UPPER EAST FORK CAVE CREEK

AREA DRAINAGE MASTER STUDY

TECHNICAL SUBMITTALS

#2

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UPPER EAST FORK CAVE CREEK AREA DRAINAGE MASTER STUDY

EXECUTIVE SUMMARY

ABSTRACT

CONCLUSIONS

RECOMMENDATIONS

CHAPTER 1

INTRODUCTION

OBJECTIVE

This Report on the Upper East Fork Area Drainage Master Study has been prepared for the Flood Control District of Maricopa County, the City of Phoenix and the Maricopa County Highway Department to achieve the following objectives:

1. To document the status of existing runoff and flooding conditions in the study area.

2. To identify and evaluate alternatives for providing 100-year flood protection throughout the study area.

3. To identify improvements needed to implement the recommended alternative.

4. To develop cost estimates and preliminary engineering design data for the proposed flood protection plan.

STUDY AREA

The study area is shown on Figure 1.1. It includes approximately 16 square miles, encompassing the watershed of the Upper East Fork of Cave Creek.

The area is bounded on the north by the Granite Reef Aqueduct of the Central Arizona Project. A sizeable retention area prevents runoff from entering the study area from the north.

The east and southeast edge of the study area is the Cave Creek - Indian Bend Wash divide. The study area is bounded by Lookout Mountain to the south and by Cave Creek to the west.

STUDY GUIDELINES

Under the terms of NBS/Lowry's agreement with the Flood Control District of Maricopa County, this study has been completed using the following guidelines:

1. Runoff modelling has been performed using the Soil Conservation Service TR-20 model.

2. Subdrainage area boundaries have been selected to

completed in 1981 for the City of Phoenix.

3. Calibration and flowpath routing of the TR-20 model has been based on a 100-year flood. Runoff computations for 10-year, 50-year and 500-year floods have been extrapolated using the flowpaths identified for a 100-year flood.

LAND USE

Development within the study area is proceeding very rapidly. The majority of the area is zoned residential. Commercial development is occurring along major thorughfares such as Bell Road and Cave Creek Road.

ACKNOWLEDGMENTS

The completion of this report was made possible by many individuals whose assistance and cooperation is gratefully acknowledged. We especially wish to thank Ms. Teresa Dominguez and Mr. Tim Sutko of the Flood Control District of Maricopa County, Mr. Dwayne Williams of the City of Phoenix, Engineering Department and Mr. Dick Wallace of the Maricopa County Highway Department.

Ms Barbara Lewis and Ms Marty Rozelle of Dames and Moore were responsible for the public involvement coordination associated with this study.

PROJECT STAFF

The individuals that were responsible for the preparation of this report were directed by Mr. Geza E. Kmetty, P.E., R.L.S., who served as principal in charge and project manager. Mr. Kmetty was assisted by Mr. William Booth, P.E., R.L.S., chief engineer. Dr. Gary L. Guymon, PhD, P.E. served as technical advisor for this study and was responsible for developing computerized finite element modeling techniques to simulate overland flow in the study area. Mr. M. Shawn Fleming, Mr. Brian Fry, and Mr. Dennis Phinney served as project staff. Graphics were prepared by Mr. Sam Maccherola.

CHAPTER 2

ENGINEERING AND PLANNING CRITERIA

DRAINAGE AREA CHARACTERISTICS

Subdrainage Areas

The Study area has been divided into 143 subdrainage areas shown on Figure 2.1. These subdrainage areas range in size from 0.025 to .35 square miles.

Characteristic data describing each subdrainage area is detailed in Table 2.1.

Land Use and Zoning

Table 2.2 summarizes existing land use in the study area. Future land use is summarized in Table 2.3.

Existing land use patterns used in this study are based on an aerial photograph of the study area taken in November, 1985. Future land use patterns are based on current zoning information obtained from the City of Phoenix and County of Maricopa.

Soils

Soils in the drainage area are classified by the Soil Conservation Service as being Type D in the higher elevations. Type B soils are prominent in the lower alluvial floodplains.

Curve Numbers

The SCS TR-20 hydrologic procedure combines the soil type, land use, and type of cover into a hydrologic soil cover complex or "curve number". In an urban area, the predominant factor in determining runoff is the percentage of impervious surfaces. The impervious area percentage varies with zoning and type of development. Curve numbers have been developed by the City of Phoenix for a number of zoning and soil classifications.

Composite curve numbers for each subdrainage area have been developed for both existing and future conditions using the weighted average method considering the various combinations of land use and soil types therein.

Table 2.4 shows the curve numbers for each zoning and soil type used to develop weighted average curve numbers for each subdrainage area.

A minimum curve number of 95 was used in areas having slopes in excess of 10%.

On-Site Detention

Where on-site detention is enforceable for future commercial and industrial developments, a curve number of 77 has been used. The low curve number allows for the regulatory intent that runoff will not be increased above preexisting conditions by these developments.

Time of Concentration

Time of concentration is defined by SCS as the time it takes for runoff to travel from the hydraulically most distant point in a watershed to the watershed outlet. The time of concentration for each subdrainage area was based on a sum of the overland flow time and the travel time in street gutters.

To estimate overland flow times for each subdrainage area the Upland Method has been used. Velocities used in the Upland method formula were taken from Figure 2.2.

The gutter flow travel time is defined as the time required for water to flow to the concentration point of a subdrainage area after it has reached the street. Gutter flow times of concentration have been estimating using figures contained in the "City of Phoenix Storm Drain Design Manual".

In no case was a time of concentration of less than 10 minutes used for any subdrainage area. Use of times of concentration less than 10 minutes results in TR-20 runoff calculations that are very inaccurate.

HYDROLOGIC CRITERIA

Rainfall Depths

Table 2.5 presents rainfall depths used for the 10-year, 50-year, 100-year and 500-year frequency storms.

The 10-year, 50-year and 100-year depths have been used for a number of previous studies in the Cave Creek watershed. The 500-year depth has been extrapolated using Gumbel's extreme value method in accordance with guidelines adopted by the National Weather Service.

24-Hour Rainfall Distribution

Table 2.6 presents the 24-hour rainfall distribution used in this study. This 24-hour distribution has the shape of an S-curve that is steeper than the Type I and Type II curves normally used by the Soil Conservation Service for TR-20

modelling. This S-curve has been used in numerous drainage studies in the Phoenix area.

COMPUTER MODELING TECHNIQUES

TR-20 Runoff Modeling

Runoff has been modeled throughout the study area using the Soil Conservation Service TR-20 model for the 10-year, 50-year, 100-year and 500-year frequency storms.

The TR-20 program can compute surface runoff for any synthetic or natural rainstorm. It takes into account conditions affecting runoff such as sizes of drainage areas, rainfall intensity vs time, time of concentration, soil permeability, channel flow characteristics and storage volumes.

From this input data, hydrographs are developed for all drainage areas at collection points. Using these hydrographs, flows are then routed through a drainage system and combined with other hydrographs to develop composite hydrographs. The peak discharges are then tabulated in summary tables. The SCS method of estimating direct runoff from storm rainfall is based on methods developed by SCS hydrologists at their small watershed research sites scattered throughout the United States.

The most recent version of the TR-20 model has been used in this study.

The updated version differs from previous versions in that the convex routing procedure is no longer used and has been replaced by the Att-Kin (Attenuated Kinematic) routing procedure. Use of the Att-Kin procedure requires assumptions regarding channel cross sections for modeling purposes. Figure 2.3 shows typical cross sections used to develop the Att-Kin coefficients ("X" and "m"). Nomographs that can be used to solve for the Att-Kin coefficients given the channel geometry are presented on Figures 2.4 and 25.

Two-Dimensional Finite Element Diffusion Model

The TR-20 model has been developed to model channelized flow. Much of the Upper East Fork Cave Creek study area consists of alluvial fan topography. Runoff over alluvial fan terrain is not always channelized. To account for this, the TR-20 model was supplemented by using a two-dimensional finite element diffusion model developed by Dr. Gary Guymon of the University of California, Irvine. The finite element model can be used to identify runoff paths over an alluvial fan. Runoff paths identified by the finite element model were then used as input into the TR-20 model.

In the finite element model, each 660 FT. square element in a floodplain grid is modeled as a separate diffusion equation. Diffusion equations are developed for each element by considering the complete hydraulic equation for two-dimensional flow within each element, and assuming inertial terms are negligible. Solving the mathematics then requires the solution of as many simultaneous equations as the sum of the number of grid squares and the number of grid boundaries, and repeating this process for each 0.001-hour time increment. A small simulation time step is required because an explicit method is used to solve the dynamic equations of fluid motion.

Input to the finite element diffusion model included elevations for the center of each grid cell, a Manning's roughness coefficient (n) considered to be 0.035 for this study area, hydrographs to simulate runoff entering the finite element grid at various locations, and a hyetograph to simulate rainfall over the grid during the simulation.

HEC-2 Modeling of Camino Via Verde Channel

Water surface profiles along the proposed Camino Via Verde Channel have been modeled using the United States Corps of Engineers HEC-2 program.

HYDRAULIC DESIGN CRITERIA

Channels have been designed to flow with 1 foot of freeboard. Manning's "n" values have been assigned as follows"

Type of Channel	Manning's "n"
Earth lined channels	.022
Concrete lined channels	.015

Pipes have been designed to flow full, with a Manning's "n" of 0.015.

COST ESTIMATING

Table 2._ summarizes estimated construction costs used in preparing this study.

Operation and maintenance costs are summarized in Table 2._ Life cycle costs have been capitalized over a 40-year life using an 8% discount rate.

CHAPTER 3

EXISTING CONDITIONS

SUMMARY

This chapter summarizes results obtained using the two-dimensional finite element diffusion model and the TR-20 model of existing conditions. The results of the model are then compared with the results of other studies.

AREAS OF FLOODING

The two-dimensional finite element diffusion model has been used to identify runoff patterns for a 100 year flood. Results are summarized on Figure 3.1.

Of particular interest is the alluvial fan pattern observed in the area along the East fork south of Grover Street. Two noticeable breakout locations are observed. One breakout occurs along 21st Street to the south of the identified channel. A second divergence occurs at Bell Road near 18th Street where flow appears to split to the west and to the southwest.

Results of the finite element diffusion model have been used to determine runoff patterns input into the TR-20 model.

RUNOFF QUANTITIES

Figure 3.2 summarizes runoff quantities computed using the TR-20 model for the 100-year storm. Reaches having runoff flows exceeding 1000 cfs in the model are also identified on this figure.

COMPARISON WITH PREVIOUS STUDIES

Flows computed for the Upper East Fork of Cave Creek at the Confluence of Cave Creek and the East Fork of Cave Creek compare with previous studies as follows:

Study	100-yr Runoff
Upper East Fork ADMS (This Study)	9606 cfs
FEMA Flood Insurance Study (Corp of Engineers)	9000 cfs
Greenway Road Location Study (Dibble & Associates)	9500 cfs

At other locations, larger discrepancies have occurred. These differences result from a.) differences in drainage

area boundaries assigned to the various subwatersheds b.) differences in curve numbers c.) differences in routing.

FEMA Flood Insurance Study

Flows assigned to the Upper East Fork of Cave Creek north of Bell Road are greater in the FEMA Study than were computed for existing conditions in this study. The difference is accounted for by the fact that subdrainage areas to the east of the Upper East Fork were assumed by FEMA to contribute to the Upper East Fork runoff. These areas have been routed in this study through a separate sub drainage area.

Greenway Road Location Study

Flows computed in this study for existing conditions exceed design flows used in the Greenway Road Location Study in the areas east of 7th Street.

Runoff quantities compare favorably with design criteria used in the Greenway Road Location Study to the west of 7th Street.

CHAPTER 4

ALTERNATIVE ANALYSIS

DESCRIPTION OF ALTERNATIVES

COMPARISON OF ALTERNATIVES

Hydraulics

Cost

Intangibles

RECOMMENDED ALTERNATIVE

IMPACT ON DOWNSTREAM STRUCTURES

CHAPTER 5

PRELIMINARY PLAN

PROPOSED IMPROVEMENTS

RIGHT OF WAY

UTILITY INTERFERENCE

AESTHETICS

ESTIMATED COST

CHAPTER 6

PHASING AND IMPLEMENTATION

CAPITAL IMPROVEMENT PHASING

SOURCES OF FUNDS

CAPITAL IMPROVEMENT PHASING

Priority 1 Improvements

Priority 2 Improvements

Priority 3 Improvements

REFERENCES

"A Preliminary Report of the Flood Study of the East Fork of the Cave Creek Wash at Bell Road and Sixteenth Street". prepared by Amwest Engineering Company, September, 1985.

Flood Insurance Study - City of Phoenix, Arizona, Maricopa County. prepared by Federal Emergency Management Agency, June 1, 1984.

"Greenway Road Location Study". prepared for City of Phoenix by Dibble and Associates Consulting Engineers, Phoenix, AZ, August 19, 1982.

Guymon, G.L. et al., 1971, A Probabilistic-Deterministic Analysis of One-Dimensional Ice Segregation in a Freezing Soil Column, Cold Regions Science and Technology, 5, 127-140, ElSevier Scientific Publishing Company, Amsterdam.

Guymon, G.L. and Hromadka, T.V. II., Two-Dimensional Diffusion-Probabilistic Model of a Slow Dam Break, submitted to Water Resources Bulletins

Hromadka, T.V. II, Berenbrock, C.E., Freckleton, J.R., Guymon, G.L., 1985, A Two-dimensional Dam-break Floodplain Model, Advances in Water Resources, Vol. 8, pp. 7-14.

"Master Development Plan for the Cave Creek Wash, Cave Buttes Dam South to Greenway Road and Including the East Fork to Seventh Street". prepared for City of Phoenix by Wirth Associates, Inc., February 1982.

"North Central Area Master Storm Drainage Study (East Half). prepared for City of Phoenix by Cella Barr Associates, Phoenix, AZ, April 1981.

"Northeast Area Master Storm Drainage Study". prepared for City of Phoenix by Southwest Computing Inc., Phoenix, AZ, 1979.

Phoenix Contour Quarter Section Maps

Phoenix Right-of-Way Quarter Section Maps

Phoenix Storm Drain Design Manual, Storm Drains with Paving of Major Streets, Phoenix, August 1975.

Phoenix Utility Quarter Section Maps

"Review of Design Rainfall Criteria and Evaluation Raingage Network". prepared for City of Phoenix by Tipton and Kalmbach Inc. Consulting Engineers, Denver, CO, January 1986.

Soil Conservation Service, National Engineering Handbook Section 4, Hydrology, Washington D.C., 1972.

Soil Conservation Service, Technical Release Number 20, Users Manual, Washington D.C., May 1982.

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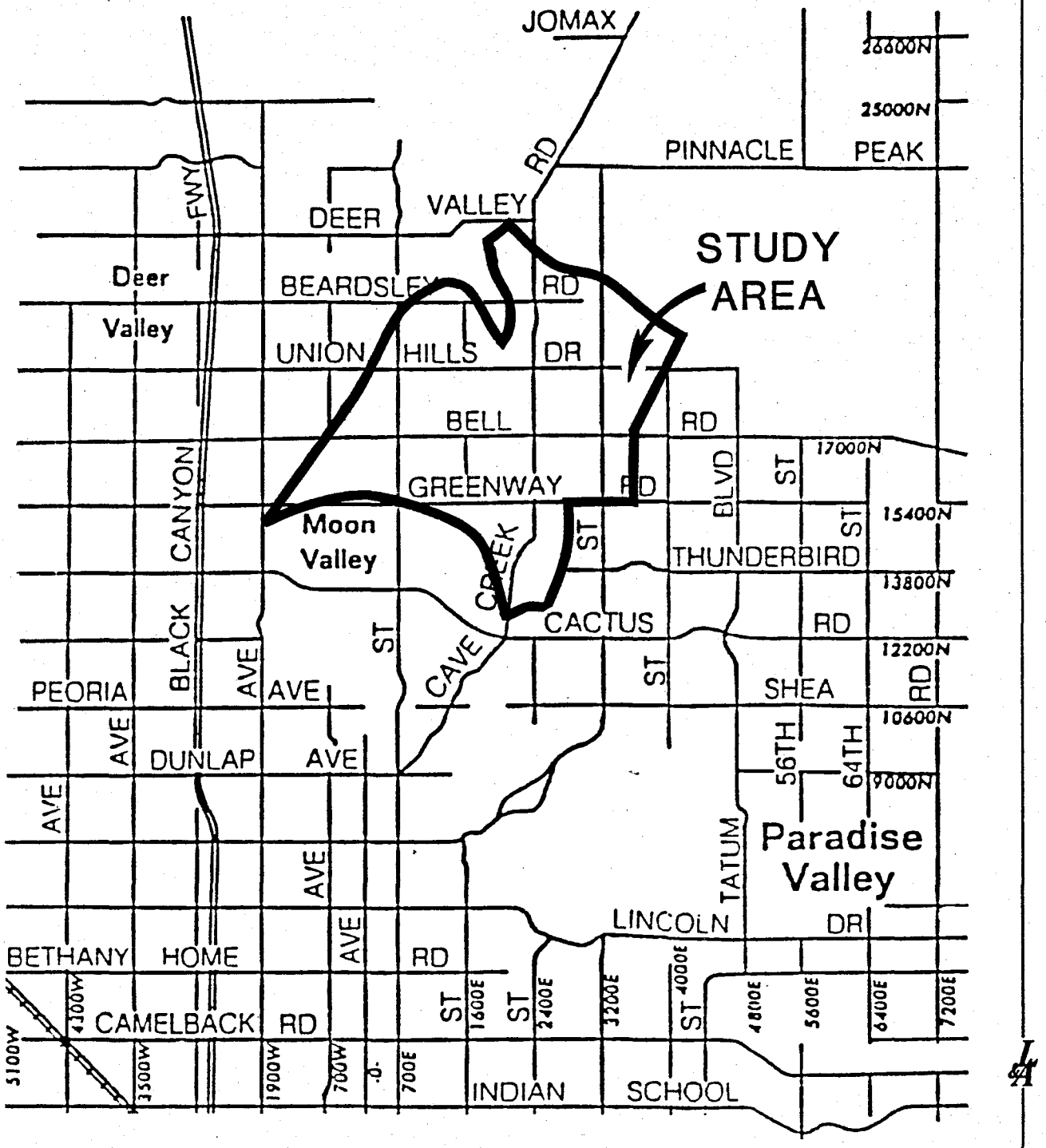


FIGURE 1.1

UPPER EAST FORK - CAVE CREEK ADMS

DRAINAGE AREA NO.	AREA [SQ. MI.]	RUNOFF CURVE NO.	TIME OF CONCENT. [HRS.]
1	0.148	95	0.30
2	0.097	95	0.19
3	0.047	77	0.36
4	0.195	95	0.22
5	0.125	77	0.56
6	0.109	81	0.82
7	0.117	77	0.69
8	0.131	78	0.75
9	0.198	77	0.93
10	0.095	77	0.56
11	0.234	77	0.84
12	0.07	77	0.42
13	0.125	82	0.61
14	0.177	83	0.39
15	0.073	82	0.89
16	0.119	86	0.54
17	0.059	95	0.09
18	0.184	78	0.72
19	0.022	95	0.14
20	0.064	95	0.08
21	0.189	83	0.58
22	0.153	83	0.47
23	0.091	95	0.23
24	0.198	81	0.46
25	0.089	83	0.43
26	0.067	85	0.31
27	0.188	80	1.20
28	0.156	79	0.93
29	0.25	78	1.03
30	0.25	79	0.97
31	0.084	77	0.58
32	0.18	77	0.93
33	0.234	77	1.14
34	0.125	84	0.73
35	0.125	83	0.49
36	0.125	83	0.48
37	0.125	83	0.25
38	0.125	79	0.44
39	0.125	85	0.53
40	0.094	82	0.51
41	0.172	84	0.38
42	0.078	83	0.22
43	0.047	86	0.08
44	0.125	83	0.30
45	0.125	86	0.51
46	0.125	82	0.29
47	0.125	82	0.31

TABLE 2.1

UPPER EAST FORK - CAVE CREEK ADMS

DRAINAGE AREA NO.	AREA [SQ. MI.]	RUNOFF CURVE NO.	TIME OF CONCENT. [HRS.]
48	0.125	79	0.60
49	0.086	95	0.19
50	0.134	77	0.57
51	0.063	83	0.18
52	0.063	79	0.56
53	0.084	84	0.31
54	0.061	79	0.23
55	0.063	83	0.25
56	0.063	82	0.25
57	0.063	82	0.25
58	0.063	84	0.25
59	0.063	82	0.25
60	0.063	81	0.49
61	0.102	83	0.25
62	0.13	79	0.88
63	0.141	84	0.34
64	0.25	82	0.33
65	0.063	77	0.49
66	0.063	83	0.46
67	0.063	88	0.25
68	0.063	85	0.25
69	0.063	81	0.62
70	0.063	86	0.25
71	0.125	85	0.49
72	0.125	83	0.49
73	0.197	80	0.79
74	0.063	90	0.24
75	0.063	95	0.52
76	0.063	86	0.25
77	0.063	77	0.38
78	0.063	86	0.27
79	0.063	88	0.25
80	0.063	83	0.45
81	0.063	77	0.52
82	0.063	84	0.27
83	0.063	81	0.52
84	0.063	78	0.52
85	0.063	80	0.52
86	0.063	86	0.27
87	0.063	83	0.52
88	0.094	87	0.75
89	0.047	84	0.39
90	0.109	85	0.63
91	0.125	86	0.47
92	0.125	86	0.47
93	0.195	84	0.45
94	0.139	84	0.34
95	0.125	86	0.98

TABLE 2.1

UPPER EAST FORK - CAVE CREEK ADMS

DRAINAGE AREA NO.	AREA [SQ. MI.]	RUNOFF CURVE NO.	TIME OF CONCENT. [HRS.]
96	0.125	82	0.51
97	0.188	87	0.53
98	0.094	86	0.37
99	0.094	86	0.49
100	0.078	86	0.39
101	0.047	89	0.52
102	0.063	82	0.63
103	0.081	84	0.26
104	0.069	78	0.67
105	0.063	78	0.63
106	0.063	79	0.56
107	0.059	82	0.42
108	0.025	79	0.28
109	0.063	84	0.29
110	0.073	78	0.56
111	0.07	77	0.56
112	0.061	77	0.46
113	0.053	86	0.52
114	0.128	77	1.19
115	0.094	82	0.45
116	0.094	79	0.77
117	0.313	77	2.38
118	0.231	81	1.59
119	0.231	81	1.05
120	0.231	87	0.30
121	0.25	95	0.17
122	0.355	85	0.29
123	0.213	95	0.25
124	0.219	84	0.25
125	0.117	95	0.13
126	0.158	95	0.28
127	0.159	82	0.21
128	0.036	80	0.13
129	0.108	82	0.12
130	0.031	91	0.07
131	0.119	86	0.27
132	0.145	88	0.27
133	0.08	95	0.13
134	0.197	85	0.31
135	0.042	95	0.07
136	0.066	95	0.15
137	0.078	79	0.49
138	0.203	84	0.24
139	0.188	87	0.43
140	0.125	86	0.44
141	0.188	87	0.53
142	0.25	83	1.39
TOTAL	16.46		

TABLE 2.1

PRESENT LAND USE

ZONING	TOTAL AREA IN SQ. MILES
C-0	0.024
C-1	0.006
C-2	0.709
C-3	0.049
PSC	0.027
IND PK	0.073
IND-1	0.000
P-1	0.002
PAD 6	0.148
PAD 8	0.322
PAD 10	0.157
PAD 11	0.032
PAD 12	0.020
PAD 13	0.114
PAD 14	0.008
PAD R1-8	0.223
R-2	0.671
R-3	1.230
R-3A	0.132
R-4	0.036
R-4A	0.489
R-5	0.179
R 1-6	1.589
R 1-7	0.296
R 1-8	2.134
R 1-10	0.482
R 1-14	0.241
R 1-18	0.004
R 1-35	0.012
RE-35	0.000
RE-43	1.678
S-1	1.187
UNDEV COM	0.381
UNDEV RES	3.805

TABLE 2.2

FUTURE LAND USE

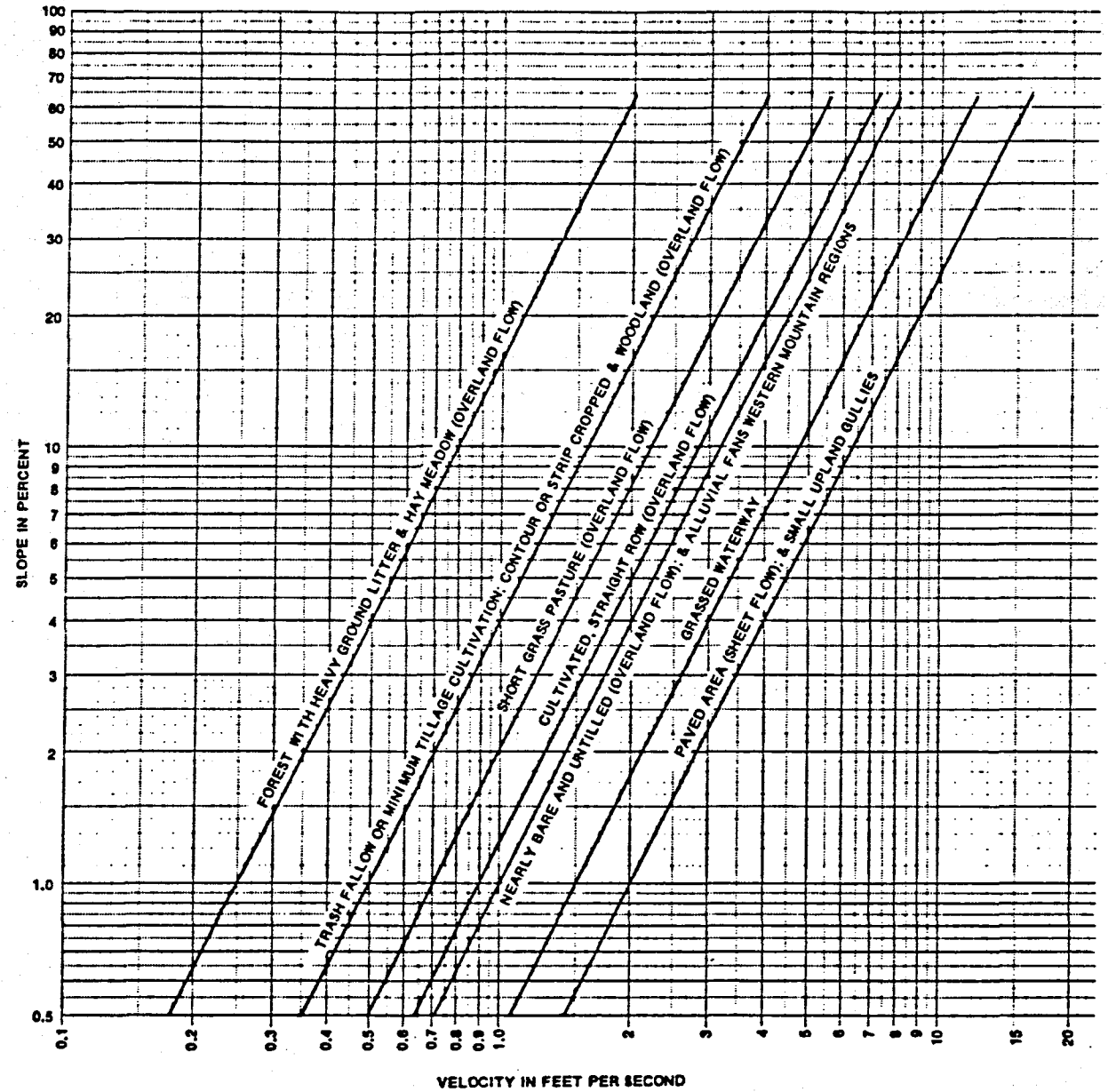
ZONING	TOTAL AREA IN SQ. MILES
C-0	0.024
C-1	0.006
C-2	0.709
C-3	0.049
PSC	0.027
IND PK	0.073
IND-1	0.023
P-1	0.002
PAD 6	0.148
PAD 8	0.322
PAD 10	0.165
PAD 11	0.032
PAD 12	0.020
PAD 13	0.114
PAD 14	0.008
PAD R1-8	0.223
R-2	0.782
R-3	1.551
R-3A	0.150
R-4	0.164
R-4A	0.634
R-5	0.368
R 1-6	1.882
R 1-7	0.426
R 1-8	3.673
R 1-10	0.716
R 1-14	0.446
R 1-18	0.418
R 1-35	0.012
RE-35	0.070
RE-43	1.678
S-1	1.187
UNDEV COM	0.381

TABLE 2.3

CURVE NUMBER SELECTION BASED ON SOIL TYPE AND ZONING

ZONING	SOIL TYPE "B"	SOIL TYPE "C"	SOIL TYPE "D"
C-0	88		
C-1	92		
C-2	92		
C-3	92		
PSC	95		
IND PK	95		
IND-1	95		
P-1	95		
PAD 6	80	88	
PAD 8	82		
PAD 10	84		
PAD 11	84		
PAD 12	84		
PAD 13	85		
PAD 14	86		
PAD R1-8	82		
R-2	84		
R-3	85		90
R-3A	90		
R-4	86		
R-4A	86		
R-5	86		
R 1-6	84		
R 1-7	83		
R 1-8	82	87	90
R 1-10	81	86	
R 1-14	80		88
R 1-18	80		
R 1-35	78		
RE-35	79		87
RE-43	77		
S-1	77		86

