	180.00	80	100	1.07	0.21LO	1.49	0.2
6	5	7	240.00	80	100	0.82	0.16LO	0.92	0.2
7	7	8	250.00	150	100	15.74	0.89	10.09HI	2.5
8	8	9	510.00	150	100	11.35	0.64	5.51	2.8
9	9	10	230.00	100	100	6.99	0.89	16.21HI	3.7
10	10	11	630.00	100	100	3.08	0.39	3.56	2.2
11	1	18	90.00	150	100	7.85	0.44	2.79	0.2
12	18	19	710.00	100	100	2.95	0.38	3.27	2.3
13	19	20	410.00	80	100	1.51	0.30	2.83	1.1
14	12	7	280.00	150	100	5.95	0.34	1.67	0.4
56	18	12	330.00	80	100	0.63	0.13LO	0.56	0.1
80	1	2	130.00	200	120	21.60	0.69	3.19	0.4
82	2	5	180.00	200	120	14.34	0.46	1.49	0.2
83	5	7	240.00	200	120	11.03	0.35	0.92	0.2
84	1	18	90.00	200	120	20.09	0.64	2.79	0.2
85	18	19	710.00	150	130	11.14	0.63	3.27	2.3
86	19	20	410.00	100	130	3.54	0.45	2.83	1.1
92	18	12	330.00	200	120	8.46	0.27LO	0.56	0.1
93	19	33	500.00	100	130	2.09	0.27LO	1.07	0.5

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	20.00	37.72	17.72
2	-4.066	25.00	37.31	12.31
3	-6.403	18.00	35.38	17.38
4	-4.161	8.00	29.73	21.73
5	-3.555	16.00	37.04	21.04
7	-2.071	6.00	36.82	30.82
8	-4.391	5.00	34.30	29.30
9	-4.353	5.00	31.49	26.49
10	-3.914	5.00	27.76	22.76
11	-3.080	5.00	25.52	20.52
12	-3.137	4.00	37.29	33.29
18	-4.769	15.00	37.47	22.47
19	-6.935	20.00	35.15	15.15

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
20	-5.056	20.00	33.98	13.98
33	-2.090	16.00	34.61	18.61
100 R	57.980	30.00	38.00	8.00

T I T L E : Panadura UC High Zone (2020 demand)

NO. OF PIPES : 23
NO. OF NODES : 16
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	10.00	200	100
2	1	2	130.00	150	100
3	2	3	400.00	150	100
4	3	4	910.00	100	100
5	2	5	180.00	80	100
6	5	7	240.00	80	100
7	7	8	250.00	150	100
8	8	9	510.00	150	100
9	9	10	230.00	100	100
10	10	11	630.00	100	100
11	1	18	90.00	150	100
12	18	19	710.00	100	100
13	19	20	410.00	80	100
14	12	7	280.00	150	100
56	18	12	330.00	80	100
80	1	2	130.00	200	120
82	2	5	180.00	200	120
83	5	7	240.00	200	120
84	1	18	90.00	200	120
85	18	19	710.00	150	130
86	19	20	410.00	100	130
92	18	12	330.00	200	120
93	19	33	500.00	100	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	20.00
2	0.0	-2.348	25.00
3	0.0	-3.697	18.00
4	0.0	-2.403	8.00
5	0.0	-2.052	16.00
7	0.0	-1.196	6.00
8	0.0	-2.535	5.00
9	0.0	-2.513	5.00
10	0.0	-2.260	5.00
11	0.0	-1.778	5.00
12	0.0	-1.811	4.00
18	0.0	-2.754	15.00
19	0.0	-4.005	20.00

NODE #	FIX	F L O W	ELEVATION
20	0.0	-2.919	20.00
33	0.0	-1.207	16.00
100	0.0	0.000	30.00

REFERENCE NODE	GRADE LINE
100	38.00

T I T L E : Panadura UC High Zone (2020 demand)
NO. OF PIPES : 23
NO. OF NODES : 16
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .002

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	10.00	200	100	63.61	2.02	32.93HI	0.3
2	1	2	130.00	150	100	9.26	0.52	3.78	0.4
3	2	3	400.00	150	100	11.59	0.66	5.73	2.2
4	3	4	910.00	100	100	4.57	0.58	7.37	6.7
5	2	5	180.00	80	100	1.17	0.23LO	1.77	0.3
6	5	7	240.00	80	100	0.90	0.18LO	1.09	0.2
7	7	8	250.00	150	100	17.26	0.98	11.97HI	2.9
8	8	9	510.00	150	100	12.45	0.70	6.54	3.3
9	9	10	230.00	100	100	7.67	0.98	19.24HI	4.4
10	10	11	630.00	100	100	3.38	0.43	4.22	2.6
11	1	18	90.00	150	100	8.61	0.49	3.31	0.3
12	18	19	710.00	100	100	3.23	0.41	3.89	2.7
13	19	20	410.00	80	100	1.66	0.33	3.36	1.3
14	12	7	280.00	150	100	6.53	0.37	1.98	0.5
56	18	12	330.00	80	100	0.69	0.14LO	0.67	0.2
80	1	2	130.00	200	120	23.70	0.75	3.78	0.4
82	2	5	180.00	200	120	15.73	0.50	1.77	0.3
83	5	7	240.00	200	120	12.10	0.39	1.09	0.2
84	1	18	90.00	200	120	22.04	0.70	3.31	0.3
85	18	19	710.00	150	130	12.22	0.69	3.89	2.7
86	19	20	410.00	100	130	3.89	0.49	3.36	1.3
92	18	12	330.00	200	120	9.28	0.30LO	0.67	0.2
93	19	33	500.00	100	130	2.29	0.29LO	1.27	0.6

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	20.00	37.67	17.67
2	-4.461	25.00	37.18	12.18
3	-7.024	18.00	34.89	16.89
4	-4.566	8.00	28.18	20.18
5	-3.899	16.00	36.86	20.86
7	-2.272	6.00	36.60	30.60
8	-4.817	5.00	33.60	28.60
9	-4.775	5.00	30.27	25.27
10	-4.294	5.00	25.84	20.84
11	-3.378	5.00	23.19	18.19
12	-3.441	4.00	37.15	33.15
18	-5.233	15.00	37.37	22.37
19	-7.609	20.00	34.61	14.61

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
20	-5.546	20.00	33.23	13.23
33	-2.293	16.00	33.98	17.98
100 R	63.608	30.00	38.00	8.00

T I T L E : Panadura UC Low Zone (2010 demand)

NO. OF PIPES : 51
NO. OF NODES : 38
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
15	21	12	300.00	200	100
16	25	21	280.00	200	100
17	25	26	160.00	350	100
18	23	26	250.00	215	100
19	13	23	370.00	170	100
20	13	15	640.00	130	100
21	15	16	560.00	130	100
22	16	17	580.00	80	100
23	14	15	610.00	150	100
24	24	14	330.00	200	100
25	27	24	250.00	200	100
26	26	27	340.00	300	100
27	22	21	440.00	100	100
30	25	30	280.00	250	100
31	31	30	200.00	200	100
32	32	31	420.00	150	100
33	31	34	200.00	200	100
34	34	36	280.00	150	100
35	36	37	110.00	100	100
36	30	38	230.00	200	100
37	38	39	240.00	200	100
38	39	40	400.00	150	100
39	36	40	280.00	100	100
40	40	41	270.00	150	100
41	41	42	390.00	100	100
42	40	51	720.00	100	100
43	26	28	180.00	250	100
44	28	45	410.00	215	100
45	27	29	270.00	250	100
46	29	45	480.00	250	100
47	45	46	270.00	300	100
48	46	47	380.00	300	100
49	47	48	150.00	300	100
50	48	49	320.00	300	100
51	49	50	200.00	300	100
52	50	51	650.00	100	100
53	50	52	270.00	250	100
54	52	53	290.00	215	100
55	53	54	180.00	170	100
87	21	12	300.00	200	130
88	12	13	160.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
89	22	21	440.00	200	130
90	201	32	215.00	200	120
91	25	21	280.00	200	130
100	200	201	20.00	200	130
102	201	22	215.00	200	130
103	32	31	420.00	200	130
104	200	25	500.00	225	130
105	200	25	500.00	400	120
106	16	17	580.00	100	130
107	28	45	410.00	200	130

NODE #	FIX	F L O W	ELEVATION
12	0.0	0.000	4.00
13	0.0	-1.750	4.00
14	0.0	-1.121	3.00
15	0.0	-2.591	4.00
16	0.0	-2.090	4.00
17	0.0	-1.501	4.00
21	0.0	-2.090	4.00
22	0.0	-3.280	12.00
23	0.0	-1.291	4.00
24	0.0	-0.631	3.00
25	0.0	-1.221	4.00
26	0.0	-1.100	4.00
27	0.0	-1.440	3.00
28	0.0	-0.951	4.00
29	0.0	-2.820	3.00
30	0.0	-2.261	6.00
31	0.0	-1.060	8.00
32	0.0	-2.530	8.00
34	0.0	-1.261	7.00
36	0.0	-1.551	4.00
37	0.0	-1.360	4.00
38	0.0	-0.751	4.00
39	0.0	-1.311	6.00
40	0.0	-2.830	6.00
41	0.0	-2.740	4.00
42	0.0	-1.861	5.00
45	0.0	-2.700	5.00
46	0.0	-3.040	6.00
47	0.0	-2.241	6.00
48	0.0	-2.581	6.00
49	0.0	-2.900	7.00
50	0.0	-2.641	5.00
51	0.0	-1.571	5.00
52	0.0	-3.200	5.00

NODE #	FIX	F L O W	ELEVATION
53	0.0	-2.560	5.00
54	0.0	-7.640	5.00
200	0.0	0.000	22.00
201	0.0	0.000	22.00

REFERENCE NODE	GRADE LINE
200	24.00

T I T L E : Panadura UC Low Zone (2010 demand)
NO. OF PIPES : 51
NO. OF NODES : 38
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .005

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
15	21	12	300.00	200	100	5.73	0.18LO	0.38	0.1
16	25	21	280.00	200	100	3.10	0.10LO	0.12	0.0
17	25	26	160.00	350	100	76.47	0.79	3.03	0.4
18	23	26	250.00	215	100	1.45	0.04LO	0.02	0.0
19	13	23	370.00	170	100	3.90	0.17LO	0.42	0.1
20	13	15	640.00	130	100	5.96	0.45	3.36	2.1
21	15	16	560.00	130	100	6.82	0.51	4.32	2.4
22	16	17	580.00	80	100	0.85	0.17LO	0.98	0.5
23	14	15	610.00	150	100	5.79	0.33	1.59	0.9
24	24	14	330.00	200	100	7.92	0.25LO	0.70	0.2
25	27	24	250.00	200	100	9.12	0.29LO	0.91	0.2
26	26	27	340.00	300	100	36.92	0.52	1.67	0.5
27	22	21	440.00	100	100	1.11	0.14LO	0.53	0.2
30	25	30	280.00	250	100	19.64	0.40	1.26	0.3
31	31	30	200.00	200	100	0.48	0.02LO	0.00	0.0
32	32	31	420.00	150	100	3.94	0.22LO	0.78	0.3
33	31	34	200.00	200	100	12.37	0.39	1.59	0.3
34	34	36	280.00	150	100	9.97	0.56	4.34	1.2
35	36	37	110.00	100	100	2.58	0.33	2.57	0.2
36	30	38	230.00	200	100	15.82	0.50	2.51	0.5
37	38	39	240.00	200	100	14.40	0.46	2.11	0.5
38	39	40	400.00	150	100	11.91	0.67	6.02	2.4
39	36	40	280.00	100	100	4.44	0.57	7.00	1.9
40	40	41	270.00	150	100	8.74	0.49	3.40	0.9
41	41	42	390.00	100	100	3.54	0.45	4.59	1.7
42	40	51	720.00	100	100	2.23	0.28LO	1.95	1.4
43	26	28	180.00	250	100	38.91	0.79	4.48	0.8
44	28	45	410.00	215	100	17.89	0.49	2.21	0.9
45	27	29	270.00	250	100	25.06	0.51	1.98	0.5
46	29	45	480.00	250	100	19.71	0.40	1.27	0.6
47	45	46	270.00	300	100	51.68	0.73	3.11	0.8
48	46	47	380.00	300	100	45.91	0.65	2.50	0.9
49	47	48	150.00	300	100	41.65	0.59	2.09	0.3
50	48	49	320.00	300	100	36.75	0.52	1.66	0.5
51	49	50	200.00	300	100	31.24	0.44	1.23	0.2
52	50	51	650.00	100	100	0.76	0.10LO	0.27	0.1
53	50	52	270.00	250	100	25.46	0.52	2.04	0.5
54	52	53	290.00	215	100	19.38	0.53	2.57	0.7
55	53	54	180.00	170	100	14.52	0.64	4.72	0.8
87	21	12	300.00	200	130	7.45	0.24LO	0.38	0.1
88	12	13	160.00	200	130	13.19	0.42	1.10	0.1

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
89	22	21	440.00	200	130	8.92	0.28LO	0.53	0.2
90	201	32	215.00	200	120	19.67	0.63	2.68	0.5
91	25	21	280.00	200	130	4.03	0.13LO	0.12	0.0
100	200	201	20.00	200	130	35.92	1.14	7.04	0.1
102	201	22	215.00	200	130	16.26	0.52	1.62	0.3
103	32	31	420.00	200	130	10.92	0.35	0.78	0.3
104	200	25	500.00	225	130	20.31	0.51	1.38	0.6
105	200	25	500.00	400	120	85.26	0.68	1.38	0.6
106	16	17	580.00	100	130	2.00	0.25LO	0.98	0.5
107	28	45	410.00	200	130	19.22	0.61	2.21	0.9

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
12	0.000	4.00	23.16	19.16
13	-3.325	4.00	22.98	18.98
14	-2.130	3.00	21.80	18.80
15	-4.923	4.00	20.83	16.83
16	-3.971	4.00	18.42	14.42
17	-2.852	4.00	17.85	13.85
21	-3.971	4.00	23.27	19.27
22	-6.232	12.00	23.51	11.51
23	-2.453	4.00	22.83	18.83
24	-1.199	3.00	22.03	19.03
25	-2.320	4.00	23.31	19.31
26	-2.090	4.00	22.82	18.82
27	-2.736	3.00	22.26	19.26
28	-1.807	4.00	22.02	18.02
29	-5.358	3.00	21.72	18.72
30	-4.296	6.00	22.96	16.96
31	-2.014	8.00	22.96	14.96
32	-4.807	8.00	23.28	15.28
34	-2.396	7.00	22.64	15.64
36	-2.947	4.00	21.42	17.42
37	-2.584	4.00	21.14	17.14
38	-1.427	4.00	22.38	18.38
39	-2.491	6.00	21.87	15.87
40	-5.377	6.00	19.46	13.46
41	-5.206	4.00	18.55	14.55
42	-3.536	5.00	16.76	11.76
45	-5.130	5.00	21.11	16.11
46	-5.776	6.00	20.27	14.27
47	-4.258	6.00	19.32	13.32
48	-4.904	6.00	19.01	13.01
49	-5.510	7.00	18.48	11.48
50	-5.018	5.00	18.23	13.23
51	-2.985	5.00	18.06	13.06

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
52	-6.080	5.00	17.68	12.68
53	-4.864	5.00	16.93	11.93
54	-14.516	5.00	16.08	11.08
200 R	141.487	22.00	24.00	2.00
201	0.000	22.00	23.86	1.86

T I T L E : Panadura UC Low Zone (2020 demand)

NO. OF PIPES : 51
NO. OF NODES : 38
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
15	21	12	300.00	200	100
16	25	21	280.00	200	100
17	25	26	160.00	350	100
18	23	26	250.00	215	100
19	13	23	370.00	170	100
20	13	15	640.00	130	100
21	15	16	560.00	130	100
22	16	17	580.00	80	100
23	14	15	610.00	150	100
24	24	14	330.00	200	100
25	27	24	250.00	200	100
26	26	27	340.00	300	100
27	22	21	440.00	100	100
30	25	30	280.00	250	100
31	31	30	200.00	200	100
32	32	31	420.00	150	100
33	31	34	200.00	200	100
34	34	36	280.00	150	100
35	36	37	110.00	100	100
36	30	38	230.00	200	100
37	38	39	240.00	200	100
38	39	40	400.00	150	100
39	36	40	280.00	100	100
40	40	41	270.00	150	100
41	41	42	390.00	100	100
42	40	51	720.00	100	100
43	26	28	180.00	250	100
44	28	45	410.00	215	100
45	27	29	270.00	250	100
46	29	45	480.00	250	100
47	45	46	270.00	300	100
48	46	47	380.00	300	100
49	47	48	150.00	300	100
50	48	49	320.00	300	100
51	49	50	200.00	300	100
52	50	51	650.00	100	100
53	50	52	270.00	250	100
54	52	53	290.00	215	100
55	53	54	180.00	170	100
87	21	12	300.00	200	130
88	12	13	160.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
89	22	21	440.00	200	130
90	201	32	215.00	200	120
91	25	21	280.00	200	130
100	200	201	20.00	200	130
102	201	22	215.00	200	130
103	32	31	420.00	200	130
104	200	25	500.00	225	130
105	200	25	500.00	400	120
106	16	17	580.00	100	130
107	28	45	410.00	200	130

NODE #	FIX	F L O W	ELEVATION
12	0.0	0.000	4.00
13	0.0	-1.920	4.00
14	0.0	-1.229	3.00
15	0.0	-2.842	4.00
16	0.0	-2.293	4.00
17	0.0	-1.646	4.00
21	0.0	-2.293	4.00
22	0.0	-3.599	12.00
23	0.0	-1.416	4.00
24	0.0	-0.692	3.00
25	0.0	-1.339	4.00
26	0.0	-1.207	4.00
27	0.0	-1.580	3.00
28	0.0	-1.043	4.00
29	0.0	-3.094	3.00
30	0.0	-2.480	6.00
31	0.0	-1.163	8.00
32	0.0	-2.776	8.00
34	0.0	-1.383	7.00
36	0.0	-1.701	4.00
37	0.0	-1.492	4.00
38	0.0	-0.823	4.00
39	0.0	-1.438	6.00
40	0.0	-3.105	6.00
41	0.0	-3.006	4.00
42	0.0	-2.041	5.00
45	0.0	-2.962	5.00
46	0.0	-3.335	6.00
47	0.0	-2.458	6.00
48	0.0	-2.831	6.00
49	0.0	-3.182	7.00
50	0.0	-2.897	5.00
51	0.0	-1.723	5.00
52	0.0	-3.511	5.00

NODE #	FIX	F L O W	ELEVATION
53	0.0	-2.809	5.00
54	0.0	-7.809	5.00
200	0.0	0.000	22.00
201	0.0	0.000	22.00

REFERENCE NODE	GRADE LINE
200	24.00

T I T L E : Panadura UC Low Zone (2020 demand)
NO. OF PIPES : 51
NO. OF NODES : 38
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .005