TABLE 2.4



Velocities for upland method of estimating T_c

FIGURE 2.2

CITY OF PHOENIX
24-HOUR RAINFALL DEPTHS

RETURN PERIOD (YEARS)	RAINFALL DEPTH (INCHES)
10	2.53
50	3.57
100	4.04
500	5.07

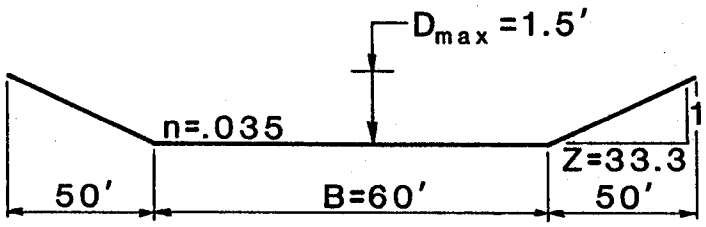
TABLE 2.5

24 HOUR RAINFALL DISTRIBUTION

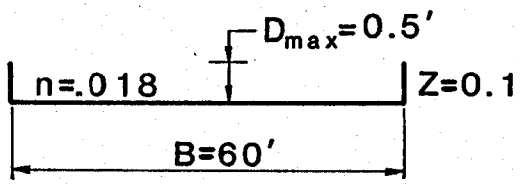
TIME (HOUR)	ACCUMULATIVE RAINFALL	TIME (HOUR)	ACCUMULATIVE RAINFALL
0	.000	12.5	.83
.5	.004	13.0	.86
1.0	.008	13.5	.88
1.5	.013	14.0	.893
2.0	.018	14.5	.907
2.5	.022	15.0	.92
3.0	.026	15.5	.924
3.5	.031	16.0	.928
4.0	.035	16.5	.933
4.5	.040	17.0	.937
5.0	.044	17.5	.942
5.5	.048	18.0	.947
6.0	.053	18.5	.951
6.5	.057	19.0	.956
7.0	.062	19.5	.96
7.5	.066	20.0	.964
8.0	.071	20.5	.969
8.5	.075	21.0	.973
9.0	.08	21.5	.978
9.5	.093	22.0	.982
10.0	.107	22.5	.987
10.5	.12	23.0	.991
11.0	.14	23.5	.995
11.5	.17	24.0	1.00
12.0	.50		

TABLE 2.6

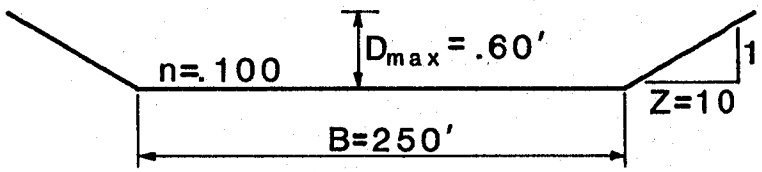
CROSS-SECTIONS USED FOR DETERMINING "X" & "m" IN THE EQUATION $Q=XA^m$ IN THE Att-Kin ROUTING PROCEDURE



STREET FLOW
(FLOW IN EXCESS OF CURB CAPACITY)



STREET FLOW
(FLOW CONTAINED WITHIN STREET)



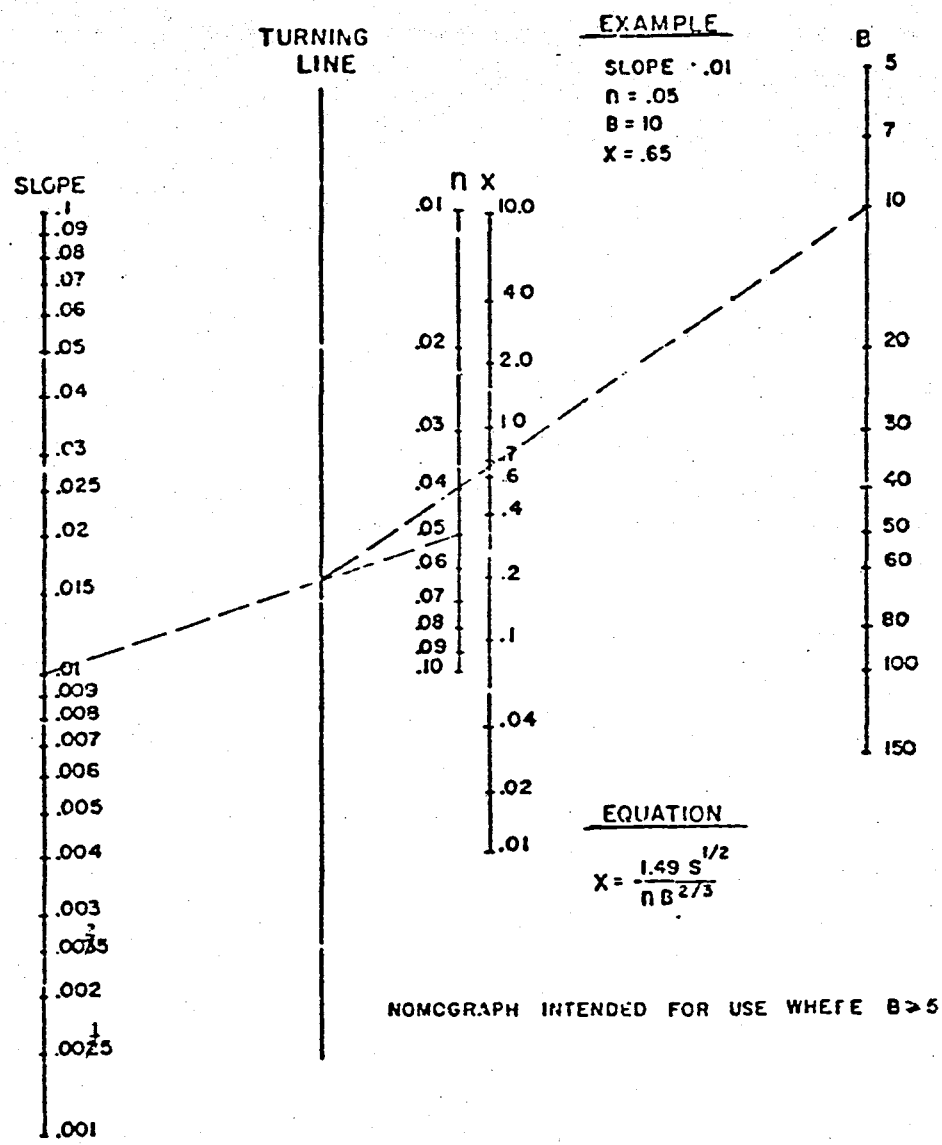
OVERLAND FLOW
(NATURAL DESERT)

FIGURE 2.3

NOMOGRAPH FOR ESTIMATING X FOR A TRAPEZOIDAL CHANNEL

$Q = XA^M$

SLOPE = BOTTOM SLOPE (FT/FT)
n = MANNING'S n
B = BOTTOM WIDTH (FT)



EXAMPLE

SLOPE = .01
n = .05
B = 10
X = .65

EQUATION

$$X = \frac{1.49\, S^{1/2}}{n\, B^{2/3}}$$

NOMOGRAPH INTENDED FOR USE WHERE B > 5 FT.

FIGURE 2.4

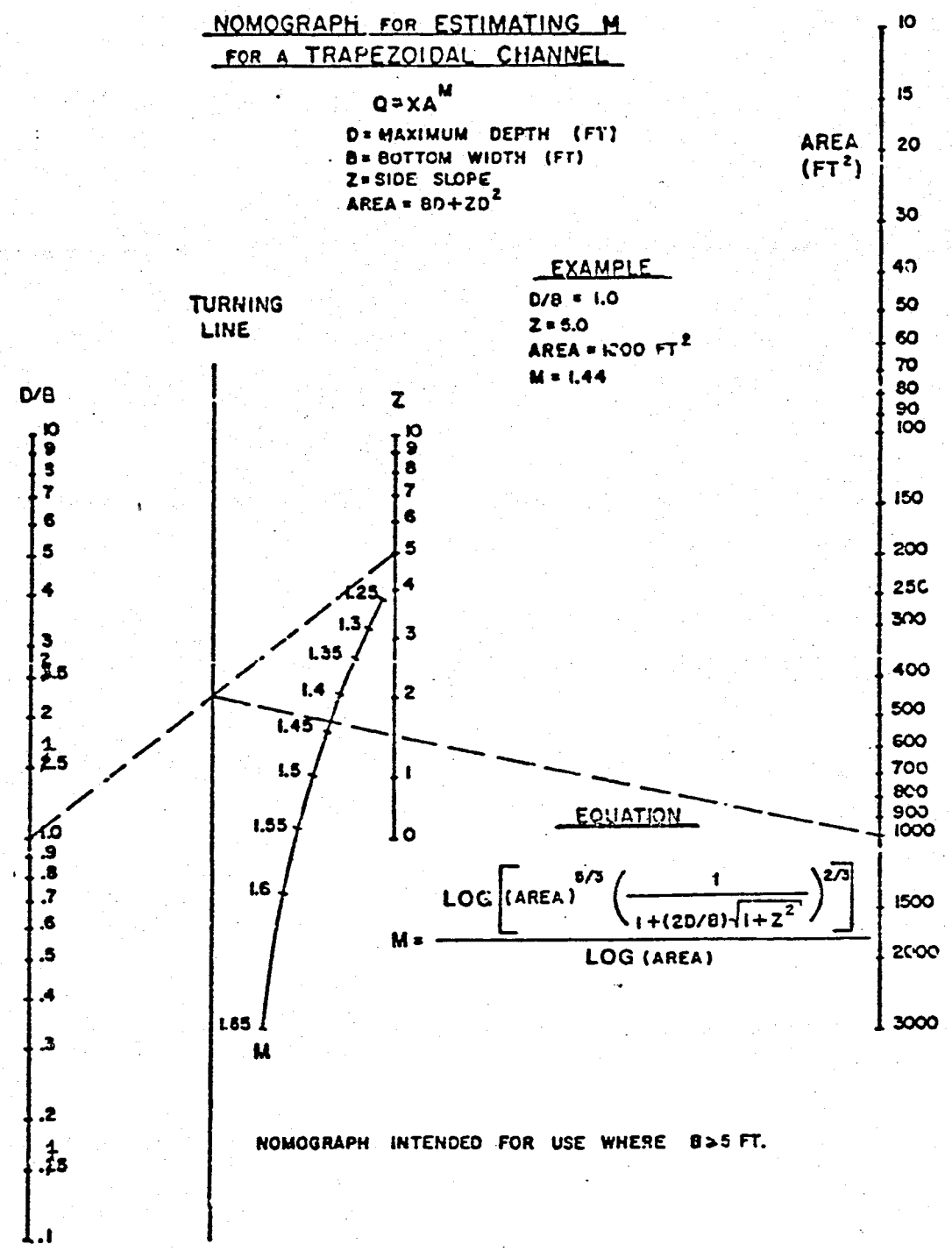

NOMOGRAPH FOR ESTIMATING M
FOR A TRAPEZOIDAL CHANNEL
Q=XA^M
D = MAXIMUM DEPTH (FT)
B = BOTTOM WIDTH (FT)
Z = SIDE SLOPE
AREA = BD+ZD^2
EXAMPLE
D/B = 1.0
Z = 5.0
AREA = 1000 FT^2
M = 1.44
TURNING LINE
D/B
Z
M
AREA (FT^2)
EQUATION
M = LOG[(AREA)^5/3 (1/(1+(2D/B)√(1+Z^2)))^2/3] / LOG (AREA)
NOMOGRAPH INTENDED FOR USE WHERE B>5 FT.

FIGURE 2.5

```
*****************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****************

JOB TR-20                                          SUMMARY   NOPLOTS
TITLE 000 CAVE CREEK - ADMS HYDROLOGY
TITLE 000 EXISTING CONDITIONS
 5 RAINFL 1              .0208
 8          0.           .004        .008        .0130       .018
 8          .022         .026        .031        .035        .04
 8          .044         .048        .053        .057        .062
 8          .066         .071        .075        .080        .093
 8          .107         .120        .140        .170        .500
 8          .830         .860        .880        .893        .907
 8          .920         .924        .928        .933        .937
 8          .942         .947        .951        .956        .960
 8          .964         .969        .973        .978        .982
 8          .987         .991        .995        1.00        1.00
 9 ENDTBL
 2 XSECTN   006          1.0
 8                       1502.       0.0         0.0
 8                       1502.4      3.7         2.1
 8                       1502.8      13.3        5.1
 8                       1503.2      29.5        9.1
 8                       1503.6      53.4        14.1
 8                       1504.0      85.8        20.0
 8                       1504.4      100.7       30.8
 8                       1504.8      169.0       50.3
 8                       1505.2      289.0       78.5
 8                       1505.6      469.8       115.4
 8                       1506.0      470.9       161.1
 8                       1506.4      952.6       295.5
 8                       1506.8      1764.7      462.7
 8                       1507.2      2878.8      662.8
 8                       1507.6      4328.4      895.6
 8                       1508.0      6145.9      1161.3
 8                       1508.4      8331.5      1460.9
 8                       1508.8      10956.2     1795.8
 9 ENDTBL
 2 XSECTN   008          1.0
 8                       1494.0      0.0         0.0
 8                       1494.3      7.4         5.7
 8                       1494.6      23.9        12.0
 8                       1494.9      47.8        18.8
 8                       1495.2      78.9        26.3
 8                       1495.5      117.0       34.3
 8                       1495.8      162.2       42.9
 8                       1496.1      165.4       53.5
 8                       1496.4      175.4       84.2
 8                       1496.7      302.7       140.5
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)*********************
 8                        1497.0      527.8       222.4
 8                        1497.3      868.5       329.9
 8                        1497.6      1343.8      463.0
 8                        1497.9      1972.3      621.8
 8                        1498.2      2837.4      803.3
 8                        1498.5      3901.4      998.3
 8                        1498.8      5131.8      1206.2
 8                        1499.1      6532.4      1426.8
 8                        1499.4      8107.5      1660.4
 8                        1499.7      9861.7      1906.7
 9 ENDTBL
 2 XSECTN    014          1.0
 8                        1484.0      0.0         0.0
 8                        1484.3      4.5         3.5
 8                        1484.6      14.6        7.4
 8                        1484.9      29.3        11.7
 8                        1485.2      48.4        16.4
 8                        1485.5      72.0        21.6
 8                        1485.8      100.0       27.1
 8                        1486.1      132.3       33.0
 8                        1486.4      168.7       39.4
 8                        1486.7      210.3       46.4
 8                        1487.0      257.3       53.8
 8                        1487.3      309.9       61.7
 8                        1487.6      368.3       70.1
 8                        1487.9      432.9       78.9
 8                        1488.2      460.0       95.4
 8                        1488.5      490.0       142.0
 8                        1488.8      520.2       220.5
 8                        1489.1      843.7       330.9
 8                        1489.4      1318.9      473.3
 8                        1489.7      1968.4      647.5
 9 ENDTBL
 2 XSECTN    027          1.0
 8                        1468.0      0.0         0.0
 8                        1468.3      3.7         3.3
 8                        1468.6      12.4        7.4
 8                        1468.9      25.6        12.0
 8                        1469.2      43.5        17.4
 8                        1469.5      66.2        23.4
 8                        1469.8      94.1        30.2
 8                        1470.1      127.2       37.5
 8                        1470.4      165.8       45.7
 8                        1470.7      210.8       54.5
 8                        1471.0      262.3       64.1
 8                        1471.3      320.8       74.5
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)**********************

 8                        1471.6       386.5        85.5
 8                        1471.9       453.1        97.3
 8                        1472.2       540.0       173.1
 8                        1472.5       625.0       286.2
 8                        1472.8      1078.1       406.7
 8                        1473.1      1636.5       534.4
 8                        1473.4      2298.0       669.3
 8                        1473.7      3062.4       811.5
 9 ENDTBL
 2 XSECTN    037          1.0
 8                        1452.0       0.0          0.0
 8                        1452.2       8.1          6.5
 8                        1452.6      50.6         19.9
 8                        1453.0     119.3         34.0
 8                        1453.2     162.1         41.3
 8                        1453.4     210.4         48.7
 8                        1453.6     263.8         56.3
 8                        1453.8     322.2         64.1
 8                        1454.0     385.5         72.0
 8                        1454.2     420.0         86.0
 8                        1454.4     456.8        100.3
 8                        1454.6     566.6        114.7
 8                        1454.8     685.9        129.2
 8                        1455.0     814.4        143.9
 8                        1455.2     952.0        158.8
 8                        1455.4    1098.3        173.9
 8                        1455.6    1183.6        189.8
 8                        1455.8    1357.3        206.7
 8                        1456.0    1540.3        223.7
 8                        1456.2    1740.2        240.7
 9 ENDTBL
 2 XSECTN    080          1.
 8                        1416.5       0.0          0.0
 8                        1416.7       3.1          4.0
 8                        1416.9      19.4         16.0
 8                        1417.1      57.3         36.0
 8                        1417.3     123.3         64.
 8                        1417.5     223.6        100.
 8                        1417.7     363.6        143.9
 8                        1417.9     548.5        195.9
 8                        1418.1     755.7        256.9
 8                        1418.3    1009.8        333.3
 8                        1418.5    1351.1        426.1
 8                        1418.7    1787.6        535.4
 8                        1418.9    2328.1        661.1
 8                        1419.1    3071.3        799.
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
 8                        1419.3      4033.2      941.0
 9 ENDTBL
 2 XSECTN    083          1.0
 8                        1428.8      0.0         0.0
 8                        1428.9      20.4        26.6
 8                        1429.1      129.4       106.5
 8                        1429.3      403.3       234.6
 8                        1429.5      852.0       380.0
 8                        1429.7      1442.6      537.5
 8                        1429.9      2172.7      707.3
 8                        1430.1      3101.4      887.7
 9 ENDTBL
 2 XSECTN    085          1.0
 8                        1428.8      0.0         0.0
 8                        1428.9      20.4        26.6
 8                        1429.1      129.4       106.5
 8                        1429.3      403.3       234.6
 8                        1429.5      852.0       380.0
 8                        1429.7      1442.6      537.5
 8                        1429.9      2172.7      707.3
 8                        1430.1      3101.4      887.7
 9 ENDTBL
 2 XSECTN    086          1.0
 8                        1429.8      0.0         0.0
 8                        1429.9      32.7        48.5
 8                        1430.       115.8       116.0
 8                        1430.1      268.3       193.9
 8                        1430.2      469.2       273.6
 8                        1430.4      1000.2      438.7
 8                        1430.6      1689.0      611.1
 8                        1430.8      2526.0      791.0
 8                        1431.0      3505.8      978.2
 8                        1431.2      4625.3      1172.9
 8                        1431.4      5882.7      1374.9
 9 ENDTBL
 2 XSECTN    087          1.0
 8                        1429.8      0.0         0.0
 8                        1429.9      32.7        48.5
 8                        1430.       115.8       116.0
 8                        1430.1      268.3       193.9
 8                        1430.2      469.2       273.6
 8                        1430.4      1000.2      438.7
 8                        1430.6      1689.0      611.1
 8                        1430.8      2526.0      791.0
 8                        1431.0      3505.8      978.2
 8                        1431.2      4625.3      1172.9
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
 8                        1431.4      5882.7      1374.9
 9 ENDTBL
 2 XSECTN    105          1.0
 8                        1417.1      0.0         0.0
 8                        1417.3      9.7         14.0
 8                        1417.5      61.9        56.0
 8                        1417.7      182.4       125.9
 8                        1417.9      392.9       223.9
 8                        1418.1      737.3       347.5
 8                        1418.3      1217.8      483.0
 8                        1418.5      1805.5      628.1
 8                        1418.7      2500.2      782.6
 8                        1418.9      3303.3      946.7
 9 ENDTBL
 2 XSECTN    107          1.0
 8                        1417.1      0.0         0.0
 8                        1417.3      9.7         14.0
 8                        1417.5      61.9        56.0
 8                        1417.7      182.4       125.9
 8                        1417.9      392.9       223.9
 8                        1418.1      737.3       347.5
 8                        1418.3      1217.8      483.0
 8                        1418.5      1805.5      628.1
 8                        1418.7      2500.2      782.6
 8                        1418.9      3303.3      946.7
 9 ENDTBL
 2 XSECTN    109          1.0
 8                        1418.0      0.0         0.0
 8                        1418.1      1.9         3.3
 8                        1418.2      8.6         10.1
 8                        1418.3      22.3        20.6
 8                        1418.4      44.6        34.6
 8                        1418.5      77.2        52.1
 8                        1418.6      121.6       73.2
 8                        1418.7      179.2       97.9
 8                        1418.8      251.4       126.2
 8                        1418.9      339.3       158.0
 8                        1419.0      449.8       193.0
 8                        1419.1      577.3       230.6
 8                        1419.2      748.9       269.6
 9 ENDTBL
 3 STRUCT       37
 8                        1446.0      0.0         0.0
 8                        1448.0      0.1         2.58
 8                        1448.5      110.        3.52
 8                        1449.0      320.        4.45
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)**********************

 8                          1449.5       580.         5.38
 8                          1450.0       900.         6.32
 9 ENDTBL
 6 RUNOFF 1 001         5 .148          95.          .3
 6 RUNOFF 1 002         6 .097          95.          .19
 6 REACH  3 003    5    7 1000.         .04          1.66
 6 REACH  3 003    6    5 1400.         .04          1.66
 6 ADDHYD 4 003    5 7 6
 6 RUNOFF 1 003         5 .047          77.          .36
 6 ADDHYD 4 003    5 6 7
 6 RUNOFF 1 006         5 .109          81.          .82
 6 REACH  3 006    7    6 1600.
 6 ADDHYD 4 006    5 6 7
 6 REACH  3 008    7    1 1600.
 6 RUNOFF 1 007         5 .117          77.          .69
 6 REACH  3 008    5    2 1400.
 6 RUNOFF 1 019         5 .022          95.          .167
 6 RUNOFF 1 004         6 .195          95.          .22
 6 REACH  3 004    5    7 1800.         .05          1.66
 6 ADDHYD 4 004    6 7 5
 6 RUNOFF 1 005         6 .125          77.          .56
 6 REACH  3 005    5    7 1400.         .05          1.66
 6 ADDHYD 4 005    6 7 5
 6 REACH  3 008    5    3 2100.
 6 ADDHYD 4 008    1 2 4
 6 ADDHYD 4 008    3 4 1
 6 RUNOFF 1 018         5 .184          78.          .72
 6 REACH  3 008    5    2 1900.         .04          1.66
 6 ADDHYD 4 008    1 2 3
 6 RUNOFF 1 008         5 .131          78.          .75
 6 ADDHYD 4 008    3 5 1
 6 REACH  3 014    1    2 3000.
 6 RUNOFF 1 009         5 .198          77.          .93
 6 REACH  3 014    5    6 2600.
 6 ADDHYD 4 014    2 6 3
 6 RUNOFF 1 016         5 .119          86.          .54
 6 REACH  3 015    5    6 1100.         .54          1.66
 6 RUNOFF 1 015         7 .073          82.          .89
 6 ADDHYD 4 015    6 7 2
 6 ADDHYD 4 014    3 2 1
 6 RUNOFF 1 014         3 .177          83.          .39
 6 ADDHYD 4 014    1 3 4
 6 REACH  3 027    4    2 3000.
 6 RUNOFF 1 017         5 .059          95.          .167
 6 REACH  3 025    5    6 2200.         .05          1.66
 6 RUNOFF 1 025         7 .089          83.          .43
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 ADDHYD 4 025   6 7 5
6 REACH  3 027   5   1 1700.
6 ADDHYD 4 027   1 2 3
6 RUNOFF 1 026       2 .067        85.          .31
6 ADDHYD 4 027   2 3 1
6 RUNOFF 1 027       5 .188        80.          1.2
6 ADDHYD 4 027   1 5 3
6 REACH  3 037   3   2 3000.
6 RUNOFF 1 037       5 .125        83.          .25
6 ADDHYD 4 037   2 5 1
6 RESVOR 2    37 1   3 1446.0
6 RUNOFF 1 024       5 .198        81.          .46
6 REACH  3 037   5   6 2100.       .41          1.66
6 ADDHYD 4 037   3 6 2
6 REACH  3 143   2   1 1400.       .09          1.66
6 DIVERT 6 086   1 2 3             .5           85.
6 REACH  3 086   2   4 1250.
6 RUNOFF 1 086       6 .063        86.          .27
6 ADDHYD 4 086   4 6 5
6 REACH  3 087   5   4 1320.
6 RUNOFF 1 087       6 .063        83.          .52
6 ADDHYD 4 087   4 6 5
6 REACH  3 105   5   2 2000.
6 RUNOFF 1 010       5 .095        77.          .56
6 REACH  3 011   5   6 2700.       .44          1.66
6 RUNOFF 1 011       7 .234        77.          .84
6 ADDHYD 4 011   6 7 5
6 REACH  3 028   5   4 3300.       .03          1.66
6 RUNOFF 1 013       5 .125        82.          .61
6 REACH  3 028   5   6 2800.       .03          1.66
6 ADDHYD 4 028   4 6 7
6 RUNOFF 1 028       5 .156        79.          .93
6 ADDHYD 4 028   7 5 6
6 REACH  3 036   6   7 3500.       .06          1.66
6 RUNOFF 1 036       5 .125        83.          .48
6 ADDHYD 4 036   5 7 6
6 REACH  3 090   6   4 2600.       .22          1.54
6 RUNOFF 1 034       5 .125        84.          .73
6 REACH  3 035   5   6 1320.       .31          1.54
6 RUNOFF 1 035       5 .125        83.          .49
6 ADDHYD 4 035   5 6 7
6 REACH  3 091   7   6 2640.       .22          1.54
6 RUNOFF 1 091       5 .125        86.          .47
6 ADDHYD 4 091   5 6 7
6 REACH  3 090   7   5 1320.       .22          1.54
6 RUNOFF 1 090       6 .109        85.          .63
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 ADDHYD 4 090   5 6 7
6 ADDHYD 4 090   4 7 5
6 REACH  3 088   5   6 1320.      .22        1.54
6 RUNOFF 1 088       5 .094       87.        .75
6 ADDHYD 4 088   5 6 7
6 RUNOFF 1 089       5 .047       84.        .39
6 REACH  3 088   5   6 2000.      .22        1.54
6 ADDHYD 4 088   6 7 5
6 REACH  3 101   5   6 1050.      .22        1.54
6 RUNOFF 1 101       5 .047       89.        .52
6 ADDHYD 4 101   5 6 7
6 REACH  3 102   7   6 1320.      .02        1.66
6 RUNOFF 1 102       5 .063       82.        .63
6 ADDHYD 4 102   5 6 7
6 REACH  3 105   7   5 1320.
6 RUNOFF 1 105       6 .063       78.        .63
6 ADDHYD 4 105   5 6 7
6 ADDHYD 4 105   2 7 4
6 REACH  3 107   4   5 1400.
6 RUNOFF 1 107       6 .059       82.        .42
6 ADDHYD 4 107   5 6 1
6 REACH  3 085   3   4 2000.
6 RUNOFF 1 085       5 .063       80.        .52
6 ADDHYD 4 085   4 5 6
6 REACH  3 083   6   5 2000.
6 RUNOFF 1 083       6 .063       81.        .52
6 ADDHYD 4 083   5 6 7
6 RUNOFF 1 084       5 .063       78.        .52
6 REACH  3 083   5   6 1320.      .2         1.54
6 ADDHYD 4 083   6 7 5
6 DIVERT 6 109   5 6 3            .5         80.
6 REACH  3 109   6   5 2000.
6 RUNOFF 1 109       6 .063       84.        .29
6 ADDHYD 4 109   5 6 2
6 REACH  3 080   3   5 1320.
6 RUNOFF 1 080       3 .063       83.        .45
6 ADDHYD 4 080   5 3 4
6 REACH  3 079   4   5 1320.      .23        1.54
6 RUNOFF 1 079       6 .063       88.        .25
6 ADDHYD 4 079   5 6 7
6 REACH  3 076   7   6 1320.      .23        1.54
6 RUNOFF 1 076       5 .063       86.        .25
6 ADDHYD 4 076   5 6 7
6 REACH  3 075   7   6 1320.      .23        1.54
6 RUNOFF 1 075       5 .063       95.        .52
6 ADDHYD 4 075   5 6 7
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 113   7   6 1800.        .08          1.66
6 RUNOFF 1 112       5 .061         77.          .46
6 REACH  3 113   5   4 1320.        .08          1.66
6 ADDHYD 4 113   4 6 5
6 RUNOFF 1 113       6 .053         86.          .52
6 ADDHYD 4 113   5 6 3
6 RUNOFF 1 012       5 .07          77.          .42
6 REACH  3 029   5   6 3800.        .04          1.66
6 RUNOFF 1 030       7 .25          79.          .97
6 REACH  3 029   7   5 2600.        .37          1.54
6 ADDHYD 4 029   5 6 7
6 RUNOFF 1 029       5 .25          78.          1.03
6 ADDHYD 4 029   5 7 6
6 REACH  3 033   6   7 2600.        .38          1.54
6 RUNOFF 1 033       5 .234         77.          1.14
6 ADDHYD 4 033   5 7 6
6 REACH  3 092   6   5 3000.        .08          1.66
6 RUNOFF 1 092       6 .125         86.          .47
6 ADDHYD 4 092   5 6 7
6 RUNOFF 1 093       5 .195         84.          .45
6 REACH  3 092   5   6 1320.        .08          1.66
6 ADDHYD 4 092   6 7 5
6 REACH  3 098   5   4 2500.        .08          1.66
6 RUNOFF 1 031       5 .084         77.          .58
6 REACH  3 032   5   6 3400.        .03          1.66
6 RUNOFF 1 032       5 .18          77.          .93
6 ADDHYD 4 032   5 6 7
6 REACH  3 094   7   6 3200.        .09          1.66
6 RUNOFF 1 094       5 .139         84.          .34
6 ADDHYD 4 094   5 6 7
6 REACH  3 095   7   6 2400.        .09          1.66
6 RUNOFF 1 095       5 .125         86.          .98
6 ADDHYD 4 095   5 6 7
6 REACH  3 098   7   6 3000.        .08          1.66
6 ADDHYD 4 098   4 6 5
6 RUNOFF 1 096       6 .125         82.          .51
6 REACH  3 097   6   7 2100.        .08          1.66
6 RUNOFF 1 097       4 .188         87.          .53
6 ADDHYD 4 097   4 7 6
6 REACH  3 098   6   7 1000.        .08          1.66
6 ADDHYD 4 098   5 7 4
6 RUNOFF 1 098       5 .094         86.          .37
6 ADDHYD 4 098   4 5 6
6 REACH  3 099   6   7 1250.        .08          1.66
6 RUNOFF 1 099       6 .094         86.          .49
6 ADDHYD 4 099   7 6 5
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 6 REACH  3 139   5   6 1600.        .05          1.66
 6 RUNOFF 1 100       4 .078         86.          .39
 6 REACH  3 139   4   5 600.         .05          1.66
 6 ADDHYD 4 139   5 6 7
 6 RUNOFF 1 142       4 .25          83.          1.39
 6 REACH  3 141   4   5 2100.        .08          1.66
 6 RUNOFF 1 141       6 .188         87.          .53
 6 ADDHYD 4 141   5 6 4
 6 REACH  3 140   4   5 1320.        .08          1.66
 6 RUNOFF 1 140       6 .125         86.          .44
 6 ADDHYD 4 140   5 6 4
 6 RUNOFF 1 137       6 .078         79.          .49
 6 ADDHYD 4 140   4 6 5
 6 REACH  3 139   5   6 2800.        .05          1.66
 6 ADDHYD 4 139   6 7 4
 6 RUNOFF 1 136       5 .066         95.          .15
 6 REACH  3 138   5   6 3000.        .17          1.66
 6 RUNOFF 1 138       5 .203         84.          .24
 6 ADDHYD 4 138   5 6 7
 6 REACH  3 139   7   6 2000.        .05          1.66
 6 ADDHYD 4 139   4 6 7
 6 RUNOFF 1 139       5 .188         87.          .43
 6 ADDHYD 4 139   7 5 4
 6 RUNOFF 1 129       5 .108         82.          .12
 6 RUNOFF 1 130       6 .031         91.          .07
 6 ADDHYD 4 129   5 6 7
 6 REACH  3 127   7   6 2500.        .08          1.66
 6 RUNOFF 1 128       5 .036         80.          .13
 6 REACH  3 127   5   7 2300.        .08          1.66
 6 ADDHYD 4 127   7 6 5
 6 RUNOFF 1 127       7 .159         82.          .21
 6 ADDHYD 4 127   5 7 6
 6 RUNOFF 1 132       5 .145         88.          .27
 6 REACH  3 131   5   7 2000.        .17          1.66
 6 ADDHYD 4 131   6 7 5
 6 RUNOFF 1 131       6 .119         86.          .27
 6 ADDHYD 4 131   5 6 7
 6 REACH  3 126   7   6 1500.        .11          1.66
 6 RUNOFF 1 126       5 .153         95.          .28
 6 ADDHYD 4 126   5 6 7
 6 REACH  3 134   7   6 1500.        .13          1.66
 6 RUNOFF 1 135       7 .042         95.          .07
 6 REACH  3 134   7   5 3200.        .13          1.66
 6 ADDHYD 4 134   5 6 7
 6 RUNOFF 1 134       6 .197         85.          .31
 6 ADDHYD 4 134   6 7 5
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 6 RUNOFF 1 125        7 .117        95.          .13
 6 ADDHYD 4 125   7 5 6
 6 REACH  3 124   6    7 2500.       .09          1.66
 6 RUNOFF 1 124        6 .219        84.          .25
 6 ADDHYD 4 124   6 7 5
 6 REACH  3 103   4    6 1400.       .96          1.51
 6 RUNOFF 1 103        4 .081        84.          .26
 6 ADDHYD 4 103   4 6 7
 6 REACH  3 104   7    6 1320.       .96          1.51
 6 ADDHYD 4 104   5 6 7
 6 RUNOFF 1 104        5 .069        78.          .67
 6 ADDHYD 4 104   5 7 6
 6 REACH  3 107   6    5 1000.       .85          1.53
 6 ADDHYD 4 107   1 5 6
 6 RUNOFF 1 123        5 .213        95.          .25
 6 ADDHYD 4 107   5 6 7
 6 REACH  3 108   7    6 1700.       .85          1.53
 6 RUNOFF 1 106        4 .063        79.          .56
 6 REACH  3 108   4    5 700.        .08          1.66
 6 RUNOFF 1 108        4 .025        79.          .28
 6 ADDHYD 4 108   4 5 7
 6 ADDHYD 4 108   6 7 5
 6 ADDHYD 4 109   2 5 6
 6 REACH  3 110   6    7 1320.       .85          1.53
 6 RUNOFF 1 122        6 .355        85.          .29
 6 ADDHYD 4 122   6 7 5
 6 RUNOFF 1 110        6 .073        78.          .56
 6 ADDHYD 4 110   5 6 7
 6 REACH  3 111   7    5 1320.       1.07         1.53
 6 RUNOFF 1 111        6 .07         77.          .56
 6 ADDHYD 4 111   5 6 7
 6 REACH  3 112   7    6 1320.       .04          1.63
 6 RUNOFF 1 121        5 .25         95.          .17
 6 ADDHYD 4 112   5 6 7
 6 REACH  3 113   7    6 1320.       .04          1.63
 6 ADDHYD 4 113   3 6 5
 6 RUNOFF 1 120        6 .231        87.          .3
 6 ADDHYD 4 113   5 6 7
 6 REACH  3 114   7    1 3000.       .04          1.63
 6 RUNOFF 1 049        5 .086        95.          .19
 6 REACH  3 048   5    6 1320.       .04          1.66
 6 RUNOFF 1 048        5 .125        79.          .60
 6 ADDHYD 4 048   5 6 7
 6 RUNOFF 1 020        5 .064        95.          .08
 6 REACH  3 048   5    6 2640.       .04          1.66
 6 ADDHYD 4 048   6 7 5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 056   5   6 1866.       .12         1.66
6 RUNOFF 1 056       5 .063       82.          .25
6 ADDHYD 4 056   5 6 7
6 REACH  3 057   7   6 1320.       .2          1.54
6 RUNOFF 1 057       5 .063       82.          .25
6 ADDHYD 4 057   5 6 7
6 REACH  3 060   7   6 1867.       .12         1.66
6 RUNOFF 1 060       5 .063       81.          .49
6 ADDHYD 4 060   5 6 7
6 RUNOFF 1 058       5 .063       84.          .25
6 REACH  3 060   5   6 1320.       .25         1.54
6 ADDHYD 4 060   6 7 5
6 REACH  3 065   5   6 1320.       .28         1.54
6 RUNOFF 1 065       5 .063       77.          .49
6 ADDHYD 4 065   5 6 7
6 REACH  3 068   7   6 1320.       .25         1.54
6 RUNOFF 1 068       5 .063       85.          .25
6 ADDHYD 4 068   5 6 7
6 RUNOFF 1 047       4 .125       82.          .31
6 REACH  3 046   4   5 1320.       .51         1.54
6 RUNOFF 1 046       4 .125       82.          .29
6 ADDHYD 4 046   4 5 6
6 REACH  3 059   6   5 1867.       .11         1.66
6 RUNOFF 1 059       4 .063       82.          .25
6 ADDHYD 4 059   4 5 6
6 RUNOFF 1 021       3 .189       83.          .58
6 RUNOFF 1 043       4 .047       86.          .08
6 ADDHYD 4 021   3 4 5
6 REACH  3 045   5   4 2700.       .05         1.66
6 RUNOFF 1 045       3 .125       86.          .51
6 ADDHYD 4 045   3 4 5
6 REACH  3 059   5   4 1400.       .11         1.66
6 ADDHYD 4 059   4 6 5
6 REACH  3 066   5   4 1320.       .11         1.66
6 RUNOFF 1 066       5 .063       83.          .46
6 ADDHYD 4 066   4 5 6
6 REACH  3 068   6   5 1877.       .25         1.54
6 ADDHYD 4 068   5 7 6
6 REACH  3 070   6   5 1320.       .18         1.54
6 RUNOFF 1 070       6 .063       86.          .25
6 ADDHYD 4 070   5 6 7
6 REACH  3 074   7   6 1320.       .09         1.66
6 RUNOFF 1 074       5 .063       90.          .24
6 ADDHYD 4 074   5 6 2
6 RUNOFF 1 023       4 .091       95.          .23
6 REACH  3 040   4   5 2650.       .08         1.66
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 038       7 .125        79.          .44
6 REACH  3 040   7   6 1800.       .08          1.66
6 ADDHYD 4 040   5 6 7
6 RUNOFF 1 040       5 .094        82.          .51
6 ADDHYD 4 040   5 7 6
6 REACH  3 082   6   5 1400.       .1           1.66
6 RUNOFF 1 082       6 .063        84.          .27
6 ADDHYD 4 082   5 6 7
6 RUNOFF 1 039       5 .125        85.          .53
6 REACH  3 082   5   6 1867.       .1           1.66
6 ADDHYD 4 082   6 7 5
6 REACH  3 081   5   6 1320.       .22          1.54
6 RUNOFF 1 081       5 .063        77.          .52
6 ADDHYD 4 081   5 6 7
6 REACH  3 078   7   6 1320.       .09          1.66
6 RUNOFF 1 078       5 .063        86.          .27
6 ADDHYD 4 078   5 6 4
6 RUNOFF 1 022       5 .153        83.          .47
6 REACH  3 041   5   6 3100.       .24          1.66
6 RUNOFF 1 041       5 .172        84.          .38
6 ADDHYD 4 041   5 6 7
6 RUNOFF 1 042       5 .078        83.          .22
6 ADDHYD 4 042   5 7 6
6 REACH  3 078   6   5 1600.       .09          1.66
6 ADDHYD 4 078   4 5 6
6 REACH  3 077   6   5 1320.       .23          1.54
6 RUNOFF 1 077       6 .063        77.          .38
6 ADDHYD 4 077   5 6 7
6 REACH  3 069   7   6 1320.       .2           1.54
6 RUNOFF 1 069       5 .063        81.          .62
6 ADDHYD 4 069   5 6 7
6 RUNOFF 1 044       4 .125        83.          .30
6 REACH  3 067   4   5 1320.       .25          1.54
6 RUNOFF 1 067       4 .063        88.          .25
6 ADDHYD 4 067   4 5 6
6 REACH  3 069   6   5 1320.       .2           1.54
6 ADDHYD 4 069   5 7 6
6 REACH  3 074   6   5 1867.       .09          1.66
6 ADDHYD 4 074   2 5 3
6 REACH  3 114   3   4 3300.       .05          1.66
6 RUNOFF 1 114       5 .128        77.          1.19
6 ADDHYD 4 114   4 5 6
6 RUNOFF 1 071       4 .125        85.          .49
6 REACH  3 114   4   5 2200.       .05          1.66
6 ADDHYD 4 114   5 6 7
6 RUNOFF 1 064       4 .25         82.          .33
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)*********************

 6 REACH  3 072   4   5 2650.       .18         1.54
 6 RUNOFF 1 072       4 .125        83.         .49
 6 ADDHYD 4 072   4 5 6
 6 REACH  3 114   6   5 2000.0      .05         1.66
 6 ADDHYD 4 114   5 7 6
 6 RUNOFF 1 115       5 .094        82.         .45
 6 ADDHYD 4 114   5 6 7
 6 ADDHYD 4 114   1 7 5
 6 RUNOFF 1 119       6 .231        81.         1.05
 6 ADDHYD 4 119   5 6 7
 6 REACH  3 118   7   6 4000.       .05         1.66        1
 6 RUNOFF 1 118       5 .231        81.         1.59
 6 ADDHYD 4 118   5 6 7                                     1 1
   ENDATA
 7 INCREM 6           .08
 7 COMPUT 7 001   118               2.53        24.         1 2  01  01
   ENDCMP 1
 7 COMPUT 7 001   118               3.57        24.         1 2  01  02
   ENDCMP 1
 7 COMPUT 7 001   118               4.04        24.         1 2  01  03
   ENDCMP 1
 7 COMPUT 7 001   118               5.07        24.         1 2  01  04
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*******************************
```

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.98	----	12.45	149.82	1012.3
XSECTION 2	RUNOFF	.10	1	2	.08	.0	2.53	24.00	1.99	----	12.44	100.45	1035.5
XSECTION 3	REACH	.15	1	2	.08	.0	2.53	24.00	1.98	----	12.66	145.14	980.7
XSECTION 3	REACH	.10	1	2	.08	.0	2.53	24.00	1.97	----	12.72	92.53	954.0
XSECTION 3	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.98	----	12.68	238.07	971.7
XSECTION 3	RUNOFF	.05	1	2	.08	.0	2.53	24.00	.75	----	12.54	22.94	488.1
XSECTION 3	ADDHYD	.29	1	2	.08	.0	2.53	24.00	1.78	----	12.63	255.59	875.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	2.53	24.00	.95	----	12.74	48.43	444.3
XSECTION 6	REACH	.29	1	2	.08	.0	2.53	24.00	1.78	1505.08	12.76	252.12	863.4
XSECTION 6	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.55	1505.23	12.76	300.45	749.2
XSECTION 8	REACH	.40	1	2	.08	.0	2.53	24.00	1.55	1496.66	12.92	285.81	712.7
XSECTION 7	RUNOFF	.12	1	2	.08	.0	2.53	24.00	.75	----	12.69	44.80	382.9
XSECTION 8	REACH	.12	1	2	.08	.0	2.53	24.00	.75	1494.84	12.82	43.28	369.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	2.53	24.00	1.99	----	12.44	22.96	1043.8
XSECTION 4	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.99	----	12.44	200.22	1026.8
XSECTION 4	REACH	.02	1	2	.08	.0	2.53	24.00	1.96	----	13.00	17.70	804.5
XSECTION 4	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.98	----	12.45	210.49	970.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.75	----	12.62	52.47	419.7
XSECTION 5	REACH	.22	1	2	.08	.0	2.53	24.00	1.98	----	12.64	201.41	928.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	2.53	24.00	1.53	----	12.63	253.80	742.1
XSECTION 8	REACH	.34	1	2	.08	.0	2.53	24.00	1.52	1496.54	12.87	234.64	686.1
XSECTION 8	ADDHYD	.52	1	2	.08	.0	2.53	24.00	1.37	1496.73	12.90	327.15	631.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	2.53	24.00	1.43	1497.03	12.88	561.34	652.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.80	----	12.70	73.81	401.1
XSECTION 8	REACH	.18	1	2	.08	.0	2.53	24.00	.79	1494.97	13.16	55.14	299.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	2.53	24.00	1.32	1497.07	12.90	606.28	580.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.80	----	12.71	50.85	388.2
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	2.53	24.00	1.26	1497.11	12.89	650.56	553.7
XSECTION 14	REACH	1.18	1	2	.08	.0	2.53	24.00	1.25	1488.84	13.21	565.27	481.1
XSECTION 9	RUNOFF	.20	1	2	.08	.0	2.53	24.00	.75	----	12.83	64.48	325.6
XSECTION 14	REACH	.20	1	2	.08	.0	2.53	24.00	.74	1485.36	13.00	60.75	306.8
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	2.53	24.00	1.18	1488.89	13.20	620.07	451.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 16	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	----	12.57	79.99	672.2
XSECTION 15	REACH	.12	1	2	.08	.0	2.53	24.00	1.26	----	12.65	79.78	670.5
XSECTION 15	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.01	----	12.77	32.88	450.4
XSECTION 15	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.16	----	12.68	111.65	581.5
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	2.53	24.00	1.18	1488.93	13.15	664.81	424.8
XSECTION 14	RUNOFF	.18	1	2	.08	.0	2.53	24.00	1.07	----	12.53	113.69	642.3
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	2.53	24.00	1.17	1488.95	13.14	681.16	391.0
XSECTION 27	REACH	1.74	1	2	.08	.0	2.53	24.00	1.16	1472.45	13.43	609.86	350.1
XSECTION 17	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.99	----	12.44	61.59	1043.8
XSECTION 25	REACH	.06	1	2	.08	.0	2.53	24.00	1.97	----	12.98	50.43	854.7
XSECTION 25	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.07	----	12.54	55.78	626.8
XSECTION 25	ADDHYD	.15	1	2	.08	.0	2.53	24.00	1.43	----	12.59	93.03	628.6
XSECTION 27	REACH	.15	1	2	.08	.0	2.53	24.00	1.42	1469.75	12.73	89.64	605.7
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	2.53	24.00	1.18	1472.52	13.38	652.69	345.3
XSECTION 26	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.20	----	12.49	48.39	722.3
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	2.53	24.00	1.18	1472.52	13.38	656.28	335.4
XSECTION 27	RUNOFF	.19	1	2	.08	.0	2.53	24.00	.89	----	12.97	63.08	335.5
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	2.53	24.00	1.16	1472.55	13.34	704.39	328.4
XSECTION 37	REACH	2.15	1	2	.08	.0	2.53	24.00	1.15	1454.82	13.48	698.00	325.4
XSECTION 37	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.47	85.28	682.3
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	2.53	24.00	1.15	1454.83	13.48	703.89	310.1
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	2.53	24.00	1.13	1449.69	13.51	703.04	309.7
XSECTION 24	RUNOFF	.20	1	2	.08	.0	2.53	24.00	.96	----	12.56	110.32	557.2
XSECTION 37	REACH	.20	1	2	.08	.0	2.53	24.00	.95	1452.93	12.68	106.86	539.7
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	2.53	24.00	1.11	1454.85	13.49	716.55	290.3
XSECTION 143	REACH	2.47	1	2	.08	.0	2.53	24.00	1.11	----	13.60	714.31	289.4
XSECTION 86	DIVERT	1.23	1	2	.08	.0	2.53	24.00	.00	----	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	2.53	24.00	2.22	1429.44	13.60	714.31	578.9
XSECTION 86	REACH	1.23	1	2	.08	.0	2.53	24.00	.00	----	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	----	12.47	48.06	762.9
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	2.53	24.00	.06	1429.92	12.47	48.06	37.1
XSECTION 87	REACH	1.30	1	2	.08	.0	2.53	24.00	.06	1429.91	12.81	39.30	30.3
XSECTION 87	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	----	12.57	37.47	594.8
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	.11	1429.95	12.66	71.43	52.5
XSECTION 105	REACH	1.36	1	2	.08	.0	2.53	24.00	.11	1417.48	13.02	57.14	42.0
XSECTION 10	RUNOFF	.09	1	2	.08	.0	2.53	24.00	.75	----	12.62	39.88	419.7

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 11	REACH	.09	1	2	.08	.0	2.53	24.00	.75	----	12.79	36.00	378.9
XSECTION 11	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.75	----	12.77	81.19	347.0
XSECTION 11	ADDHYD	.33	1	2	.08	.0	2.53	24.00	.75	----	12.78	117.15	356.1
XSECTION 28	REACH	.33	1	2	.08	.0	2.53	24.00	.73	----	13.52	71.35	216.9
XSECTION 13	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	----	12.62	66.41	531.3
XSECTION 28	REACH	.13	1	2	.08	.0	2.53	24.00	.99	----	13.47	38.97	311.8
XSECTION 28	ADDHYD	.45	1	2	.08	.0	2.53	24.00	.80	----	13.50	110.19	242.7
XSECTION 28	RUNOFF	.16	1	2	.08	.0	2.53	24.00	.84	----	12.81	57.59	369.2
XSECTION 28	ADDHYD	.61	1	2	.08	.0	2.53	24.00	.81	----	13.37	134.67	220.8
XSECTION 36	REACH	.61	1	2	.08	.0	2.53	24.00	.81	----	13.80	115.32	189.1
XSECTION 36	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.56	76.12	608.9
XSECTION 36	ADDHYD	.74	1	2	.08	.0	2.53	24.00	.85	----	13.76	120.71	164.2
XSECTION 90	REACH	.74	1	2	.08	.0	2.53	24.00	.85	----	14.03	117.02	159.2
XSECTION 34	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.13	----	12.67	68.82	550.6
XSECTION 35	REACH	.13	1	2	.08	.0	2.53	24.00	1.12	----	12.81	66.44	531.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.56	75.62	605.0
XSECTION 35	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.10	----	12.63	133.11	532.4
XSECTION 91	REACH	.25	1	2	.08	.0	2.53	24.00	1.09	----	12.85	116.91	467.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	----	12.54	87.51	700.1
XSECTION 91	ADDHYD	.38	1	2	.08	.0	2.53	24.00	1.15	----	12.66	184.82	492.9
XSECTION 90	REACH	.38	1	2	.08	.0	2.53	24.00	1.14	----	12.80	179.34	478.2
XSECTION 90	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.19	----	12.61	66.45	609.6
XSECTION 90	ADDHYD	.48	1	2	.08	.0	2.53	24.00	1.16	----	12.74	239.13	494.1
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	2.53	24.00	.97	----	12.77	322.55	264.6
XSECTION 88	REACH	1.22	1	2	.08	.0	2.53	24.00	.97	----	12.89	317.37	260.4
XSECTION 88	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.32	----	12.66	59.09	628.7
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	2.53	24.00	.99	----	12.85	368.03	280.3
XSECTION 89	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.13	----	12.53	31.57	671.6
XSECTION 88	REACH	.05	1	2	.08	.0	2.53	24.00	1.12	----	12.87	26.20	557.4
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	1.00	----	12.86	394.19	289.8
XSECTION 101	REACH	1.36	1	2	.08	.0	2.53	24.00	1.00	----	12.96	391.58	287.9
XSECTION 101	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.47	----	12.55	36.53	777.3
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	2.53	24.00	1.01	----	12.93	407.17	289.4
XSECTION 102	REACH	1.41	1	2	.08	.0	2.53	24.00	1.01	----	13.24	375.31	266.7
XSECTION 102	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	----	12.63	33.03	524.3
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	2.53	24.00	1.01	----	13.22	384.82	261.8

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 105	REACH	1.47	1	2	.08	.0	2.53	24.00	1.00	1417.88	13.41	370.71	252.2
XSECTION 105	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.80	----	12.64	26.47	420.2
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	2.53	24.00	.99	1417.88	13.40	376.08	245.3
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	2.53	24.00	.58	1417.92	13.36	420.38	145.3
XSECTION 107	REACH	2.89	1	2	.08	.0	2.53	24.00	.58	1417.91	13.55	407.41	140.8
XSECTION 107	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	----	12.54	35.46	601.0
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	2.53	24.00	.58	1417.91	13.55	410.34	139.0
XSECTION 85	REACH	1.23	1	2	.08	.0	2.53	24.00	2.21	1429.43	13.80	699.46	566.8
XSECTION 85	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.90	----	12.59	32.19	510.9
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	2.53	24.00	2.15	1429.43	13.80	701.97	541.2
XSECTION 83	REACH	1.30	1	2	.08	.0	2.53	24.00	2.14	1429.43	14.00	688.10	530.5
XSECTION 83	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.95	----	12.58	33.91	538.2
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	2.09	1429.43	14.00	690.21	507.5
XSECTION 84	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.80	----	12.60	28.86	458.1
XSECTION 83	REACH	.06	1	2	.08	.0	2.53	24.00	.80	1428.91	12.78	25.18	399.7
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	2.53	24.00	2.03	1429.43	13.99	693.00	487.0
XSECTION 109	DIVERT	.71	1	2	.08	.0	2.53	24.00	.00	1418.04	14.00?	.74?	1.0
XSECTION 80	DIVERT	.71	1	2	.08	.0	2.53	24.00	4.06	1418.04	13.99	692.27	973.0
XSECTION 109	REACH	.71	1	2	.08	.0	2.53	24.00	.00	1418.01	15.04?	.15?	.2
XSECTION 109	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	----	12.49	43.97	697.9
XSECTION 109	ADDHYD	.77	1	2	.08	.0	2.53	24.00	.09	1418.40	12.49	43.97	56.8
XSECTION 80	REACH	.71	1	2	.08	.0	2.53	24.00	4.05	1418.04	14.13	688.85	968.2
XSECTION 80	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	----	12.55	39.05	619.9
XSECTION 80	ADDHYD	.77	1	2	.08	.0	2.53	24.00	3.81	1418.04	14.13	690.89	892.1
XSECTION 79	REACH	.77	1	2	.08	.0	2.53	24.00	3.80	----	14.23	689.88	890.7
XSECTION 79	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	----	12.46	52.20	828.6
XSECTION 79	ADDHYD	.84	1	2	.08	.0	2.53	24.00	3.62	----	14.23	692.24	826.6
XSECTION 76	REACH	.84	1	2	.08	.0	2.53	24.00	3.61	----	14.33	691.23	825.3
XSECTION 76	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	----	12.47	48.49	769.7
XSECTION 76	ADDHYD	.90	1	2	.08	.0	2.53	24.00	3.45	----	14.33	693.49	770.1
XSECTION 75	REACH	.90	1	2	.08	.0	2.53	24.00	3.44	----	14.43	692.49	769.0
XSECTION 75	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.93	----	12.52	60.48	960.1
XSECTION 75	ADDHYD	.96	1	2	.08	.0	2.53	24.00	3.35	----	14.43	695.24	721.6
XSECTION 113	REACH	.96	1	2	.08	.0	2.53	24.00	3.34	----	14.57	691.60	717.8
XSECTION 112	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	----	12.57	27.47	450.4
XSECTION 113	REACH	.06	1	2	.08	.0	2.53	24.00	.75	----	12.85	22.27	365.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	2.53	24.00	3.19	---	14.57	693.40	676.8
XSECTION 113	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.26	---	12.56	36.25	684.0
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	2.53	24.00	3.09	---	14.57	695.31	645.3
XSECTION 12	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.75	---	12.56	32.53	464.7
XSECTION 29	REACH	.07	1	2	.08	.0	2.53	24.00	.71	---	13.92	8.75	125.0
XSECTION 30	RUNOFF	.25	1	2	.08	.0	2.53	24.00	.84	---	12.84	89.50	358.0
XSECTION 29	REACH	.25	1	2	.08	.0	2.53	24.00	.84	---	13.05	82.79	331.2
XSECTION 29	ADDHYD	.32	1	2	.08	.0	2.53	24.00	.81	---	13.07	84.08	262.7
XSECTION 29	RUNOFF	.25	1	2	.08	.0	2.53	24.00	.79	---	12.88	81.24	325.0
XSECTION 29	ADDHYD	.57	1	2	.08	.0	2.53	24.00	.80	---	12.97	161.83	283.9
XSECTION 33	REACH	.57	1	2	.08	.0	2.53	24.00	.80	---	13.16	154.82	271.6
XSECTION 33	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.74	---	12.96	66.54	284.3
XSECTION 33	ADDHYD	.80	1	2	.08	.0	2.53	24.00	.78	---	13.10	217.09	270.0
XSECTION 92	REACH	.80	1	2	.08	.0	2.53	24.00	.78	---	13.39	194.19	241.5
XSECTION 92	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.54	87.51	700.1
XSECTION 92	ADDHYD	.93	1	2	.08	.0	2.53	24.00	.84	---	13.36	204.13	219.7
XSECTION 93	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.13	---	12.54	126.61	649.3
XSECTION 92	REACH	.19	1	2	.08	.0	2.53	24.00	1.13	---	12.69	118.72	608.8
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	2.53	24.00	.89	---	12.73	267.02	237.6
XSECTION 98	REACH	1.12	1	2	.08	.0	2.53	24.00	.89	---	13.01	246.03	218.9
XSECTION 31	RUNOFF	.08	1	2	.08	.0	2.53	24.00	.75	---	12.63	34.54	411.2
XSECTION 32	REACH	.08	1	2	.08	.0	2.53	24.00	.71	---	14.09	10.41	124.0
XSECTION 32	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.75	---	12.83	58.61	325.6
XSECTION 32	ADDHYD	.26	1	2	.08	.0	2.53	24.00	.73	---	12.83	58.74	222.5
XSECTION 94	REACH	.26	1	2	.08	.0	2.53	24.00	.73	---	13.29	44.11	167.1
XSECTION 94	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.13	---	12.51	94.72	681.5
XSECTION 94	ADDHYD	.40	1	2	.08	.0	2.53	24.00	.87	---	12.54	106.76	264.9
XSECTION 95	REACH	.40	1	2	.08	.0	2.53	24.00	.86	---	12.80	89.00	220.8
XSECTION 95	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.25	---	12.80	66.12	529.0
XSECTION 95	ADDHYD	.53	1	2	.08	.0	2.53	24.00	.95	---	12.80	155.12	293.8
XSECTION 98	REACH	.53	1	2	.08	.0	2.53	24.00	.95	---	13.08	130.71	247.6
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	2.53	24.00	.91	---	13.06	376.35	227.8
XSECTION 96	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.58	70.81	566.5
XSECTION 97	REACH	.13	1	2	.08	.0	2.53	24.00	1.00	---	12.87	58.19	465.5
XSECTION 97	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.20	---	12.62	177.34	566.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 98	REACH	.31	1	2	.08	.0	2.53	24.00	1.20	---	12.74	172.59	551.4
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	2.53	24.00	.95	---	12.90	521.95	265.6
XSECTION 98	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.51	68.89	732.8
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	2.53	24.00	.97	---	12.85	543.09	263.8
XSECTION 99	REACH	2.06	1	2	.08	.0	2.53	24.00	.97	---	12.97	538.90	261.7
XSECTION 99	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.55	65.28	694.5
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	2.53	24.00	.98	---	12.91	565.11	262.5
XSECTION 139	REACH	2.15	1	2	.08	.0	2.53	24.00	.98	---	13.09	551.99	256.4
XSECTION 100	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.26	---	12.52	57.05	731.4
XSECTION 139	REACH	.08	1	2	.08	.0	2.53	24.00	1.25	---	12.72	54.55	699.3
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	2.53	24.00	.99	---	13.03	578.20	259.2
XSECTION 142	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.06	---	13.08	90.23	360.9
XSECTION 141	REACH	.25	1	2	.08	.0	2.53	24.00	1.05	---	13.37	81.96	327.8
XSECTION 141	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	2.53	24.00	1.17	---	12.63	162.39	370.8
XSECTION 140	REACH	.44	1	2	.08	.0	2.53	24.00	1.17	---	12.78	154.86	353.6
XSECTION 140	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.53	89.04	712.3
XSECTION 140	ADDHYD	.56	1	2	.08	.0	2.53	24.00	1.19	---	12.64	227.37	403.8
XSECTION 137	RUNOFF	.08	1	2	.08	.0	2.53	24.00	.85	---	12.58	38.50	493.7
XSECTION 140	ADDHYD	.64	1	2	.08	.0	2.53	24.00	1.15	---	12.62	265.24	413.8
XSECTION 139	REACH	.64	1	2	.08	.0	2.53	24.00	1.14	---	12.96	220.75	344.4
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	2.53	24.00	1.02	---	13.00	798.22	277.9
XSECTION 136	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.99	---	12.44	69.58	1054.3
XSECTION 138	REACH	.07	1	2	.08	.0	2.53	24.00	1.97	---	12.70	63.33	959.5
XSECTION 138	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.13	---	12.47	145.60	717.3
XSECTION 138	ADDHYD	.27	1	2	.08	.0	2.53	24.00	1.34	---	12.48	203.22	755.5
XSECTION 139	REACH	.27	1	2	.08	.0	2.53	24.00	1.33	---	12.72	176.57	656.4
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	2.53	24.00	1.05	---	12.92	935.11	297.7
XSECTION 139	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.53	140.34	746.5
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	2.53	24.00	1.06	---	12.84	990.56	297.6
XSECTION 129	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.02	---	12.45	78.00	722.2
XSECTION 130	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.62	---	12.44	31.77	1024.9
XSECTION 129	ADDHYD	.14	1	2	.08	.0	2.53	24.00	1.15	---	12.45	109.73	789.4
XSECTION 127	REACH	.14	1	2	.08	.0	2.53	24.00	1.14	---	12.79	87.07	626.4
XSECTION 128	RUNOFF	.04	1	2	.08	.0	2.53	24.00	.91	---	12.45	23.68	657.7
XSECTION 127	REACH	.04	1	2	.08	.0	2.53	24.00	.89	---	13.01	14.78	410.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 127	ADDHYD	.17	1	2	.08	.0	2.53	24.00	1.09	----	12.80	98.56	563.2
XSECTION 127	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.02	----	12.46	106.50	669.8
XSECTION 127	ADDHYD	.33	1	2	.08	.0	2.53	24.00	1.05	----	12.51	174.57	522.7
XSECTION 132	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.40	----	12.47	119.20	822.1
XSECTION 131	REACH	.14	1	2	.08	.0	2.53	24.00	1.40	----	12.68	113.33	781.6
XSECTION 131	ADDHYD	.48	1	2	.08	.0	2.53	24.00	1.16	----	12.53	281.08	586.8
XSECTION 131	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	----	12.47	90.78	762.9
XSECTION 131	ADDHYD	.60	1	2	.08	.0	2.53	24.00	1.18	----	12.52	369.05	617.1
XSECTION 126	REACH	.60	1	2	.08	.0	2.53	24.00	1.18	----	12.62	360.24	602.4
XSECTION 126	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.98	----	12.45	160.33	1014.8
XSECTION 126	ADDHYD	.76	1	2	.08	.0	2.53	24.00	1.34	----	12.55	498.94	660.0
XSECTION 134	REACH	.76	1	2	.08	.0	2.53	24.00	1.34	----	12.65	490.38	648.7
XSECTION 135	RUNOFF	.04	1	2	.08	.0	2.53	24.00	1.98	----	12.44	47.03	1119.6
XSECTION 134	REACH	.04	1	2	.08	.0	2.53	24.00	1.97	----	12.86	38.05	906.0
XSECTION 134	ADDHYD	.80	1	2	.08	.0	2.53	24.00	1.38	----	12.65	524.26	657.0
XSECTION 134	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.20	----	12.49	142.29	722.3
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	2.53	24.00	1.34	----	12.59	643.33	646.6
XSECTION 125	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.99	----	12.44	124.80	1066.6
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	2.53	24.00	1.41	----	12.50	732.36	658.6
XSECTION 124	REACH	1.11	1	2	.08	.0	2.53	24.00	1.40	----	12.65	694.79	624.8
XSECTION 124	RUNOFF	.22	1	2	.08	.0	2.53	24.00	1.13	----	12.47	155.75	711.2
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	2.53	24.00	1.36	----	12.57	819.97	616.1
XSECTION 103	REACH	3.33	1	2	.08	.0	2.53	24.00	1.06	----	12.84	990.56	297.6
XSECTION 103	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.13	----	12.48	57.51	710.1
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	2.53	24.00	1.06	----	12.83	1003.13	294.2
XSECTION 104	REACH	3.41	1	2	.08	.0	2.53	24.00	1.06	----	12.83	1003.13	294.2
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	2.53	24.00	1.15	----	12.66	1737.93	366.6
XSECTION 104	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	----	12.67	28.35	410.9
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	2.53	24.00	1.14	----	12.66	1766.25	367.2
XSECTION 107	REACH	4.81	1	2	.08	.0	2.53	24.00	1.14	1418.49	12.66	1766.25	367.2
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	2.53	24.00	.93	1418.53	12.71	1925.75	248.1
XSECTION 123	RUNOFF	.21	1	2	.08	.0	2.53	24.00	1.99	----	12.44	217.28	1020.1
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	2.53	24.00	.96	1418.57	12.61	2055.57	257.8
XSECTION 108	REACH	7.97	1	2	.08	.0	2.53	24.00	.96	----	12.61	2055.57	257.8
XSECTION 106	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.85	----	12.61	29.64	470.5
XSECTION 108	REACH	.06	1	2	.08	.0	2.53	24.00	.84	----	12.84	27.67	439.2