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
15	21	12	300.00	200	100	6.25	0.20LO	0.45	0.1
16	25	21	280.00	200	100	3.41	0.11LO	0.15	0.0
17	25	26	160.00	350	100	82.99	0.86	3.53	0.5
18	23	26	250.00	215	100	1.51	0.04LO	0.02	0.0
19	13	23	370.00	170	100	4.20	0.18LO	0.48	0.1
20	13	15	640.00	130	100	6.52	0.49	3.97	2.5
21	15	16	560.00	130	100	7.48	0.56	5.12	2.8
22	16	17	580.00	80	100	0.94	0.19LO	1.17	0.6
23	14	15	610.00	150	100	6.36	0.36	1.89	1.1
24	24	14	330.00	200	100	8.70	0.28LO	0.83	0.2
25	27	24	250.00	200	100	10.01	0.32	1.08	0.2
26	26	27	340.00	300	100	40.11	0.57	1.95	0.6
27	22	21	440.00	100	100	1.20	0.15LO	0.62	0.2
30	25	30	280.00	250	100	21.54	0.44	1.50	0.4
31	31	30	200.00	200	100	0.46	0.01LO	0.00	0.0
32	32	31	420.00	150	100	4.30	0.24LO	0.91	0.3
33	31	34	200.00	200	100	13.54	0.43	1.88	0.3
34	34	36	280.00	150	100	10.91	0.62	5.12	1.4
35	36	37	110.00	100	100	2.83	0.36	3.05	0.3
36	30	38	230.00	200	100	17.29	0.55	2.96	0.6
37	38	39	240.00	200	100	15.73	0.50	2.48	0.6
38	39	40	400.00	150	100	13.00	0.74	7.08	2.8
39	36	40	280.00	100	100	4.84	0.62	8.21	2.3
40	40	41	270.00	150	100	9.59	0.54	4.04	1.0
41	41	42	390.00	100	100	3.88	0.49	5.45	2.1
42	40	51	720.00	100	100	2.35	0.30LO	2.16	1.5
43	26	28	180.00	250	100	42.10	0.86	5.18	0.9
44	28	45	410.00	215	100	19.34	0.53	2.56	1.0
45	27	29	270.00	250	100	27.10	0.55	2.29	0.6
46	29	45	480.00	250	100	21.22	0.43	1.46	0.7
47	45	46	270.00	300	100	55.70	0.79	3.58	0.9
48	46	47	380.00	300	100	49.37	0.70	2.86	1.0
49	47	48	150.00	300	100	44.70	0.63	2.38	0.3
50	48	49	320.00	300	100	39.32	0.56	1.88	0.6
51	49	50	200.00	300	100	33.27	0.47	1.38	0.2
52	50	51	650.00	100	100	0.92	0.12LO	0.38	0.2
53	50	52	270.00	250	100	26.85	0.55	2.25	0.6
54	52	53	290.00	215	100	20.17	0.56	2.77	0.8
55	53	54	180.00	170	100	14.84	0.65	4.92	0.8
87	21	12	300.00	200	130	8.12	0.26LO	0.45	0.1
88	12	13	160.00	200	130	14.37	0.46	1.29	0.2

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
89	22	21	440.00	200	130	9.68	0.31	0.62	0.2
90	201	32	215.00	200	120	21.48	0.68	3.15	0.6
91	25	21	280.00	200	130	4.43	0.14LO	0.15	0.0
100	200	201	20.00	200	130	39.20	1.25	8.28	0.1
102	201	22	215.00	200	130	17.72	0.56	1.91	0.4
103	32	31	420.00	200	130	11.91	0.38	0.91	0.3
104	200	25	500.00	225	130	22.11	0.56	1.62	0.8
105	200	25	500.00	400	120	92.81	0.74	1.62	0.8
106	16	17	580.00	100	130	2.19	0.28LO	1.17	0.6
107	28	45	410.00	200	130	20.78	0.66	2.56	1.0

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
12	0.000	4.00	23.02	19.02
13	-3.648	4.00	22.81	18.81
14	-2.335	3.00	21.42	18.42
15	-5.400	4.00	20.27	16.27
16	-4.357	4.00	17.40	13.40
17	-3.127	4.00	16.73	12.73
21	-4.357	4.00	23.15	19.15
22	-6.838	12.00	23.42	11.42
23	-2.690	4.00	22.63	18.63
24	-1.315	3.00	21.70	18.70
25	-2.544	4.00	23.19	19.19
26	-2.293	4.00	22.63	18.63
27	-3.002	3.00	21.96	18.96
28	-1.982	4.00	21.70	17.70
29	-5.879	3.00	21.35	18.35
30	-4.712	6.00	22.77	16.77
31	-2.210	8.00	22.77	14.77
32	-5.274	8.00	23.16	15.16
34	-2.628	7.00	22.40	15.40
36	-3.232	4.00	20.96	16.96
37	-2.835	4.00	20.63	16.63
38	-1.564	4.00	22.09	18.09
39	-2.732	6.00	21.50	15.50
40	-5.899	6.00	18.66	12.66
41	-5.711	4.00	17.57	13.57
42	-3.878	5.00	15.45	10.45
45	-5.628	5.00	20.65	15.65
46	-6.337	6.00	19.68	13.68
47	-4.670	6.00	18.59	12.59
48	-5.379	6.00	18.24	12.24
49	-6.046	7.00	17.64	10.64
50	-5.504	5.00	17.36	12.36
51	-3.274	5.00	17.11	12.11

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
52	-6.671	5.00	16.75	11.75
53	-5.337	5.00	15.95	10.95
54	-14.837	5.00	15.06	10.06
200 R	154.124	22.00	24.00	2.00
201	0.000	22.00	23.83	1.83

T I T L E : Towns South Kesbewa Main Area (2010 demand)

NO. OF PIPES : 64
NO. OF NODES : 42
PEAK FACTOR : 1.7
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	200.00	600	120
2	1	2	500.00	600	120
3	2	3	520.00	500	120
4	3	4	750.00	500	120
5	4	10	500.00	500	120
6	1	5	600.00	600	120
7	5	6	750.00	500	120
8	6	26	800.00	500	120
9	5	7	200.00	200	130
10	7	8	1000.00	150	130
11	5	9	500.00	200	130
12	10	11	1300.00	400	120
13	10	11	1300.00	200	130
14	11	12	700.00	300	120
15	12	13	300.00	300	120
16	12	13	300.00	150	130
17	13	14	280.00	250	120
18	13	14	280.00	150	130
19	14	15	350.00	250	120
20	14	15	350.00	150	130
21	15	16	280.00	200	130
22	15	16	280.00	100	130
23	16	17	240.00	200	130
24	16	17	240.00	100	130
25	10	18	1350.00	200	130
26	11	19	520.00	100	130
27	18	19	530.00	100	130
28	18	20	1100.00	100	130
29	20	21	480.00	150	130
30	12	22	1300.00	150	130
31	22	23	1000.00	100	130
32	16	23	850.00	100	130
33	15	23	950.00	100	130
34	13	24	1200.00	150	130
35	14	24	950.00	100	130
36	24	25	520.00	150	130
37	17	25	1000.00	100	130
38	10	26	490.00	300	120
39	10	26	490.00	200	130
40	26	27	480.00	500	120
41	26	27	480.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	27	28	280.00	500	120
43	27	28	280.00	200	130
44	28	29	330.00	400	120
45	28	29	330.00	200	130
46	29	30	250.00	400	120
47	29	30	250.00	200	130
48	30	31	350.00	300	120
49	30	31	350.00	200	130
50	31	32	520.00	300	120
51	31	32	520.00	200	130
52	32	33	1350.00	250	120
53	32	33	1350.00	200	130
54	33	34	1400.00	200	130
55	33	34	1400.00	100	130
56	26	35	400.00	250	120
57	35	36	1550.00	200	130
58	36	37	250.00	200	130
59	37	20	1200.00	200	130
60	35	40	1200.00	200	130
61	28	38	300.00	300	120
62	38	39	400.00	200	130
63	29	40	300.00	250	120
64	40	41	1100.00	200	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	22.00
2	0.0	-4.260	11.00
3	0.0	-4.260	10.00
4	0.0	-4.260	20.00
5	0.0	-1.572	18.00
6	0.0	-1.572	15.00
7	0.0	-1.572	18.00
8	0.0	-1.572	18.00
9	0.0	-6.759	18.00
10	0.0	-3.059	10.00
11	0.0	-1.667	8.00
12	0.0	-2.422	9.00
13	0.0	-2.422	12.00
14	0.0	-1.673	10.00
15	0.0	-1.673	8.00
16	0.0	-0.838	7.00
17	0.0	-0.838	7.00
18	0.0	-1.667	20.00
19	0.0	-1.667	16.00
20	0.0	-1.667	16.00
21	0.0	-1.667	12.00

NODE #	FIX	F L O W	ELEVATION
22	0.0	-2.422	8.00
23	0.0	-2.422	8.00
24	0.0	-1.673	11.00
25	0.0	-1.673	12.00
26	0.0	-3.059	14.00
27	0.0	-3.059	15.00
28	0.0	-3.059	20.00
29	0.0	-3.059	23.00
30	0.0	0.000	23.00
31	0.0	-4.771	23.00
32	0.0	-4.771	17.00
33	0.0	-4.771	22.00
34	0.0	-4.771	12.00
35	0.0	-3.059	10.00
36	0.0	-1.667	20.00
37	0.0	-1.298	18.00
38	0.0	-8.008	21.00
39	0.0	-5.187	21.00
40	0.0	-3.059	18.00
41	0.0	-2.272	22.00
100	0.0	0.000	22.00

REFERENCE NODE	GRADE LINE
100	40.00

T I T L E : Towns South Kesbewa Main Area (2010 demand)
NO. OF PIPES : 64
NO. OF NODES : 42
PEAK FACTOR : 1.7
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .005

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	200.00	600	120	188.95	0.67	0.84	0.1
2	1	2	500.00	600	120	87.19	0.31	0.20	0.1
3	2	3	520.00	500	120	79.95	0.41	0.41	0.2
4	3	4	750.00	500	120	72.71	0.37	0.35	0.2
5	4	10	500.00	500	120	65.47	0.33	0.29	0.1
6	1	5	600.00	600	120	101.76	0.36	0.27	0.1
7	5	6	750.00	500	120	82.25	0.42	0.44	0.3
8	6	26	800.00	500	120	79.58	0.41	0.41	0.3
9	5	7	200.00	200	130	5.34	0.17LO	0.21	0.0
10	7	8	1000.00	150	130	2.67	0.15LO	0.23	0.2
11	5	9	500.00	200	130	11.49	0.37	0.85	0.4
12	10	11	1300.00	400	120	29.87	0.24LO	0.20	0.2
13	10	11	1300.00	200	130	5.22	0.17LO	0.20	0.2
14	11	12	700.00	300	120	30.70	0.43	0.85	0.5
15	12	13	300.00	300	120	18.61	0.26LO	0.34	0.1
16	12	13	300.00	150	130	3.25	0.18LO	0.34	0.1
17	13	14	280.00	250	120	11.15	0.23LO	0.32	0.0
18	13	14	280.00	150	130	3.15	0.18LO	0.32	0.0
19	14	15	350.00	250	120	8.00	0.16LO	0.17	0.0
20	14	15	350.00	150	130	2.26	0.13LO	0.17	0.0
21	15	16	280.00	200	130	4.89	0.16LO	0.18	0.0
22	15	16	280.00	100	130	0.79	0.10LO	0.18	0.0
23	16	17	240.00	200	130	2.13	0.07LO	0.04	0.0
24	16	17	240.00	100	130	0.34	0.04LO	0.04	0.0
25	10	18	1350.00	200	130	6.04	0.19LO	0.26	0.3
26	11	19	520.00	100	130	1.56	0.20LO	0.62	0.3
27	18	19	530.00	100	130	1.28	0.16LO	0.43	0.2
28	18	20	1100.00	100	130	1.93	0.25LO	0.92	1.0
29	20	21	480.00	150	130	2.83	0.16LO	0.26	0.1
30	12	22	1300.00	150	130	4.72	0.27LO	0.67	0.8
31	22	23	1000.00	100	130	0.60	0.08LO	0.11	0.1
32	16	23	850.00	100	130	1.78	0.23LO	0.79	0.6
33	15	23	950.00	100	130	1.74	0.22LO	0.76	0.7
34	13	24	1200.00	150	130	3.44	0.19LO	0.37	0.4
35	14	24	950.00	100	130	1.19	0.15LO	0.38	0.3
36	24	25	520.00	150	130	1.79	0.10LO	0.11	0.0
37	17	25	1000.00	100	130	1.05	0.13LO	0.30	0.3
38	10	26	490.00	300	120	13.94	0.20LO	0.20	0.1
39	10	26	490.00	200	130	5.19	0.17LO	0.20	0.1
40	26	27	480.00	500	120	69.75	0.36	0.32	0.1
41	26	27	480.00	200	130	6.77	0.22LO	0.32	0.1

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
42	27	28	280.00	500	120	65.01	0.33	0.28	0.0
43	27	28	280.00	200	130	6.31	0.20LO	0.28	0.0
44	28	29	330.00	400	120	37.19	0.30LO	0.30	0.1
45	28	29	330.00	200	130	6.50	0.21LO	0.30	0.1
46	29	30	250.00	400	120	27.62	0.22LO	0.17	0.0
47	29	30	250.00	200	130	4.83	0.15LO	0.17	0.0
48	30	31	350.00	300	120	23.64	0.33	0.52	0.1
49	30	31	350.00	200	130	8.81	0.28LO	0.52	0.1
50	31	32	520.00	300	120	17.73	0.25LO	0.31	0.1
51	31	32	520.00	200	130	6.60	0.21LO	0.31	0.1
52	32	33	1350.00	250	120	10.13	0.21LO	0.26	0.3
53	32	33	1350.00	200	130	6.10	0.19LO	0.26	0.3
54	33	34	1400.00	200	130	6.98	0.22LO	0.34	0.4
55	33	34	1400.00	100	130	1.13	0.14LO	0.34	0.4
56	26	35	400.00	250	120	16.99	0.35	0.69	0.2
57	35	36	1550.00	200	130	8.78	0.28LO	0.52	0.8
58	36	37	250.00	200	130	5.94	0.19LO	0.25	0.0
59	37	20	1200.00	200	130	3.73	0.12LO	0.11	0.1
60	35	40	1200.00	200	130	3.02	0.10LO	0.07	0.0
61	28	38	300.00	300	120	22.43	0.32	0.47	0.1
62	38	39	400.00	200	130	8.82	0.28LO	0.52	0.2
63	29	40	300.00	250	120	6.05	0.12LO	0.10	0.0
64	40	41	1100.00	200	130	3.86	0.12LO	0.11	0.1

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	22.00	39.83	17.83
2	-7.242	11.00	39.73	28.73
3	-7.242	10.00	39.52	29.52
4	-7.242	20.00	39.26	19.26
5	-2.672	18.00	39.67	21.67
6	-2.672	15.00	39.35	24.35
7	-2.672	18.00	39.63	21.63
8	-2.672	18.00	39.40	21.40
9	-11.490	18.00	39.25	21.25
10	-5.200	10.00	39.11	29.11
11	-2.834	8.00	38.86	30.86
12	-4.117	9.00	38.26	29.26
13	-4.117	12.00	38.16	26.16
14	-2.844	10.00	38.07	28.07
15	-2.844	8.00	38.01	30.01
16	-1.425	7.00	37.96	30.96
17	-1.425	7.00	37.96	30.96
18	-2.834	20.00	38.76	18.76
19	-2.834	16.00	38.53	22.53
20	-2.834	16.00	37.75	21.75

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
21	-2.834	12.00	37.62	25.62
22	-4.117	8.00	37.39	29.39
23	-4.117	8.00	37.29	29.29
24	-2.844	11.00	37.71	26.71
25	-2.844	12.00	37.66	25.66
26	-5.200	14.00	39.02	25.02
27	-5.200	15.00	38.86	23.86
28	-5.200	20.00	38.78	18.78
29	-5.200	23.00	38.69	15.69
30	0.000	23.00	38.64	15.64
31	-8.111	23.00	38.46	15.46
32	-8.111	17.00	38.30	21.30
33	-8.111	22.00	37.94	15.94
34	-8.111	12.00	37.47	25.47
35	-5.200	10.00	38.74	28.74
36	-2.834	20.00	37.94	17.94
37	-2.207	18.00	37.87	19.87
38	-13.614	21.00	38.64	17.64
39	-8.818	21.00	38.43	17.43
40	-5.200	18.00	38.66	20.66
41	-3.862	22.00	38.53	16.53
100 R	188.950	22.00	40.00	18.00

T I T L E : Towns South Kesbewa Main Area (2020 demand)

NO. OF PIPES : 75
NO. OF NODES : 42
PEAK FACTOR : 1.7
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	200.00	600	120
2	1	2	500.00	600	120
3	2	3	520.00	500	120
4	3	4	750.00	500	120
5	4	10	500.00	500	120
6	1	5	600.00	600	120
7	5	6	750.00	500	120
8	6	26	800.00	500	120
9	5	7	200.00	200	130
10	7	8	1000.00	150	130
11	5	9	500.00	200	130
12	10	11	1300.00	400	120
13	10	11	1300.00	200	130
14	11	12	700.00	300	120
15	12	13	300.00	300	120
16	12	13	300.00	150	130
17	13	14	280.00	250	120
18	13	14	280.00	150	130
19	14	15	350.00	250	120
20	14	15	350.00	150	130
21	15	16	280.00	200	130
22	15	16	280.00	100	130
23	16	17	240.00	200	130
24	16	17	240.00	100	130
25	18	10	1350.00	200	130
26	11	19	520.00	100	130
27	18	19	530.00	100	130
28	18	20	1100.00	100	130
29	20	21	480.00	150	130
30	12	22	1300.00	150	130
31	23	22	1000.00	100	130
32	16	23	850.00	100	130
33	15	23	950.00	100	130
34	13	24	1200.00	150	130
35	14	24	950.00	100	130
36	24	25	520.00	150	130
37	17	25	1000.00	100	130
38	10	26	490.00	300	120
39	10	26	490.00	200	130
40	26	27	480.00	500	120
41	26	27	480.00	200	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
42	27	28	280.00	500	120
43	27	28	280.00	200	130
44	28	29	330.00	400	120
45	28	29	330.00	200	130
46	29	30	250.00	400	120
47	29	30	250.00	200	130
48	30	31	350.00	300	120
49	30	31	350.00	200	130
50	31	32	520.00	300	120
51	31	32	520.00	200	130
52	32	33	1350.00	250	120
53	32	33	1350.00	200	130
54	33	34	1400.00	200	130
55	33	34	1400.00	100	130
56	26	35	400.00	250	120
57	35	36	1550.00	200	130
58	36	37	250.00	200	130
59	37	20	1200.00	200	130
60	35	40	1200.00	200	130
61	28	38	300.00	300	120
62	38	39	400.00	200	130
63	29	40	300.00	250	120
64	40	41	1100.00	200	130
80	1	2	200.00	200	130
81	2	18	520.00	250	120
82	3	4	750.00	250	120
83	4	10	500.00	250	120
84	18	10	1350.00	200	130
85	23	22	1000.00	150	130
86	16	23	850.00	150	130
87	1	5	600.00	200	130
88	5	6	750.00	250	120
89	6	26	800.00	250	120
90	35	36	1550.00	150	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	22.00
2	0.0	-10.090	11.00
3	0.0	-10.090	10.00
4	0.0	-10.090	20.00
5	0.0	-3.723	18.00
6	0.0	-3.723	15.00
7	0.0	-3.723	18.00
8	0.0	-3.723	18.00
9	0.0	-16.009	18.00
10	0.0	-7.244	10.00