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 108	RUNOFF	.03	1	2	.08	.0	2.53	24.00	.85	----	12.50	14.00	559.8
XSECTION 108	ADDHYD	.09	1	2	.08	.0	2.53	24.00	.85	----	12.60	34.05	387.0
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	2.53	24.00	.96	----	12.61	2089.38	259.1
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	2.53	24.00	.88	1420.01	12.60	2137.01	241.8
XSECTION 110	REACH	8.84	1	2	.08	.0	2.53	24.00	.88	----	12.60	2137.01	241.8
XSECTION 122	RUNOFF	.35	1	2	.08	.0	2.53	24.00	1.20	----	12.48	258.14	727.2
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	2.53	24.00	.89	----	12.58	2372.53	258.1
XSECTION 110	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	----	12.61	32.47	444.8
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	2.53	24.00	.89	----	12.58	2404.66	259.5
XSECTION 111	REACH	9.27	1	2	.08	.0	2.53	24.00	.89	----	12.58	2404.66	259.5
XSECTION 111	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.75	----	12.62	29.38	419.7
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	2.53	24.00	.89	----	12.58	2433.68	260.7
XSECTION 112	REACH	9.34	1	2	.08	.0	2.53	24.00	.89	----	12.69	2370.39	253.9
XSECTION 121	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.99	----	12.44	260.66	1042.6
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	2.53	24.00	.92	----	12.65	2440.64	254.6
XSECTION 113	REACH	9.59	1	2	.08	.0	2.53	24.00	.92	----	12.77	2407.86	251.2
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	2.53	24.00	1.14	----	12.77	2681.07	251.4
XSECTION 120	RUNOFF	.23	1	2	.08	.0	2.53	24.00	1.33	----	12.49	181.43	785.4
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	2.53	24.00	1.14	----	12.74	2753.11	252.7
XSECTION 114	REACH	10.89	1	2	.08	.0	2.53	24.00	1.14	----	12.96	2605.69	239.2
XSECTION 49	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.99	----	12.44	89.06	1035.5
XSECTION 48	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	----	12.72	82.18	955.5
XSECTION 48	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.85	----	12.63	57.85	462.8
XSECTION 48	ADDHYD	.21	1	2	.08	.0	2.53	24.00	1.31	----	12.67	138.33	655.6
XSECTION 20	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.98	----	12.44	71.16	1111.9
XSECTION 48	REACH	.06	1	2	.08	.0	2.53	24.00	1.96	----	13.11	51.16	799.4
XSECTION 48	ADDHYD	.28	1	2	.08	.0	2.53	24.00	1.46	----	12.71	174.68	635.2
XSECTION 56	REACH	.28	1	2	.08	.0	2.53	24.00	1.46	----	12.86	166.61	605.9
XSECTION 56	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	----	12.48	41.18	653.7
XSECTION 56	ADDHYD	.34	1	2	.08	.0	2.53	24.00	1.37	----	12.82	173.63	513.7
XSECTION 57	REACH	.34	1	2	.08	.0	2.53	24.00	1.37	----	12.94	172.16	509.3
XSECTION 57	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	----	12.48	41.18	653.7
XSECTION 57	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.31	----	12.65	181.93	453.7
XSECTION 60	REACH	.40	1	2	.08	.0	2.53	24.00	1.31	----	13.03	176.39	439.9
XSECTION 60	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.96	----	12.57	34.53	548.1
XSECTION 60	ADDHYD	.46	1	2	.08	.0	2.53	24.00	1.26	----	12.76	195.85	422.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 58	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	----	12.47	44.80	711.2
XSECTION 60	REACH	.06	1	2	.08	.0	2.53	24.00	1.13	----	12.60	42.12	668.6
XSECTION 60	ADDHYD	.53	1	2	.08	.0	2.53	24.00	1.25	----	12.70	232.12	440.4
XSECTION 65	REACH	.53	1	2	.08	.0	2.53	24.00	1.24	----	12.82	227.77	432.2
XSECTION 65	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	----	12.59	27.83	441.7
XSECTION 65	ADDHYD	.59	1	2	.08	.0	2.53	24.00	1.19	----	12.79	246.93	418.5
XSECTION 68	REACH	.59	1	2	.08	.0	2.53	24.00	1.19	----	12.91	242.19	410.5
XSECTION 68	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.20	----	12.47	46.64	740.3
XSECTION 68	ADDHYD	.65	1	2	.08	.0	2.53	24.00	1.19	----	12.90	248.74	380.9
XSECTION 47	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	----	12.51	79.43	635.5
XSECTION 46	REACH	.13	1	2	.08	.0	2.53	24.00	1.01	----	12.61	78.59	628.7
XSECTION 46	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	----	12.49	80.04	640.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.01	----	12.53	155.77	623.1
XSECTION 59	REACH	.25	1	2	.08	.0	2.53	24.00	1.01	----	12.75	142.80	571.2
XSECTION 59	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	----	12.48	41.18	653.7
XSECTION 59	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.01	----	12.60	161.39	515.6
XSECTION 21	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.07	----	12.60	107.73	570.0
XSECTION 43	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.26	----	12.44	41.16	875.8
XSECTION 21	ADDHYD	.24	1	2	.08	.0	2.53	24.00	1.10	----	12.47	139.88	592.7
XSECTION 45	REACH	.24	1	2	.08	.0	2.53	24.00	1.10	----	12.86	100.84	427.3
XSECTION 45	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	----	12.56	85.49	683.9
XSECTION 45	ADDHYD	.36	1	2	.08	.0	2.53	24.00	1.15	----	12.65	175.58	486.4
XSECTION 59	REACH	.36	1	2	.08	.0	2.53	24.00	1.15	----	12.79	168.14	465.8
XSECTION 59	ADDHYD	.67	1	2	.08	.0	2.53	24.00	1.09	----	12.73	322.67	478.7
XSECTION 66	REACH	.67	1	2	.08	.0	2.53	24.00	1.08	----	12.85	318.33	472.3
XSECTION 66	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	----	12.55	38.69	614.1
XSECTION 66	ADDHYD	.74	1	2	.08	.0	2.53	24.00	1.08	----	12.80	340.18	461.6
XSECTION 68	REACH	.74	1	2	.08	.0	2.53	24.00	1.08	----	12.94	332.50	451.2
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	2.53	24.00	1.13	----	12.92	580.11	417.3
XSECTION 70	REACH	1.39	1	2	.08	.0	2.53	24.00	1.13	----	13.04	574.06	413.0
XSECTION 70	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	----	12.47	48.49	769.7
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	2.53	24.00	1.14	----	13.04	579.29	398.7
XSECTION 74	REACH	1.45	1	2	.08	.0	2.53	24.00	1.13	----	13.15	574.13	395.1
XSECTION 74	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.55	----	12.46	56.24	892.6
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	2.53	24.00	1.15	----	13.15	578.74	381.8
XSECTION 23	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.93	----	12.45	93.41	1026.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 40	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	----	12.76	82.68	908.6
XSECTION 38	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.85	----	12.56	63.86	510.9
XSECTION 40	REACH	.13	1	2	.08	.0	2.53	24.00	.84	----	12.83	52.54	420.4
XSECTION 40	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.32	----	12.79	134.43	622.3
XSECTION 40	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	----	12.58	53.25	566.5
XSECTION 40	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.23	----	12.71	177.94	574.0
XSECTION 82	REACH	.31	1	2	.08	.0	2.53	24.00	1.22	----	12.85	172.33	555.9
XSECTION 82	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	----	12.48	44.37	704.3
XSECTION 82	ADDHYD	.37	1	2	.08	.0	2.53	24.00	1.21	----	12.66	183.88	493.0
XSECTION 39	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.19	----	12.57	80.82	646.6
XSECTION 82	REACH	.13	1	2	.08	.0	2.53	24.00	1.19	----	12.84	72.20	577.6
XSECTION 82	ADDHYD	.50	1	2	.08	.0	2.53	24.00	1.20	----	12.80	254.04	510.1
XSECTION 81	REACH	.50	1	2	.08	.0	2.53	24.00	1.20	----	12.92	251.89	505.8
XSECTION 81	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	----	12.60	27.34	433.9
XSECTION 81	ADDHYD	.56	1	2	.08	.0	2.53	24.00	1.15	----	12.85	267.02	476.0
XSECTION 78	REACH	.56	1	2	.08	.0	2.53	24.00	1.15	----	13.00	263.62	469.9
XSECTION 78	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	----	12.47	48.06	762.9
XSECTION 78	ADDHYD	.62	1	2	.08	.0	2.53	24.00	1.16	----	12.98	269.44	431.8
XSECTION 22	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.07	----	12.55	93.43	610.7
XSECTION 41	REACH	.15	1	2	.08	.0	2.53	24.00	1.06	----	12.81	83.64	546.7
XSECTION 41	RUNOFF	.17	1	2	.08	.0	2.53	24.00	1.13	----	12.53	116.10	675.0
XSECTION 41	ADDHYD	.32	1	2	.08	.0	2.53	24.00	1.10	----	12.57	181.67	559.0
XSECTION 42	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.07	----	12.46	54.11	693.7
XSECTION 42	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.09	----	12.53	232.12	576.0
XSECTION 78	REACH	.40	1	2	.08	.0	2.53	24.00	1.09	----	12.74	216.84	538.1
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	2.53	24.00	1.13	----	12.79	470.94	458.6
XSECTION 77	REACH	1.03	1	2	.08	.0	2.53	24.00	1.13	----	12.90	466.43	454.2
XSECTION 77	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	----	12.54	30.25	480.1
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	2.53	24.00	1.11	----	12.88	476.05	436.7
XSECTION 69	REACH	1.09	1	2	.08	.0	2.53	24.00	1.11	----	13.00	470.68	431.8
XSECTION 69	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.95	----	12.63	31.97	507.4
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	2.53	24.00	1.10	----	12.98	488.08	423.3
XSECTION 44	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.50	83.51	668.1
XSECTION 67	REACH	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.62	80.24	641.9
XSECTION 67	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	----	12.46	52.20	828.6
XSECTION 67	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.18	----	12.53	127.33	677.3

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 69	REACH	.19	1	2	.08	.0	2.53	24.00	1.18	----	12.73	120.93	643.2
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	2.53	24.00	1.11	----	12.89	582.09	434.1
XSECTION 74	REACH	1.34	1	2	.08	.0	2.53	24.00	1.11	----	13.04	568.49	423.9
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	2.53	24.00	1.13	----	13.10	1139.15	398.7
XSECTION 114	REACH	2.86	1	2	.08	.0	2.53	24.00	1.13	----	13.33	1070.30	374.6
XSECTION 114	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.74	----	12.99	35.43	276.8
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	2.53	24.00	1.11	----	13.32	1099.36	368.3
XSECTION 71	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.19	----	12.55	83.02	664.1
XSECTION 114	REACH	.13	1	2	.08	.0	2.53	24.00	1.18	----	12.96	63.95	511.6
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	2.53	24.00	1.11	----	13.30	1145.42	368.3
XSECTION 64	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.01	----	12.51	156.50	626.0
XSECTION 72	REACH	.25	1	2	.08	.0	2.53	24.00	1.01	----	12.75	133.87	535.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	----	12.56	75.62	605.0
XSECTION 72	ADDHYD	.38	1	2	.08	.0	2.53	24.00	1.03	----	12.67	198.79	530.1
XSECTION 114	REACH	.38	1	2	.08	.0	2.53	24.00	1.02	----	12.88	172.33	459.5
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	2.53	24.00	1.10	----	13.24	1260.98	361.8
XSECTION 115	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	----	12.55	55.56	591.0
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	2.53	24.00	1.10	----	13.23	1269.17	354.6
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	2.53	24.00	1.13	----	13.06	3783.86	261.4
XSECTION 119	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.95	----	12.88	88.98	385.2
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	2.53	24.00	1.13	----	13.05	3865.82	262.9
XSECTION 118	REACH	14.70	1	2	.08	.0	2.53	24.00	1.12	----	13.27	3770.44	256.4
XSECTION 118	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.94	----	13.22	66.98	290.0
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	2.53	24.00	1.12	----	13.27	3837.18	256.9
ALTERNATE 1 STORM 2													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	3.57	24.00	3.00	----	12.45	217.93	1472.5
XSECTION 2	RUNOFF	.10	1	2	.08	.0	3.57	24.00	3.00	----	12.44	145.51	1500.1
XSECTION 3	REACH	.15	1	2	.08	.0	3.57	24.00	2.99	----	12.63	213.83	1444.8
XSECTION 3	REACH	.10	1	2	.08	.0	3.57	24.00	2.98	----	12.70	138.09	1423.6
XSECTION 3	ADDHYD	.25	1	2	.08	.0	3.57	24.00	2.99	----	12.66	349.90	1428.2
XSECTION 3	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.47	----	12.52	42.49	903.9
XSECTION 3	ADDHYD	.29	1	2	.08	.0	3.57	24.00	2.74	----	12.60	387.57	1327.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.75	----	12.71	87.96	807.0
XSECTION 6	REACH	.29	1	2	.08	.0	3.57	24.00	2.74	1505.41	12.72	383.09	1312.0
XSECTION 6	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.47	1506.00	12.72	471.05	1174.7
XSECTION 8	REACH	.40	1	2	.08	.0	3.57	24.00	2.46	1456.90	12.80	453.71	1131.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 7	RUNOFF	.12	1	2	.08	.0	3.57	24.00	1.47	----	12.66	86.33	737.8
XSECTION 8	REACH	.12	1	2	.08	.0	3.57	24.00	1.46	1495.25	12.78	84.82	724.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	3.57	24.00	3.00	----	12.44	33.24	1510.9
XSECTION 4	RUNOFF	.19	1	2	.08	.0	3.57	24.00	3.00	----	12.44	290.36	1489.0
XSECTION 4	REACH	.02	1	2	.08	.0	3.57	24.00	2.97	----	12.98	27.33	1242.2
XSECTION 4	ADDHYD	.22	1	2	.08	.0	3.57	24.00	3.00	----	12.45	307.71	1418.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.47	----	12.60	99.67	797.4
XSECTION 5	REACH	.22	1	2	.08	.0	3.57	24.00	2.99	----	12.62	298.64	1376.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	3.57	24.00	2.43	----	12.62	398.25	1164.5
XSECTION 8	REACH	.34	1	2	.08	.0	3.57	24.00	2.42	1496.79	12.85	371.68	1086.8
XSECTION 8	ADDHYD	.52	1	2	.08	.0	3.57	24.00	2.24	1497.01	12.86	535.72	1034.2
XSECTION 8	ADDHYD	.86	1	2	.08	.0	3.57	24.00	2.31	1497.32	12.85	907.39	1055.1
XSECTION 18	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.53	----	12.67	139.85	760.1
XSECTION 8	REACH	.18	1	2	.08	.0	3.57	24.00	1.53	1495.49	12.93	115.81	629.4
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	3.57	24.00	2.17	1497.40	12.86	1021.80	978.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.53	----	12.69	96.88	739.6
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	3.57	24.00	2.10	1497.45	12.85	1108.39	943.3
XSECTION 14	REACH	1.18	1	2	.08	.0	3.57	24.00	2.09	1489.19	13.15	989.23	841.9
XSECTION 9	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.46	----	12.79	126.67	639.8
XSECTION 14	REACH	.20	1	2	.08	.0	3.57	24.00	1.46	1486.00	12.95	122.01	616.2
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	3.57	24.00	2.00	1489.26	13.13	1100.17	801.3
XSECTION 16	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.14	----	12.55	132.00	1109.3
XSECTION 15	REACH	.12	1	2	.08	.0	3.57	24.00	2.14	----	12.55	132.00	1109.3
XSECTION 15	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.82	----	12.75	58.92	807.2
XSECTION 15	ADDHYD	.19	1	2	.08	.0	3.57	24.00	2.02	----	12.59	186.03	968.9
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	3.57	24.00	2.00	1489.31	13.10	1176.14	751.5
XSECTION 14	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.91	----	12.52	191.46	1081.7
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	3.57	24.00	1.99	1489.33	13.08	1206.43	692.6
XSECTION 27	REACH	1.74	1	2	.08	.0	3.57	24.00	1.99	1472.83	13.29	1139.34	654.0
XSECTION 17	RUNOFF	.06	1	2	.08	.0	3.57	24.00	3.00	----	12.44	89.14	1510.9
XSECTION 25	REACH	.06	1	2	.08	.0	3.57	24.00	2.97	----	12.88	77.30	1310.2
XSECTION 25	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.90	----	12.53	95.00	1067.4
XSECTION 25	ADDHYD	.15	1	2	.08	.0	3.57	24.00	2.33	----	12.57	159.42	1077.2
XSECTION 27	REACH	.15	1	2	.08	.0	3.57	24.00	2.33	1470.32	12.69	155.58	1051.2
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	3.57	24.00	2.01	1472.87	13.24	1211.11	640.8
XSECTION 26	RUNOFF	.07	1	2	.08	.0	3.57	24.00	2.07	----	12.48	79.23	1182.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	3.57	24.00	2.01	1472.88	13.24	1217.75	622.3
XSECTION 27	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.67	----	12.94	118.69	631.3
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	3.57	24.00	1.98	1472.93	13.20	1319.07	614.9
XSECTION 37	REACH	2.15	1	2	.08	.0	3.57	24.00	1.98	1455.75	13.33	1311.76	611.5
XSECTION 37	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.91	----	12.46	142.64	1141.2
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	3.57	24.00	1.98	1455.76	13.32	1321.59	582.2
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	3.57	24.00	1.95	1450.66	13.36	1319.75	581.4
XSECTION 24	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.75	----	12.54	194.33	981.5
XSECTION 37	REACH	.20	1	2	.08	.0	3.57	24.00	1.75	1453.32	12.64	191.29	966.1
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	3.57	24.00	1.94	1455.79	13.33	1349.81	546.9
XSECTION 143	REACH	2.47	1	2	.08	.0	3.57	24.00	1.93	----	13.42	1348.13	546.2
XSECTION 86	DIVERT	1.23	1	2	.08	.0	3.57	24.00	.00	----	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	3.57	24.00	3.87	1429.67	13.42	1348.13	1092.5
XSECTION 86	REACH	1.23	1	2	.08	.0	3.57	24.00	.00	----	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	----	12.46	77.42	1228.9
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	3.57	24.00	.10	1429.95	12.46	77.42	59.7
XSECTION 87	REACH	1.30	1	2	.08	.0	3.57	24.00	.10	1429.94	12.79	67.78	52.3
XSECTION 87	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	----	12.56	64.43	1022.8
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	.19	1430.01	12.63	124.77	91.7
XSECTION 105	REACH	1.36	1	2	.08	.0	3.57	24.00	.19	1417.57	12.97	105.37	77.5
XSECTION 10	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.47	----	12.60	75.75	797.4
XSECTION 11	REACH	.09	1	2	.08	.0	3.57	24.00	1.47	----	12.74	71.85	756.3
XSECTION 11	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.46	----	12.74	158.54	677.5
XSECTION 11	ADDHYD	.33	1	2	.08	.0	3.57	24.00	1.46	----	12.74	230.38	700.2
XSECTION 28	REACH	.33	1	2	.08	.0	3.57	24.00	1.45	----	13.26	161.81	491.8
XSECTION 13	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.82	----	12.60	116.76	934.0
XSECTION 28	REACH	.13	1	2	.08	.0	3.57	24.00	1.80	----	13.17	79.01	632.1
XSECTION 28	ADDHYD	.45	1	2	.08	.0	3.57	24.00	1.54	----	13.23	240.08	528.8
XSECTION 28	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.60	----	12.79	109.01	698.8
XSECTION 28	ADDHYD	.61	1	2	.08	.0	3.57	24.00	1.56	----	13.10	315.19	516.7
XSECTION 36	REACH	.61	1	2	.08	.0	3.57	24.00	1.55	----	13.43	277.99	455.7
XSECTION 36	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	----	12.54	130.39	1043.1
XSECTION 36	ADDHYD	.74	1	2	.08	.0	3.57	24.00	1.61	----	13.39	292.02	397.3
XSECTION 90	REACH	.74	1	2	.08	.0	3.57	24.00	1.60	----	13.59	285.48	388.4
XSECTION 34	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.98	----	12.65	118.43	947.4
XSECTION 35	REACH	.13	1	2	.08	.0	3.57	24.00	1.97	----	12.78	116.06	928.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 35	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	----	12.54	129.69	1037.5
XSECTION 35	ADDHYD	.25	1	2	.08	.0	3.57	24.00	1.94	----	12.61	234.08	936.3
XSECTION 91	REACH	.25	1	2	.08	.0	3.57	24.00	1.93	----	12.80	214.92	859.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	----	12.53	143.49	1147.9
XSECTION 91	ADDHYD	.38	1	2	.08	.0	3.57	24.00	2.00	----	12.64	333.10	888.3
XSECTION 90	REACH	.38	1	2	.08	.0	3.57	24.00	2.00	----	12.76	327.26	872.7
XSECTION 90	RUNOFF	.11	1	2	.08	.0	3.57	24.00	2.06	----	12.59	111.80	1025.7
XSECTION 90	ADDHYD	.48	1	2	.08	.0	3.57	24.00	2.01	----	12.71	430.30	889.1
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	3.57	24.00	1.77	----	12.77	627.92	515.1
XSECTION 88	REACH	1.22	1	2	.08	.0	3.57	24.00	1.76	----	12.88	623.19	511.2
XSECTION 88	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.22	----	12.64	97.37	1035.8
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	3.57	24.00	1.80	----	12.84	706.44	538.0
XSECTION 89	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.98	----	12.51	52.42	1115.3
XSECTION 88	REACH	.05	1	2	.08	.0	3.57	24.00	1.98	----	12.68	46.80	995.6
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	1.80	----	12.83	748.21	550.2
XSECTION 101	REACH	1.36	1	2	.08	.0	3.57	24.00	1.80	----	12.92	746.32	548.8
XSECTION 101	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.41	----	12.53	57.73	1228.4
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	3.57	24.00	1.82	----	12.89	774.38	550.4
XSECTION 102	REACH	1.41	1	2	.08	.0	3.57	24.00	1.82	----	13.08	736.74	523.6
XSECTION 102	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.82	----	12.60	58.28	925.0
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	3.57	24.00	1.82	----	13.06	761.56	518.1
XSECTION 105	REACH	1.47	1	2	.08	.0	3.57	24.00	1.81	1418.10	13.22	744.20	506.3
XSECTION 105	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.53	----	12.62	49.94	792.7
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	3.57	24.00	1.80	1418.11	13.20	759.08	495.2
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	3.57	24.00	1.04	1418.15	13.16	852.86	294.8
XSECTION 107	REACH	2.89	1	2	.08	.0	3.57	24.00	1.04	1418.14	13.33	835.49	288.8
XSECTION 107	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	----	12.53	61.23	1037.7
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	3.57	24.00	1.05	1418.14	13.32	841.90	285.2
XSECTION 85	REACH	1.23	1	2	.08	.0	3.57	24.00	3.86	1429.66	13.58	1332.32	1079.7
XSECTION 85	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.68	----	12.57	57.98	920.3
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	3.57	24.00	3.75	1429.66	13.58	1337.96	1031.6
XSECTION 83	REACH	1.30	1	2	.08	.0	3.57	24.00	3.74	1429.66	13.74	1322.47	1019.6
XSECTION 83	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	----	12.56	60.12	954.3
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	3.65	1429.66	13.74	1327.15	975.8
XSECTION 84	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.54	----	12.57	53.75	853.3
XSECTION 83	REACH	.06	1	2	.08	.0	3.57	24.00	1.53	1428.95	12.73	49.63	787.8