NODE #	FIX	F L O W	ELEVATION
11	0.0	-3.947	8.00
12	0.0	-5.735	9.00
13	0.0	-5.735	12.00
14	0.0	-3.961	10.00
15	0.0	-3.961	8.00
16	0.0	-1.983	7.00
17	0.0	-1.983	7.00
18	0.0	-3.947	20.00
19	0.0	-3.947	16.00
20	0.0	-3.947	16.00
21	0.0	-3.947	12.00
22	0.0	-5.735	8.00
23	0.0	-5.735	8.00
24	0.0	-3.961	11.00
25	0.0	-3.961	12.00
26	0.0	-7.244	14.00
27	0.0	-7.244	15.00
28	0.0	-7.244	20.00
29	0.0	-7.244	23.00
30	0.0	0.000	23.00
31	0.0	-11.301	23.00
32	0.0	-11.301	17.00
33	0.0	-11.301	22.00
34	0.0	-11.301	12.00
35	0.0	-7.244	10.00
36	0.0	-3.947	20.00
37	0.0	-3.073	18.00
38	0.0	-18.969	21.00
39	0.0	-12.287	21.00
40	0.0	-7.244	18.00
41	0.0	-5.382	22.00
100	0.0	0.000	22.00

REFERENCE NODE	GRADE LINE
100	40.00

T I T L E : Towns South Kesbewa Main Area (2020 demand)
NO. OF PIPES : 75
NO. OF NODES : 42
PEAK FACTOR : 1.7
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .006

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
1	100	1	200.00	600	120	447.48	1.58	4.12	0.8
2	1	2	500.00	600	120	194.29	0.69	0.88	0.4
3	2	3	520.00	500	120	163.12	0.83	1.55	0.8
4	3	4	750.00	500	120	125.70	0.64	0.96	0.7
5	4	10	500.00	500	120	110.93	0.56	0.76	0.3
6	1	5	600.00	600	120	220.78	0.78	1.12	0.6
7	5	6	750.00	500	120	161.76	0.82	1.52	1.1
8	6	26	800.00	500	120	156.31	0.80	1.43	1.1
9	5	7	200.00	200	130	12.66	0.40	1.02	0.2
10	7	8	1000.00	150	130	6.33	0.36	1.15	1.1
11	5	9	500.00	200	130	27.22	0.87	4.21	2.1
12	10	11	1300.00	400	120	69.36	0.55	0.94	1.2
13	10	11	1300.00	200	130	12.12	0.39	0.94	1.2
14	11	12	700.00	300	120	72.68	1.03	4.17	2.9
15	12	13	300.00	300	120	46.11	0.65	1.80	0.5
16	12	13	300.00	150	130	8.06	0.46	1.80	0.5
17	13	14	280.00	250	120	28.17	0.57	1.76	0.4
18	13	14	280.00	150	130	7.95	0.45	1.76	0.4
19	14	15	350.00	250	120	20.70	0.42	0.99	0.3
20	14	15	350.00	150	130	5.85	0.33	0.99	0.3
21	15	16	280.00	200	130	14.98	0.48	1.40	0.3
22	15	16	280.00	100	130	2.42	0.31	1.40	0.3
23	16	17	240.00	200	130	4.91	0.16LO	0.18	0.0
24	16	17	240.00	100	130	0.79	0.10LO	0.18	0.0
25	18	10	1350.00	200	130	8.53	0.27LO	0.49	0.6
26	11	19	520.00	100	130	2.10	0.27LO	1.07	0.5
27	18	19	530.00	100	130	4.61	0.59	4.62	2.4
28	18	20	1100.00	100	130	4.79	0.61	4.95	5.4
29	20	21	480.00	150	130	6.71	0.38	1.28	0.6
30	12	22	1300.00	150	130	8.76	0.50	2.10	2.7
31	23	22	1000.00	100	130	0.25	0.03LO	0.02	0.0
32	16	23	850.00	100	130	2.13	0.27LO	1.11	0.9
33	15	23	950.00	100	130	2.42	0.31	1.40	1.3
34	13	24	1200.00	150	130	8.29	0.47	1.90	2.2
35	14	24	950.00	100	130	2.84	0.36	1.88	1.7
36	24	25	520.00	150	130	4.40	0.25LO	0.59	0.3
37	17	25	1000.00	100	130	2.33	0.30LO	1.31	1.3
38	10	26	490.00	300	120	37.94	0.54	1.25	0.6
39	10	26	490.00	200	130	14.14	0.45	1.25	0.6
40	26	27	480.00	500	120	165.15	0.84	1.58	0.7
41	26	27	480.00	200	130	16.04	0.51	1.58	0.7

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
42	27	28	280.00	500	120	153.92	0.78	1.39	0.3
43	27	28	280.00	200	130	14.95	0.48	1.39	0.3
44	28	29	330.00	400	120	88.04	0.70	1.47	0.4
45	28	29	330.00	200	130	15.38	0.49	1.47	0.4
46	29	30	250.00	400	120	65.42	0.52	0.85	0.2
47	29	30	250.00	200	130	11.43	0.36	0.85	0.2
48	30	31	350.00	300	120	55.99	0.79	2.58	0.9
49	30	31	350.00	200	130	20.86	0.66	2.58	0.9
50	31	32	520.00	300	120	41.99	0.59	1.51	0.7
51	31	32	520.00	200	130	15.64	0.50	1.51	0.7
52	32	33	1350.00	250	120	23.98	0.49	1.30	1.7
53	32	33	1350.00	200	130	14.44	0.46	1.30	1.7
54	33	34	1400.00	200	130	16.54	0.53	1.68	2.3
55	33	34	1400.00	100	130	2.67	0.34	1.68	2.3
56	26	35	400.00	250	120	40.09	0.82	3.37	1.3
57	35	36	1550.00	200	130	14.00	0.45	1.23	1.9
58	36	37	250.00	200	130	13.86	0.44	1.21	0.3
59	37	20	1200.00	200	130	8.63	0.27LO	0.50	0.6
60	35	40	1200.00	200	130	7.21	0.23LO	0.36	0.4
61	28	38	300.00	300	120	53.14	0.75	2.34	0.7
62	38	39	400.00	200	130	20.89	0.66	2.58	1.0
63	29	40	300.00	250	120	14.26	0.29LO	0.50	0.1
64	40	41	1100.00	200	130	9.15	0.29LO	0.56	0.6
80	1	2	200.00	200	130	19.16	0.61	2.20	0.4
81	2	18	520.00	250	120	33.17	0.68	2.38	1.2
82	3	4	750.00	250	120	20.27	0.41	0.96	0.7
83	4	10	500.00	250	120	17.89	0.36	0.76	0.3
84	18	10	1350.00	200	130	8.53	0.27LO	0.49	0.6
85	23	22	1000.00	150	130	0.74	0.04LO	0.02	0.0
86	16	23	850.00	150	130	6.19	0.35	1.11	0.9
87	1	5	600.00	200	130	13.27	0.42	1.12	0.6
88	5	6	750.00	250	120	26.09	0.53	1.52	1.1
89	6	26	800.00	250	120	25.21	0.51	1.43	1.1
90	35	36	1550.00	150	130	6.57	0.37	1.23	1.9

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	22.00	39.18	17.18
2	-17.153	11.00	38.74	27.74
3	-17.153	10.00	37.93	27.93
4	-17.153	20.00	37.21	17.21
5	-6.329	18.00	38.51	20.51
6	-6.329	15.00	37.36	22.36
7	-6.329	18.00	38.30	20.30
8	-6.329	18.00	37.15	19.15
9	-27.215	18.00	36.40	18.40

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
10	-12.315	10.00	36.83	26.83
11	-6.710	8.00	35.61	27.61
12	-9.750	9.00	32.69	23.69
13	-9.750	12.00	32.15	20.15
14	-6.734	10.00	31.65	21.65
15	-6.734	8.00	31.31	23.31
16	-3.371	7.00	30.92	23.92
17	-3.371	7.00	30.87	23.87
18	-6.710	20.00	37.50	17.50
19	-6.710	16.00	35.05	19.05
20	-6.710	16.00	32.05	16.05
21	-6.710	12.00	31.44	19.44
22	-9.750	8.00	29.95	21.95
23	-9.750	8.00	29.98	21.98
24	-6.734	11.00	29.87	18.87
25	-6.734	12.00	29.56	17.56
26	-12.315	14.00	36.22	22.22
27	-12.315	15.00	35.46	20.46
28	-12.315	20.00	35.07	15.07
29	-12.315	23.00	34.59	11.59
30	0.000	23.00	34.37	11.37
31	-19.212	23.00	33.47	10.47
32	-19.212	17.00	32.69	15.69
33	-19.212	22.00	30.92	8.92
34	-19.212	12.00	28.57	16.57
35	-12.315	10.00	34.87	24.87
36	-6.710	20.00	32.96	12.96
37	-5.224	18.00	32.66	14.66
38	-32.247	21.00	34.37	13.37
39	-20.888	21.00	33.33	12.33
40	-12.315	18.00	34.44	16.44
41	-9.149	22.00	33.82	11.82
100 R	447.484	22.00	40.00	18.00

T I T L E : Kesbewa Sub_1 (from Kalatuwawa Main, 2010 demand)

NO. OF PIPES : 16
NO. OF NODES : 17
PEAK FACTOR : 1.8
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	60	50.00	300	120
2	60	61	1350.00	150	130
3	60	62	1000.00	250	120
4	62	63	1100.00	200	130
5	60	64	300.00	250	120
6	64	65	1600.00	150	130
7	64	66	600.00	250	120
8	66	67	480.00	150	130
9	66	68	900.00	250	120
10	68	69	850.00	200	130
11	69	70	240.00	150	130
12	70	71	550.00	150	130
13	70	72	1200.00	150	130
14	69	73	300.00	200	130
15	73	74	320.00	100	130
16	73	75	1350.00	150	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	25.00
60	0.0	-2.480	25.00
61	0.0	-2.480	20.00
62	0.0	-9.930	18.00
63	0.0	-9.930	24.00
64	0.0	-2.480	22.00
65	0.0	-1.450	17.00
66	0.0	-2.480	18.00
67	0.0	-2.480	17.00
68	0.0	-2.480	20.00
69	0.0	-1.650	21.00
70	0.0	-1.650	19.00
71	0.0	-1.650	18.00
72	0.0	-1.650	14.00
73	0.0	-1.650	20.00
74	0.0	-1.650	10.00
75	0.0	-1.650	12.00

REFERENCE NODE	GRADE LINE
200	40.00

T I T L E : Kesbewa Sub_1 (from Kalatuwawa Main, 2010 demand)
NO. OF PIPES : 16
NO. OF NODES : 17
PEAK FACTOR : 1.8
MAX HEADLOSS/Km : 10

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	200	60	50.00	300	120	85.93	1.22	5.69	0.28
2	60	61	1350.00	150	130	4.46	0.25LO	0.60	0.81
3	60	62	1000.00	250	120	35.75	0.73	2.73	2.73
4	62	63	1100.00	200	130	17.87	0.57	1.94	2.13
5	60	64	300.00	250	120	41.26	0.84	3.56	1.07
6	64	65	1600.00	150	130	2.61	0.15LO	0.22	0.36
7	64	66	600.00	250	120	34.18	0.70	2.51	1.51
8	66	67	480.00	150	130	4.46	0.25LO	0.60	0.29
9	66	68	900.00	250	120	25.25	0.51	1.44	1.29
10	68	69	850.00	200	130	20.79	0.66	2.56	2.18
11	69	70	240.00	150	130	8.91	0.50	2.17	0.52
12	70	71	550.00	150	130	2.97	0.17LO	0.28	0.16
13	70	72	1200.00	150	130	2.97	0.17LO	0.28	0.34
14	69	73	300.00	200	130	8.91	0.28LO	0.53	0.16
15	73	74	320.00	100	130	2.97	0.38	2.05	0.65
16	73	75	1350.00	150	130	2.97	0.17LO	0.28	0.38

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	85.932	25.00	40.00	15.00
60	-4.464	25.00	39.72	14.72
61	-4.464	20.00	38.90	18.90
62	-17.874	18.00	36.99	18.99
63	-17.874	24.00	34.86	10.86
64	-4.464	22.00	38.65	16.65
65	-2.610	17.00	38.29	21.29
66	-4.464	18.00	37.14	19.14
67	-4.464	17.00	36.85	19.85
68	-4.464	20.00	35.85	15.85
69	-2.970	21.00	33.67	12.67
70	-2.970	19.00	33.15	14.15
71	-2.970	18.00	33.00	15.00
72	-2.970	14.00	32.81	18.81
73	-2.970	20.00	33.51	13.51
74	-2.970	10.00	32.86	22.86
75	-2.970	12.00	33.13	21.13

T I T L E : Kesbewa Sub_1 (from Kalatuwawa Main, 2020 demand)

NO. OF PIPES : 22
NO. OF NODES : 17
PEAK FACTOR : 1.7
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	200	60	50.00	300	120
2	60	61	1350.00	150	130
3	60	62	1000.00	250	120
4	62	63	1100.00	200	130
5	60	64	300.00	250	120
6	64	65	1600.00	150	130
7	64	66	600.00	250	120
8	66	67	480.00	150	130
9	66	68	900.00	250	120
10	68	69	850.00	200	130
11	69	70	240.00	150	130
12	70	71	550.00	150	130
13	70	72	1200.00	150	130
14	69	73	300.00	200	130
15	73	74	320.00	100	130
16	73	75	1350.00	150	130
31	60	62	1000.00	200	130
32	62	63	1100.00	200	130
33	60	64	300.00	150	130
34	64	66	600.00	200	130
35	66	68	900.00	200	130
36	68	69	850.00	200	130

NODE #	FIX	F L O W	ELEVATION
200	0.0	0.000	25.00
60	0.0	-4.891	25.00
61	0.0	-4.891	20.00
62	0.0	-19.582	18.00
63	0.0	-19.582	24.00
64	0.0	-4.891	22.00
65	0.0	-2.860	17.00
66	0.0	-4.891	18.00
67	0.0	-4.891	17.00
68	0.0	-4.891	20.00
69	0.0	-3.254	21.00
70	0.0	-3.254	19.00
71	0.0	-3.254	18.00
72	0.0	-3.254	14.00

NODE #	FIX	F L O W	ELEVATION
73	0.0	-3.254	20.00
74	0.0	-3.254	10.00
75	0.0	-3.254	12.00

REFERENCE NODE	GRADE LINE
200	40.00

T I T L E : Kesbewa Sub_1 (from Kalatuwawa Main, 2020 demand)
NO. OF PIPES : 22
NO. OF NODES : 17
PEAK FACTOR : 1.7
MAX HEADLOSS/Km : 10

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
1	200	60	50.00	300	120	160.05	2.26	17.99HI	0.90
2	60	61	1350.00	150	130	8.31	0.47	1.91	2.58
3	60	62	1000.00	250	120	41.56	0.85	3.61	3.61
4	62	63	1100.00	200	130	16.64	0.53	1.70	1.87
5	60	64	300.00	250	120	59.93	1.22	7.10	2.13
6	64	65	1600.00	150	130	4.86	0.28LO	0.71	1.13
7	64	66	600.00	250	120	39.74	0.81	3.32	1.99
8	66	67	480.00	150	130	8.31	0.47	1.91	0.92
9	66	68	900.00	250	120	29.36	0.60	1.90	1.71
10	68	69	850.00	200	130	19.36	0.62	2.24	1.91
11	69	70	240.00	150	130	16.60	0.94	6.85	1.64
12	70	71	550.00	150	130	5.53	0.31	0.90	0.49
13	70	72	1200.00	150	130	5.53	0.31	0.90	1.08
14	69	73	300.00	200	130	16.60	0.53	1.69	0.51
15	73	74	320.00	100	130	5.53	0.70	6.47	2.07
16	73	75	1350.00	150	130	5.53	0.31	0.90	1.21
31	60	62	1000.00	200	130	25.02	0.80	3.61	3.61
32	62	63	1100.00	200	130	16.64	0.53	1.70	1.87
33	60	64	300.00	150	130	16.92	0.96	7.10	2.13
34	64	66	600.00	200	130	23.93	0.76	3.32	1.99
35	66	68	900.00	200	130	17.68	0.56	1.90	1.71
36	68	69	850.00	200	130	19.36	0.62	2.24	1.91

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
200 R	160.052	25.00	40.00	15.00
60	-8.315	25.00	39.10	14.10
61	-8.315	20.00	36.53	16.53
62	-33.289	18.00	35.49	17.49
63	-33.289	24.00	33.63	9.63
64	-8.315	22.00	36.97	14.97
65	-4.862	17.00	35.84	18.84
66	-8.315	18.00	34.98	16.98
67	-8.315	17.00	34.06	17.06
68	-8.315	20.00	33.27	13.27
69	-5.532	21.00	31.36	10.36
70	-5.532	19.00	29.72	10.72
71	-5.532	18.00	29.23	11.23
72	-5.532	14.00	28.64	14.64

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
73	-5.532	20.00	30.86	10.86
74	-5.532	10.00	28.79	18.79
75	-5.532	12.00	29.65	17.65

T I T L E : Keselwatta Service Area (2010 demand)

NO. OF PIPES : 15
NO. OF NODES : 11
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	1	2	500.00	500	120
2	2	3	2200.00	600	120
3	3	4	900.00	200	130
4	3	5	650.00	400	120
5	5	6	1100.00	200	130
6	5	7	900.00	400	120
7	7	8	1200.00	200	130
8	7	9	650.00	300	120
9	9	10	650.00	250	120
10	10	11	1300.00	200	120
11	2	3	2200.00	200	130
12	3	5	650.00	200	130
13	5	7	900.00	200	130
14	7	9	650.00	200	130
15	9	10	650.00	200	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	5.00
2	0.0	-7.640	5.00
3	0.0	-10.850	5.00
4	0.0	-6.270	10.00
5	0.0	-3.580	6.00
6	0.0	-3.580	10.00
7	0.0	-6.700	6.00
8	0.0	-4.810	10.00
9	0.0	-6.180	6.00
10	0.0	-11.460	5.00
11	0.0	-11.410	10.00

REFERENCE NODE	GRADE LINE
1	35.00

T I T L E : Keselwatta Service Area (2010 demand)
NO. OF PIPES : 15
NO. OF NODES : 11
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	1	2	500.00	500	120	137.71	0.70	1.13	0.57
2	2	3	2200.00	600	120	116.22	0.41	0.34	0.75
3	3	4	900.00	200	130	11.91	0.38	0.91	0.82
4	3	5	650.00	400	120	77.18	0.61	1.15	0.75
5	5	6	1100.00	200	130	6.80	0.22LO	0.32	0.36
6	5	7	900.00	400	120	65.60	0.52	0.85	0.77
7	7	8	1200.00	200	130	9.14	0.29LO	0.56	0.67
8	7	9	650.00	300	120	40.21	0.57	1.40	0.91
9	9	10	650.00	250	120	27.12	0.55	1.64	1.06
10	10	11	1300.00	200	120	21.68	0.69	3.21	4.17
11	2	3	2200.00	200	130	6.98	0.22LO	0.34	0.75
12	3	5	650.00	200	130	13.49	0.43	1.15	0.75
13	5	7	900.00	200	130	11.46	0.36	0.85	0.77
14	7	9	650.00	200	130	14.98	0.48	1.40	0.91
15	9	10	650.00	200	130	16.33	0.52	1.64	1.06

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1 R	137.712	5.00	35.00	30.00
2	-14.516	5.00	34.43	29.43
3	-20.615	5.00	33.69	28.69
4	-11.913	10.00	32.86	22.86
5	-6.802	6.00	32.94	26.94
6	-6.802	10.00	32.58	22.58
7	-12.730	6.00	32.17	26.17
8	-9.139	10.00	31.50	21.50
9	-11.742	6.00	31.26	25.26
10	-21.774	5.00	30.20	25.20
11	-21.679	10.00	26.03	16.03

T I T L E : Keselwatta Service Area (2020 demand)

NO. OF PIPES : 16
NO. OF NODES : 11
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	1	2	200.00	500	120
2	2	3	2200.00	600	120
3	3	4	900.00	200	130
4	3	5	650.00	400	120
5	5	6	1100.00	200	130
6	5	7	900.00	400	120
7	7	8	1200.00	200	130
8	7	9	650.00	300	120
9	9	10	650.00	250	120
10	10	11	1300.00	200	120
11	2	3	2200.00	200	130
12	3	5	650.00	200	130
13	5	7	900.00	200	130
14	7	9	650.00	200	130
15	9	10	650.00	200	130
16	10	11	1300.00	200	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	-1.000	5.00
2	0.0	-12.767	5.00
3	0.0	-18.131	5.00
4	0.0	-10.478	10.00
5	0.0	-5.983	6.00
6	0.0	-5.983	10.00
7	0.0	-11.196	6.00
8	0.0	-8.038	10.00
9	0.0	-10.327	6.00
10	0.0	-19.150	5.00
11	0.0	-19.067	10.00

REFERENCE NODE	GRADE LINE
1	35.00

T I T L E : Keselwatta Service Area (2020 demand)
NO. OF PIPES : 16
NO. OF NODES : 11
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	1	2	200.00	500	120	230.13	1.17	2.93	0.59
2	2	3	2200.00	600	120	194.21	0.69	0.88	1.94
3	3	4	900.00	200	130	19.91	0.63	2.36	2.13
4	3	5	650.00	400	120	128.98	1.03	2.97	1.93
5	5	6	1100.00	200	130	11.37	0.36	0.84	0.92
6	5	7	900.00	400	120	109.63	0.87	2.20	1.98
7	7	8	1200.00	200	130	15.27	0.49	1.45	1.74
8	7	9	650.00	300	120	67.20	0.95	3.61	2.35
9	9	10	650.00	250	120	45.32	0.92	4.24	2.75
10	10	11	1300.00	200	120	17.39	0.55	2.13	2.77
11	2	3	2200.00	200	130	11.67	0.37	0.88	1.94
12	3	5	650.00	200	130	22.53	0.72	2.97	1.93
13	5	7	900.00	200	130	19.15	0.61	2.20	1.98
14	7	9	650.00	200	130	25.04	0.80	3.61	2.35
15	9	10	650.00	200	130	27.29	0.87	4.24	2.75
16	10	11	1300.00	200	130	18.84	0.60	2.13	2.77

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1 R	230.128	5.00	35.00	30.00
2	-24.257	5.00	34.41	29.41
3	-34.449	5.00	32.48	27.48
4	-19.908	10.00	30.35	20.35
5	-11.368	6.00	30.55	24.55
6	-11.368	10.00	29.63	19.63
7	-21.272	6.00	28.57	22.57
8	-15.272	10.00	26.83	16.83
9	-19.621	6.00	26.22	20.22
10	-36.385	5.00	23.47	18.47
11	-36.227	10.00	20.69	10.69

T I T L E : Towns South Homagama Area (2010 demand)

NO. OF PIPES : 32
NO. OF NODES : 27
PEAK FACTOR : 2
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	50.00	400	120
2	1	2	560.00	450	120
3	2	3	300.00	350	120
4	3	4	600.00	200	130
5	4	5	750.00	200	130
6	3	6	350.00	200	130
7	6	7	600.00	100	130
8	6	8	750.00	150	130
9	8	9	500.00	100	130
10	4	17	500.00	200	130
11	5	17	1350.00	100	130
12	2	10	250.00	300	120
13	10	11	750.00	300	120
14	11	17	1000.00	100	130
15	11	12	380.00	200	130
16	11	15	950.00	200	130
17	12	13	600.00	200	130
18	15	13	500.00	100	130
19	13	14	400.00	150	130
20	15	16	500.00	100	130
21	14	16	1100.00	100	130
22	12	21	1150.00	200	130
23	17	18	1100.00	200	130
24	18	19	1000.00	100	130
25	18	20	500.00	100	130
26	21	22	1100.00	200	130
27	22	23	600.00	200	130
28	23	24	800.00	150	130
29	23	25	800.00	100	130
30	11	12	380.00	200	130
31	12	21	1150.00	200	130
32	10	26	1200.00	100	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	35.00
2	0.0	-1.356	20.00
3	0.0	-1.462	24.00
4	0.0	-2.164	24.00

NODE #	FIX	F L O W	ELEVATION
5	0.0	-2.457	30.00
6	0.0	-1.988	17.00
7	0.0	-0.702	24.00
8	0.0	-1.462	17.00
9	0.0	-0.585	22.00
10	0.0	-2.936	24.00
11	0.0	-2.491	22.00
12	0.0	-2.491	24.00
13	0.0	-1.755	24.00
14	0.0	-1.755	22.00
15	0.0	-2.269	19.00
16	0.0	-1.872	22.00
17	0.0	-3.041	24.00
18	0.0	-2.924	23.00
19	0.0	-0.702	22.00
20	0.0	-0.936	23.00
21	0.0	-2.281	18.00
22	0.0	-2.222	23.00
23	0.0	-3.041	22.00
24	0.0	-1.170	23.00
25	0.0	-0.585	18.00
26	0.0	-1.403	20.00
100	0.0	0.000	40.00

REFERENCE NODE	GRADE LINE
100	45.00

T I T L E : Towns South Homagama Area (2010 demand)
NO. OF PIPES : 32
NO. OF NODES : 27
PEAK FACTOR : 2
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .007

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M
1	100	1	50.00	400	120	92.10	0.73	1.59	0.0
2	1	2	560.00	450	120	92.10	0.58	0.90	0.5
3	2	3	300.00	350	120	35.32	0.37	0.52	0.1
4	3	4	600.00	200	130	22.92	0.73	3.07	1.8
5	4	5	750.00	200	130	5.86	0.19LO	0.25	0.1
6	3	6	350.00	200	130	9.47	0.30	0.60	0.2
7	6	7	600.00	100	130	1.40	0.18LO	0.51	0.3
8	6	8	750.00	150	130	4.09	0.23LO	0.51	0.3
9	8	9	500.00	100	130	1.17	0.15LO	0.37	0.1
10	4	17	500.00	200	130	12.73	0.41	1.03	0.5
11	5	17	1350.00	100	130	0.95	0.12LO	0.25	0.3
12	2	10	250.00	300	120	54.07	0.76	2.42	0.6
13	10	11	750.00	300	120	45.39	0.64	1.75	1.3
14	11	17	1000.00	100	130	1.53	0.19LO	0.60	0.6
15	11	12	380.00	200	130	15.13	0.48	1.42	0.5
16	11	15	950.00	200	130	8.61	0.27LO	0.50	0.4
17	12	13	600.00	200	130	6.69	0.21LO	0.31	0.1
18	15	13	500.00	100	130	1.40	0.18LO	0.51	0.2
19	13	14	400.00	150	130	4.58	0.26LO	0.63	0.2
20	15	16	500.00	100	130	2.68	0.34	1.69	0.8
21	14	16	1100.00	100	130	1.07	0.14LO	0.31	0.3
22	12	21	1150.00	200	130	9.30	0.30LO	0.58	0.6
23	17	18	1100.00	200	130	9.12	0.29LO	0.56	0.6
24	18	19	1000.00	100	130	1.40	0.18LO	0.51	0.5
25	18	20	500.00	100	130	1.87	0.24LO	0.87	0.4
26	21	22	1100.00	200	130	14.04	0.45	1.24	1.3
27	22	23	600.00	200	130	9.59	0.31	0.61	0.3
28	23	24	800.00	150	130	2.34	0.13LO	0.18	0.1
29	23	25	800.00	100	130	1.17	0.15LO	0.37	0.2
30	11	12	380.00	200	130	15.13	0.48	1.42	0.5
31	12	21	1150.00	200	130	9.30	0.30LO	0.58	0.6
32	10	26	1200.00	100	130	2.81	0.36	1.84	2.2

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	35.00	44.92	9.92
2	-2.712	20.00	44.42	24.42
3	-2.924	24.00	44.26	20.26
4	-4.328	24.00	42.42	18.42

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
5	-4.914	30.00	42.24	12.24
6	-3.976	17.00	44.05	27.05
7	-1.404	24.00	43.75	19.75
8	-2.924	17.00	43.67	26.67
9	-1.170	22.00	43.48	21.48
10	-5.872	24.00	43.81	19.81
11	-4.982	22.00	42.50	20.50
12	-4.982	24.00	41.96	17.96
13	-3.510	24.00	41.77	17.77
14	-3.510	22.00	41.52	19.52
15	-4.538	19.00	42.03	23.03
16	-3.744	22.00	41.18	19.18
17	-6.082	24.00	41.90	17.90
18	-5.848	23.00	41.29	18.29
19	-1.404	22.00	40.78	18.78
20	-1.872	23.00	40.86	17.86
21	-4.562	18.00	41.30	23.30
22	-4.444	23.00	39.94	16.94
23	-6.082	22.00	39.57	17.57
24	-2.340	23.00	39.42	16.42
25	-1.170	18.00	39.28	21.28
26	-2.806	20.00	41.60	21.60
100 R	92.100	40.00	45.00	5.00

T I T L E : Towns South Homagama Area (2020 demand)

NO. OF PIPES : 38
NO. OF NODES : 27
PEAK FACTOR : 1.9
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	NODE FROM	NODE TO	LENGTH	DIA	HWC
1	100	1	50.00	400	120
2	1	2	560.00	450	120
3	2	3	300.00	350	120
4	3	4	600.00	200	130
5	4	5	750.00	200	130
6	3	6	350.00	200	130
7	6	7	600.00	100	130
8	6	8	750.00	150	130
9	8	9	500.00	100	130
10	4	17	500.00	200	130
11	5	17	1350.00	100	130
12	2	10	250.00	300	120
13	10	11	750.00	300	120
14	11	17	1000.00	100	130
15	11	12	380.00	200	130
16	11	15	950.00	200	130
17	12	13	600.00	200	130
18	15	13	500.00	100	130
19	13	14	400.00	150	130
20	15	16	500.00	100	130
21	14	16	1100.00	100	130
22	12	21	1150.00	200	130
23	17	18	1100.00	200	130
24	18	19	1000.00	100	130
25	18	20	500.00	100	130
26	21	22	1100.00	200	130
27	22	23	600.00	200	130
28	23	24	800.00	150	130
29	23	25	800.00	100	130
30	11	12	380.00	200	130
31	12	21	1150.00	200	130
32	10	26	1200.00	100	130
50	3	4	600.00	200	130
51	4	5	750.00	150	130
54	21	22	1100.00	200	130
55	22	23	600.00	100	130
56	10	11	750.00	250	120
57	2	10	250.00	200	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	0.000	35.00
2	0.0	-2.806	20.00
3	0.0	-3.025	24.00
4	0.0	-4.475	24.00
5	0.0	-5.082	30.00
6	0.0	-4.113	17.00
7	0.0	-1.452	24.00
8	0.0	-3.025	17.00
9	0.0	-1.211	22.00
10	0.0	-6.074	24.00
11	0.0	-5.155	22.00
12	0.0	-5.155	24.00
13	0.0	-3.632	24.00
14	0.0	-3.632	22.00
15	0.0	-4.694	19.00
16	0.0	-3.873	22.00
17	0.0	-6.292	24.00
18	0.0	-6.049	23.00
19	0.0	-1.452	22.00
20	0.0	-1.937	23.00
21	0.0	-4.720	18.00
22	0.0	-4.598	23.00
23	0.0	-6.292	22.00
24	0.0	-2.421	23.00
25	0.0	-1.211	18.00
26	0.0	-2.903	20.00
100	0.0	0.000	40.00

REFERENCE NODE	GRADE LINE
100	45.00

T I T L E : Towns South Homagama Area (2020 demand)
NO. OF PIPES : 38
NO. OF NODES : 27
PEAK FACTOR : 1.9
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .001

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	50.00	400	120	181.03	1.44	5.56	0.2
2	1	2	560.00	450	120	181.03	1.14	3.14	1.7
3	2	3	300.00	350	120	70.15	0.73	1.85	0.5
4	3	4	600.00	200	130	22.89	0.73	3.06	1.8
5	4	5	750.00	200	130	8.04	0.26LO	0.44	0.3
6	3	6	350.00	200	130	18.62	0.59	2.09	0.7
7	6	7	600.00	100	130	2.76	0.35	1.79	1.0
8	6	8	750.00	150	130	8.05	0.46	1.80	1.3
9	8	9	500.00	100	130	2.30	0.29LO	1.28	0.6
10	4	17	500.00	200	130	25.46	0.81	3.72	1.8
11	5	17	1350.00	100	130	2.16	0.27LO	1.13	1.5
12	2	10	250.00	300	120	76.90	1.09	4.63	1.1
13	10	11	750.00	300	120	54.67	0.77	2.47	1.8
14	11	17	1000.00	100	130	2.27	0.29LO	1.24	1.2
15	11	12	380.00	200	130	29.75	0.95	4.97	1.8
16	11	15	950.00	200	130	16.93	0.54	1.75	1.6
17	12	13	600.00	200	130	13.15	0.42	1.10	0.6
18	15	13	500.00	100	130	2.75	0.35	1.77	0.8
19	13	14	400.00	150	130	9.00	0.51	2.21	0.8
20	15	16	500.00	100	130	5.26	0.67	5.90	2.9
21	14	16	1100.00	100	130	2.10	0.27LO	1.07	1.1
22	12	21	1150.00	200	130	18.28	0.58	2.02	2.3
23	17	18	1100.00	200	130	17.93	0.57	1.95	2.1
24	18	19	1000.00	100	130	2.76	0.35	1.79	1.7
25	18	20	500.00	100	130	3.68	0.47	3.04	1.5
26	21	22	1100.00	200	130	13.80	0.44	1.20	1.3
27	22	23	600.00	200	130	16.24	0.52	1.62	0.9
28	23	24	800.00	150	130	4.60	0.26LO	0.64	0.5
29	23	25	800.00	100	130	2.30	0.29LO	1.28	1.0
30	11	12	380.00	200	130	29.75	0.95	4.97	1.8
31	12	21	1150.00	200	130	18.28	0.58	2.02	2.3
32	10	26	1200.00	100	130	5.52	0.70	6.43	7.7
50	3	4	600.00	200	130	22.89	0.73	3.06	1.8
51	4	5	750.00	150	130	3.77	0.21LO	0.44	0.3
54	21	22	1100.00	200	130	13.80	0.44	1.20	1.3
55	22	23	600.00	100	130	2.62	0.33	1.62	0.9
56	10	11	750.00	250	120	33.83	0.69	2.47	1.8
57	2	10	250.00	200	130	28.65	0.91	4.63	1.1

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	0.000	35.00	44.72	9.72
2	-5.331	20.00	42.97	22.97
3	-5.747	24.00	42.41	18.41
4	-8.502	24.00	40.58	16.58
5	-9.656	30.00	40.25	10.25
6	-7.815	17.00	41.68	24.68
7	-2.759	24.00	40.61	16.61
8	-5.747	17.00	40.33	23.33
9	-2.301	22.00	39.70	17.70
10	-11.541	24.00	41.81	17.81
11	-9.795	22.00	39.96	17.96
12	-9.795	24.00	38.07	14.07
13	-6.901	24.00	37.41	13.41
14	-6.901	22.00	36.53	14.53
15	-8.919	19.00	38.30	19.30
16	-7.359	22.00	35.35	13.35
17	-11.955	24.00	38.71	14.71
18	-11.493	23.00	36.57	13.57
19	-2.759	22.00	34.79	12.79
20	-3.680	23.00	35.05	12.05
21	-8.968	18.00	35.75	17.75
22	-8.736	23.00	34.43	11.43
23	-11.955	22.00	33.46	11.46
24	-4.600	23.00	32.95	9.95
25	-2.301	18.00	32.44	14.44
26	-5.516	20.00	34.09	14.09
100 R	181.030	40.00	45.00	5.00

T I T L E : Bandaragama 2010 Demand

NO. OF PIPES : 23
NO. OF NODES : 19
PEAK FACTOR : 2.1
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	30.00	225	130
2	1	2	225.00	200	130
3	2	3	570.00	90	130
4	2	3	570.00	110	130
5	2	4	720.00	160	130
6	4	5	790.00	63	130
7	4	6	1300.00	90	130
8	4	7	430.00	90	130
9	7	8	270.00	90	130
10	8	9	730.00	63	130
11	10	8	550.00	90	130
12	1	10	415.00	160	130
13	10	11	430.00	110	130
14	11	12	470.00	110	130
15	2	13	580.00	110	130
16	2	13	580.00	90	130
17	13	14	450.00	110	130
18	11	15	950.00	90	130
19	14	15	650.00	63	130
20	15	16	870.00	63	130
21	12	16	890.00	110	130
22	16	17	530.00	63	130
23	14	18	500.00	63	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	-0.407	15.70
2	0.0	-1.357	15.60
3	0.0	-0.370	2.90
4	0.0	-2.125	13.00
5	0.0	-0.515	4.00
6	0.0	-0.849	6.60
7	0.0	-0.457	14.60
8	0.0	-1.016	15.00
9	0.0	-0.479	13.80
10	0.0	-0.914	15.80
11	0.0	-1.212	10.80
12	0.0	-0.893	11.30
13	0.0	-0.675	8.60

NODE #	FIX	F L O W	ELEVATION
14	0.0	-1.045	9.50
15	0.0	-1.618	7.30
16	0.0	-1.502	3.80
17	0.0	-0.349	7.30
18	0.0	-0.327	1.90
100	0.0	0.000	16.00

REFERENCE NODE	GRADE LINE
100	48.00

T I T L E : Bandaragama 2010 Demand
NO. OF PIPES : 23
NO. OF NODES : 19
PEAK FACTOR : 2.1
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .003

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	30.00	225	130	33.83	0.85	3.55	0.1
2	1	2	225.00	200	130	19.08	0.61	2.18	0.4
3	2	3	570.00	90	130	0.29	0.05LO	0.05	0.0
4	2	3	570.00	110	130	0.49	0.05LO	0.05	0.0
5	2	4	720.00	160	130	9.28	0.46	1.71	1.2
6	4	5	790.00	63	130	1.08	0.35	3.00	2.3
7	4	6	1300.00	90	130	1.78	0.28LO	1.33	1.7
8	4	7	430.00	90	130	1.96	0.31	1.58	0.6
9	7	8	270.00	90	130	1.00	0.16LO	0.45	0.1
10	8	9	730.00	63	130	1.01	0.32	2.62	1.9
11	10	8	550.00	90	130	2.14	0.34	1.87	1.0
12	1	10	415.00	160	130	13.90	0.69	3.60	1.5
13	10	11	430.00	110	130	9.84	1.04	11.79HI	5.0
14	11	12	470.00	110	130	5.09	0.54	3.48	1.6
15	2	13	580.00	110	130	3.88	0.41	2.11	1.2
16	2	13	580.00	90	130	2.29	0.36	2.11	1.2
17	13	14	450.00	110	130	4.75	0.50	3.06	1.3
18	11	15	950.00	90	130	2.21	0.35	1.97	1.8
19	14	15	650.00	63	130	1.87	0.60	8.23	5.3
20	15	16	870.00	63	130	0.67	0.22LO	1.25	1.0
21	12	16	890.00	110	130	3.21	0.34	1.49	1.3
22	16	17	530.00	63	130	0.73	0.24LO	1.46	0.7
23	14	18	500.00	63	130	0.69	0.22LO	1.29	0.6