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	3.57	24.00	3.56	1429.66	13.74	1333.54	937.1
XSECTION 109	DIVERT	.71	1	2	.08	.0	3.57	24.00	.14	1418.45	13.74	62.00	87.1
XSECTION 80	DIVERT	.71	1	2	.08	.0	3.57	24.00	6.97	1418.45	13.74	1271.54	1787.1
XSECTION 109	REACH	.71	1	2	.08	.0	3.57	24.00	.14	1418.43	14.07	54.41	76.5
XSECTION 109	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	----	12.47	72.84	1156.2
XSECTION 109	ADDHYD	.77	1	2	.08	.0	3.57	24.00	.29	1418.49	12.47	72.84	94.1
XSECTION 80	REACH	.71	1	2	.08	.0	3.57	24.00	6.96	1418.45	13.86	1266.28	1779.7
XSECTION 80	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	----	12.53	66.68	1058.4
XSECTION 80	ADDHYD	.77	1	2	.08	.0	3.57	24.00	6.55	1418.45	13.86	1270.05	1639.8
XSECTION 79	REACH	.77	1	2	.08	.0	3.57	24.00	6.54	----	13.95	1269.34	1638.9
XSECTION 79	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	----	12.45	81.87	1299.5
XSECTION 79	ADDHYD	.84	1	2	.08	.0	3.57	24.00	6.22	----	13.95	1272.78	1519.7
XSECTION 76	REACH	.84	1	2	.08	.0	3.57	24.00	6.21	----	14.04	1272.24	1519.1
XSECTION 76	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	----	12.46	77.97	1237.6
XSECTION 76	ADDHYD	.90	1	2	.08	.0	3.57	24.00	5.93	----	14.04	1275.56	1416.5
XSECTION 75	REACH	.90	1	2	.08	.0	3.57	24.00	5.92	----	14.13	1274.88	1415.7
XSECTION 75	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.99	----	12.50	88.70	1407.9
XSECTION 75	ADDHYD	.96	1	2	.08	.0	3.57	24.00	5.73	----	14.13	1278.91	1327.4
XSECTION 113	REACH	.96	1	2	.08	.0	3.57	24.00	5.72	----	14.24	1275.58	1323.9
XSECTION 112	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	----	12.55	51.69	847.3
XSECTION 113	REACH	.06	1	2	.08	.0	3.57	24.00	1.46	----	12.81	45.80	750.9
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	3.57	24.00	5.47	----	14.24	1278.98	1248.4
XSECTION 113	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.14	----	12.54	59.69	1126.2
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	3.57	24.00	5.30	----	14.24	1281.93	1189.7
XSECTION 12	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.47	----	12.54	60.86	869.5
XSECTION 29	REACH	.07	1	2	.08	.0	3.57	24.00	1.42	----	13.62	26.04	372.0
XSECTION 30	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.60	----	12.81	169.84	679.4
XSECTION 29	REACH	.25	1	2	.08	.0	3.57	24.00	1.59	----	12.98	161.99	648.0
XSECTION 29	ADDHYD	.32	1	2	.08	.0	3.57	24.00	1.56	----	13.02	171.44	535.8
XSECTION 29	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.53	----	12.85	157.42	629.7
XSECTION 29	ADDHYD	.57	1	2	.08	.0	3.57	24.00	1.54	----	12.98	322.92	566.5
XSECTION 33	REACH	.57	1	2	.08	.0	3.57	24.00	1.54	----	13.09	314.74	552.2
XSECTION 33	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.46	----	12.92	132.17	564.8
XSECTION 33	ADDHYD	.80	1	2	.08	.0	3.57	24.00	1.52	----	13.04	440.92	548.4
XSECTION 92	REACH	.80	1	2	.08	.0	3.57	24.00	1.51	----	13.27	411.60	511.9
XSECTION 92	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	----	12.53	143.49	1147.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 92	ADDHYD	.93	1	2	.08	.0	3.57	24.00	1.60	----	13.23	431.85	464.9
XSECTION 93	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.98	----	12.53	213.06	1092.6
XSECTION 92	REACH	.19	1	2	.08	.0	3.57	24.00	1.98	----	12.73	205.00	1051.3
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	3.57	24.00	1.66	----	12.84	555.84	494.5
XSECTION 98	REACH	1.12	1	2	.08	.0	3.57	24.00	1.66	----	13.06	536.17	477.0
XSECTION 31	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.47	----	12.60	65.99	785.6
XSECTION 32	REACH	.08	1	2	.08	.0	3.57	24.00	1.42	----	13.69	30.42	362.2
XSECTION 32	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.46	----	12.79	115.16	639.8
XSECTION 32	ADDHYD	.26	1	2	.08	.0	3.57	24.00	1.45	----	12.83	120.32	455.8
XSECTION 94	REACH	.26	1	2	.08	.0	3.57	24.00	1.44	----	13.16	101.29	383.7
XSECTION 94	RUNOFF	.14	1	2	.08	.0	3.57	24.00	1.99	----	12.49	157.60	1133.8
XSECTION 94	ADDHYD	.40	1	2	.08	.0	3.57	24.00	1.63	----	12.55	203.78	505.7
XSECTION 95	REACH	.40	1	2	.08	.0	3.57	24.00	1.62	----	12.79	181.30	449.9
XSECTION 95	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.13	----	12.78	111.65	893.2
XSECTION 95	ADDHYD	.53	1	2	.08	.0	3.57	24.00	1.74	----	12.79	292.91	554.8
XSECTION 98	REACH	.53	1	2	.08	.0	3.57	24.00	1.74	----	13.02	261.85	495.9
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	3.57	24.00	1.68	----	13.04	797.63	482.8
XSECTION 96	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	----	12.56	123.52	988.2
XSECTION 97	REACH	.13	1	2	.08	.0	3.57	24.00	1.82	----	12.83	109.31	874.5
XSECTION 97	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	----	12.54	216.11	1149.5
XSECTION 97	ADDHYD	.31	1	2	.08	.0	3.57	24.00	2.07	----	12.61	306.67	979.8
XSECTION 98	REACH	.31	1	2	.08	.0	3.57	24.00	2.06	----	12.72	302.28	965.7
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	3.57	24.00	1.74	----	12.91	1038.66	528.6
XSECTION 98	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.15	----	12.49	111.92	1190.6
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	3.57	24.00	1.76	----	12.87	1070.03	519.7
XSECTION 99	REACH	2.06	1	2	.08	.0	3.57	24.00	1.76	----	12.97	1066.79	518.1
XSECTION 99	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.14	----	12.53	107.22	1140.6
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	3.57	24.00	1.78	----	12.92	1108.11	514.7
XSECTION 139	REACH	2.15	1	2	.08	.0	3.57	24.00	1.77	----	13.06	1095.37	508.8
XSECTION 100	RUNOFF	.08	1	2	.08	.0	3.57	24.00	2.15	----	12.50	92.22	1182.3
XSECTION 139	REACH	.08	1	2	.08	.0	3.57	24.00	2.14	----	12.61	90.55	1160.9
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	3.57	24.00	1.79	----	13.02	1125.35	504.4
XSECTION 142	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.89	----	13.04	162.01	648.0
XSECTION 141	REACH	.25	1	2	.08	.0	3.57	24.00	1.88	----	13.29	152.12	608.5
XSECTION 141	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	----	12.54	216.11	1149.5
XSECTION 141	ADDHYD	.44	1	2	.03	.0	3.57	24.00	2.03	----	12.63	283.56	647.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 140	REACH	.44	1	2	.08	.0	3.57	24.00	2.03	----	12.76	275.57	629.1
XSECTION 140	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	----	12.52	145.51	1164.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	3.57	24.00	2.05	----	12.63	395.34	702.2
XSECTION 137	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.61	----	12.56	70.30	901.2
XSECTION 140	ADDHYD	.64	1	2	.08	.0	3.57	24.00	2.00	----	12.61	464.15	724.1
XSECTION 139	REACH	.64	1	2	.08	.0	3.57	24.00	1.99	----	12.91	411.17	641.4
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	3.57	24.00	1.83	----	12.97	1530.43	532.9
XSECTION 136	RUNOFF	.07	1	2	.08	.0	3.57	24.00	3.00	----	12.44	100.66	1525.2
XSECTION 138	REACH	.07	1	2	.08	.0	3.57	24.00	2.98	----	12.69	94.53	1432.2
XSECTION 138	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.99	----	12.46	239.93	1181.9
XSECTION 138	ADDHYD	.27	1	2	.08	.0	3.57	24.00	2.23	----	12.47	328.00	1219.3
XSECTION 139	REACH	.27	1	2	.08	.0	3.57	24.00	2.22	----	12.70	301.43	1120.6
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	3.57	24.00	1.86	----	12.88	1757.09	559.4
XSECTION 139	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	----	12.52	224.54	1194.4
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	3.57	24.00	1.88	----	12.81	1864.05	559.9
XSECTION 129	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.83	----	12.45	130.06	1204.3
XSECTION 130	RUNOFF	.03	1	2	.08	.0	3.57	24.00	2.59	----	12.44	47.51	1532.5
XSECTION 129	ADDHYD	.14	1	2	.08	.0	3.57	24.00	2.00	----	12.44	177.54	1277.3
XSECTION 127	REACH	.14	1	2	.08	.0	3.57	24.00	1.99	----	12.70	152.81	1099.4
XSECTION 128	RUNOFF	.04	1	2	.08	.0	3.57	24.00	1.69	----	12.45	40.62	1128.4
XSECTION 127	REACH	.04	1	2	.08	.0	3.57	24.00	1.66	----	12.90	29.66	823.8
XSECTION 127	ADDHYD	.17	1	2	.08	.0	3.57	24.00	1.92	----	12.71	177.48	1014.2
XSECTION 127	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.83	----	12.46	179.72	1130.3
XSECTION 127	ADDHYD	.33	1	2	.08	.0	3.57	24.00	1.88	----	12.49	326.34	977.1
XSECTION 132	RUNOFF	.14	1	2	.08	.0	3.57	24.00	2.32	----	12.46	187.27	1291.5
XSECTION 131	REACH	.14	1	2	.08	.0	3.57	24.00	2.32	----	12.65	181.83	1254.0
XSECTION 131	ADDHYD	.48	1	2	.08	.0	3.57	24.00	2.01	----	12.51	498.89	1041.5
XSECTION 131	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.15	----	12.46	146.24	1228.9
XSECTION 131	ADDHYD	.60	1	2	.08	.0	3.57	24.00	2.04	----	12.50	643.65	1076.3
XSECTION 126	REACH	.60	1	2	.08	.0	3.57	24.00	2.04	----	12.60	638.06	1067.0
XSECTION 126	RUNOFF	.16	1	2	.08	.0	3.57	24.00	3.00	----	12.44	233.08	1475.2
XSECTION 126	ADDHYD	.76	1	2	.08	.0	3.57	24.00	2.24	----	12.54	847.87	1121.5
XSECTION 134	REACH	.76	1	2	.08	.0	3.57	24.00	2.23	----	12.63	841.34	1112.9
XSECTION 135	RUNOFF	.04	1	2	.08	.0	3.57	24.00	2.99	----	12.44	67.87	1615.9
XSECTION 134	REACH	.04	1	2	.08	.0	3.57	24.00	2.97	----	12.85	57.90	1378.6
XSECTION 134	ADDHYD	.80	1	2	.08	.0	3.57	24.00	2.27	----	12.63	893.62	1119.8

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 134	RUNOFF	.20	1	2	.08	.0	3.57	24.00	2.07	---	12.48	232.96	1182.6
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	3.57	24.00	2.23	---	12.57	1096.89	1102.4
XSECTION 125	RUNOFF	.12	1	2	.08	.0	3.57	24.00	3.01	---	12.44	180.42	1542.0
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	3.57	24.00	2.31	---	12.49	1236.39	1111.9
XSECTION 124	REACH	1.11	1	2	.08	.0	3.57	24.00	2.31	---	12.62	1197.81	1077.2
XSECTION 124	RUNOFF	.22	1	2	.08	.0	3.57	24.00	1.99	---	12.46	257.03	1173.7
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	3.57	24.00	2.26	---	12.56	1418.47	1065.7
XSECTION 103	REACH	3.33	1	2	.08	.0	3.57	24.00	1.88	---	12.81	1864.05	559.9
XSECTION 103	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.99	---	12.47	94.97	1172.5
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	3.57	24.00	1.89	---	12.79	1886.09	553.1
XSECTION 104	REACH	3.41	1	2	.08	.0	3.57	24.00	1.89	---	12.79	1886.09	553.1
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	3.57	24.00	1.99	---	12.64	3169.23	668.5
XSECTION 104	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.53	---	12.65	53.63	777.2
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	3.57	24.00	1.98	---	12.64	3222.84	670.0
XSECTION 107	REACH	4.81	1	2	.08	.0	3.57	24.00	1.98	1418.88	12.64	3222.84	670.0
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	3.57	24.00	1.63	1418.99	12.69	3677.69	473.8
XSECTION 123	RUNOFF	.21	1	2	.08	.0	3.57	24.00	3.00	---	12.44	315.47	1481.1
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	3.57	24.00	1.67	1419.04	12.62	3861.29	484.2
XSECTION 108	REACH	7.97	1	2	.08	.0	3.57	24.00	1.67	---	12.62	3861.29	484.2
XSECTION 106	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.61	---	12.59	54.38	863.2
XSECTION 108	REACH	.06	1	2	.08	.0	3.57	24.00	1.60	---	12.71	52.58	834.5
XSECTION 108	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.61	---	12.48	24.88	995.1
XSECTION 108	ADDHYD	.09	1	2	.08	.0	3.57	24.00	1.61	---	12.57	71.68	814.6
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	3.57	24.00	1.67	---	12.62	3931.35	487.6
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	3.57	24.00	1.55	1421.09	12.61	3990.19	451.5
XSECTION 110	REACH	8.84	1	2	.08	.0	3.57	24.00	1.55	---	12.61	3990.19	451.5
XSECTION 122	RUNOFF	.35	1	2	.08	.0	3.57	24.00	2.07	---	12.47	422.06	1188.9
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4379.70	476.4
XSECTION 110	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.54	---	12.59	60.60	830.1
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4440.26	479.2
XSECTION 111	REACH	9.27	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4440.26	479.2
XSECTION 111	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.47	---	12.60	55.82	797.4
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4496.02	481.6
XSECTION 112	REACH	9.34	1	2	.08	.0	3.57	24.00	1.56	---	12.68	4442.75	475.9
XSECTION 121	RUNOFF	.25	1	2	.08	.0	3.57	24.00	3.00	---	12.44	377.34	1509.4
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	3.57	24.00	1.60	---	12.65	4544.68	474.1

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

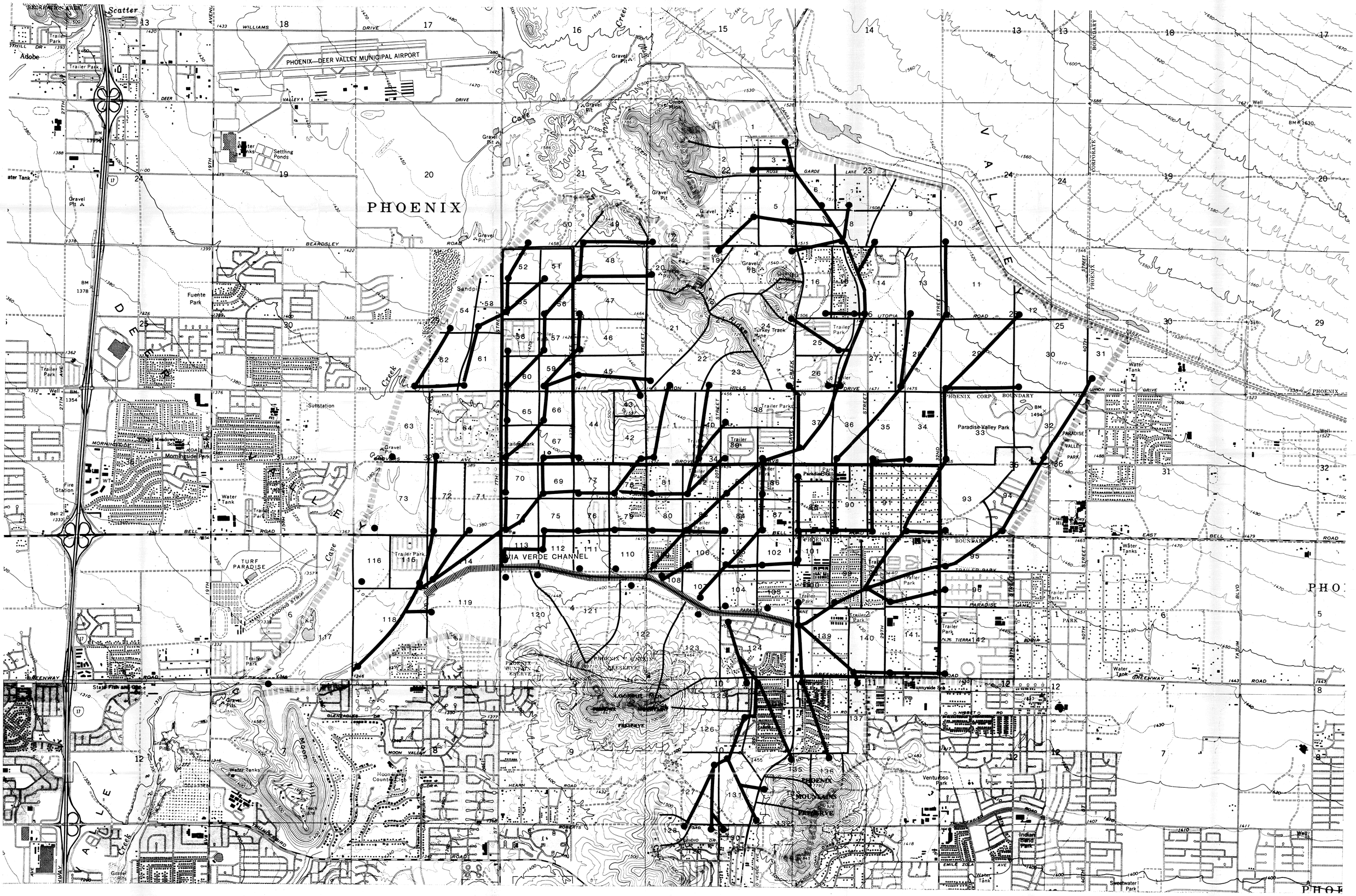
SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 113	REACH	9.59	1	2	.08	.0	3.57	24.00	1.60	---	12.75	4513.26	470.8
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	3.57	24.00	1.97	---	12.77	5112.96	479.5
XSECTION 120	RUNOFF	.23	1	2	.08	.0	3.57	24.00	2.24	---	12.47	289.16	1251.8
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	3.57	24.00	1.98	---	12.74	5231.73	480.2
XSECTION 114	REACH	10.89	1	2	.08	.0	3.57	24.00	1.97	---	12.91	5053.81	463.9
XSECTION 49	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	129.01	1500.1
XSECTION 48	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.70	122.57	1425.3
XSECTION 48	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.61	---	12.61	106.64	853.1
XSECTION 48	ADDHYD	.21	1	2	.08	.0	3.57	24.00	2.17	---	12.63	226.75	1074.6
XSECTION 20	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.99	---	12.44	102.73	1605.1
XSECTION 48	REACH	.06	1	2	.08	.0	3.57	24.00	2.96	---	13.02	79.67	1244.8
XSECTION 48	ADDHYD	.28	1	2	.08	.0	3.57	24.00	2.35	---	12.68	289.21	1051.7
XSECTION 56	REACH	.28	1	2	.08	.0	3.57	24.00	2.35	---	12.81	281.60	1024.0
XSECTION 56	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4
XSECTION 56	ADDHYD	.34	1	2	.08	.0	3.57	24.00	2.25	---	12.60	308.95	914.0
XSECTION 57	REACH	.34	1	2	.08	.0	3.57	24.00	2.25	---	12.76	301.76	892.8
XSECTION 57	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4
XSECTION 57	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.18	---	12.62	338.43	844.0
XSECTION 60	REACH	.40	1	2	.08	.0	3.57	24.00	2.18	---	12.77	325.62	812.0
XSECTION 60	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.55	61.05	969.0
XSECTION 60	ADDHYD	.46	1	2	.08	.0	3.57	24.00	2.12	---	12.72	375.06	808.3
XSECTION 58	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.46	73.94	1173.7
XSECTION 60	REACH	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.66	70.83	1124.3
XSECTION 60	ADDHYD	.53	1	2	.08	.0	3.57	24.00	2.10	---	12.70	445.48	845.3
XSECTION 65	REACH	.53	1	2	.08	.0	3.57	24.00	2.10	---	12.80	440.86	836.6
XSECTION 65	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.56	52.57	834.5
XSECTION 65	ADDHYD	.59	1	2	.08	.0	3.57	24.00	2.03	---	12.77	470.05	810.3
XSECTION 68	REACH	.59	1	2	.08	.0	3.57	24.00	2.03	---	12.88	473.03	801.7
XSECTION 68	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.07	---	12.46	75.97	1205.8
XSECTION 68	ADDHYD	.65	1	2	.08	.0	3.57	24.00	2.03	---	12.86	484.97	742.7
XSECTION 47	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.49	135.44	1083.5
XSECTION 46	REACH	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.59	133.89	1071.1
XSECTION 46	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.48	136.28	1090.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	3.57	24.00	1.83	---	12.52	268.27	1073.1
XSECTION 59	REACH	.25	1	2	.08	.0	3.57	24.00	1.82	---	12.71	255.96	1023.8
XSECTION 59	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4

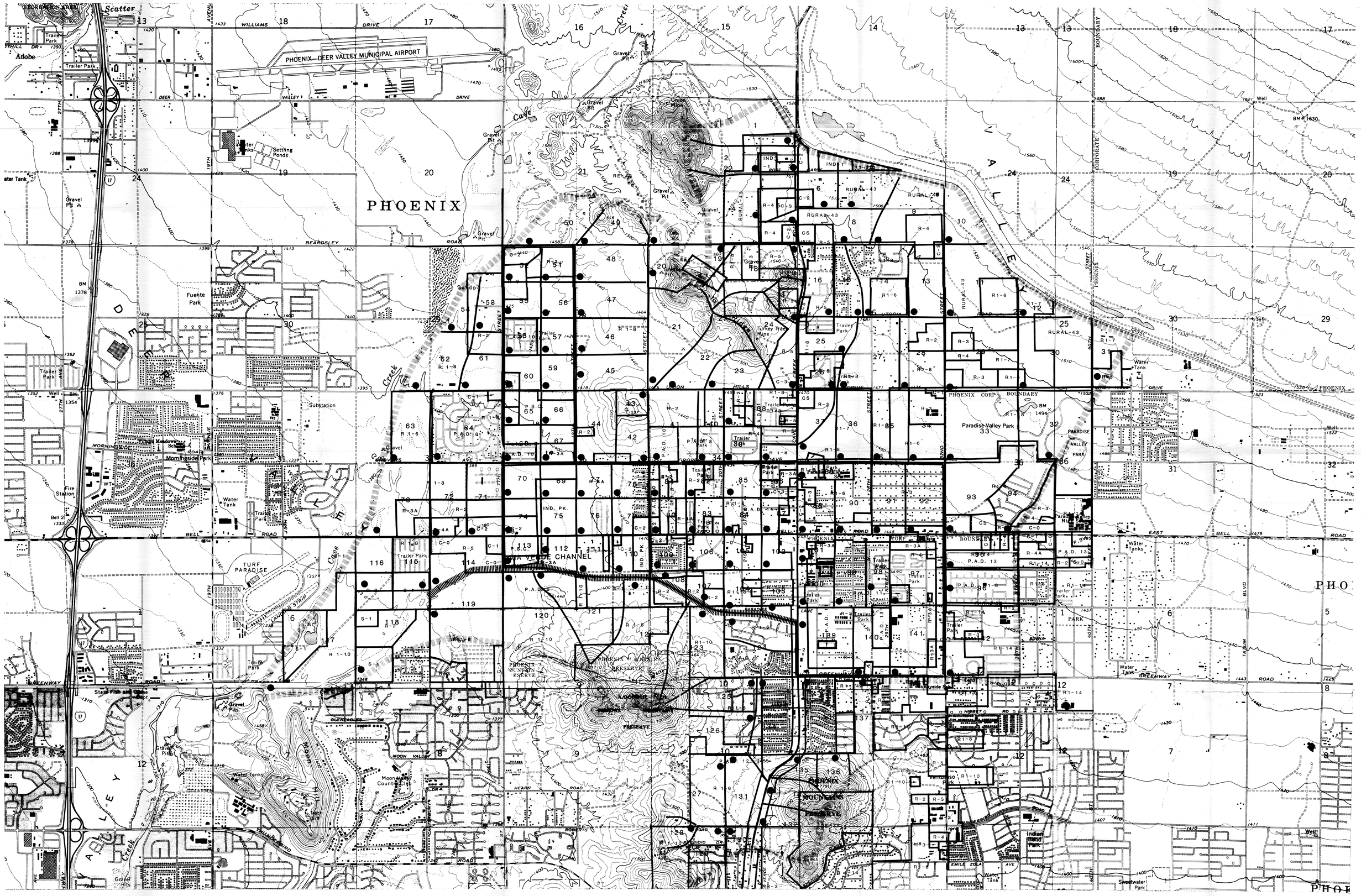
SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 59	ADDHYD	.31	1	2	.08	.0	3.57	24.00	1.82	---	12.58	298.86	954.8
XSECTION 21	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.90	---	12.58	186.00	984.1
XSECTION 43	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.14	---	12.44	65.02	1383.4
XSECTION 21	ADDHYD	.24	1	2	.08	.0	3.57	24.00	1.95	---	12.46	240.93	1020.9
XSECTION 45	REACH	.24	1	2	.08	.0	3.57	24.00	1.94	---	12.77	188.85	800.2
XSECTION 45	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.54	140.66	1125.3
XSECTION 45	ADDHYD	.36	1	2	.08	.0	3.57	24.00	2.01	---	12.64	317.79	880.3
XSECTION 59	REACH	.36	1	2	.08	.0	3.57	24.00	2.01	---	12.76	309.89	858.4
XSECTION 59	ADDHYD	.67	1	2	.08	.0	3.57	24.00	1.92	---	12.69	591.34	877.4
XSECTION 66	REACH	.67	1	2	.08	.0	3.57	24.00	1.92	---	12.79	587.20	871.2
XSECTION 66	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	---	12.54	66.12	1049.6
XSECTION 66	ADDHYD	.74	1	2	.08	.0	3.57	24.00	1.92	---	12.74	631.80	857.3
XSECTION 68	REACH	.74	1	2	.08	.0	3.57	24.00	1.91	---	12.87	623.86	846.5
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	3.57	24.00	1.97	---	12.86	1108.81	797.7
XSECTION 70	REACH	1.39	1	2	.08	.0	3.57	24.00	1.97	---	12.96	1102.43	793.1
XSECTION 70	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.97	1237.6
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	3.57	24.00	1.98	---	12.96	1111.77	765.2
XSECTION 74	REACH	1.45	1	2	.08	.0	3.57	24.00	1.97	---	13.05	1107.05	761.9
XSECTION 74	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.50	---	12.45	86.02	1365.4
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	3.57	24.00	2.00	---	13.05	1115.38	735.7
XSECTION 23	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	135.51	1489.1
XSECTION 40	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.82	124.25	1365.4
XSECTION 38	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.61	---	12.54	115.83	926.7
XSECTION 40	REACH	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.79	103.23	825.9
XSECTION 40	ADDHYD	.22	1	2	.08	.0	3.57	24.00	2.18	---	12.80	227.28	1052.2
XSECTION 40	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.56	92.89	988.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	3.57	24.00	2.07	---	12.68	302.51	975.8
XSECTION 82	REACH	.31	1	2	.08	.0	3.57	24.00	2.07	---	12.82	297.00	958.1
XSECTION 82	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.47	73.36	1164.5
XSECTION 82	ADDHYD	.37	1	2	.08	.0	3.57	24.00	2.06	---	12.63	325.75	873.3
XSECTION 39	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.55	135.10	1080.8
XSECTION 82	REACH	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.72	126.14	1009.1
XSECTION 82	ADDHYD	.50	1	2	.08	.0	3.57	24.00	2.06	---	12.66	449.67	903.0
XSECTION 81	REACH	.50	1	2	.08	.0	3.57	24.00	2.05	---	12.79	445.17	893.9
XSECTION 81	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.58	51.67	820.2
XSECTION 81	ADDHYD	.56	1	2	.08	.0	3.57	24.00	1.99	---	12.74	487.43	868.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 78	REACH	.56	1	2	.08	.0	3.57	24.00	1.98	----	12.87	480.67	856.8
XSECTION 78	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	----	12.46	77.42	1228.9
XSECTION 78	ADDHYD	.62	1	2	.08	.0	3.57	24.00	2.00	----	12.82	496.05	794.9
XSECTION 22	RUNOFF	.15	1	2	.08	.0	3.57	24.00	1.90	----	12.54	159.92	1045.3
XSECTION 41	REACH	.15	1	2	.08	.0	3.57	24.00	1.90	----	12.69	149.88	979.6
XSECTION 41	RUNOFF	.17	1	2	.08	.0	3.57	24.00	1.98	----	12.51	191.99	1116.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	3.57	24.00	1.94	----	12.55	331.49	1020.0
XSECTION 42	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.91	----	12.46	90.19	1156.3
XSECTION 42	ADDHYD	.40	1	2	.08	.0	3.57	24.00	1.94	----	12.52	417.50	1036.0
XSECTION 78	REACH	.40	1	2	.08	.0	3.57	24.00	1.93	----	12.63	403.13	1000.3
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	3.57	24.00	1.97	----	12.67	876.99	853.9
XSECTION 77	REACH	1.03	1	2	.08	.0	3.57	24.00	1.97	----	12.77	870.34	847.5
XSECTION 77	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	----	12.53	56.20	892.0
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	3.57	24.00	1.94	----	12.75	904.01	829.4
XSECTION 69	REACH	1.09	1	2	.08	.0	3.57	24.00	1.94	----	12.85	896.07	822.1
XSECTION 69	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	----	12.61	57.16	907.3
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	3.57	24.00	1.93	----	12.83	940.49	815.7
XSECTION 44	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.91	----	12.48	140.24	1121.9
XSECTION 67	REACH	.13	1	2	.08	.0	3.57	24.00	1.90	----	12.60	137.74	1101.9
XSECTION 67	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	----	12.45	81.87	1299.5
XSECTION 67	ADDHYD	.19	1	2	.08	.0	3.57	24.00	2.04	----	12.52	211.86	1126.9
XSECTION 69	REACH	.19	1	2	.08	.0	3.57	24.00	2.04	----	12.62	207.61	1104.3
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	3.57	24.00	1.95	----	12.78	1108.89	826.9
XSECTION 74	REACH	1.34	1	2	.08	.0	3.57	24.00	1.94	----	12.89	1091.37	813.9
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	3.57	24.00	1.97	----	12.96	2169.44	759.3
XSECTION 114	REACH	2.86	1	2	.08	.0	3.57	24.00	1.97	----	13.15	2082.54	728.9
XSECTION 114	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.46	----	12.95	70.49	550.7
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	3.57	24.00	1.94	----	13.14	2147.82	719.5
XSECTION 71	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.06	----	12.54	138.29	1106.3
XSECTION 114	REACH	.13	1	2	.08	.0	3.57	24.00	2.05	----	12.91	115.96	927.7
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	3.57	24.00	1.95	----	13.12	2246.39	722.3
XSECTION 64	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.83	----	12.49	267.71	1070.8
XSECTION 72	REACH	.25	1	2	.08	.0	3.57	24.00	1.82	----	12.72	244.17	976.7
XSECTION 72	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	----	12.54	129.69	1037.5
XSECTION 72	ADDHYD	.38	1	2	.08	.0	3.57	24.00	1.85	----	12.64	359.31	958.2
XSECTION 114	REACH	.38	1	2	.08	.0	3.57	24.00	1.84	----	12.82	329.76	879.4


PHOENIX
PHOENIX—DEER VALLEY MUNICIPAL AIRPORT
VIA VERDE CHANNEL
Scatter
Adobe
Trailer Park
Gravel Pit
Settling Ponds
Fuente Park
Sandpit
Substation
Morningside Park
Fire Station
Water Tank
TURF PARADISE
Paradise Valley Park
Turkey Track Mine
Water Tanks
Sweetwater Park
Indian Bend Park
Venturoso Park
Moon Valley Country Club
Moon Hill
Well
BM 1630
BM 1494
BM 1378
BM 1354
BM 1399
WILLIAMS DRIVE
DEER VALLEY DRIVE
BEARDSLEY ROAD
UTOPIA ROAD
UNION HILLS DRIVE
BELL ROAD
EAST BELL ROAD
GREENWAY ROAD
HEARN ROAD
ROBERTS ROAD
PARADISE VALLEY PARK
PHOENIX CORP. BOUNDARY
PHOENIX MOUNTAINS PRESERVE
MOUNTAIN PRESERVE
Cave Creek
Moon Hill
Creek
VALLEY
DEER
PARADISE
PHOENIX