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	-0.855	15.70	47.89	32.19
2	-2.850	15.60	47.40	31.80
3	-0.777	2.90	47.38	44.48
4	-4.462	13.00	46.17	33.17
5	-1.081	4.00	43.81	39.81
6	-1.783	6.60	44.44	37.84
7	-0.960	14.60	45.49	30.89
8	-2.134	15.00	45.37	30.37
9	-1.006	13.80	43.46	29.66
10	-1.919	15.80	46.40	30.60
11	-2.545	10.80	41.33	30.53
12	-1.875	11.30	39.69	28.39
13	-1.418	8.60	46.18	37.58

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
14	-2.194	9.50	44.80	35.30
15	-3.398	7.30	39.45	32.15
16	-3.154	3.80	38.37	34.57
17	-0.733	7.30	37.59	30.29
18	-0.687	1.90	44.15	42.25
100 R	33.831	16.00	48.00	32.00

T I T L E : Bandaragama 2020 Demand

NO. OF PIPES : 33
NO. OF NODES : 19
PEAK FACTOR : 2.1
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	30.00	225	130
2	1	2	225.00	200	130
3	2	3	570.00	90	130
4	2	3	570.00	110	130
5	2	4	720.00	160	130
6	4	5	790.00	63	130
7	4	6	1300.00	90	130
8	4	7	430.00	90	130
9	8	7	270.00	90	130
10	8	9	730.00	63	130
11	10	8	550.00	90	130
12	1	10	415.00	160	130
13	10	11	430.00	110	130
14	11	12	470.00	110	130
15	2	13	580.00	110	130
16	2	13	580.00	90	130
17	13	14	450.00	110	130
18	11	15	950.00	90	130
19	14	15	650.00	63	130
20	15	16	870.00	63	130
21	12	16	890.00	110	130
22	16	17	530.00	63	130
23	14	18	500.00	63	130
30	1	2	200.00	150	130
31	2	4	720.00	100	130
32	1	10	415.00	150	130
33	10	8	550.00	100	130
34	10	11	430.00	100	130
35	11	12	470.00	100	130
36	2	13	580.00	100	130
37	13	14	450.00	100	130
38	11	15	950.00	100	130
39	14	15	650.00	100	130

NODE #	FIX	F L O W	ELEVATION
1	0.0	-0.990	15.70
2	0.0	-3.302	15.60
3	0.0	-0.902	2.90

NODE #	FIX	F L O W	ELEVATION
4	0.0	-5.174	13.00
5	0.0	-1.255	4.00
6	0.0	-2.067	6.60
7	0.0	-1.113	14.60
8	0.0	-2.472	15.00
9	0.0	-1.166	13.80
10	0.0	-2.225	15.80
11	0.0	-2.949	10.80
12	0.0	-2.172	11.30
13	0.0	-1.643	8.60
14	0.0	-2.543	9.50
15	0.0	-3.938	7.30
16	0.0	-3.655	3.80
17	0.0	-0.849	7.30
18	0.0	-0.796	1.90
100	0.0	0.000	16.00

REFERENCE NODE	GRADE LINE
100	48.00

T I T L E : Bandaragama 2020 Demand
NO. OF PIPES : 33
NO. OF NODES : 19
PEAK FACTOR : 2.1
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .008

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M
1	100	1	30.00	225	130	82.34	2.07	18.41HI	0.5
2	1	2	225.00	200	130	30.39	0.97	5.17	1.1
3	2	3	570.00	90	130	0.70	0.11LO	0.24	0.1
4	2	3	570.00	110	130	1.19	0.13LO	0.24	0.1
5	2	4	720.00	160	130	15.43	0.77	4.37	3.1
6	4	5	790.00	63	130	2.64	0.85	15.56HI	12.3
7	4	6	1300.00	90	130	4.34	0.68	6.90	8.9
8	4	7	430.00	90	130	2.06	0.32	1.74	0.7
9	8	7	270.00	90	130	0.28	0.04LO	0.04	0.0
10	8	9	730.00	63	130	2.45	0.79	13.58HI	9.9
11	10	8	550.00	90	130	3.41	0.54	4.42	2.4
12	1	10	415.00	160	130	18.81	0.94	6.31	2.6
13	10	11	430.00	110	130	12.43	1.31	18.17HI	7.8
14	11	12	470.00	110	130	6.77	0.71	5.91	2.7
15	2	13	580.00	110	130	7.11	0.75	6.47	3.7
16	2	13	580.00	90	130	4.19	0.66	6.47	3.7
17	13	14	450.00	110	130	7.53	0.79	7.20	3.2
18	11	15	950.00	90	130	1.67	0.26LO	1.17	1.1
19	14	15	650.00	63	130	1.46	0.47	5.21	3.3
20	15	16	870.00	63	130	1.98	0.64	9.17	7.9
21	12	16	890.00	110	130	7.48	0.79	7.10	6.3
22	16	17	530.00	63	130	1.78	0.57	7.55	4.0
23	14	18	500.00	63	130	1.67	0.54	6.70	3.3
30	1	2	200.00	150	130	15.19	0.86	5.81	1.1
31	2	4	720.00	100	130	4.48	0.57	4.37	3.1
32	1	10	415.00	150	130	15.87	0.90	6.31	2.6
33	10	8	550.00	100	130	4.50	0.57	4.42	2.4
34	10	11	430.00	100	130	9.67	1.23	18.17HI	7.8
35	11	12	470.00	100	130	5.27	0.67	5.91	2.7
36	2	13	580.00	100	130	5.54	0.70	6.47	3.7
37	13	14	450.00	100	130	5.86	0.75	7.20	3.2
38	11	15	950.00	100	130	2.20	0.28LO	1.17	1.1
39	14	15	650.00	100	130	4.92	0.63	5.21	3.3

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
1	-2.079	15.70	47.45	31.75
2	-6.934	15.60	46.28	30.68
3	-1.894	2.90	46.15	43.25
4	-10.865	13.00	43.14	30.14
5	-2.636	4.00	30.84	26.84
6	-4.341	6.60	34.17	27.57
7	-2.337	14.60	42.39	27.79
8	-5.191	15.00	42.40	27.40
9	-2.449	13.80	32.48	18.68
10	-4.672	15.80	44.83	29.03
11	-6.193	10.80	37.01	26.21
12	-4.561	11.30	34.24	22.94
13	-3.450	8.60	42.53	33.93
14	-5.340	9.50	39.29	29.79
15	-8.270	7.30	35.90	28.60
16	-7.675	3.80	27.92	24.12
17	-1.783	7.30	23.91	16.61
18	-1.672	1.90	35.94	34.04
100 R	82.343	16.00	48.00	32.00

T I T L E : Horana UC Service Area (2010 demand)

NO. OF PIPES : 44
NO. OF NODES : 34
PEAK FACTOR : 2
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	180.00	250	100
2	1	2	200.00	200	100
3	2	3	320.00	150	100
4	3	4	350.00	100	100
5	4	5	480.00	75	130
6	5	6	480.00	75	130
7	6	7	480.00	75	130
8	1	8	150.00	200	100
9	8	9	170.00	200	100
10	9	20	180.00	150	100
11	20	21	190.00	150	100
12	21	22	90.00	150	100
13	22	23	150.00	150	100
14	23	24	180.00	100	100
15	24	25	1300.00	75	130
16	25	26	250.00	75	130
17	24	32	400.00	75	130
18	9	10	320.00	150	100
19	10	11	130.00	150	100
20	11	12	110.00	150	100
21	16	11	170.00	150	100
22	2	16	360.00	150	100
23	16	12	320.00	150	100
24	12	13	110.00	150	100
25	13	17	650.00	50	130
26	13	14	210.00	150	100
27	14	18	230.00	75	130
28	14	15	290.00	75	130
29	15	33	180.00	75	130
30	33	19	100.00	50	130
31	10	27	460.00	75	130
32	27	20	380.00	75	130
33	8	28	450.00	150	100
34	28	21	290.00	75	130
35	22	29	250.00	50	130
36	29	30	510.00	150	100
37	29	31	320.00	50	130
50	2	3	320.00	100	130
51	3	4	350.00	150	130
52	4	5	480.00	150	130
53	5	6	480.00	100	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
56	23	24	180.00	100	130
57	24	25	1300.00	100	130
58	22	29	250.00	100	130

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	45.00
1	0.0	-1.374	15.00
2	0.0	-0.985	15.00
3	0.0	-1.737	15.00
4	0.0	-2.151	15.00
5	0.0	-2.488	15.00
6	0.0	-2.488	15.00
7	0.0	-1.244	15.00
8	0.0	-0.829	15.00
9	0.0	-1.737	15.00
10	0.0	-2.359	15.00
11	0.0	-1.063	15.00
12	0.0	-1.400	15.00
13	0.0	-0.838	15.00
14	0.0	-0.631	15.00
15	0.0	-0.406	15.00
16	0.0	-0.734	15.00
17	0.0	-0.562	15.00
18	0.0	-0.199	15.00
19	0.0	-0.086	15.00
20	0.0	-1.944	15.00
21	0.0	-1.477	15.00
22	0.0	-1.270	15.00
23	0.0	-0.855	15.00
24	0.0	-4.873	15.00
25	0.0	-1.339	15.00
26	0.0	-0.216	15.00
27	0.0	-0.726	25.00
28	0.0	-0.639	15.00
29	0.0	-0.933	15.00
30	0.0	-0.441	15.00
31	0.0	-0.276	15.00
32	0.0	-0.346	20.00
33	0.0	-0.242	15.00

REFERENCE NODE	GRADE LINE
100	48.50

T I T L E : Horana UC Service Area (2010 demand)
NO. OF PIPES : 44
NO. OF NODES : 34
PEAK FACTOR : 2
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .001

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
1	100	1	180.00	250	100	77.78	1.58	16.11HI	2.90
2	1	2	200.00	200	100	34.23	1.09	10.46HI	2.09
3	2	3	320.00	150	100	13.97	0.79	8.09	2.59
4	3	4	350.00	100	100	3.50	0.45	4.51	1.58
5	4	5	480.00	75	130	1.73	0.39	3.05	1.46
6	5	6	480.00	75	130	2.38	0.54	5.53	2.65
7	6	7	480.00	75	130	2.49	0.56	5.99	2.87
8	1	8	150.00	200	100	40.80	1.30	14.48HI	2.17
9	8	9	170.00	200	100	32.67	1.04	9.60	1.63
10	9	20	180.00	150	100	21.93	1.24	18.65HI	3.36
11	20	21	190.00	150	100	18.85	1.07	14.09HI	2.68
12	21	22	90.00	150	100	21.10	1.19	17.35HI	1.56
13	22	23	150.00	150	100	15.26	0.86	9.53	1.43
14	23	24	180.00	100	100	5.89	0.75	11.80HI	2.12
15	24	25	1300.00	75	130	0.99	0.22LO	1.09	1.42
16	25	26	250.00	75	130	0.43	0.10LO	0.23	0.06
17	24	32	400.00	75	130	0.69	0.16LO	0.56	0.22
18	9	10	320.00	150	100	7.26	0.41	2.41	0.77
19	10	11	130.00	150	100	0.28	0.02LO	0.01	0.00
20	11	12	110.00	150	100	3.95	0.22LO	0.78	0.09
21	16	11	170.00	150	100	5.79	0.33	1.59	0.27
22	2	16	360.00	150	100	12.04	0.68	6.15	2.21
23	16	12	320.00	150	100	4.78	0.27LO	1.11	0.36
24	12	13	110.00	150	100	5.93	0.34	1.66	0.18
25	13	17	650.00	50	130	1.12	0.57	9.91	6.44
26	13	14	210.00	150	100	3.13	0.18LO	0.51	0.11
27	14	18	230.00	75	130	0.40	0.09LO	0.20	0.05
28	14	15	290.00	75	130	1.47	0.33	2.26	0.65
29	15	33	180.00	75	130	0.66	0.15LO	0.51	0.09
30	33	19	100.00	50	130	0.17	0.09LO	0.31	0.03
31	10	27	460.00	75	130	2.26	0.51	5.00	2.30
32	27	20	380.00	75	130	0.81	0.18LO	0.74	0.28
33	8	28	450.00	150	100	6.48	0.37	1.95	0.88
34	28	21	290.00	75	130	5.20	1.18	23.40HI	6.79
35	22	29	250.00	50	130	0.46	0.23LO	1.89	0.47
36	29	30	510.00	150	100	0.88	0.05LO	0.05	0.02
37	29	31	320.00	50	130	0.55	0.28LO	2.66	0.85
50	2	3	320.00	100	130	6.25	0.80	8.09	2.59
51	3	4	350.00	150	130	13.24	0.75	4.51	1.58
52	4	5	480.00	150	130	10.71	0.61	3.05	1.46
53	5	6	480.00	100	130	5.08	0.65	5.53	2.65

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
56	23	24	180.00	100	130	7.66	0.97	11.80HI	2.12
57	24	25	1300.00	100	130	2.12	0.27LO	1.09	1.42
58	22	29	250.00	100	130	2.84	0.36	1.89	0.47

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	77.776	45.00	48.50	3.50
1	-2.748	15.00	45.60	30.60
2	-1.970	15.00	43.51	28.51
3	-3.474	15.00	40.92	25.92
4	-4.302	15.00	39.34	24.34
5	-4.976	15.00	37.87	22.87
6	-4.976	15.00	35.22	20.22
7	-2.488	15.00	32.35	17.35
8	-1.658	15.00	43.43	28.43
9	-3.474	15.00	41.80	26.80
10	-4.718	15.00	41.02	26.02
11	-2.126	15.00	41.02	26.02
12	-2.800	15.00	40.94	25.94
13	-1.676	15.00	40.75	25.75
14	-1.262	15.00	40.65	25.65
15	-0.812	15.00	39.99	24.99
16	-1.468	15.00	41.29	26.29
17	-1.124	15.00	34.31	19.31
18	-0.398	15.00	40.60	25.60
19	-0.172	15.00	39.87	24.87
20	-3.888	15.00	38.44	23.44
21	-2.954	15.00	35.76	20.76
22	-2.540	15.00	34.20	19.20
23	-1.710	15.00	32.77	17.77
24	-9.746	15.00	30.65	15.65
25	-2.678	15.00	29.22	14.22
26	-0.432	15.00	29.17	14.17
27	-1.452	25.00	38.72	13.72
28	-1.278	15.00	42.55	27.55
29	-1.866	15.00	33.73	18.73
30	-0.882	15.00	33.70	18.70
31	-0.552	15.00	32.88	17.88
32	-0.692	20.00	30.42	10.42
33	-0.484	15.00	39.90	24.90

T I T L E : Horana UC Service Area (2020 demand)

NO. OF PIPES : 46
NO. OF NODES : 34
PEAK FACTOR : 2
MAX HL/KM : 10
MAX UNBAL (LPS) : .01

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
1	100	1	180.00	250	100
2	1	2	200.00	200	100
3	2	3	320.00	150	100
4	3	4	350.00	100	100
5	4	5	480.00	75	130
6	5	6	480.00	75	130
7	6	7	480.00	75	130
8	1	8	150.00	200	100
9	8	9	170.00	200	100
10	9	20	180.00	150	100
11	20	21	190.00	150	100
12	21	22	90.00	150	100
13	22	23	150.00	150	100
14	23	24	180.00	100	100
15	24	25	1300.00	75	130
16	25	26	250.00	75	130
17	24	32	400.00	75	130
18	9	10	320.00	150	100
19	10	11	130.00	150	100
20	11	12	110.00	150	100
21	16	11	170.00	150	100
22	2	16	360.00	150	100
23	16	12	320.00	150	100
24	12	13	110.00	150	100
25	13	17	650.00	50	130
26	13	14	210.00	150	100
27	14	18	230.00	75	130
28	14	15	290.00	75	130
29	15	33	180.00	75	130
30	33	19	100.00	50	130
31	10	27	460.00	75	130
32	20	27	380.00	75	130
33	8	28	450.00	150	100
34	28	21	290.00	75	130
35	22	29	250.00	50	130
36	29	30	510.00	150	100
37	29	31	320.00	50	130
50	2	3	320.00	150	130
51	3	4	350.00	150	130
52	4	5	480.00	150	130
53	5	6	480.00	150	130

PIPE NO.	N O D E FROM	TO	LENGTH	DIA	HWC
54	1	21	690.00	200	130
55	21	23	240.00	150	130
56	23	24	180.00	150	130
57	24	25	1300.00	100	130
58	22	29	250.00	100	130

NODE #	FIX	F L O W	ELEVATION
100	0.0	0.000	45.00
1	0.0	-1.765	15.00
2	0.0	-1.265	15.00
3	0.0	-2.231	15.00
4	0.0	-2.762	15.00
5	0.0	-3.195	15.00
6	0.0	-3.195	15.00
7	0.0	-1.598	15.00
8	0.0	-1.065	15.00
9	0.0	-2.231	15.00
10	0.0	-3.029	15.00
11	0.0	-1.365	15.00
12	0.0	-1.798	15.00
13	0.0	-1.076	15.00
14	0.0	-0.811	15.00
15	0.0	-0.522	15.00
16	0.0	-0.943	15.00
17	0.0	-0.722	15.00
18	0.0	-0.256	15.00
19	0.0	-0.111	15.00
20	0.0	-2.497	15.00
21	0.0	-1.897	15.00
22	0.0	-1.631	15.00
23	0.0	-1.098	15.00
24	0.0	-6.257	15.00
25	0.0	-1.720	15.00
26	0.0	-0.278	15.00
27	0.0	-0.933	25.00
28	0.0	-0.821	15.00
29	0.0	-1.198	15.00
30	0.0	-0.567	15.00
31	0.0	-0.355	15.00
32	0.0	-0.445	20.00
33	0.0	-0.311	15.00

REFERENCE NODE	GRADE LINE
100	48.50

T I T L E : Horana UC Service Area (2020 demand)
NO. OF PIPES : 46
NO. OF NODES : 34
PEAK FACTOR : 2
MAX HEADLOSS/Km : 10
MAX UNBAL(LPS) : .009