PHOENIX
PHOENIX—DEER VALLEY MUNICIPAL AIRPORT
CHANNEL
PHOENIX CORP. BOUNDARY
Paradise Valley Park
Indian Bend Park
Sweetwater Park
Morningside Park
TURF PARADISE
Moon Valley Country Club
Substation
Fuente Park
Water Tank
Trailer Park
Gravel Pit
Setting Ponds
Fire Station
State Fish and Game Dept.
Turkey Trap Mine
Union Mine
Scatter
Adobe
Creek
Cave
Valley
WILLIAMS
DRIVE
DEER
VALLEY
BEARDSLEY
ROAD
BELL
EAST
GREENWAY
MOON VALLEY
HEARN
ROBERTS
TATUM
BLVD
PHOENIX
CORPORATE
BOUNDARY
STREET
AVENUE
RURAL-43
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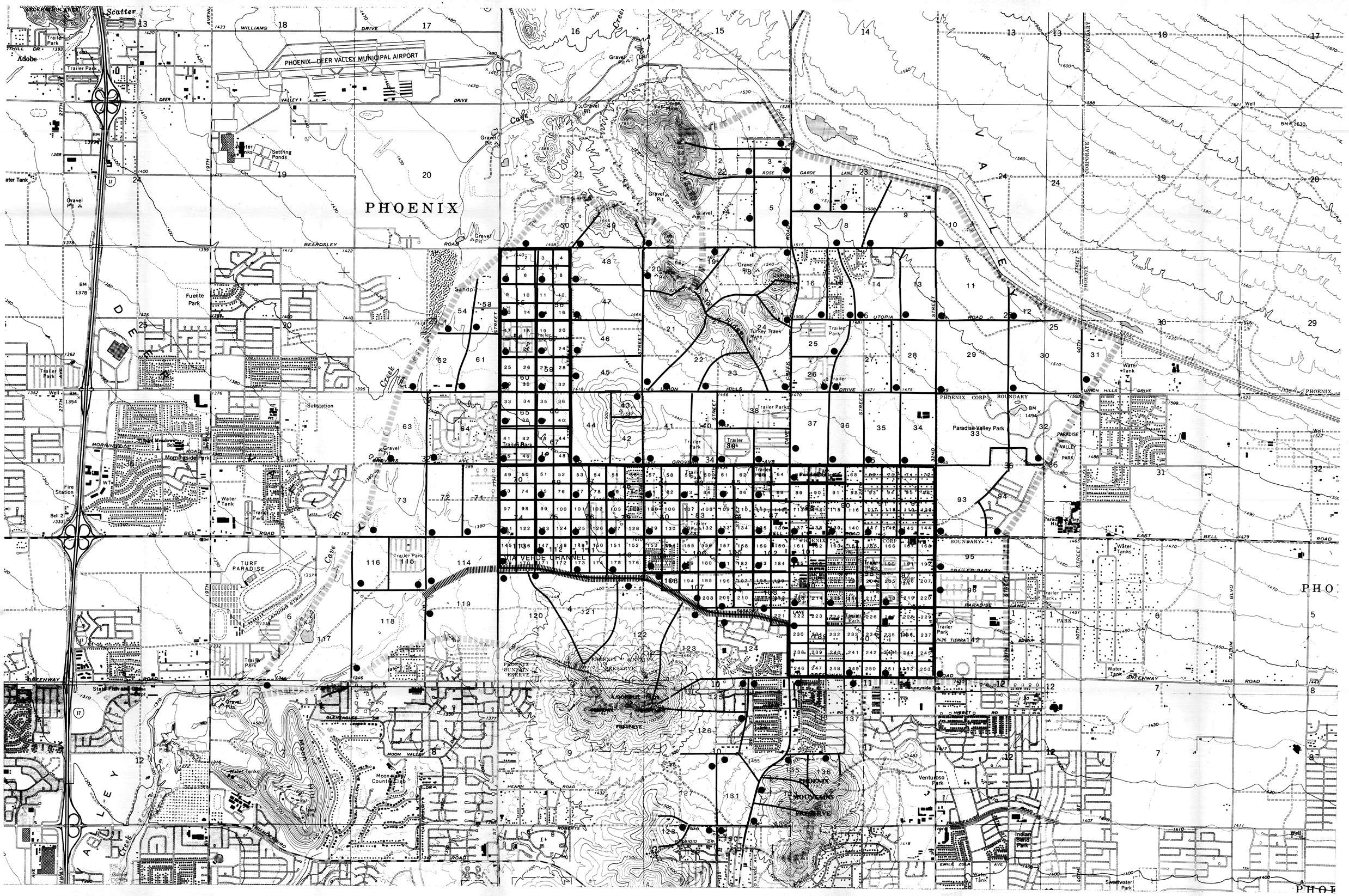
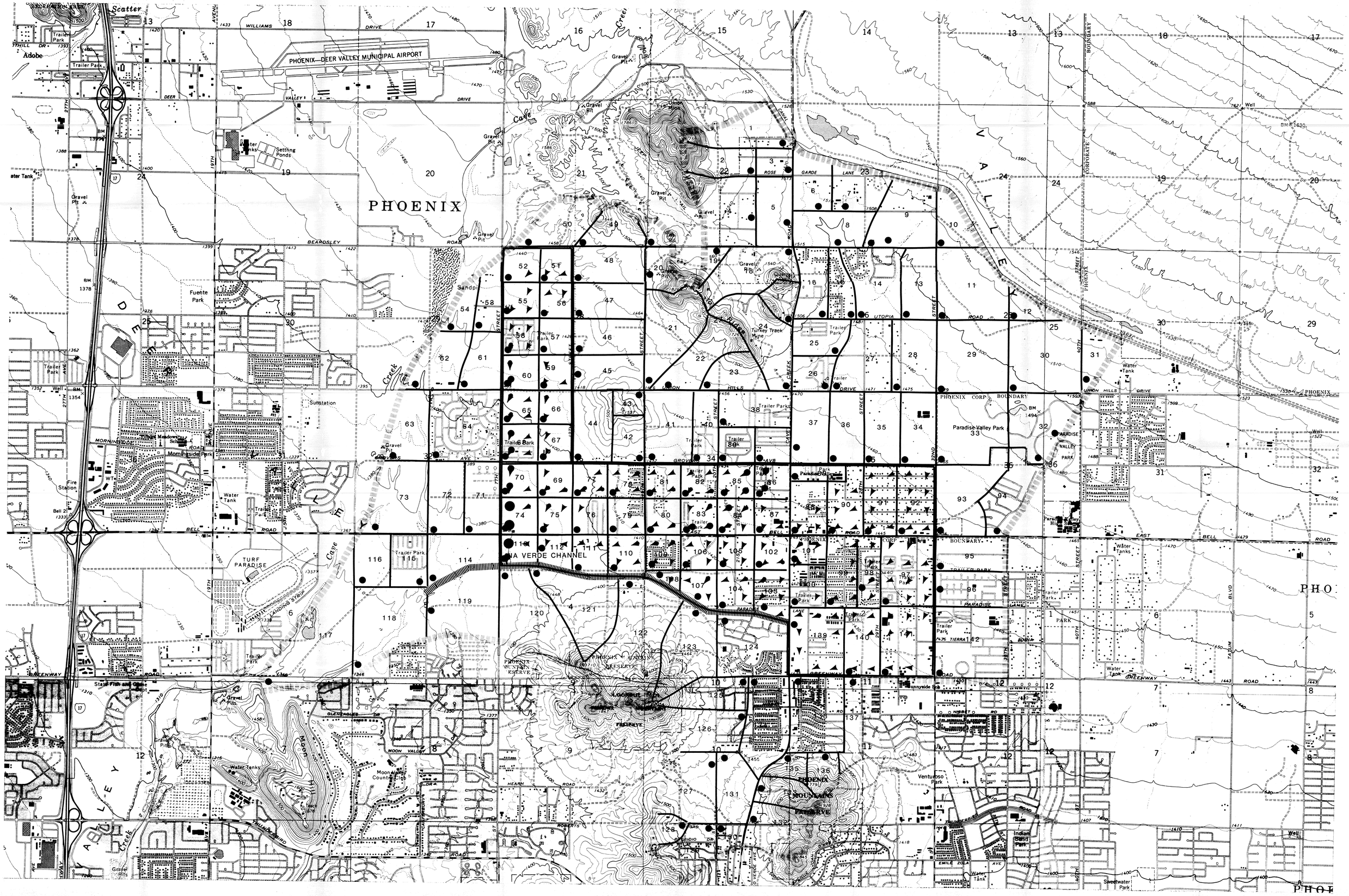
P.A.D. 13
R1-6
R-4
R-3
C-2
CS
S-1


PHOENIX—DEER VALLEY MUNICIPAL AIRPORT
PHOENIX
DEER VALLEY
Scatter
Adobe
Trailer Park
WILLIAMS DRIVE
DEER VALLEY DRIVE
Settling Ponds
Gravel Pit
BEARDSLEY ROAD
Fuente Park
Sandpit
Substation
Morningside Park
Fire Station
Water Tank
BELL ROAD
TURF PARADISE
Cave Creek
VIA VERDE CHANNEL
PHOENIX MOUNTAIN RESERVE
Moon Valley Country Club
GREENWAY ROAD
HEARN ROAD
ROBERTS ROAD
THUNDERBIRD ROAD
UNION HILLS DRIVE
UTOPIA ROAD
Turkey Track Tune
PHOENIX CORP. BOUNDARY
Paradise Valley Park
PARADISE VALLEY PARK
Venturoso Park
Indian Band Park
Sweetwater Park
EAST BELL ROAD
Water Tanks
Well


PHOENIX
PHOENIX—DEER VALLEY MUNICIPAL AIRPORT
DEER VALLEY
VALLEY
WILLIAMS DRIVE
BEARDSLEY ROAD
UTOPIA ROAD
UNION HILLS DRIVE
BELL ROAD
EAST BELL ROAD
GREENWAY ROAD
PARADISE LANE
ROSE GARDE LANE
MORNINGSIDE ROAD
GROVER AVE
HEARN ROAD
ROBERTS ROAD
MOON VALLEY DR
GLENTAGLES DR
THUNDERBIRD ROAD
PHOENIX CORP BOUNDARY
PHOENIX MOUNTAINS PRESERVE
SALTA VERDE CHANNEL
Scatter
Adobe
Trailer Park
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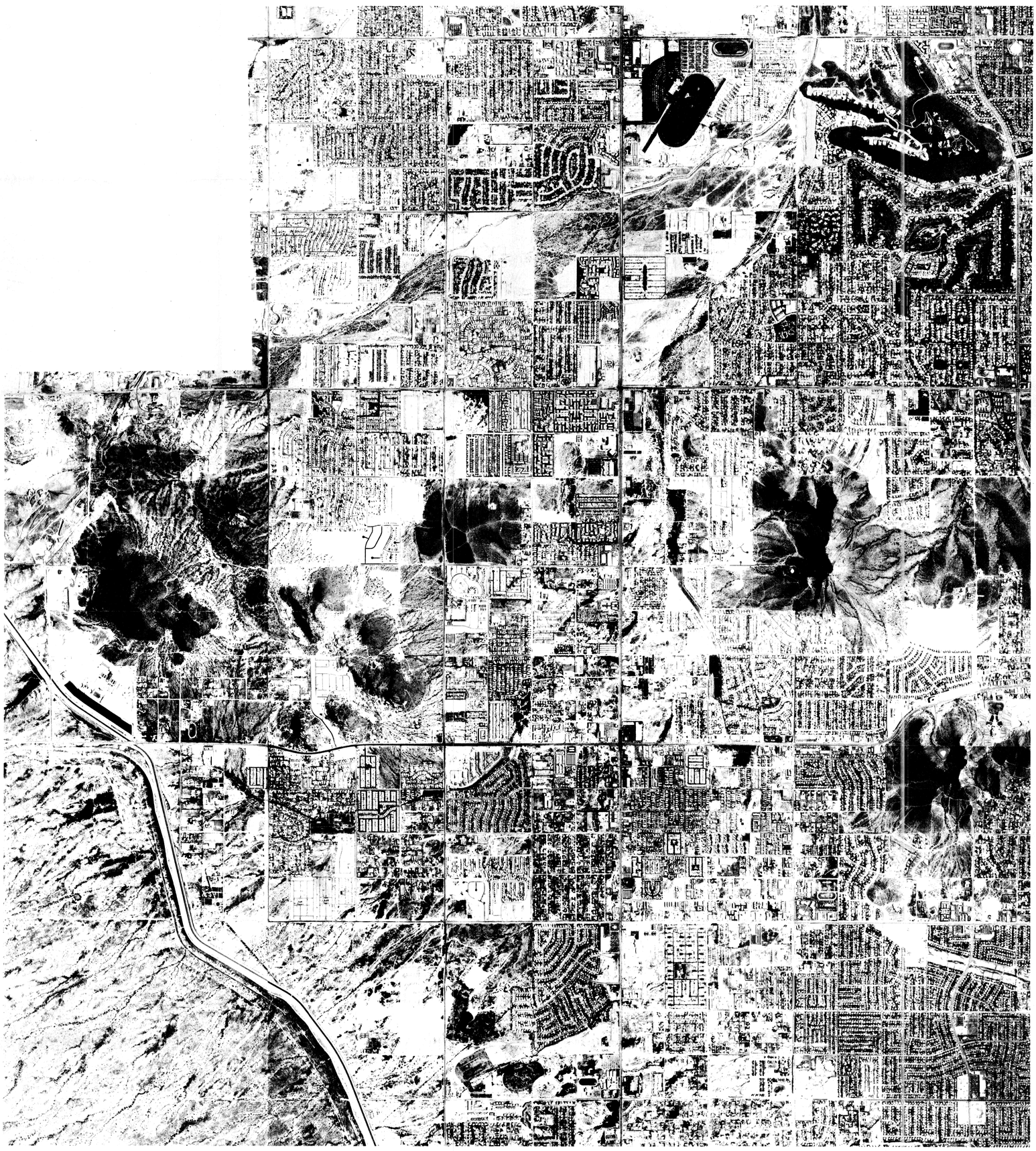
Water Tank
Fuente Park
Sandpit
Substation
Tilman Meadows School
Morningside Park
Fire Station
TURF PARADISE
WHITE LANDING STRIP
State Fish and Game
Moon Valley Country Club
Water Tanks
Turkey Track Mine
Paradise Valley Park
PARADISE VALLEY PARK
Venturoso Park
Indian Bend Park
Sweetwater Park
Sunnyside Sch
Well
BM 1630
BM 1494
BM 1378
BM 1354
Cave Creek
Moon Hill
Camelback Mtn



SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	3.57	24.00	1.94	----	13.07	2499.72	717.3
XSECTION 115	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	----	12.53	96.28	1024.2
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	3.57	24.00	1.93	----	13.06	2520.91	704.4
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	3.57	24.00	1.96	----	12.97	7505.74	518.6
XSECTION 119	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.74	----	12.84	163.59	708.2
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	3.57	24.00	1.96	----	12.97	7663.12	521.2
XSECTION 118	REACH	14.70	1	2	.08	.0	3.57	24.00	1.96	----	13.14	7525.96	511.8
XSECTION 118	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.73	----	13.18	125.08	541.5
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	3.57	24.00	1.95	----	13.14	7650.77	512.3
ALTERNATE 1 STORM 3													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	4.04	24.00	3.46	----	12.45	248.49	1679.0
XSECTION 2	RUNOFF	.10	1	2	.08	.0	4.04	24.00	3.46	----	12.44	165.73	1708.6
XSECTION 3	REACH	.15	1	2	.08	.0	4.04	24.00	3.45	----	12.63	244.59	1652.7
XSECTION 3	REACH	.10	1	2	.08	.0	4.04	24.00	3.44	----	12.70	158.51	1634.1
XSECTION 3	ADDHYD	.25	1	2	.08	.0	4.04	24.00	3.45	----	12.65	400.78	1635.9
XSECTION 3	RUNOFF	.05	1	2	.08	.0	4.04	24.00	1.83	----	12.52	51.36	1092.7
XSECTION 3	ADDHYD	.29	1	2	.08	.0	4.04	24.00	3.19	----	12.59	446.92	1530.5
XSECTION 6	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.13	----	12.71	106.85	980.3
XSECTION 6	REACH	.29	1	2	.08	.0	4.04	24.00	3.18	1505.54	12.71	443.03	1517.2
XSECTION 6	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.90	1506.07	12.71	549.88	1371.3
XSECTION 8	REACH	.40	1	2	.08	.0	4.04	24.00	2.89	1497.00	12.86	531.54	1325.5
XSECTION 7	RUNOFF	.12	1	2	.08	.0	4.04	24.00	1.83	----	12.65	106.65	911.5
XSECTION 8	REACH	.12	1	2	.08	.0	4.04	24.00	1.82	1495.41	12.77	105.14	898.7
XSECTION 19	RUNOFF	.02	1	2	.08	.0	4.04	24.00	3.47	----	12.44	37.85	1720.5
XSECTION 4	RUNOFF	.19	1	2	.08	.0	4.04	24.00	3.46	----	12.44	330.80	1696.4
XSECTION 4	REACH	.02	1	2	.08	.0	4.04	24.00	3.43	----	12.97	31.76	1443.6
XSECTION 4	ADDHYD	.22	1	2	.08	.0	4.04	24.00	3.46	----	12.45	351.51	1619.9
XSECTION 5	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.83	----	12.59	122.65	981.2
XSECTION 5	REACH	.22	1	2	.08	.0	4.04	24.00	3.45	----	12.62	342.38	1577.8
XSECTION 5	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.85	----	12.61	464.83	1359.2
XSECTION 8	REACH	.34	1	2	.08	.0	4.04	24.00	2.84	1496.88	12.85	436.28	1275.7
XSECTION 8	ADDHYD	.52	1	2	.08	.0	4.04	24.00	2.65	1497.09	12.84	633.31	1222.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	4.04	24.00	2.73	1497.43	12.85	1069.56	1243.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	4.04	24.00	1.30	----	12.67	171.98	934.7
XSECTION 8	REACH	.18	1	2	.08	.0	4.04	24.00	1.89	1495.70	12.98	146.42	795.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	4.04	24.00	2.58	1497.51	12.86	1208.88	1157.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 8	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.90	----	12.68	119.20	909.9
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	4.04	24.00	2.50	1497.58	12.84	1315.07	1119.2
XSECTION 14	REACH	1.18	1	2	.08	.0	4.04	24.00	2.49	1489.32	13.14	1185.18	1008.7
XSECTION 9	RUNOFF	.20	1	2	.08	.0	4.04	24.00	1.82	----	12.78	157.37	794.8
XSECTION 14	REACH	.20	1	2	.08	.0	4.04	24.00	1.82	1486.26	12.93	152.29	769.1
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	4.04	24.00	2.39	1489.40	13.12	1323.24	963.8
XSECTION 16	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.56	----	12.54	155.97	1310.7
XSECTION 15	REACH	.12	1	2	.08	.0	4.04	24.00	2.56	----	12.54	155.97	1310.7
XSECTION 15	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.21	----	12.74	71.32	977.0
XSECTION 15	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.43	----	12.59	221.76	1155.0
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	4.04	24.00	2.40	1489.44	13.08	1415.93	904.7
XSECTION 14	RUNOFF	.18	1	2	.08	.0	4.04	24.00	2.31	----	12.51	227.94	1287.8
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	4.04	24.00	2.39	1489.46	13.06	1453.15	834.2
XSECTION 27	REACH	1.74	1	2	.08	.0	4.04	24.00	2.38	1472.97	13.26	1387.16	796.3
XSECTION 17	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.47	----	12.44	101.51	1720.5
XSECTION 25	REACH	.06	1	2	.08	.0	4.04	24.00	3.43	----	12.88	89.50	1517.0
XSECTION 25	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.31	----	12.52	113.22	1272.2
XSECTION 25	ADDHYD	.15	1	2	.08	.0	4.04	24.00	2.76	----	12.56	188.68	1274.9
XSECTION 27	REACH	.15	1	2	.08	.0	4.04	24.00	2.75	1470.53	12.68	184.64	1247.6
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	4.04	24.00	2.41	1473.01	13.21	1474.05	779.9
XSECTION 26	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.48	----	12.47	93.38	1393.7
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	4.04	24.00	2.41	1473.02	13.21	1482.29	757.4
XSECTION 27	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.04	----	12.93	145.70	775.0
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	4.04	24.00	2.38	1473.09	13.17	1609.84	750.5
XSECTION 37	REACH	2.15	1	2	.08	.0	4.04	24.00	2.38	1456.06	13.29	1602.60	747.1
XSECTION 37	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.31	----	12.46	169.10	1352.8
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	4.04	24.00	2.37	1456.07	13.28	1614.38	711.2
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	4.04	24.00	2.35	1451.11	13.32	1612.18	710.2
XSECTION 24	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.14	----	12.54	233.68	1181.2
XSECTION 37	REACH	.20	1	2	.08	.0	4.04	24.00	2.14	1453.48	12.63	231.07	1167.0
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	4.04	24.00	2.33	1456.11	13.28	1651.19	669.0
XSECTION 143	REACH	2.47	1	2	.08	.0	4.04	24.00	2.33	----	13.37	1649.80	668.5
XSECTION 86	DIVERT	1.23	1	2	.08	.0	4.04	24.00	.00	----	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	4.04	24.00	4.66	1429.76	13.37	1649.80	1337.0
XSECTION 86	REACH	1.23	1	2	.08	.0	4.04	24.00	.00	----	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	----	12.46	90.81	1441.4

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	4.04	24.00	.12	1429.97	12.46	90.81	70.0
XSECTION 87	REACH	1.30	1	2	.08	.0	4.04	24.00	.12	1429.96	12.70	80.99	62.4
XSECTION 87	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	---	12.55	77.03	1222.7
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	.23	1430.03	12.61	154.05	113.3
XSECTION 105	REACH	1.36	1	2	.08	.0	4.04	24.00	.22	1417.62	12.99	131.77	96.9
XSECTION 10	RUNOFF	.09	1	2	.08	.0	4.04	24.00	1.83	---	12.59	93.22	981.2
XSECTION 11	REACH	.09	1	2	.08	.0	4.04	24.00	1.82	---	12.72	89.38	940.9
XSECTION 11	RUNOFF	.23	1	2	.08	.0	4.04	24.00	1.82	---	12.73	196.56	840.0
XSECTION 11	ADDHYD	.33	1	2	.08	.0	4.04	24.00	1.82	---	12.73	285.92	869.1
XSECTION 28	REACH	.33	1	2	.08	.0	4.04	24.00	1.80	---	13.23	209.26	636.0
XSECTION 13	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.59	140.57	1124.5
XSECTION 28	REACH	.13	1	2	.08	.0	4.04	24.00	2.19	---	13.15	99.15	793.2
XSECTION 28	ADDHYD	.45	1	2	.08	.0	4.04	24.00	1.91	---	13.20	307.52	677.3
XSECTION 28	RUNOFF	.16	1	2	.08	.0	4.04	24.00	1.97	---	12.78	134.01	859.0
XSECTION 28	ADDHYD	.61	1	2	.08	.0	4.04	24.00	1.93	---	13.08	402.24	659.4
XSECTION 36	REACH	.61	1	2	.08	.0	4.04	24.00	1.91	---	13.46	360.51	591.0
XSECTION 36	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	155.70	1245.6
XSECTION 36	ADDHYD	.74	1	2	.08	.0	4.04	24.00	1.98	---	13.44	375.82	511.3
XSECTION 90	REACH	.74	1	2	.08	.0	4.04	24.00	1.97	---	13.62	367.45	499.9
XSECTION 34	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.64	141.66	1133.3
XSECTION 35	REACH	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.76	139.31	1114.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3
XSECTION 35	ADDHYD	.25	1	2	.08	.0	4.04	24.00	2.34	---	12.61	281.50	1126.0
XSECTION 91	REACH	.25	1	2	.08	.0	4.04	24.00	2.33	---	12.78	261.44	1045.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	169.21	1353.7
XSECTION 91	ADDHYD	.38	1	2	.08	.0	4.04	24.00	2.41	---	12.64	403.27	1075.4
XSECTION 90	REACH	.38	1	2	.08	.0	4.04	24.00	2.41	---	12.75	397.45	1059.9
XSECTION 90	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.47	---	12.58	132.92	1219.5
XSECTION 90	ADDHYD	.48	1	2	.08	.0	4.04	24.00	2.42	---	12.70	520.74	1075.9
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	4.04	24.00	2.15	---	12.76	753.15	617.8
XSECTION 88	REACH	1.22	1	2	.08	.0	4.04	24.00	2.15	---	12.86	748.02	613.6
XSECTION 88	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.65	---	12.64	115.03	1223.7
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	4.04	24.00	2.18	---	12.83	848.05	645.9
XSECTION 89	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.39	---	12.50	62.16	1322.6
XSECTION 88	REACH	.05	1	2	.08	.0	4.04	24.00	2.38	---	12.75	56.34	1198.7
XSECTION 80	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	2.19	---	12.82	902.96	663.9

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 101	REACH	1.36	1	2	.08	.0	4.04	24.00	2.19	----	12.91	901.43	662.8
XSECTION 101	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.84	----	12.53	67.37	1433.4
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	4.04	24.00	2.21	----	12.88	934.88	664.4
XSECTION 102	REACH	1.41	1	2	.08	.0	4.04	24.00	2.21	----	13.06	895.28	636.3
XSECTION 102	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	----	12.60	70.08	1112.4
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	4.04	24.00	2.21	----	13.03	926.60	630.3
XSECTION 105	REACH	1.47	1	2	.08	.0	4.04	24.00	2.20	1418.17	13.18	908.37	617.9
XSECTION 105	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.90	----	12.61	61.30	973.0
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	4.04	24.00	2.19	1418.18	13.17	927.93	605.3
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	4.04	24.00	1.26	1418.23	13.13	1050.46	363.1
XSECTION 107	REACH	2.89	1	2	.08	.0	4.04	24.00	1.26	1418.22	13.29	1031.59	356.6
XSECTION 107	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	----	12.52	73.26	1241.7
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	4.04	24.00	1.28	1418.23	13.28	1039.75	352.2
XSECTION 85	REACH	1.23	1	2	.08	.0	4.04	24.00	4.65	1429.75	13.53	1634.03	1324.2
XSECTION 85	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.06	----	12.56	70.24	1114.9
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	4.04	24.00	4.52	1429.75	13.52	1641.24	1265.4
XSECTION 83	REACH	1.30	1	2	.08	.0	4.04	24.00	4.51	1429.75	13.68	1625.53	1253.3
XSECTION 83	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	----	12.56	72.50	1150.8
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	4.40	1429.75	13.67	1631.56	1199.7
XSECTION 84	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.90	----	12.57	65.73	1043.3
XSECTION 83	REACH	.06	1	2	.08	.0	4.04	24.00	1.90	1428.98	12.72	61.53	976.6
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	4.04	24.00	4.29	1429.75	13.67	1639.85	1152.4
XSECTION 109	DIVERT	.71	1	2	.08	.0	4.04	24.00	.29	1418.58	13.67	112.96	158.8
XSECTION 80	DIVERT	.71	1	2	.08	.0	4.04	24.00	8.29	1418.58	13.67	1526.89	2146.0
XSECTION 109	REACH	.71	1	2	.08	.0	4.04	24.00	.29	1418.56	13.91	104.47	146.8
XSECTION 109	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	----	12.47	86.13	1367.2
XSECTION 109	ADDHYD	.77	1	2	.08	.0	4.04	24.00	.46	1418.57	13.91	108.29	139.8
XSECTION 80	REACH	.71	1	2	.08	.0	4.04	24.00	8.28	1418.58	13.79	1521.17	2138.0
XSECTION 80	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	----	12.53	79.54	1262.5
XSECTION 80	ADDHYD	.77	1	2	.08	.0	4.04	24.00	7.79	1418.58	13.79	1525.97	1970.3
XSECTION 79	REACH	.77	1	2	.08	.0	4.04	24.00	7.78	----	13.88	1525.41	1969.5
XSECTION 79	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	----	12.45	95.29	1512.5
XSECTION 79	ADDHYD	.84	1	2	.08	.0	4.04	24.00	7.40	----	13.88	1529.44	1826.2
XSECTION 76	REACH	.84	1	2	.08	.0	4.04	24.00	7.40	----	13.96	1529.13	1825.8
XSECTION 76	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	----	12.46	91.40	1450.7
XSECTION 76	ADDHYD	.90	1	2	.08	.0	4.04	24.00	7.06	----	13.96	1532.97	1702.4

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 75	REACH	.90	1	2	.08	.0	4.04	24.00	7.05	----	14.05	1532.44	1701.8
XSECTION 75	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.45	----	12.50	101.37	1609.0
XSECTION 75	ADDHYD	.96	1	2	.08	.0	4.04	24.00	6.81	----	14.05	1537.20	1595.4
XSECTION 113	REACH	.96	1	2	.08	.0	4.04	24.00	6.80	----	14.16	1534.00	1592.1
XSECTION 112	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	----	12.55	63.36	1038.7
XSECTION 113	REACH	.06	1	2	.08	.0	4.04	24.00	1.82	----	12.71	57.37	940.5
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	4.04	24.00	6.51	----	14.15	1537.94	1501.2
XSECTION 113	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.56	----	12.54	70.47	1329.7
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	4.04	24.00	6.31	----	14.15	1541.40	1430.5
XSECTION 12	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.83	----	12.53	74.48	1064.0
XSECTION 29	REACH	.07	1	2	.08	.0	4.04	24.00	1.78	----	13.43	36.59	522.7
XSECTION 30	RUNOFF	.25	1	2	.08	.0	4.04	24.00	1.97	----	12.80	208.97	835.9
XSECTION 29	REACH	.25	1	2	.08	.0	4.04	24.00	1.96	----	12.96	200.80	803.2
XSECTION 29	ADDHYD	.32	1	2	.08	.0	4.04	24.00	1.93	----	13.01	222.35	694.8
XSECTION 29	RUNOFF	.25	1	2	.08	.0	4.04	24.00	1.89	----	12.84	194.89	779.6
XSECTION 29	ADDHYD	.57	1	2	.08	.0	4.04	24.00	1.91	----	12.93	409.79	718.9
XSECTION 33	REACH	.57	1	2	.08	.0	4.04	24.00	1.91	----	13.07	401.42	704.2
XSECTION 33	RUNOFF	.23	1	2	.08	.0	4.04	24.00	1.81	----	12.91	164.77	704.2
XSECTION 33	ADDHYD	.80	1	2	.08	.0	4.04	24.00	1.88	----	13.02	559.08	695.4
XSECTION 92	REACH	.80	1	2	.08	.0	4.04	24.00	1.87	----	13.24	527.76	656.4
XSECTION 92	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	----	12.52	169.21	1353.7
XSECTION 92	ADDHYD	.93	1	2	.08	.0	4.04	24.00	1.97	----	13.20	553.38	595.7
XSECTION 93	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.39	----	12.52	253.10	1297.9
XSECTION 92	REACH	.19	1	2	.08	.0	4.04	24.00	2.39	----	12.64	245.25	1257.7
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	4.04	24.00	2.04	----	12.76	681.09	606.0
XSECTION 98	REACH	1.12	1	2	.08	.0	4.04	24.00	2.03	----	12.98	657.85	585.3
XSECTION 31	RUNOFF	.08	1	2	.08	.0	4.04	24.00	1.82	----	12.59	81.11	965.6
XSECTION 32	REACH	.08	1	2	.08	.0	4.04	24.00	1.78	----	13.56	42.52	506.2
XSECTION 32	RUNOFF	.18	1	2	.08	.0	4.04	24.00	1.82	----	12.78	143.06	794.8
XSECTION 32	ADDHYD	.26	1	2	.08	.0	4.04	24.00	1.81	----	12.84	154.88	586.7
XSECTION 94	REACH	.26	1	2	.08	.0	4.04	24.00	1.80	----	13.15	134.41	509.1
XSECTION 94	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.39	----	12.49	186.62	1342.6
XSECTION 94	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.00	----	12.55	251.01	622.9
XSECTION 95	REACH	.40	1	2	.08	.0	4.04	24.00	2.00	----	12.71	226.94	563.1
XSECTION 95	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.55	----	12.77	132.85	1062.8
XSECTION 95	ADDHYD	.53	1	2	.08	.0	4.04	24.00	2.13	----	12.72	358.85	679.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 98	REACH	.53	1	2	.08	.0	4.04	24.00	2.12	----	12.96	325.77	617.0
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	4.04	24.00	2.06	----	12.97	983.44	595.3
XSECTION 96	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	----	12.55	148.27	1186.2
XSECTION 97	REACH	.13	1	2	.08	.0	4.04	24.00	2.21	----	12.81	133.74	1069.9
XSECTION 97	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	----	12.54	254.23	1352.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.48	----	12.60	367.44	1173.9
XSECTION 98	REACH	.31	1	2	.08	.0	4.04	24.00	2.47	----	12.71	363.27	1160.6
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	4.04	24.00	2.13	----	12.86	1298.03	660.6
XSECTION 98	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.57	----	12.49	131.63	1400.3
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	4.04	24.00	2.15	----	12.81	1346.52	654.0
XSECTION 99	REACH	2.06	1	2	.08	.0	4.04	24.00	2.14	----	12.91	1342.79	652.2
XSECTION 99	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.56	----	12.53	126.50	1345.7
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	4.04	24.00	2.16	----	12.87	1402.31	651.3
XSECTION 139	REACH	2.15	1	2	.08	.0	4.04	24.00	2.16	----	13.00	1386.14	643.8
XSECTION 100	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.57	----	12.50	108.52	1391.3
XSECTION 139	REACH	.08	1	2	.08	.0	4.04	24.00	2.56	----	12.61	107.03	1372.2
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	4.04	24.00	2.17	----	12.96	1429.80	640.9
XSECTION 142	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.28	----	13.03	196.23	784.9
XSECTION 141	REACH	.25	1	2	.08	.0	4.04	24.00	2.28	----	13.26	185.81	743.2
XSECTION 141	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	----	12.54	254.23	1352.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	4.04	24.00	2.44	----	12.63	341.50	779.7
XSECTION 140	REACH	.44	1	2	.08	.0	4.04	24.00	2.43	----	12.76	333.45	761.3
XSECTION 140	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	----	12.52	170.38	1363.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.46	----	12.63	474.94	843.6
XSECTION 137	RUNOFF	.08	1	2	.08	.0	4.04	24.00	1.98	----	12.55	85.47	1095.7
XSECTION 140	ADDHYD	.64	1	2	.08	.0	4.04	24.00	2.40	----	12.61	558.48	871.3
XSECTION 139	REACH	.64	1	2	.08	.0	4.04	24.00	2.39	----	12.90	502.94	784.6
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	4.04	24.00	2.22	----	12.93	1929.47	671.8
XSECTION 136	RUNOFF	.07	1	2	.08	.0	4.04	24.00	3.47	----	12.44	114.61	1736.5
XSECTION 138	REACH	.07	1	2	.08	.0	4.04	24.00	3.44	----	12.69	108.51	1644.0
XSECTION 138	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.40	----	12.46	283.21	1395.1
XSECTION 138	ADDHYD	.27	1	2	.08	.0	4.04	24.00	2.65	----	12.47	385.03	1431.4
XSECTION 139	REACH	.27	1	2	.08	.0	4.04	24.00	2.64	----	12.61	358.96	1334.4
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	4.04	24.00	2.26	----	12.86	2162.09	688.3
XSECTION 139	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	----	12.51	263.45	1401.3
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	4.04	24.00	2.28	----	12.78	2297.86	690.3

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 129	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.23	----	12.44	154.00	1425.9
XSECTION 130	RUNOFF	.03	1	2	.08	.0	4.04	24.00	3.03	----	12.44	54.56	1760.1
XSECTION 129	ADDHYD	.14	1	2	.08	.0	4.04	24.00	2.41	----	12.44	208.53	1500.2
XSECTION 127	REACH	.14	1	2	.08	.0	4.04	24.00	2.40	----	12.70	183.32	1318.9
XSECTION 128	RUNOFF	.04	1	2	.08	.0	4.04	24.00	2.07	----	12.45	48.49	1346.8
XSECTION 127	REACH	.04	1	2	.08	.0	4.04	24.00	2.04	----	12.89	36.96	1026.7
XSECTION 127	ADDHYD	.17	1	2	.08	.0	4.04	24.00	2.32	----	12.70	214.67	1226.7
XSECTION 127	RUNOFF	.16	1	2	.08	.0	4.04	24.00	2.23	----	12.45	213.56	1343.1
XSECTION 127	ADDHYD	.33	1	2	.08	.0	4.04	24.00	2.28	----	12.49	394.20	1180.2
XSECTION 132	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.76	----	12.46	218.08	1504.0
XSECTION 131	REACH	.14	1	2	.08	.0	4.04	24.00	2.75	----	12.56	212.88	1468.2
XSECTION 131	ADDHYD	.48	1	2	.08	.0	4.04	24.00	2.42	----	12.50	603.31	1259.5
XSECTION 131	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.57	----	12.46	171.53	1441.4
XSECTION 131	ADDHYD	.60	1	2	.08	.0	4.04	24.00	2.45	----	12.49	773.58	1293.6
XSECTION 126	REACH	.60	1	2	.08	.0	4.04	24.00	2.45	----	12.59	764.78	1278.9
XSECTION 126	RUNOFF	.16	1	2	.08	.0	4.04	24.00	3.46	----	12.44	265.71	1681.7
XSECTION 126	ADDHYD	.76	1	2	.08	.0	4.04	24.00	2.66	----	12.53	1012.49	1339.3
XSECTION 134	REACH.	.76	1	2	.08	.0	4.04	24.00	2.65	----	12.62	1007.14	1332.2
XSECTION 135	RUNOFF	.04	1	2	.08	.0	4.04	24.00	3.45	----	12.44	77.22	1838.6
XSECTION 134	REACH	.04	1	2	.08	.0	4.04	24.00	3.43	----	12.77	66.87	1592.1
XSECTION 134	ADDHYD	.80	1	2	.08	.0	4.04	24.00	2.70	----	12.62	1069.83	1340.6
XSECTION 134	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.48	----	12.47	274.55	1393.7
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	4.04	24.00	2.65	----	12.56	1314.12	1320.7
XSECTION 125	RUNOFF	.12	1	2	.08	.0	4.04	24.00	3.47	----	12.44	205.38	1755.4
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	4.04	24.00	2.74	----	12.49	1479.64	1330.6
XSECTION 124	REACH	1.11	1	2	.08	.0	4.04	24.00	2.73	----	12.61	1442.84	1297.5
XSECTION 124	RUNOFF	.22	1	2	.08	.0	4.04	24.00	2.40	----	12.46	303.53	1386.0
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	4.04	24.00	2.68	----	12.55	1711.36	1285.8
XSECTION 103	REACH	3.33	1	2	.08	.0	4.04	24.00	2.28	----	12.78	2297.86	690.3
XSECTION 103	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.40	----	12.46	112.17	1384.9
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	4.04	24.00	2.28	----	12.75	2332.70	684.1
XSECTION 104	REACH	3.41	1	2	.08	.0	4.04	24.00	2.28	----	12.75	2332.70	684.1
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	4.04	24.00	2.39	----	12.62	3924.50	827.8
XSECTION 104	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	----	12.64	65.89	954.9
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	4.04	24.00	2.39	----	12.62	3990.28	829.6
XSECTION 107	REACH	4.81	1	2	.08	.0	4.04	24.00	2.39	1419.07	12.62	3990.28	829.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	4.04	24.00	1.97	1419.22	12.67	4569.71	588.7
XSECTION 123	RUNOFF	.21	1	2	.08	.0	4.04	24.00	3.46	---	12.44	359.53	1687.9
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	4.04	24.00	2.01	1419.27	12.61	4792.97	601.0
XSECTION 108	REACH	7.97	1	2	.08	.0	4.04	24.00	2.01	---	12.61	4792.97	601.0
XSECTION 106	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.98	---	12.58	66.28	1052.0
XSECTION 108	REACH	.06	1	2	.08	.0	4.04	24.00	1.98	---	12.70	64.54	1024.4
XSECTION 108	RUNOFF	.03	1	2	.08	.0	4.04	24.00	1.99	---	12.48	30.01	1200.4
XSECTION 108	ADDHYD	.09	1	2	.08	.0	4.04	24.00	1.98	---	12.56	88.40	1004.5
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	4.04	24.00	2.01	---	12.61	4879.66	605.2
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	4.04	24.00	1.87	1421.65	12.60	4951.57	560.3
XSECTION 110	REACH	8.84	1	2	.08	.0	4.04	24.00	1.87	---	12.60	4951.57	560.3
XSECTION 122	RUNOFF	.35	1	2	.08	.0	4.04	24.00	2.48	---	12.47	497.17	1400.5
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5412.53	588.8
XSECTION 110	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	---	12.58	74.20	1016.5
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5486.72	592.2
XSECTION 111	REACH	9.27	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5486.72	592.2
XSECTION 111	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.83	---	12.59	68.69	981.2
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5555.38	595.1
XSECTION 112	REACH	9.34	1	2	.08	.0	4.04	24.00	1.89	---	12.67	5506.17	589.8
XSECTION 121	RUNOFF	.25	1	2	.08	.0	4.04	24.00	3.47	---	12.44	429.70	1718.8
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	4.04	24.00	1.93	---	12.64	5632.03	587.6
XSECTION 113	REACH	9.59	1	2	.08	.0	4.04	24.00	1.93	---	12.74	5602.00	584.4
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	4.04	24.00	2.37	---	12.75	6376.20	598.0
XSECTION 120	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.66	---	12.47	338.15	1463.9
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	4.04	24.00	2.38	---	12.73	6517.92	598.3
XSECTION 114	REACH	10.89	1	2	.08	.0	4.04	24.00	2.37	---	12.89	6323.25	580.4
XSECTION 49	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	---	12.44	146.94	1708.6
XSECTION 48	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	---	12.70	140.68	1635.8
XSECTION 48	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.98	---	12.60	130.02	1040.2
XSECTION 48	ADDHYD	.21	1	2	.08	.0	4.04	24.00	2.57	---	12.62	267.97	1270.0
XSECTION 20	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.45	---	12.44	116.90	1826.5
XSECTION 48	REACH	.06	1	2	.08	.0	4.04	24.00	3.42	---	12.94	92.72	1448.7
XSECTION 48	ADDHYD	.28	1	2	.08	.0	4.04	24.00	2.77	---	12.66	346.06	1258.4
XSECTION 56	REACH	.28	1	2	.08	.0	4.04	24.00	2.77	---	12.79	339.03	1232.8
XSECTION 56	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	---	12.46	83.11	1319.1
XSECTION 56	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.67	---	12.59	378.97	1121.2

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 57	REACH	.34	1	2	.08	.0	4.04	24.00	2.66	----	12.73	370.57	1096.4
XSECTION 57	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	----	12.46	83.11	1319.1
XSECTION 57	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.59	----	12.60	420.11	1047.7
XSECTION 60	REACH	.40	1	2	.08	.0	4.04	24.00	2.59	----	12.74	407.54	1016.3
XSECTION 60	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	----	12.54	73.55	1167.5
XSECTION 60	ADDHYD	.46	1	2	.08	.0	4.04	24.00	2.53	----	12.70	468.18	1009.0
XSECTION 58	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.40	----	12.46	87.32	1386.0
XSECTION 60	REACH	.06	1	2	.08	.0	4.04	24.00	2.39	----	12.65	84.26	1337.4
XSECTION 60	ADDHYD	.53	1	2	.08	.0	4.04	24.00	2.51	----	12.69	552.40	1048.2
XSECTION 65	REACH	.53	1	2	.08	.0	4.04	24.00	2.51	----	12.79	548.03	1039.9
XSECTION 65	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	----	12.56	64.53	1024.3
XSECTION 65	ADDHYD	.59	1	2	.08	.0	4.04	24.00	2.44	----	12.76	595.00	1008.5
XSECTION 68	REACH	.59	1	2	.08	.0	4.04	24.00	2.43	----	12.86	590.35	1000.6
XSECTION 68	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	----	12.46	89.38	1418.7
XSECTION 68	ADDHYD	.65	1	2	.08	.0	4.04	24.00	2.44	----	12.84	605.49	927.2
XSECTION 47	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.23	----	12.48	161.49	1291.9
XSECTION 46	REACH	.13	1	2	.08	.0	4.04	24.00	2.22	----	12.58	160.03	1280.2
XSECTION 46	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.23	----	12.47	162.41	1299.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	4.04	24.00	2.22	----	12.51	317.51	1270.0
XSECTION 59	REACH	.25	1	2	.08	.0	4.04	24.00	2.22	----	12.62	308.76	1235.1
XSECTION 59	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	----	12.46	83.11	1319.1
XSECTION 59	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.22	----	12.55	378.51	1209.3
XSECTION 21	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.30	----	12.57	222.80	1178.8
XSECTION 43	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.56	----	12.44	75.81	1613.0
XSECTION 21	ADDHYD	.24	1	2	.08	.0	4.04	24.00	2.35	----	12.46	288.15	1221.0
XSECTION 45	REACH	.24	1	2	.08	.0	4.04	24.00	2.34	----	12.82	231.84	982.4
XSECTION 45	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	----	12.54	166.06	1328.5
XSECTION 45	ADDHYD	.36	1	2	.08	.0	4.04	24.00	2.42	----	12.68	368.14	1019.8
XSECTION 59	REACH	.36	1	2	.08	.0	4.04	24.00	2.41	----	12.79	363.00	1005.5
XSECTION 59	ADDHYD	.67	1	2	.08	.0	4.04	24.00	2.32	----	12.63	700.67	1039.6
XSECTION 66	REACH	.67	1	2	.08	.0	4.04	24.00	2.32	----	12.73	695.69	1032.2
XSECTION 66	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	----	12.53	78.90	1252.4
XSECTION 66	ADDHYD	.74	1	2	.08	.0	4.04	24.00	2.32	----	12.69	759.54	1030.6
XSECTION 68	REACH	.74	1	2	.08	.0	4.04	24.00	2.32	----	12.81	748.28	1015.3
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	4.04	24.00	2.37	----	12.82	1351.77	972.5
XSECTION 70	REACH	1.39	1	2	.08	.0	4.04	24.00	2.37	----	12.92	1345.26	967.8

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 70	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	----	12.46	91.40	1450.7
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	4.04	24.00	2.38	----	12.91	1357.22	934.1
XSECTION 74	REACH	1.45	1	2	.08	.0	4.04	24.00	2.38	----	13.01	1354.39	932.1
XSECTION 74	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.95	----	12.45	99.42	1578.1
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	4.04	24.00	2.40	----	13.00	1364.76	900.2
XSECTION 23	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	----	12.44	154.39	1696.6
XSECTION 40	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	----	12.73	143.22	1573.8
XSECTION 38	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.98	----	12.54	140.54	1124.3
XSECTION 40	REACH	.13	1	2	.08	.0	4.04	24.00	1.97	----	12.69	127.74	1021.9
XSECTION 40	ADDHYD	.22	1	2	.08	.0	4.04	24.00	2.59	----	12.71	270.63	1252.9
XSECTION 40	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	----	12.55	111.50	1186.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.48	----	12.64	373.29	1204.2
XSECTION 82	REACH	.31	1	2	.08	.0	4.04	24.00	2.48	----	12.76	367.15	1184.4
XSECTION 82	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.40	----	12.46	86.69	1376.0
XSECTION 82	ADDHYD	.37	1	2	.08	.0	4.04	24.00	2.46	----	12.60	416.33	1116.2
XSECTION 39	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.48	----	12.55	160.23	1281.8
XSECTION 82	REACH	.13	1	2	.08	.0	4.04	24.00	2.47	----	12.70	151.27	1210.2
XSECTION 82	ADDHYD	.50	1	2	.08	.0	4.04	24.00	2.46	----	12.63	562.06	1128.6
XSECTION 81	REACH	.50	1	2	.08	.0	4.04	24.00	2.46	----	12.74	557.78	1120.0
XSECTION 81	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	----	12.57	63.49	1007.8
XSECTION 81	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.39	----	12.71	612.52	1091.8
XSECTION 78	REACH	.56	1	2	.08	.0	4.04	24.00	2.39	----	12.82	606.32	1080.8
XSECTION 78	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	----	12.46	90.81	1441.4
XSECTION 78	ADDHYD	.62	1	2	.08	.0	4.04	24.00	2.40	----	12.77	628.69	1007.5
XSECTION 22	RUNOFF	.15	1	2	.08	.0	4.04	24.00	2.30	----	12.53	190.91	1247.8
XSECTION 41	REACH	.15	1	2	.08	.0	4.04	24.00	2.30	----	12.76	180.52	1179.9
XSECTION 41	RUNOFF	.17	1	2	.08	.0	4.04	24.00	2.39	----	12.50	227.58	1323.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	4.04	24.00	2.35	----	12.55	386.12	1188.1
XSECTION 42	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.31	----	12.45	106.80	1369.2
XSECTION 42	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.34	----	12.52	484.05	1201.1
XSECTION 78	REACH	.40	1	2	.08	.0	4.04	24.00	2.34	----	12.63	472.90	1173.5
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	4.04	24.00	2.38	----	12.66	1086.75	1058.2
XSECTION 77	REACH	1.03	1	2	.08	.0	4.04	24.00	2.37	----	12.75	1081.64	1053.2
XSECTION 77	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	----	12.53	68.62	1089.2
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	4.04	24.00	2.34	----	12.73	1123.92	1031.1
XSECTION 69	REACH	1.09	1	2	.08	.0	4.04	24.00	2.34	----	12.83	1117.24	1025.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 69	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	----	12.60	69.10	1096.8
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	4.04	24.00	2.33	----	12.81	1171.70	1016.2
XSECTION 44	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.31	----	12.48	166.48	1331.8
XSECTION 67	REACH	.13	1	2	.08	.0	4.04	24.00	2.30	----	12.59	162.62	1301.0
XSECTION 67	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	----	12.45	95.29	1512.5
XSECTION 67	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.46	----	12.51	251.26	1336.5
XSECTION 69	REACH	.19	1	2	.08	.0	4.04	24.00	2.45	----	12.61	247.57	1316.9
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	4.04	24.00	2.35	----	12.76	1376.45	1026.4
XSECTION 74	REACH	1.34	1	2	.08	.0	4.04	24.00	2.34	----	12.87	1358.77	1013.3
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	4.04	24.00	2.37	----	12.93	2690.12	941.6
XSECTION 114	REACH	2.86	1	2	.08	.0	4.04	24.00	2.37	----	13.10	2594.08	908.0
XSECTION 114	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.81	----	12.94	87.92	686.9
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	4.04	24.00	2.34	----	13.09	2677.57	897.0
XSECTION 71	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.48	----	12.53	163.81	1310.5
XSECTION 114	REACH	.13	1	2	.08	.0	4.04	24.00	2.46	----	12.90	140.59	1124.7
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	4.04	24.00	2.35	----	13.08	2802.09	901.0
XSECTION 64	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.22	----	12.48	319.51	1278.1
XSECTION 72	REACH	.25	1	2	.08	.0	4.04	24.00	2.22	----	12.63	296.13	1184.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	----	12.54	154.91	1239.3
XSECTION 72	ADDHYD	.38	1	2	.08	.0	4.04	24.00	2.25	----	12.60	446.87	1191.7
XSECTION 114	REACH	.38	1	2	.08	.0	4.04	24.00	2.24	----	12.84	413.53	1102.8
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	4.04	24.00	2.34	----	13.03	3143.05	901.9
XSECTION 115	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	----	12.53	115.33	1226.9
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	4.04	24.00	2.33	----	13.02	3171.61	886.2
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	4.04	24.00	2.36	----	12.94	9411.90	650.3
XSECTION 119	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.13	----	12.83	199.50	863.6
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	4.04	24.00	2.36	----	12.93	9606.45	653.3
XSECTION 118	REACH	14.70	1	2	.08	.0	4.04	24.00	2.36	----	13.09	9448.40	642.6
XSECTION 118	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.11	----	13.17	153.26	663.5
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	4.04	24.00	2.35	----	13.09	9600.37	642.8
ALTERNATE 1 STORM 4													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	5.07	24.00	4.47	----	12.45	315.14	2129.3
XSECTION 2	RUNOFF	.10	1	2	.08	.0	5.07	24.00	4.48	----	12.43	205.68	2120.4
XSECTION 3	REACH	.15	1	2	.08	.0	5.07	24.00	4.46	----	12.54	311.59	2105.3
XSECTION 3	REACH	.10	1	2	.08	.0	5.07	24.00	4.46	----	12.53	202.96	2092.4
XSECTION 3	ADDHYD	.25	1	2	.08	.0	5.07	24.00	4.46	----	12.53	514.53	2100.1

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 3	RUNOFF	.05	1	2	.08	.0	5.07	24.00	2.67	----	12.51	72.26	1537.6
XSECTION 3	ADDHYD	.29	1	2	.08	.0	5.07	24.00	4.17	----	12.53	587.18	2010.9
XSECTION 6	RUNOFF	.11	1	2	.08	.0	5.07	24.00	3.02	----	12.69	149.44	1371.0
XSECTION 6	REACH	.29	1	2	.08	.0	5.07	24.00	4.16	1506.09	12.72	575.49	1970.9
XSECTION 6	ADDHYD	.40	1	2	.08	.0	5.07	24.00	3.85	1506.21	12.71	724.65	1807.1
XSECTION 8	REACH	.40	1	2	.08	.0	5.07	24.00	3.84	1497.15	12.86	703.74	1755.0
XSECTION 7	RUNOFF	.12	1	2	.08	.0	5.07	24.00	2.66	----	12.64	153.08	1308.4
XSECTION 8	REACH	.12	1	2	.08	.0	5.07	24.00	2.65	1495.73	12.74	151.45	1294.5
XSECTION 19	RUNOFF	.02	1	2	.08	.0	5.07	24.00	4.48	----	12.42	46.68	2121.8
XSECTION 4	RUNOFF	.19	1	2	.08	.0	5.07	24.00	4.48	----	12.43	413.07	2118.3
XSECTION 4	REACH	.02	1	2	.08	.0	5.07	24.00	4.44	----	12.80	41.53	1887.9
XSECTION 4	ADDHYD	.22	1	2	.08	.0	5.07	24.00	4.47	----	12.44	453.15	2088.3
XSECTION 5	RUNOFF	.13	1	2	.08	.0	5.07	24.00	2.66	----	12.57	174.96	1399.7
XSECTION 5	REACH	.22	1	2	.08	.0	5.07	24.00	4.46	----	12.61	444.74	2049.5
XSECTION 5	ADDHYD	.34	1	2	.08	.0	5.07	24.00	3.80	----	12.60	619.18	1810.5
XSECTION 8	REACH	.34	1	2	.08	.0	5.07	24.00	3.79	1497.05	12.83	585.57	1712.2
XSECTION 8	ADDHYD	.52	1	2	.08	.0	5.07	24.00	3.58	1497.28	12.83	847.98	1637.0
XSECTION 8	ADDHYD	.86	1	2	.08	.0	5.07	24.00	3.66	1497.64	12.83	1433.55	1666.9
XSECTION 18	RUNOFF	.18	1	2	.08	.0	5.07	24.00	2.74	----	12.65	245.14	1332.3
XSECTION 8	REACH	.18	1	2	.08	.0	5.07	24.00	2.73	1496.50	12.87	217.07	1179.8
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	5.07	24.00	3.50	1497.75	12.84	1649.89	1580.4
XSECTION 8	RUNOFF	.13	1	2	.08	.0	5.07	24.00	2.74	----	12.66	170.26	1299.7
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	5.07	24.00	3.41	1497.82	12.82	1804.46	1535.7
XSECTION 14	REACH	1.18	1	2	.08	.0	5.07	24.00	3.40	1489.56	13.02	1656.16	1409.5
XSECTION 9	RUNOFF	.20	1	2	.08	.0	5.07	24.00	2.65	----	12.77	227.90	1151.0
XSECTION 14	REACH	.20	1	2	.08	.0	5.07	24.00	2.64	1486.79	12.91	222.06	1121.5
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	5.07	24.00	3.29	1489.66	13.01	1871.54	1363.1
XSECTION 16	RUNOFF	.12	1	2	.08	.0	5.07	24.00	3.51	----	12.53	208.86	1755.1
XSECTION 15	REACH	.12	1	2	.08	.0	5.07	24.00	3.51	----	12.53	208.86	1755.1
XSECTION 15	RUNOFF	.07	1	2	.08	.0	5.07	24.00	3.11	----	12.72	99.19	1358.8
XSECTION 15	ADDHYD	.19	1	2	.08	.0	5.07	24.00	3.35	----	12.57	301.24	1569.0
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	5.07	24.00	3.30	1489.73	12.96	2033.64	1299.5
XSECTION 14	RUNOFF	.18	1	2	.08	.0	5.07	24.00	3.22	----	12.50	308.80	1744.6
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	5.07	24.00	3.29	1489.77	12.91	2109.76	1211.1
XSECTION 27	REACH	1.74	1	2	.08	.0	5.07	24.00	3.28	1473.28	13.11	2040.54	1171.4
XSECTION 17	RUNOFF	.06	1	2	.08	.0	5.07	24.00	4.48	----	12.42	125.18	2121.8

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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 25	REACH	.06	1	2	.08	.0	5.07	24.00	4.45	----	12.71	116.26	1970.5
XSECTION 25	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.22	----	12.52	152.61	1714.8
XSECTION 25	ADDHYD	.15	1	2	.08	.0	5.07	24.00	3.71	----	12.54	262.79	1775.6
XSECTION 27	REACH	.15	1	2	.08	.0	5.07	24.00	3.70	1470.98	12.65	259.00	1750.0
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	5.07	24.00	3.32	1473.34	13.04	2168.09	1147.1
XSECTION 26	RUNOFF	.07	1	2	.08	.0	5.07	24.00	3.42	----	12.47	124.48	1857.9
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	5.07	24.00	3.32	1473.35	13.03	2184.11	1116.0
XSECTION 27	RUNOFF	.19	1	2	.08	.0	5.07	24.00	2.91	----	12.91	207.30	1102.6
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	5.07	24.00	3.28	1473.43	13.01	2386.33	1112.5
XSECTION 37	REACH	2.15	1	2	.08	.0	5.07	24.00	3.28	1456.84	13.11	2380.28	1109.7
XSECTION 37	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.22	----	12.46	227.42	1819.4
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	5.07	24.00	3.28	1456.86	13.10	2400.98	1057.7
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	5.07	24.00	3.25	1452.34	13.14	2398.30	1056.5
XSECTION 24	RUNOFF	.20	1	2	.08	.0	5.07	24.00	3.03	----	12.53	322.19	1627.2
XSECTION 37	REACH	.20	1	2	.08	.0	5.07	24.00	3.02	1453.79	12.62	319.91	1615.7
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	5.07	24.00	3.23	1456.95	13.05	2491.17	1009.4
XSECTION 143	REACH	2.47	1	2	.08	.0	5.07	24.00	3.23	----	13.14	2490.55	1009.1
XSECTION 86	DIVERT	1.23	1	2	.08	.0	5.07	24.00	.07	1429.95	13.14	75.98	61.6
XSECTION 85	DIVERT	1.23	1	2	.08	.0	5.07	24.00	6.39	1429.95	13.14	2414.57	1956.7
XSECTION 86	REACH	1.23	1	2	.08	.0	5.07	24.00	.07	1429.94	13.41	63.14	51.2
XSECTION 86	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.52	----	12.45	120.15	1907.1
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	5.07	24.00	.24	1430.00	12.45	120.15	92.6
XSECTION 87	REACH	1.30	1	2	.08	.0	5.07	24.00	.24	1429.99	12.69	110.29	85.0
XSECTION 87	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.21	----	12.54	105.04	1667.3
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	5.07	24.00	.37	1430.06	12.60	210.16	154.5
XSECTION 105	REACH	1.36	1	2	.08	.0	5.07	24.00	.37	1417.70	12.89	185.14	136.1
XSECTION 10	RUNOFF	.09	1	2	.08	.0	5.07	24.00	2.66	----	12.57	132.97	1399.7
XSECTION 11	REACH	.09	1	2	.08	.0	5.07	24.00	2.65	----	12.70	129.34	1361.5
XSECTION 11	RUNOFF	.23	1	2	.08	.0	5.07	24.00	2.65	----	12.72	283.77	1212.7
XSECTION 11	ADDHYD	.33	1	2	.08	.0	5.07	24.00	2.65	----	12.71	413.00	1255.3
XSECTION 28	REACH	.33	1	2	.08	.0	5.07	24.00	2.63	----	13.10	321.67	977.7
XSECTION 13	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.12	----	12.57	193.87	1550.9
XSECTION 28	REACH	.13	1	2	.08	.0	5.07	24.00	3.09	----	13.04	145.70	1165.6
XSECTION 28	ADDHYD	.45	1	2	.08	.0	5.07	24.00	2.76	----	13.08	466.65	1027.9
XSECTION 28	RUNOFF	.16	1	2	.08	.0	5.07	24.00	2.83	----	12.76	190.94	1223.9
XSECTION 28	ADDHYD	.61	1	2	.08	.0	5.07	24.00	2.78	----	12.98	623.94	1022.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 36	REACH	.61	1	2	.08	.0	5.07	24.00	2.77	----	13.24	570.08	934.6
XSECTION 36	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.22	----	12.53	211.88	1695.1
XSECTION 36	ADDHYD	.74	1	2	.08	.0	5.07	24.00	2.84	----	13.19	603.38	820.9
XSECTION 90	REACH	.74	1	2	.08	.0	5.07	24.00	2.84	----	13.35	594.11	808.3
XSECTION 34	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.30	----	12.63	193.40	1547.2
XSECTION 35	REACH	.13	1	2	.08	.0	5.07	24.00	3.30	----	12.74	190.95	1527.6
XSECTION 35	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.21	----	12.53	210.93	1687.5
XSECTION 35	ADDHYD	.25	1	2	.08	.0	5.07	24.00	3.26	----	12.59	386.73	1546.9
XSECTION 91	REACH	.25	1	2	.08	.0	5.07	24.00	3.25	----	12.75	365.83	1463.3
XSECTION 91	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.51	----	12.51	224.95	1799.6
XSECTION 91	ADDHYD	.38	1	2	.08	.0	5.07	24.00	3.34	----	12.62	560.50	1494.7
XSECTION 90	REACH	.38	1	2	.08	.0	5.07	24.00	3.33	----	12.73	554.89	1479.7
XSECTION 90	RUNOFF	.11	1	2	.08	.0	5.07	24.00	3.40	----	12.57	179.77	1649.2
XSECTION 90	ADDHYD	.48	1	2	.08	.0	5.07	24.00	3.35	----	12.69	723.28	1494.4
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	5.07	24.00	3.04	----	12.78	1168.72	958.8
XSECTION 88	REACH	1.22	1	2	.08	.0	5.07	24.00	3.04	----	12.87	1165.09	955.8
XSECTION 88	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.60	----	12.62	154.02	1638.5
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	5.07	24.00	3.08	----	12.84	1296.29	987.3
XSECTION 89	RUNOFF	.05	1	2	.08	.0	5.07	24.00	3.32	----	12.49	83.69	1780.7
XSECTION 88	REACH	.05	1	2	.08	.0	5.07	24.00	3.30	----	12.73	77.83	1656.1
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	5.07	24.00	3.08	----	12.83	1370.56	1007.8
XSECTION 101	REACH	1.36	1	2	.08	.0	5.07	24.00	3.08	----	12.91	1370.48	1007.7
XSECTION 101	RUNOFF	.05	1	2	.08	.0	5.07	24.00	3.61	----	12.52	88.47	1882.4
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	5.07	24.00	3.10	----	12.89	1413.70	1004.8
XSECTION 102	REACH	1.41	1	2	.08	.0	5.07	24.00	3.10	----	13.05	1370.30	973.9
XSECTION 102	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.11	----	12.58	96.73	1535.4
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	5.07	24.00	3.10	----	13.02	1414.35	962.1
XSECTION 105	REACH	1.47	1	2	.08	.0	5.07	24.00	3.09	1418.36	13.15	1395.37	949.2
XSECTION 105	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.74	----	12.60	86.96	1380.4
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	5.07	24.00	3.08	1418.37	13.14	1424.62	929.3
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	5.07	24.00	1.81	1418.42	13.10	1583.20	547.3
XSECTION 107	REACH	2.89	1	2	.08	.0	5.07	24.00	1.80	1418.42	13.24	1564.37	540.7
XSECTION 107	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.12	----	12.51	99.47	1685.9
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	5.07	24.00	1.83	1418.42	13.23	1576.58	534.1
XSECTION 85	REACH	1.23	1	2	.08	.0	5.07	24.00	6.38	1429.95	13.30	2396.17	1941.8
XSECTION 85	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.93	----	12.55	97.77	1551.9