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	(M)
1	100	1	180.00	250	100	99.90	2.04	25.60HI	4.61
2	1	2	200.00	200	100	38.63	1.23	13.09HI	2.62
3	2	3	320.00	150	100	11.29	0.64	5.46	1.75
4	3	4	350.00	100	100	4.50	0.57	7.16	2.51
5	4	5	480.00	75	130	2.22	0.50	4.84	2.32
6	5	6	480.00	75	130	1.33	0.30	1.88	0.90
7	6	7	480.00	75	130	3.20	0.72	9.51	4.57
8	1	8	150.00	200	100	30.64	0.98	8.53	1.28
9	8	9	170.00	200	100	24.77	0.79	5.75	0.98
10	9	20	180.00	150	100	8.53	0.48	3.25	0.58
11	20	21	190.00	150	100	1.69	0.10LO	0.16	0.03
12	21	22	90.00	150	100	14.11	0.80	8.24	0.74
13	22	23	150.00	150	100	6.60	0.37	2.02	0.30
14	23	24	180.00	100	100	3.64	0.46	4.84	0.87
15	24	25	1300.00	75	130	1.28	0.29LO	1.74	2.26
16	25	26	250.00	75	130	0.56	0.13LO	0.37	0.09
17	24	32	400.00	75	130	0.89	0.20LO	0.89	0.36
18	9	10	320.00	150	100	11.77	0.67	5.90	1.89
19	10	11	130.00	150	100	5.69	0.32	1.54	0.20
20	11	12	110.00	150	100	6.59	0.37	2.01	0.22
21	16	11	170.00	150	100	3.63	0.21LO	0.67	0.11
22	2	16	360.00	150	100	10.14	0.57	4.47	1.61
23	16	12	320.00	150	100	4.63	0.26LO	1.05	0.34
24	12	13	110.00	150	100	7.62	0.43	2.64	0.29
25	13	17	650.00	50	130	1.44	0.74	15.76HI	10.24
26	13	14	210.00	150	100	4.02	0.23LO	0.81	0.17
27	14	18	230.00	75	130	0.51	0.12LO	0.32	0.07
28	14	15	290.00	75	130	1.89	0.43	3.59	1.04
29	15	33	180.00	75	130	0.84	0.19LO	0.81	0.15
30	33	19	100.00	50	130	0.22	0.11LO	0.49	0.05
31	10	27	460.00	75	130	0.02	0.01LO	0.00	0.00
32	20	27	380.00	75	130	1.84	0.42	3.43	1.30
33	8	28	450.00	150	100	3.75	0.21LO	0.71	0.32
34	28	21	290.00	75	130	2.11	0.48	4.39	1.27
35	22	29	250.00	50	130	0.59	0.30LO	3.00	0.75
36	29	30	510.00	150	100	1.13	0.06LO	0.08	0.04
37	29	31	320.00	50	130	0.71	0.36	4.24	1.36
50	2	3	320.00	150	130	14.67	0.83	5.46	1.75
51	3	4	350.00	150	130	17.00	0.96	7.16	2.51
52	4	5	480.00	150	130	13.76	0.78	4.84	2.32
53	5	6	480.00	150	130	8.25	0.47	1.88	0.90

PIPE NO.	FROM Node	TO Node	LENGTH (M)	DIA (MM)	HWC	FLOW (LPS)	VELOCITY (MPS)	HEADLOSS (M/KM)	HEADLOSS (M)
54	1	21	690.00	200	130	27.09	0.86	4.18	2.88
55	21	23	240.00	150	130	12.99	0.74	4.36	1.05
56	23	24	180.00	150	130	13.76	0.78	4.84	0.87
57	24	25	1300.00	100	130	2.72	0.35	1.74	2.26
58	22	29	250.00	100	130	3.65	0.46	3.00	0.75

NODE NO.	FLOW (LPS)	ELEVATION (M)	H G L (M)	PRESSURE (M)
100 R	99.896	45.00	48.50	3.50
1	-3.530	15.00	43.89	28.89
2	-2.530	15.00	41.27	26.27
3	-4.462	15.00	39.53	24.53
4	-5.524	15.00	37.02	22.02
5	-6.390	15.00	34.70	19.70
6	-6.390	15.00	33.79	18.79
7	-3.196	15.00	29.23	14.23
8	-2.130	15.00	42.61	27.61
9	-4.462	15.00	41.63	26.63
10	-6.058	15.00	39.75	24.75
11	-2.730	15.00	39.55	24.55
12	-3.596	15.00	39.33	24.33
13	-2.152	15.00	39.04	24.04
14	-1.622	15.00	38.87	23.87
15	-1.044	15.00	37.83	22.83
16	-1.886	15.00	39.66	24.66
17	-1.444	15.00	28.79	13.79
18	-0.512	15.00	38.79	23.79
19	-0.222	15.00	37.63	22.63
20	-4.994	15.00	41.04	26.04
21	-3.794	15.00	41.01	26.01
22	-3.262	15.00	40.27	25.27
23	-2.196	15.00	39.96	24.96
24	-12.514	15.00	39.09	24.09
25	-3.440	15.00	36.83	21.83
26	-0.556	15.00	36.74	21.74
27	-1.866	25.00	39.74	14.74
28	-1.642	15.00	42.29	27.29
29	-2.396	15.00	39.52	24.52
30	-1.134	15.00	39.48	24.48
31	-0.710	15.00	38.16	23.16
32	-0.890	20.00	38.73	18.73
33	-0.622	15.00	37.68	22.68

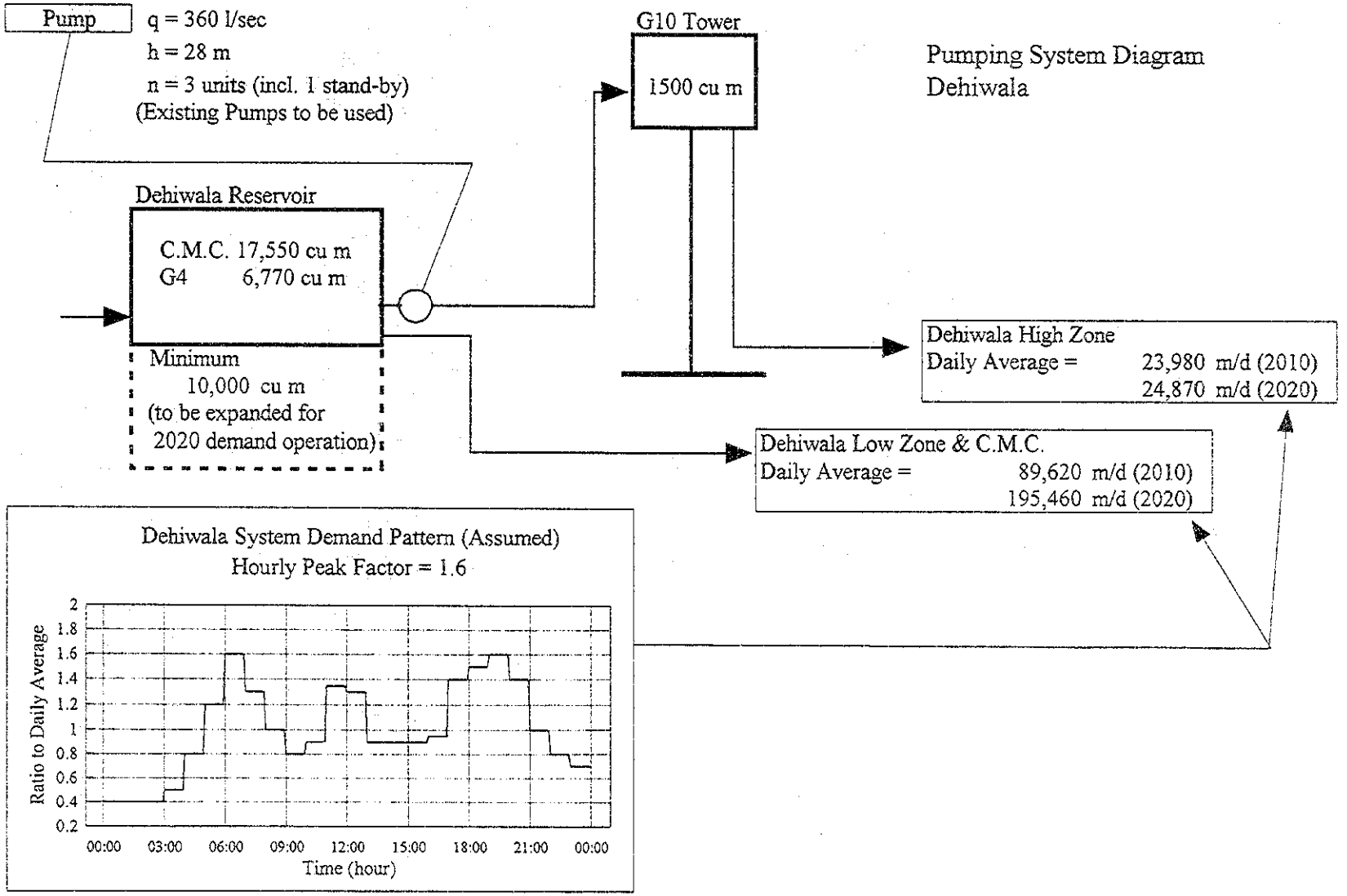
CHAPTER 9

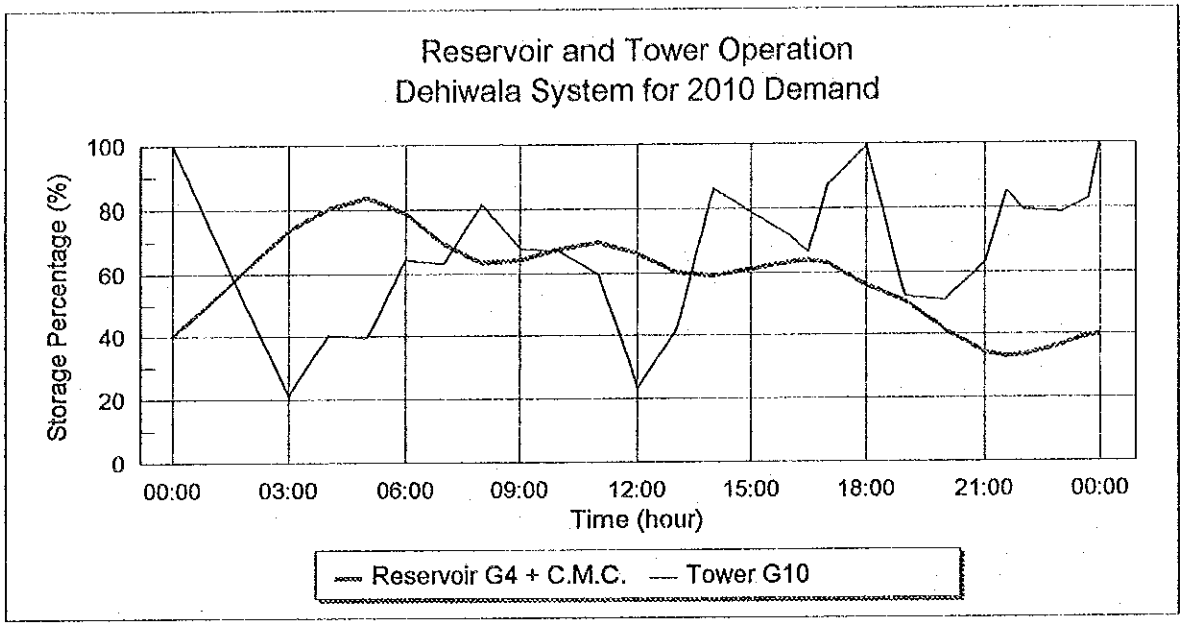
Ref. No. 9.5

Subject : Distribution System

Title : Distribution Network Analysis

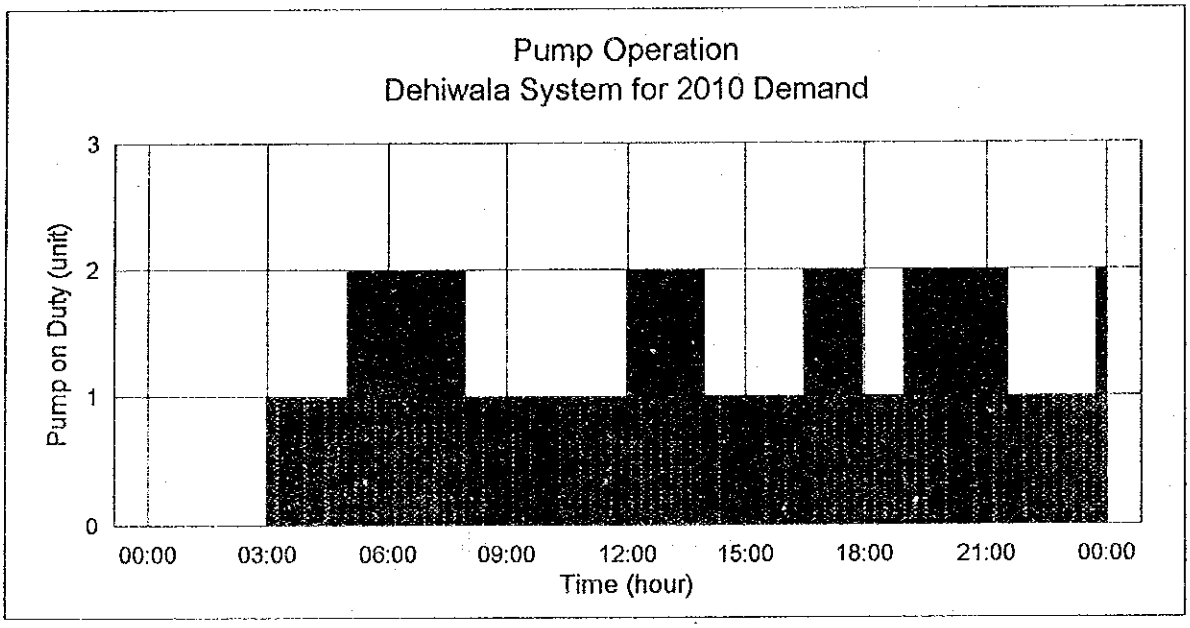
Contents : Simulation Study for Operation of Reservoir, Tower and Pump


Pump
q = 360 l/sec
h = 28 m
n = 3 units (incl. 1 stand-by)
(Existing Pumps to be used)
G10 Tower
1500 cu m
Pumping System Diagram
Dehiwala
Dehiwala Reservoir
C.M.C. 17,550 cu m
G4 6,770 cu m
Minimum
10,000 cu m
(to be expanded for
2020 demand operation)
Dehiwala High Zone
Daily Average = 23,980 m/d (2010)
24,870 m/d (2020)
Dehiwala Low Zone & C.M.C.
Daily Average = 89,620 m/d (2010)
195,460 m/d (2020)
Dehiwala System Demand Pattern (Assumed)
Hourly Peak Factor = 1.6
Ratio to Daily Average
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
00:00
Time (hour)



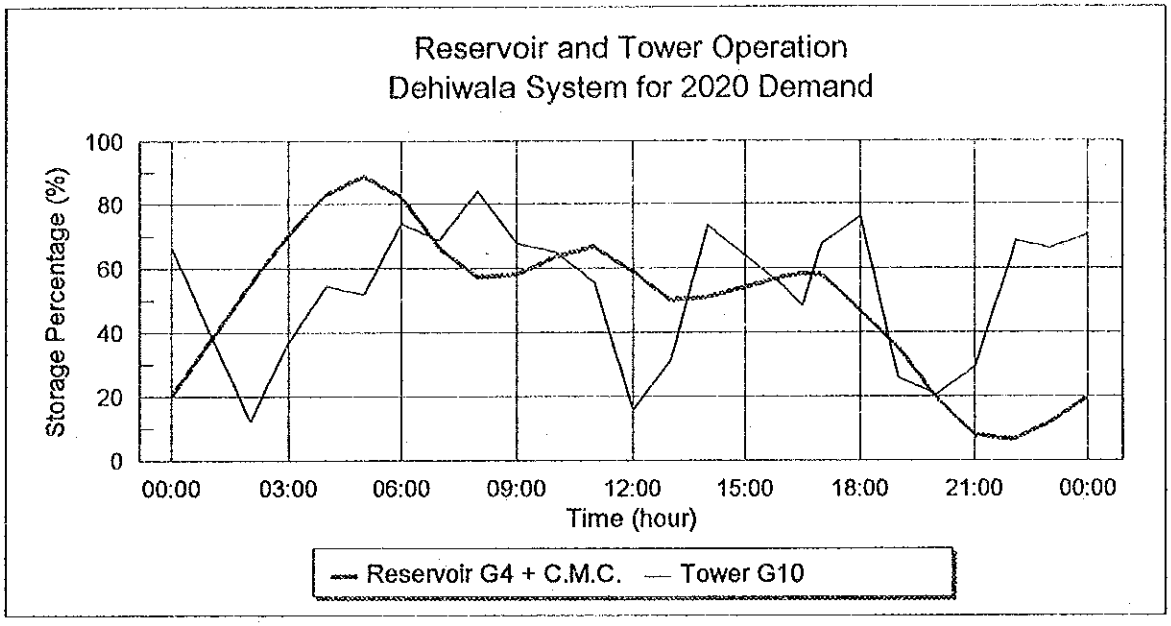
Reservoir Capacity = 17,550 cu m (Exis.Dehiwala C.M.C.)
6,770 cu m (Exis. Dehiwala G4)

Tower Capacity = 1,500 cu m (Exis. G10)



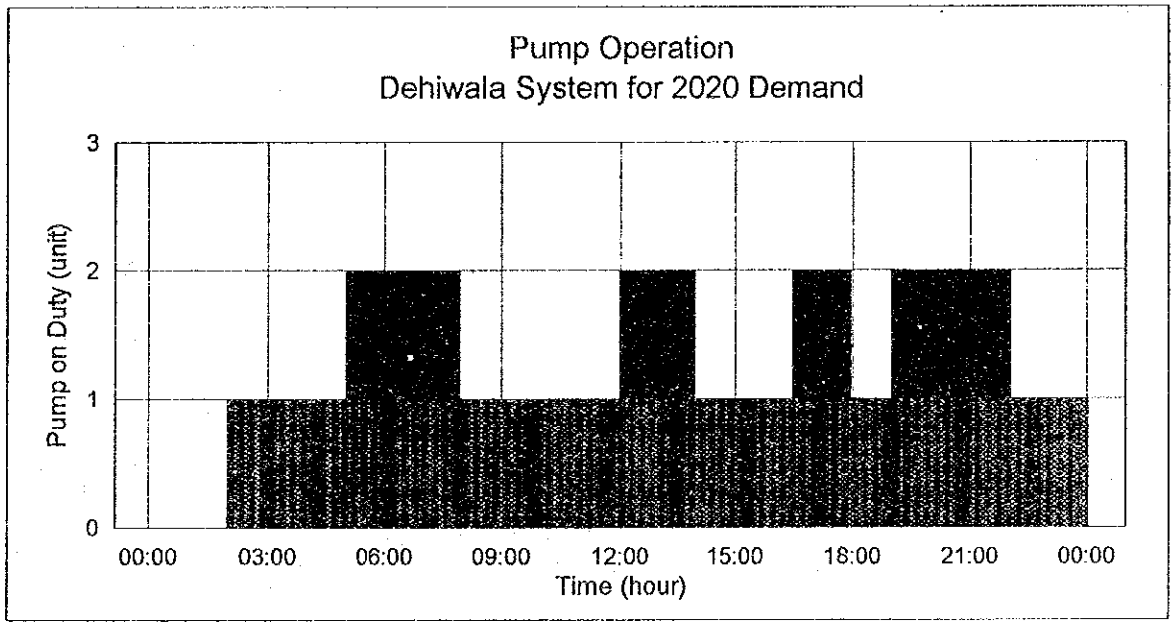
Pump Specifications

Existing Pump =	q = 360 l/sec
	h = 28 m
Number of Pump =	3 units (incl. 1 stand-by)
Operation of Pump	To be run at 60 % of Nominal Discharge



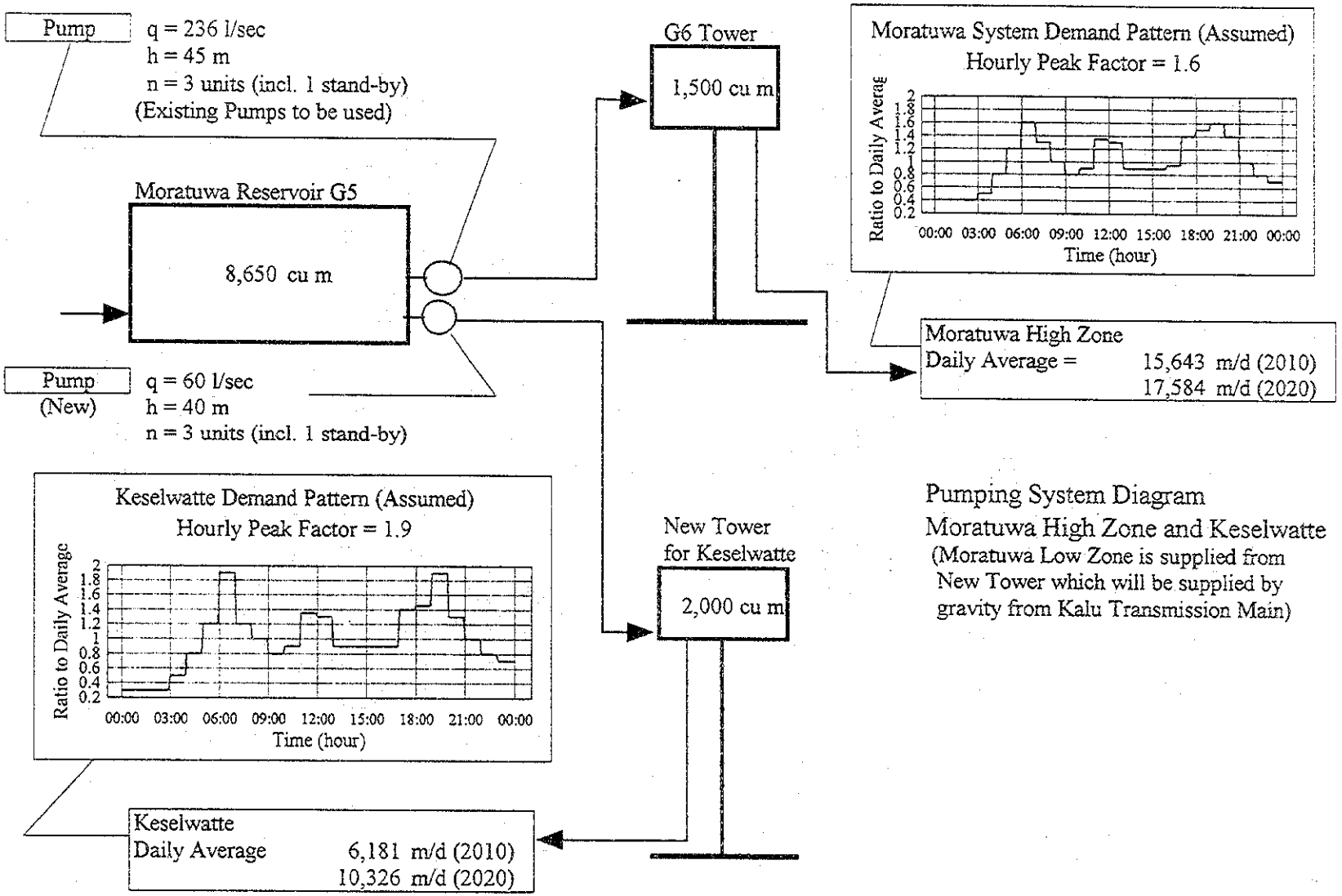
Reservoir Capacity = 17,550 cu m (Exis. Dehiwala C.M.C.)
6,770 cu m (Exis. Dehiwala G4)
10,000 cu m (New Reservoir to be Expanded)

Tower Capacity = 1,500 cu m (Exis. G10)

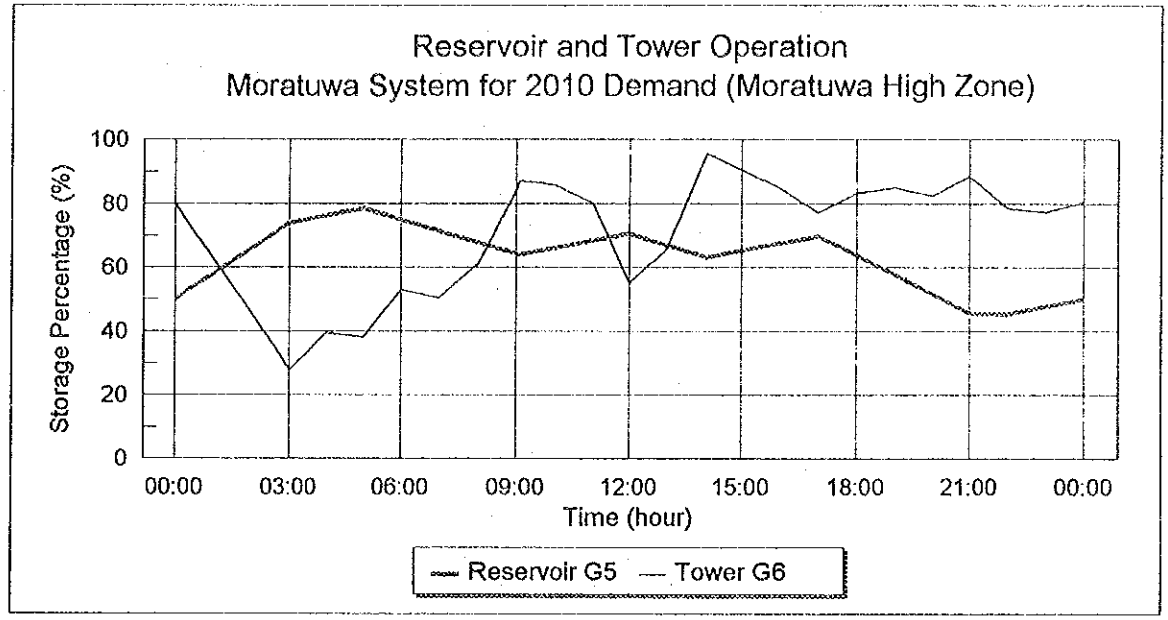


Pump Specifications

Existing Pump =	q = 360 l/sec
	h = 28 m
Number of Pump =	3 units (incl. 1 stand-by)
Operation of Pump	To be run at 60 % of Nominal Discharge

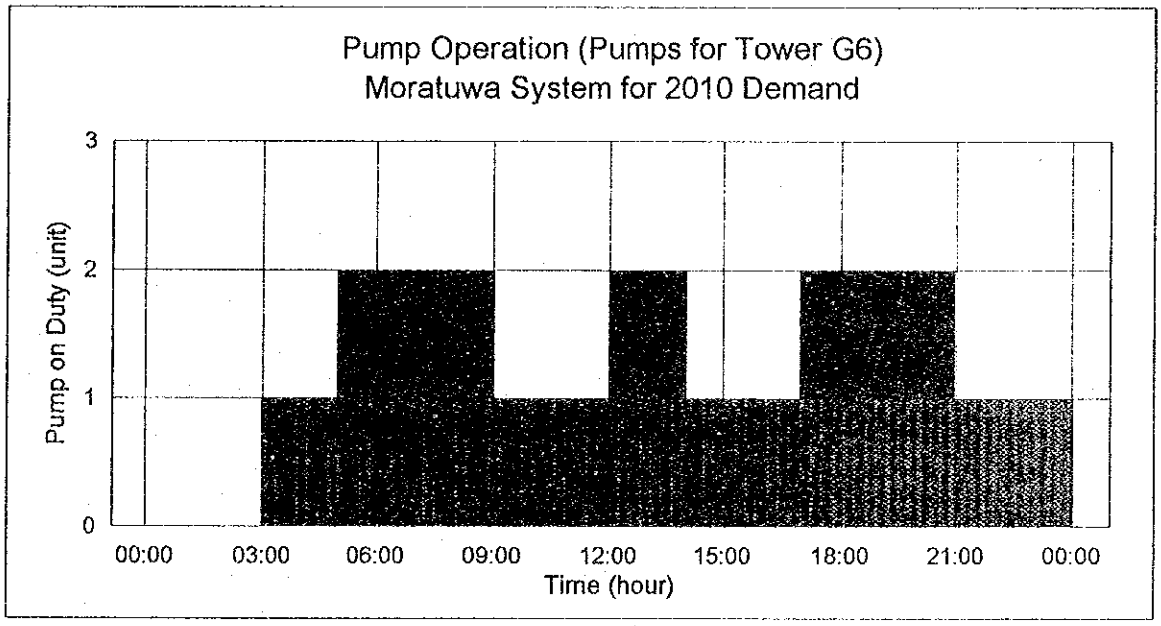


Pumping System Diagram
Moratuwa High Zone and Keselwatte
(Moratuwa Low Zone is supplied from New Tower which will be supplied by gravity from Kalu Transmission Main)



Reservoir Capacity = 8,650 cu m (Exis.Moratuwa G5)

Tower Capacity = 1,500 cu m (Exis. Moratuwa G6)



Pump Specifications

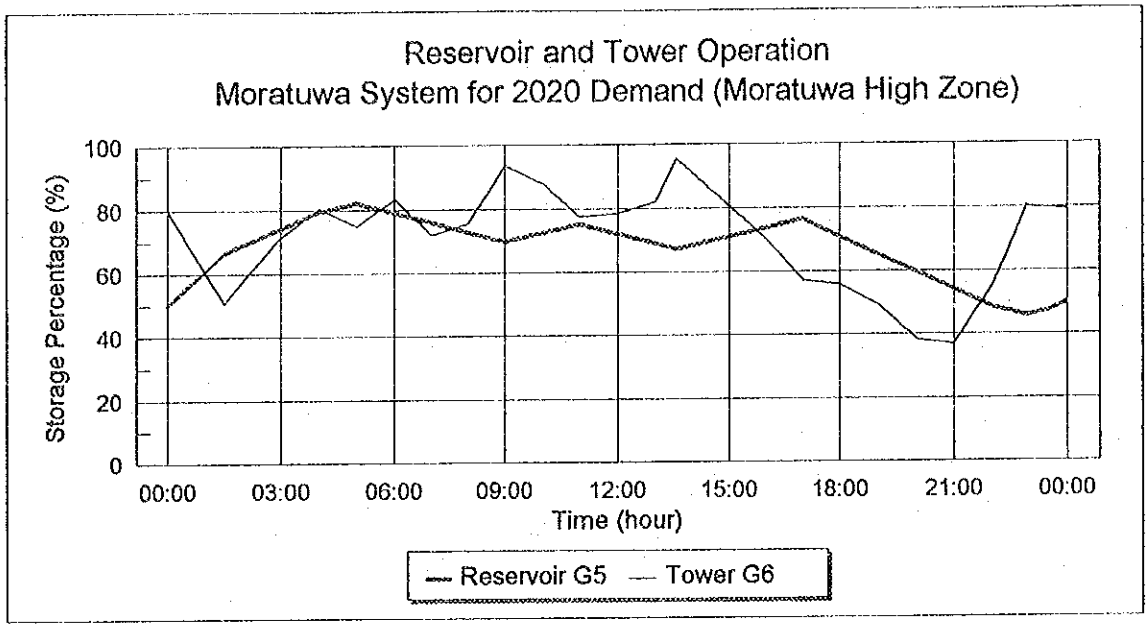
Existing Pump

q = 236 l/sec

h = 45 m

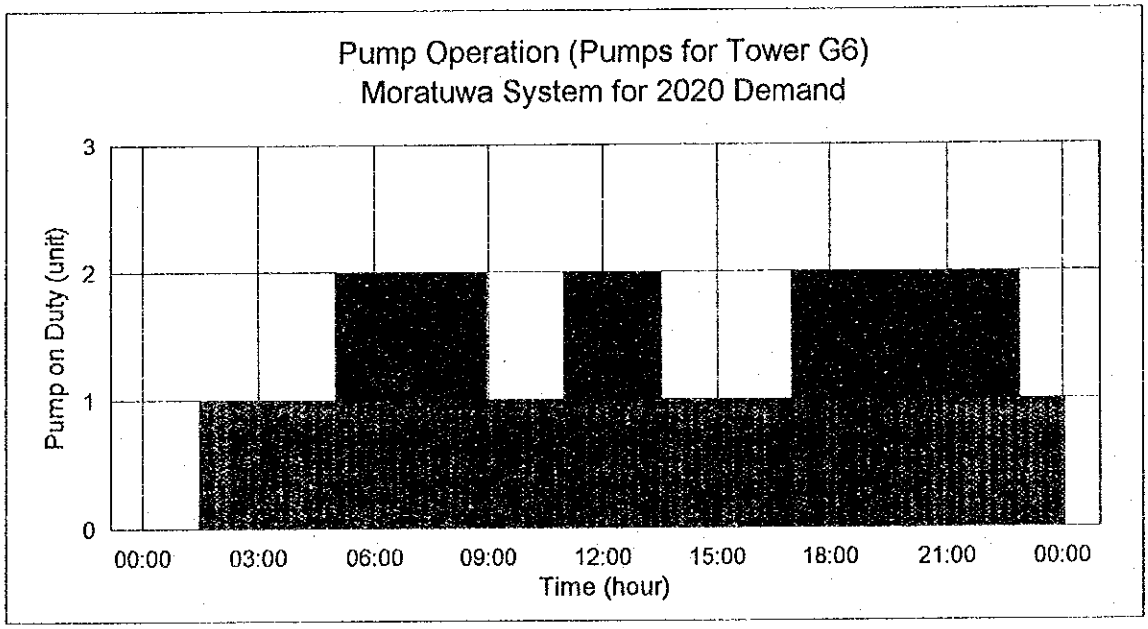
3 units (incl. 1 stand-by)

(To be run at 60% of nominal discharge)



Reservoir Capacity = 8,650 cu m (Exis. Moratuwa G5)

Tower Capacity = 1,500 cu m (Exis. Moratuwa G6)



Pump Specifications

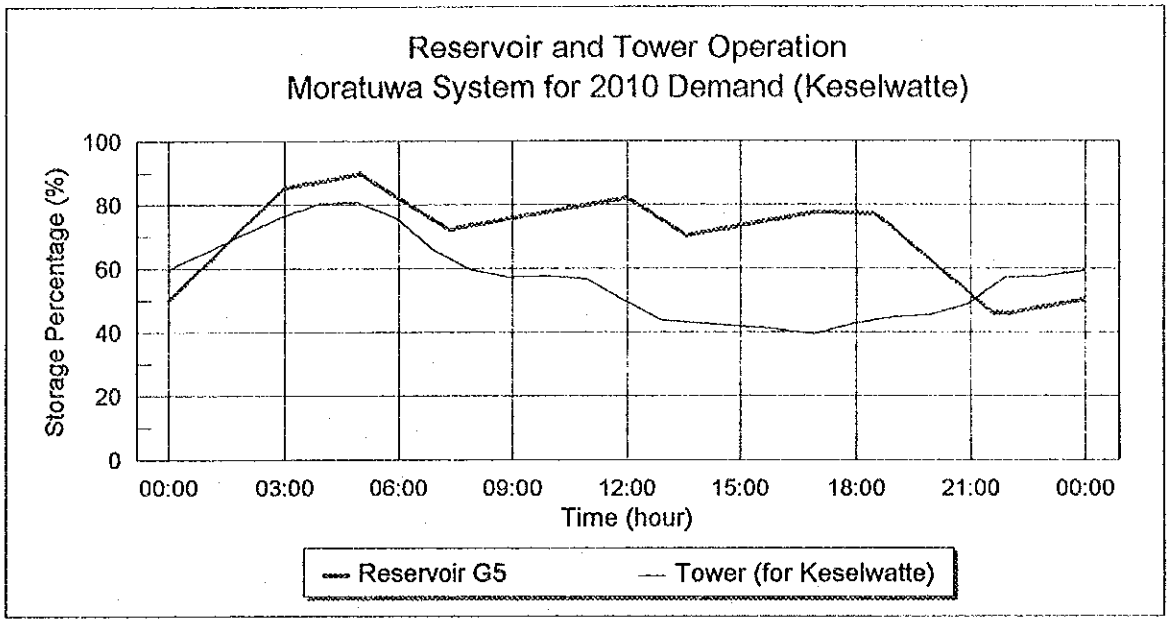
Existing Pump

q = 236 l/sec

h = 45 m

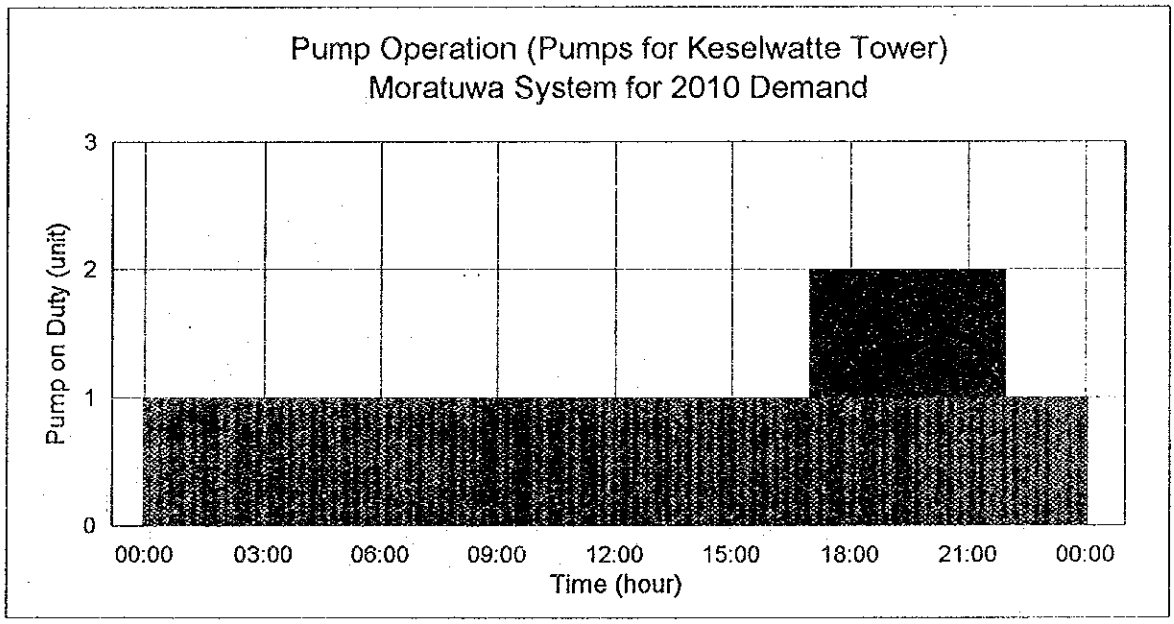
3 units (incl. 1 stand-by)

(To be run at 60% of nominal discharge)



Reservoir Capacity = 8,650 cu m (Exis. Moratuwa G5)

Tower Capacity = 2,000 cu m (New Tower for Keselwatte)



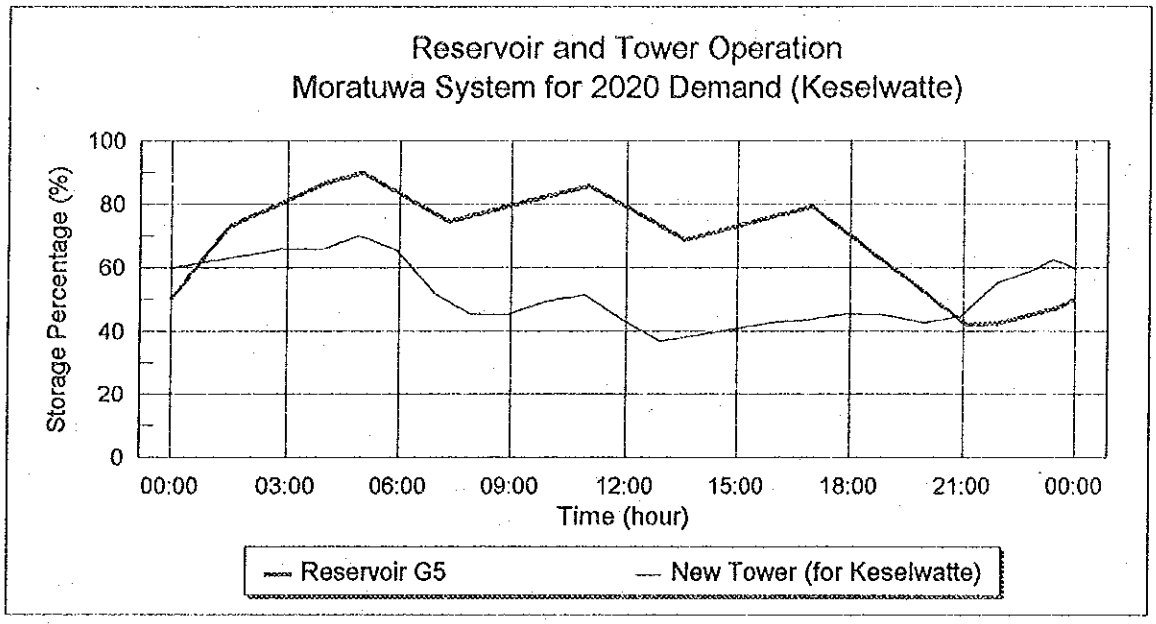
Pump Specifications

New Pumps

q = 60 l/sec

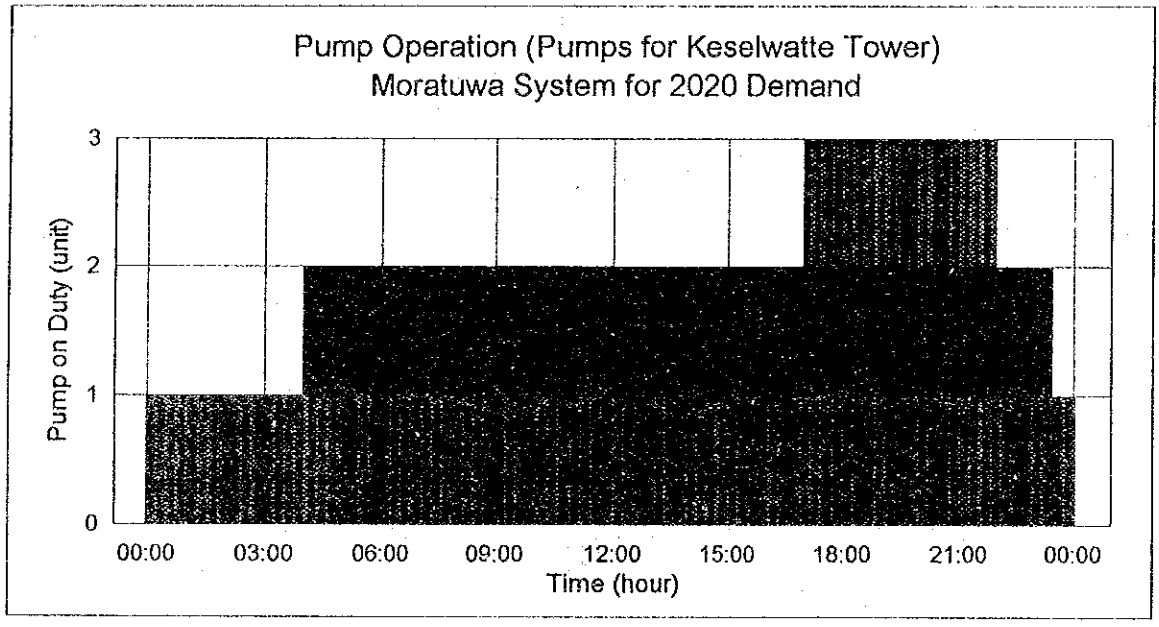
h = 40 m

3 units (incl. 1 stand-by)



Reservoir Capacity = 8,650 cu m (Exis. Moratuwa G5)

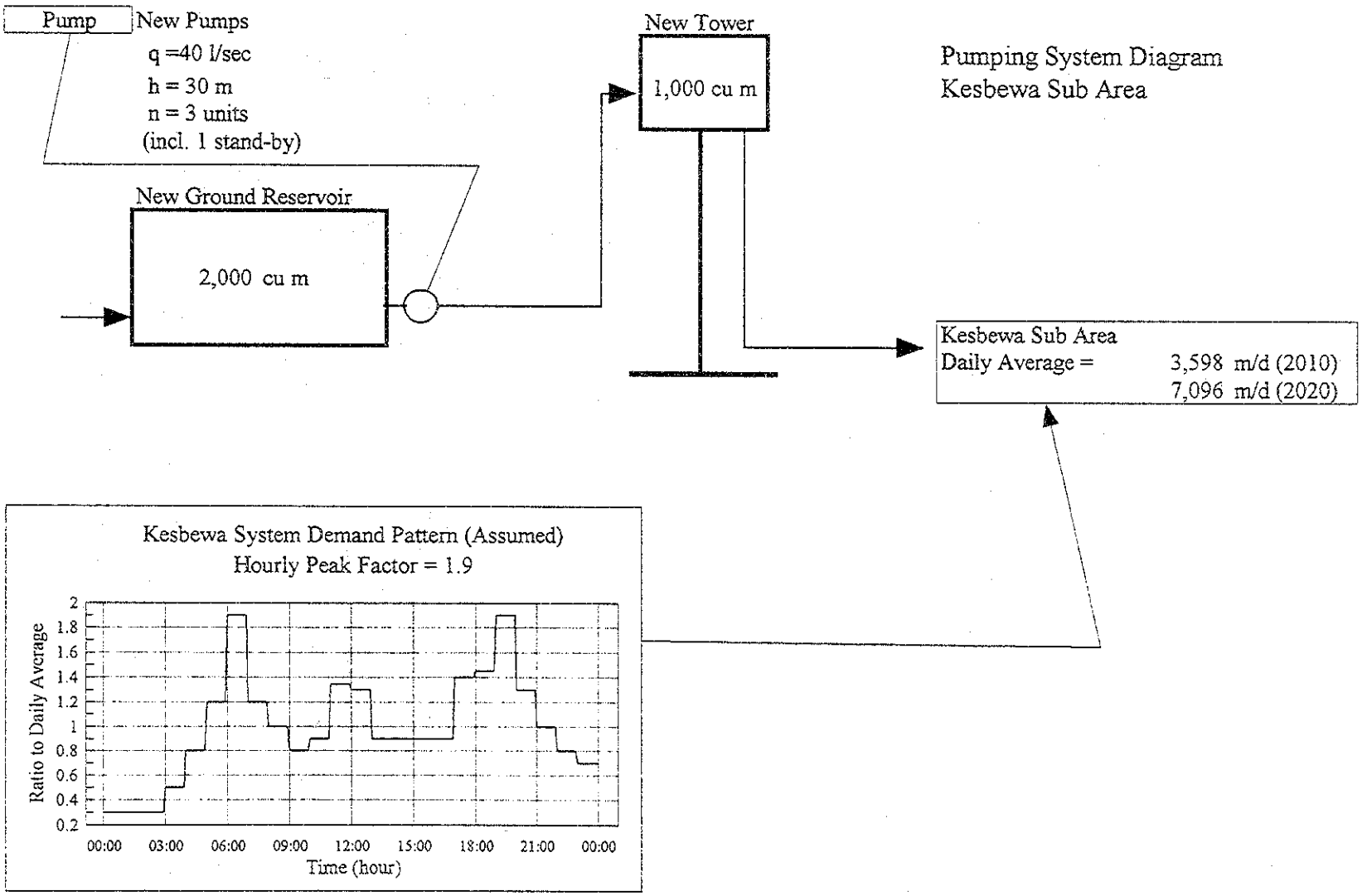
Tower Capacity = 2,000 cu m (New Tower for Keselwatte)

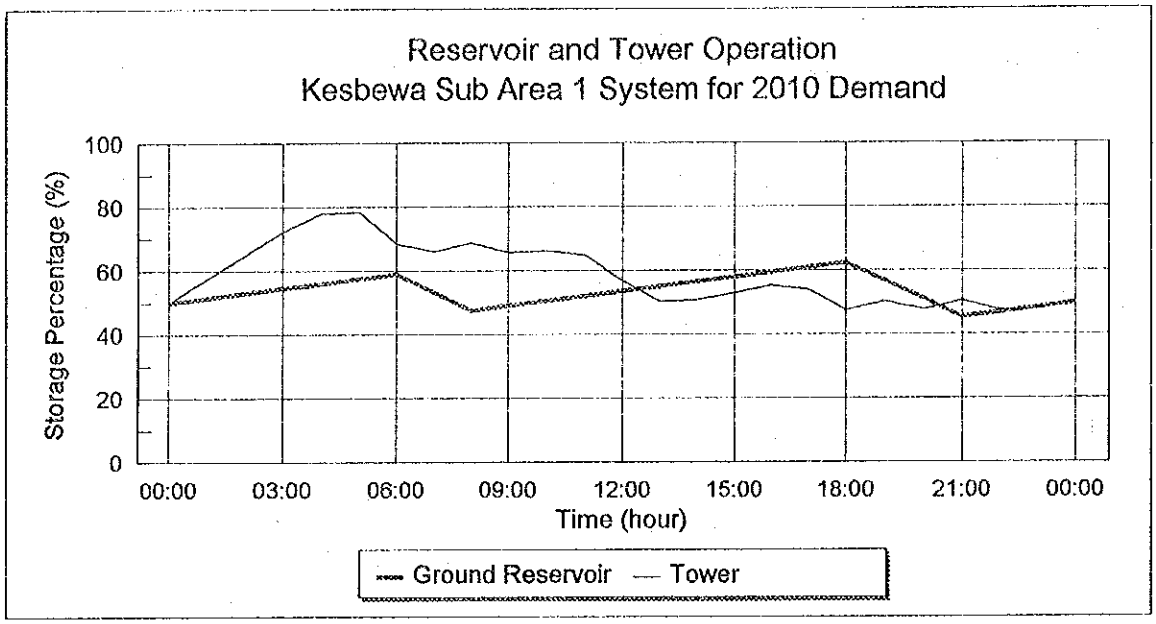


Pump Specifications

New Pumps

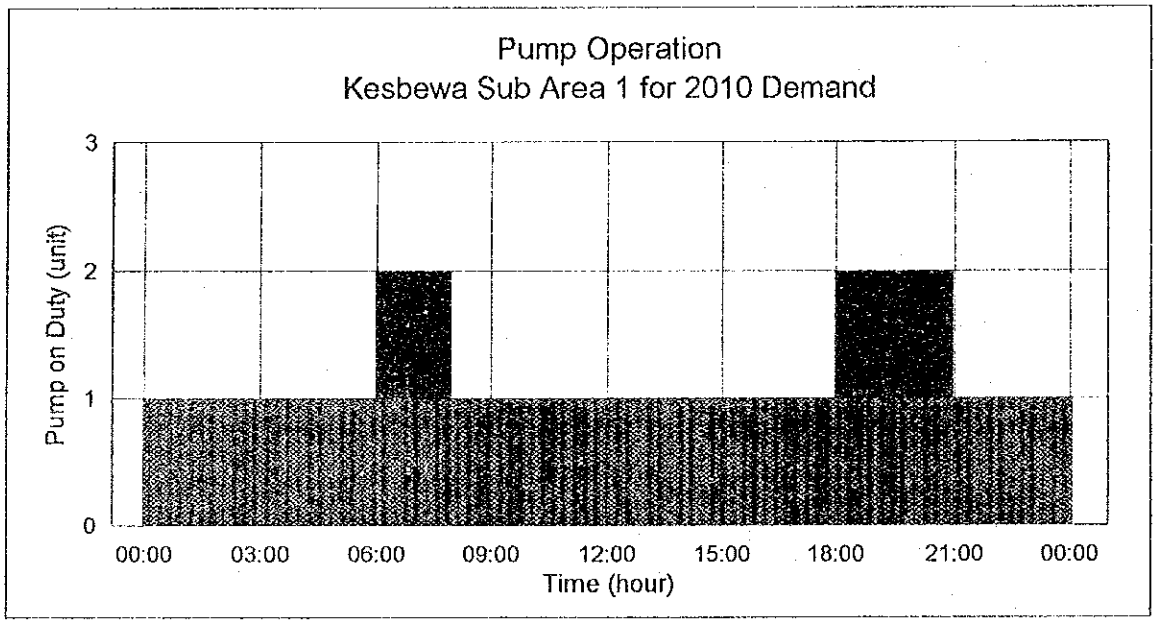
q = 60 l/sec
h = 40 m
4 units (incl. 1 stand-by)


Pump
New Pumps
q =40 l/sec
h = 30 m
n = 3 units
(incl. 1 stand-by)
New Ground Reservoir
2,000 cu m
New Tower
1,000 cu m
Pumping System Diagram
Kesbewa Sub Area
Kesbewa Sub Area
Daily Average = 3,598 m/d (2010)
7,096 m/d (2020)
Kesbewa System Demand Pattern (Assumed)
Hourly Peak Factor = 1.9
Ratio to Daily Average
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
00:00
Time (hour)



Ground Reservoir Capacity = 2,000 cu m (New Reservoir)

Tower Capacity = 1,000 cu m (New Tower)



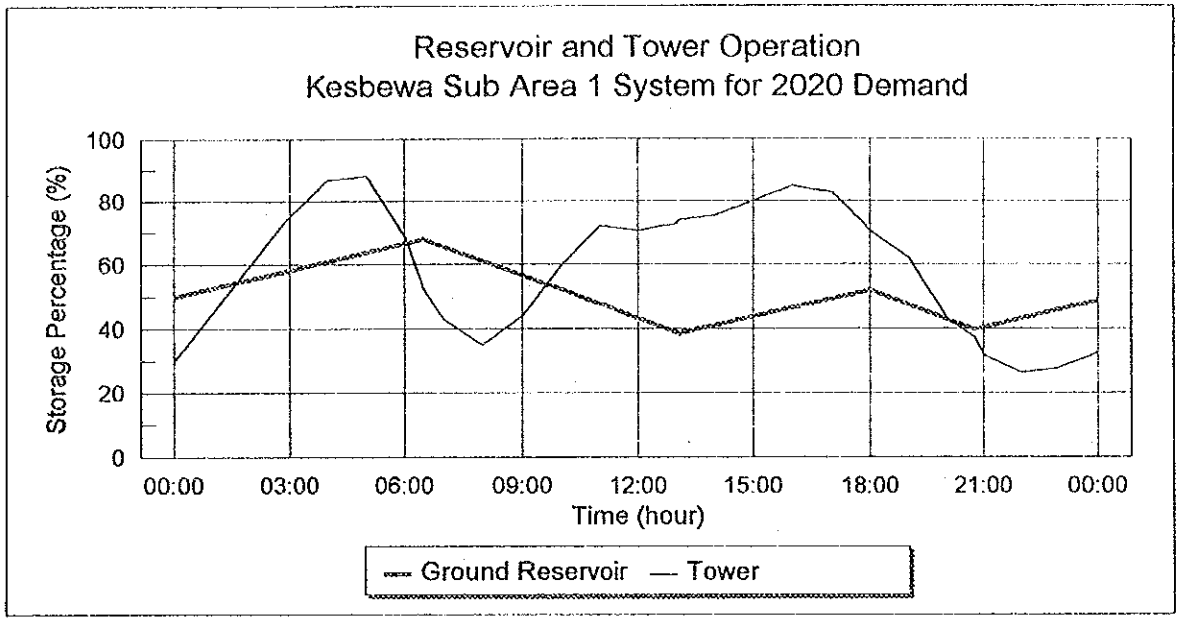
Pump Specifications

New Pumps

q = 40 l/sec

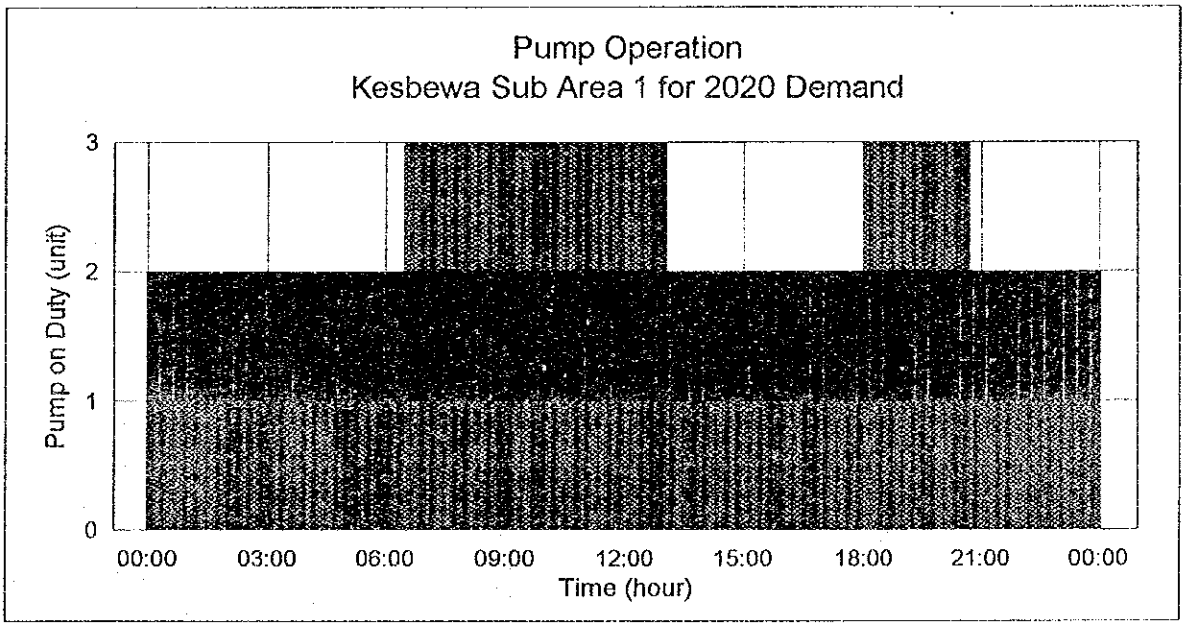
h = 30 m

3 units (incl. 1 stand-by)



Ground Reservoir Capacity = 2,000 cu m

Tower Capacity = 1,000 cu m



Pump Specifications

New Pumps

q = 40 l/sec

h = 30 m

4 units (incl. 1 stand-by)