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	5.07	24.00	6.21	1429.95	13.29	2411.19	1859.0
XSECTION 83	REACH	1.30	1	2	.08	.0	5.07	24.00	6.20	1429.95	13.45	2393.01	1845.0
XSECTION 83	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.02	----	12.55	100.22	1590.8
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	5.07	24.00	6.05	1429.95	13.44	2404.17	1767.8
XSECTION 84	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.75	----	12.55	92.83	1473.5
XSECTION 83	REACH	.06	1	2	.08	.0	5.07	24.00	2.74	1429.03	12.70	88.55	1405.5
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	5.07	24.00	5.91	1429.95	13.43	2421.82	1701.9
XSECTION 109	DIVERT	.71	1	2	.08	.0	5.07	24.00	.76	1418.83	13.43	279.00	392.1
XSECTION 80	DIVERT	.71	1	2	.08	.0	5.07	24.00	11.05	1418.83	13.43	2142.82	3011.7
XSECTION 109	REACH	.71	1	2	.08	.0	5.07	24.00	.76	1418.82	13.66	266.05	373.9
XSECTION 109	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.32	----	12.46	115.40	1831.8
XSECTION 109	ADDHYD	.77	1	2	.08	.0	5.07	24.00	.97	1418.82	13.65	272.47	351.8
XSECTION 80	REACH	.71	1	2	.08	.0	5.07	24.00	11.03	1418.83	13.55	2136.61	3003.0
XSECTION 80	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.22	----	12.52	107.59	1707.8
XSECTION 80	ADDHYD	.77	1	2	.08	.0	5.07	24.00	10.40	1418.83	13.55	2145.07	2769.6
XSECTION 79	REACH	.77	1	2	.08	.0	5.07	24.00	10.39	----	13.63	2144.90	2769.4
XSECTION 79	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.72	----	12.45	124.59	1977.6
XSECTION 79	ADDHYD	.84	1	2	.08	.0	5.07	24.00	9.89	----	13.63	2151.68	2569.2
XSECTION 76	REACH	.84	1	2	.08	.0	5.07	24.00	9.87	----	13.71	2151.51	2569.0
XSECTION 76	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.52	----	12.45	120.80	1917.5
XSECTION 76	ADDHYD	.90	1	2	.08	.0	5.07	24.00	9.43	----	13.71	2157.30	2395.7
XSECTION 75	REACH	.90	1	2	.08	.0	5.07	24.00	9.42	----	13.79	2157.13	2395.5
XSECTION 75	RUNOFF	.06	1	2	.08	.0	5.07	24.00	4.46	----	12.49	129.00	2047.7
XSECTION 75	ADDHYD	.96	1	2	.08	.0	5.07	24.00	9.10	----	13.78	2165.14	2247.2
XSECTION 113	REACH	.96	1	2	.08	.0	5.07	24.00	9.08	----	13.89	2162.31	2244.2
XSECTION 112	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.66	----	12.54	89.81	1472.2
XSECTION 113	REACH	.06	1	2	.08	.0	5.07	24.00	2.65	----	12.69	83.76	1373.2
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	5.07	24.00	8.70	----	13.88	2169.31	2117.4
XSECTION 113	RUNOFF	.05	1	2	.08	.0	5.07	24.00	3.51	----	12.53	94.26	1778.4
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	5.07	24.00	8.44	----	13.88	2174.86	2018.4
XSECTION 12	RUNOFF	.07	1	2	.08	.0	5.07	24.00	2.66	----	12.52	105.26	1503.7
XSECTION 29	REACH	.07	1	2	.08	.0	5.07	24.00	2.61	----	13.37	64.31	918.7
XSECTION 30	RUNOFF	.25	1	2	.08	.0	5.07	24.00	2.83	----	12.78	298.17	1192.7
XSECTION 29	REACH	.25	1	2	.08	.0	5.07	24.00	2.82	----	12.93	289.49	1157.9
XSECTION 29	ADDHYD	.32	1	2	.08	.0	5.07	24.00	2.78	----	12.99	330.28	1032.1
XSECTION 29	RUNOFF	.25	1	2	.08	.0	5.07	24.00	2.74	----	12.82	280.74	1123.0

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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 29	ADDHYD	.57	1	2	.08	.0	5.07	24.00	2.76	---	12.91	601.17	1054.7
XSECTION 33	REACH	.57	1	2	.08	.0	5.07	24.00	2.75	---	13.04	592.21	1039.0
XSECTION 33	RUNOFF	.23	1	2	.08	.0	5.07	24.00	2.64	---	12.89	240.03	1025.8
XSECTION 33	ADDHYD	.80	1	2	.08	.0	5.07	24.00	2.72	---	12.99	823.73	1024.5
XSECTION 92	REACH	.80	1	2	.08	.0	5.07	24.00	2.71	---	13.19	789.26	981.7
XSECTION 92	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.51	---	12.51	224.95	1799.6
XSECTION 92	ADDHYD	.93	1	2	.08	.0	5.07	24.00	2.82	---	13.15	827.87	891.1
XSECTION 93	RUNOFF	.19	1	2	.08	.0	5.07	24.00	3.31	---	12.51	340.19	1744.6
XSECTION 92	REACH	.19	1	2	.08	.0	5.07	24.00	3.31	---	12.63	334.37	1714.7
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	5.07	24.00	2.91	---	12.76	1014.16	902.3
XSECTION 98	REACH	1.12	1	2	.08	.0	5.07	24.00	2.90	---	12.95	988.41	879.4
XSECTION 31	RUNOFF	.08	1	2	.08	.0	5.07	24.00	2.66	---	12.58	115.86	1379.3
XSECTION 32	REACH	.08	1	2	.08	.0	5.07	24.00	2.61	---	13.34	71.68	853.3
XSECTION 32	RUNOFF	.18	1	2	.08	.0	5.07	24.00	2.65	---	12.77	207.19	1151.0
XSECTION 32	ADDHYD	.26	1	2	.08	.0	5.07	24.00	2.64	---	12.84	244.89	927.6
XSECTION 94	REACH	.26	1	2	.08	.0	5.07	24.00	2.63	---	13.12	221.40	838.6
XSECTION 94	RUNOFF	.14	1	2	.08	.0	5.07	24.00	3.32	---	12.48	250.68	1803.5
XSECTION 94	ADDHYD	.40	1	2	.08	.0	5.07	24.00	2.87	---	12.55	365.85	907.8
XSECTION 95	REACH	.40	1	2	.08	.0	5.07	24.00	2.86	---	12.71	338.58	840.1
XSECTION 95	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.49	---	12.76	179.85	1438.8
XSECTION 95	ADDHYD	.53	1	2	.08	.0	5.07	24.00	3.01	---	12.72	517.69	980.5
XSECTION 98	REACH	.53	1	2	.08	.0	5.07	24.00	3.00	---	12.93	480.47	910.0
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	5.07	24.00	2.93	---	12.94	1468.58	889.0
XSECTION 96	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.12	---	12.54	203.49	1627.9
XSECTION 97	REACH	.13	1	2	.08	.0	5.07	24.00	3.11	---	12.71	188.66	1509.3
XSECTION 97	RUNOFF	.19	1	2	.08	.0	5.07	24.00	3.61	---	12.53	338.11	1798.4
XSECTION 97	ADDHYD	.31	1	2	.08	.0	5.07	24.00	3.41	---	12.58	513.80	1641.5
XSECTION 98	REACH	.31	1	2	.08	.0	5.07	24.00	3.41	---	12.68	510.18	1630.0
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	5.07	24.00	3.01	---	12.83	1906.25	970.1
XSECTION 98	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.51	---	12.48	174.96	1861.2
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	5.07	24.00	3.03	---	12.79	1976.26	959.8
XSECTION 99	REACH	2.06	1	2	.08	.0	5.07	24.00	3.03	---	12.88	1973.74	958.6
XSECTION 99	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.51	---	12.52	168.97	1797.5
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	5.07	24.00	3.05	---	12.84	2060.41	957.0
XSECTION 139	REACH	2.15	1	2	.08	.0	5.07	24.00	3.04	---	12.96	2043.08	948.9
XSECTION 100	RUNOFF	.08	1	2	.08	.0	5.07	24.00	3.51	---	12.49	144.36	1850.8

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ALTERNATE 1 STORM 4													
XSECTION 139	REACH	.08	1	2	.08	.0	5.07	24.00	3.51	----	12.59	142.48	1826.6
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	5.07	24.00	3.06	----	12.92	2106.89	944.4
XSECTION 142	RUNOFF	.25	1	2	.08	.0	5.07	24.00	3.19	----	13.02	273.30	1093.2
XSECTION 141	REACH	.25	1	2	.08	.0	5.07	24.00	3.18	----	13.22	262.05	1048.2
XSECTION 141	RUNOFF	.19	1	2	.08	.0	5.07	24.00	3.61	----	12.53	338.11	1798.4
XSECTION 141	ADDHYD	.44	1	2	.08	.0	5.07	24.00	3.36	----	12.63	472.26	1078.2
XSECTION 140	REACH	.44	1	2	.08	.0	5.07	24.00	3.36	----	12.75	464.15	1059.7
XSECTION 140	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.51	----	12.50	227.08	1816.7
XSECTION 140	ADDHYD	.56	1	2	.08	.0	5.07	24.00	3.39	----	12.62	653.63	1161.0
XSECTION 137	RUNOFF	.08	1	2	.08	.0	5.07	24.00	2.84	----	12.54	119.63	1533.7
XSECTION 140	ADDHYD	.64	1	2	.08	.0	5.07	24.00	3.33	----	12.60	770.22	1201.6
XSECTION 139	REACH	.64	1	2	.08	.0	5.07	24.00	3.31	----	12.87	710.56	1108.5
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	5.07	24.00	3.12	----	12.90	2815.01	980.2
XSECTION 136	RUNOFF	.07	1	2	.08	.0	5.07	24.00	4.49	----	12.44	145.03	2197.5
XSECTION 138	REACH	.07	1	2	.08	.0	5.07	24.00	4.45	----	12.69	138.93	2105.0
XSECTION 138	RUNOFF	.20	1	2	.08	.0	5.07	24.00	3.32	----	12.45	378.34	1863.8
XSECTION 138	ADDHYD	.27	1	2	.08	.0	5.07	24.00	3.60	----	12.46	510.22	1896.7
XSECTION 139	REACH	.27	1	2	.08	.0	5.07	24.00	3.59	----	12.68	482.42	1793.4
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	5.07	24.00	3.16	----	12.83	3198.15	1018.2
XSECTION 139	RUNOFF	.19	1	2	.08	.0	5.07	24.00	3.61	----	12.50	348.97	1856.2
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	5.07	24.00	3.18	----	12.78	3384.00	1016.5
XSECTION 129	RUNOFF	.11	1	2	.08	.0	5.07	24.00	3.13	----	12.44	206.65	1913.4
XSECTION 130	RUNOFF	.03	1	2	.08	.0	5.07	24.00	4.02	----	12.44	69.92	2255.4
XSECTION 129	ADDHYD	.14	1	2	.08	.0	5.07	24.00	3.33	----	12.44	276.55	1989.5
XSECTION 127	REACH	.14	1	2	.08	.0	5.07	24.00	3.31	----	12.69	250.67	1803.4
XSECTION 128	RUNOFF	.04	1	2	.08	.0	5.07	24.00	2.95	----	12.44	65.88	1829.9
XSECTION 127	REACH	.04	1	2	.08	.0	5.07	24.00	2.92	----	12.80	53.58	1488.5
XSECTION 127	ADDHYD	.17	1	2	.08	.0	5.07	24.00	3.23	----	12.70	300.66	1718.1
XSECTION 127	RUNOFF	.16	1	2	.08	.0	5.07	24.00	3.13	----	12.45	288.23	1812.8
XSECTION 127	ADDHYD	.33	1	2	.08	.0	5.07	24.00	3.18	----	12.48	550.36	1647.3
XSECTION 132	RUNOFF	.14	1	2	.08	.0	5.07	24.00	3.72	----	12.45	285.39	1968.2
XSECTION 131	REACH	.14	1	2	.08	.0	5.07	24.00	3.71	----	12.55	280.71	1935.9
XSECTION 131	ADDHYD	.48	1	2	.08	.0	5.07	24.00	3.34	----	12.49	826.80	1726.1
XSECTION 131	RUNOFF	.12	1	2	.08	.0	5.07	24.00	3.52	----	12.45	226.94	1907.1
XSECTION 131	ADDHYD	.60	1	2	.08	.0	5.07	24.00	3.38	----	12.48	1052.58	1760.2
XSECTION 126	REACH	.60	1	2	.08	.0	5.07	24.00	3.37	----	12.57	1045.06	1747.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 126	RUNOFF	.16	1	2	.08	.0	5.07	24.00	4.47	----	12.44	336.89	2132.2
XSECTION 126	ADDHYD	.76	1	2	.08	.0	5.07	24.00	3.60	----	12.53	1364.23	1804.5
XSECTION 134	REACH	.76	1	2	.08	.0	5.07	24.00	3.60	----	12.61	1360.73	1799.9
XSECTION 135	RUNOFF	.04	1	2	.08	.0	5.07	24.00	4.46	----	12.43	89.33	2127.0
XSECTION 134	REACH	.04	1	2	.08	.0	5.07	24.00	4.45	----	12.69	86.48	2059.0
XSECTION 134	ADDHYD	.80	1	2	.08	.0	5.07	24.00	3.64	----	12.61	1443.99	1809.5
XSECTION 134	RUNOFF	.20	1	2	.08	.0	5.07	24.00	3.42	----	12.47	366.01	1857.9
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	5.07	24.00	3.60	----	12.55	1776.53	1785.5
XSECTION 125	RUNOFF	.12	1	2	.08	.0	5.07	24.00	4.49	----	12.44	259.84	2220.9
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	5.07	24.00	3.69	----	12.48	1995.51	1794.5
XSECTION 124	REACH	1.11	1	2	.08	.0	5.07	24.00	3.69	----	12.59	1958.82	1761.5
XSECTION 124	RUNOFF	.22	1	2	.08	.0	5.07	24.00	3.32	----	12.45	405.81	1853.0
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	5.07	24.00	3.63	----	12.54	2330.38	1750.8
XSECTION 103	REACH	3.33	1	2	.08	.0	5.07	24.00	3.18	----	12.78	3384.00	1016.5
XSECTION 103	RUNOFF	.08	1	2	.08	.0	5.07	24.00	3.32	----	12.46	150.02	1852.1
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	5.07	24.00	3.19	----	12.76	3427.98	1005.3
XSECTION 104	REACH	3.41	1	2	.08	.0	5.07	24.00	3.19	----	12.76	3427.98	1005.3
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	5.07	24.00	3.31	----	12.62	5537.43	1168.0
XSECTION 104	RUNOFF	.07	1	2	.08	.0	5.07	24.00	2.74	----	12.63	93.76	1358.9
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	5.07	24.00	3.30	----	12.62	5631.17	1170.7
XSECTION 107	REACH	4.81	1	2	.08	.0	5.07	24.00	3.30	1419.48	12.62	5631.17	1170.7
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	5.07	24.00	2.74	1419.73	12.68	6619.18	852.8
XSECTION 123	RUNOFF	.21	1	2	.08	.0	5.07	24.00	4.47	----	12.43	450.76	2116.2
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	5.07	24.00	2.79	1419.79	12.62	6886.92	863.6
XSECTION 108	REACH	7.97	1	2	.08	.0	5.07	24.00	2.79	----	12.62	6886.92	863.6
XSECTION 106	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.84	----	12.57	93.14	1478.4
XSECTION 108	REACH	.06	1	2	.08	.0	5.07	24.00	2.83	----	12.68	91.54	1453.0
XSECTION 108	RUNOFF	.03	1	2	.08	.0	5.07	24.00	2.85	----	12.47	41.47	1658.9
XSECTION 108	ADDHYD	.09	1	2	.08	.0	5.07	24.00	2.84	----	12.55	126.22	1434.3
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	5.07	24.00	2.79	----	12.62	7009.28	869.3
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	5.07	24.00	2.63	1422.91	12.61	7119.50	805.6
XSECTION 110	REACH	8.84	1	2	.08	.0	5.07	24.00	2.63	----	12.61	7119.50	805.6
XSECTION 122	RUNOFF	.35	1	2	.08	.0	5.07	24.00	3.42	----	12.46	662.22	1865.4
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	5.07	24.00	2.66	----	12.58	7720.70	839.9
XSECTION 110	RUNOFF	.07	1	2	.08	.0	5.07	24.00	2.75	----	12.57	105.05	1439.1
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	5.07	24.00	2.66	----	12.58	7825.70	844.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 111	REACH	9.27	1	2	.08	.0	5.07	24.00	2.66	----	12.58	7825.70	844.6
XSECTION 111	RUNOFF	.07	1	2	.08	.0	5.07	24.00	2.66	----	12.57	97.98	1399.7
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	5.07	24.00	2.66	----	12.58	7923.65	848.8
XSECTION 112	REACH	9.34	1	2	.08	.0	5.07	24.00	2.66	----	12.67	7886.86	844.8
XSECTION 121	RUNOFF	.25	1	2	.08	.0	5.07	24.00	4.48	----	12.42	530.40	2121.6
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	5.07	24.00	2.70	----	12.64	8048.74	839.7
XSECTION 113	REACH	9.59	1	2	.08	.0	5.07	24.00	2.70	----	12.73	8026.08	837.3
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	5.07	24.00	3.28	----	12.75	9249.31	867.4
XSECTION 120	RUNOFF	.23	1	2	.08	.0	5.07	24.00	3.62	----	12.46	445.41	1928.2
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	5.07	24.00	3.29	----	12.73	9435.23	866.1
XSECTION 114	REACH	10.89	1	2	.08	.0	5.07	24.00	3.28	----	12.88	9223.40	846.6
XSECTION 49	RUNOFF	.09	1	2	.08	.0	5.07	24.00	4.48	----	12.43	182.36	2120.4
XSECTION 48	REACH	.09	1	2	.08	.0	5.07	24.00	4.46	----	12.53	180.08	2094.0
XSECTION 48	RUNOFF	.13	1	2	.08	.0	5.07	24.00	2.84	----	12.59	182.29	1458.3
XSECTION 48	ADDHYD	.21	1	2	.08	.0	5.07	24.00	3.50	----	12.56	361.09	1711.3
XSECTION 20	RUNOFF	.06	1	2	.08	.0	5.07	24.00	4.46	----	12.44	147.81	2309.6
XSECTION 48	REACH	.06	1	2	.08	.0	5.07	24.00	4.43	----	12.94	121.50	1898.5
XSECTION 48	ADDHYD	.28	1	2	.08	.0	5.07	24.00	3.72	----	12.58	459.88	1672.3
XSECTION 56	REACH	.28	1	2	.08	.0	5.07	24.00	3.71	----	12.70	451.55	1642.0
XSECTION 56	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.13	----	12.46	112.45	1784.9
XSECTION 56	ADDHYD	.34	1	2	.08	.0	5.07	24.00	3.60	----	12.57	528.19	1562.7
XSECTION 57	REACH	.34	1	2	.08	.0	5.07	24.00	3.60	----	12.67	520.50	1539.9
XSECTION 57	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.13	----	12.46	112.45	1784.9
XSECTION 57	ADDHYD	.40	1	2	.08	.0	5.07	24.00	3.52	----	12.58	600.07	1496.4
XSECTION 60	REACH	.40	1	2	.08	.0	5.07	24.00	3.52	----	12.70	586.18	1461.8
XSECTION 60	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.03	----	12.53	101.51	1611.3
XSECTION 60	ADDHYD	.46	1	2	.08	.0	5.07	24.00	3.45	----	12.67	676.56	1458.1
XSECTION 58	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.32	----	12.45	116.74	1853.0
XSECTION 60	REACH	.06	1	2	.08	.0	5.07	24.00	3.31	----	12.55	113.84	1806.9
XSECTION 60	ADDHYD	.53	1	2	.08	.0	5.07	24.00	3.43	----	12.64	784.90	1489.4
XSECTION 65	REACH	.53	1	2	.08	.0	5.07	24.00	3.43	----	12.73	780.72	1481.4
XSECTION 65	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.66	----	12.55	91.66	1455.0
XSECTION 65	ADDHYD	.59	1	2	.08	.0	5.07	24.00	3.35	----	12.71	857.06	1452.6
XSECTION 68	REACH	.59	1	2	.08	.0	5.07	24.00	3.34	----	12.80	852.29	1444.6
XSECTION 68	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.42	----	12.45	118.80	1885.7
XSECTION 68	ADDHYD	.65	1	2	.08	.0	5.07	24.00	3.35	----	12.77	879.81	1347.3

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 47	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.13	---	12.47	219.21	1753.7
XSECTION 46	REACH	.13	1	2	.08	.0	5.07	24.00	3.12	---	12.56	217.98	1743.8
XSECTION 46	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.13	---	12.47	220.27	1762.2
XSECTION 46	ADDHYD	.25	1	2	.08	.0	5.07	24.00	3.12	---	12.50	432.40	1729.6
XSECTION 59	REACH	.25	1	2	.08	.0	5.07	24.00	3.12	---	12.61	425.73	1702.9
XSECTION 59	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.13	---	12.46	112.45	1784.9
XSECTION 59	ADDHYD	.31	1	2	.08	.0	5.07	24.00	3.12	---	12.54	523.90	1673.8
XSECTION 21	RUNOFF	.19	1	2	.08	.0	5.07	24.00	3.21	---	12.56	304.80	1612.7
XSECTION 43	RUNOFF	.05	1	2	.08	.0	5.07	24.00	3.50	---	12.44	99.37	2114.2
XSECTION 21	ADDHYD	.24	1	2	.08	.0	5.07	24.00	3.27	---	12.46	393.16	1665.9
XSECTION 45	REACH	.24	1	2	.08	.0	5.07	24.00	3.26	---	12.70	329.50	1396.2
XSECTION 45	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.51	---	12.53	222.04	1776.3
XSECTION 45	ADDHYD	.36	1	2	.08	.0	5.07	24.00	3.34	---	12.63	538.10	1490.6
XSECTION 59	REACH	.36	1	2	.08	.0	5.07	24.00	3.34	---	12.73	530.54	1469.6
XSECTION 59	ADDHYD	.67	1	2	.08	.0	5.07	24.00	3.24	---	12.61	1011.92	1501.4
XSECTION 66	REACH	.67	1	2	.08	.0	5.07	24.00	3.23	---	12.70	1007.96	1495.5
XSECTION 66	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.22	---	12.52	107.25	1702.4
XSECTION 66	ADDHYD	.74	1	2	.08	.0	5.07	24.00	3.23	---	12.67	1099.27	1491.5
XSECTION 68	REACH	.74	1	2	.08	.0	5.07	24.00	3.23	---	12.78	1088.01	1476.3
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	5.07	24.00	3.29	---	12.77	1967.76	1415.7
XSECTION 70	REACH	1.39	1	2	.08	.0	5.07	24.00	3.28	---	12.86	1962.71	1412.0
XSECTION 70	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.52	---	12.45	120.80	1917.5
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	5.07	24.00	3.29	---	12.85	1982.17	1364.2
XSECTION 74	REACH	1.45	1	2	.08	.0	5.07	24.00	3.29	---	12.94	1979.81	1362.6
XSECTION 74	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.93	---	12.45	128.61	2041.5
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	5.07	24.00	3.32	---	12.93	1994.80	1315.8
XSECTION 23	RUNOFF	.09	1	2	.08	.0	5.07	24.00	4.48	---	12.44	195.59	2149.3
XSECTION 40	REACH	.09	1	2	.08	.0	5.07	24.00	4.45	---	12.72	184.67	2029.3
XSECTION 38	RUNOFF	.13	1	2	.08	.0	5.07	24.00	2.84	---	12.53	196.03	1568.2
XSECTION 40	REACH	.13	1	2	.08	.0	5.07	24.00	2.83	---	12.75	182.81	1462.5
XSECTION 40	ADDHYD	.22	1	2	.08	.0	5.07	24.00	3.51	---	12.74	367.15	1699.8
XSECTION 40	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.12	---	12.54	153.02	1627.9
XSECTION 40	ADDHYD	.31	1	2	.08	.0	5.07	24.00	3.39	---	12.65	502.15	1619.9
XSECTION 82	REACH	.31	1	2	.08	.0	5.07	24.00	3.39	---	12.76	497.62	1605.2
XSECTION 82	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.32	---	12.46	116.03	1841.7
XSECTION 82	ADDHYD	.37	1	2	.08	.0	5.07	24.00	3.38	---	12.59	566.23	1518.0

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(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 39	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.41	----	12.54	215.79	1726.3
XSECTION 82	REACH	.13	1	2	.08	.0	5.07	24.00	3.40	----	12.68	206.95	1655.6
XSECTION 82	ADDHYD	.50	1	2	.08	.0	5.07	24.00	3.38	----	12.61	766.63	1539.4
XSECTION 81	REACH	.50	1	2	.08	.0	5.07	24.00	3.38	----	12.72	762.35	1530.8
XSECTION 81	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.66	----	12.56	90.34	1434.0
XSECTION 81	ADDHYD	.56	1	2	.08	.0	5.07	24.00	3.30	----	12.68	842.72	1502.2
XSECTION 78	REACH	.56	1	2	.08	.0	5.07	24.00	3.30	----	12.79	836.68	1491.4
XSECTION 78	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.52	----	12.45	120.15	1907.1
XSECTION 78	ADDHYD	.62	1	2	.08	.0	5.07	24.00	3.32	----	12.72	874.14	1400.9
XSECTION 22	RUNOFF	.15	1	2	.08	.0	5.07	24.00	3.22	----	12.52	259.70	1697.4
XSECTION 41	REACH	.15	1	2	.08	.0	5.07	24.00	3.21	----	12.73	249.51	1630.8
XSECTION 41	RUNOFF	.17	1	2	.08	.0	5.07	24.00	3.32	----	12.49	306.26	1780.6
XSECTION 41	ADDHYD	.32	1	2	.08	.0	5.07	24.00	3.26	----	12.54	531.63	1635.8
XSECTION 42	RUNOFF	.08	1	2	.08	.0	5.07	24.00	3.23	----	12.45	143.38	1838.2
XSECTION 42	ADDHYD	.40	1	2	.08	.0	5.07	24.00	3.26	----	12.51	664.38	1648.6
XSECTION 78	REACH	.40	1	2	.08	.0	5.07	24.00	3.25	----	12.61	655.37	1626.2
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	5.07	24.00	3.29	----	12.64	1516.12	1476.3
XSECTION 77	REACH	1.03	1	2	.08	.0	5.07	24.00	3.29	----	12.73	1512.41	1472.6
XSECTION 77	RUNOFF	.06	1	2	.08	.0	5.07	24.00	2.66	----	12.52	95.75	1519.9
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	5.07	24.00	3.25	----	12.71	1576.79	1446.6
XSECTION 69	REACH	1.09	1	2	.08	.0	5.07	24.00	3.25	----	12.80	1571.25	1441.5
XSECTION 69	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.02	----	12.59	95.66	1518.4
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	5.07	24.00	3.24	----	12.79	1650.14	1431.2
XSECTION 44	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.22	----	12.47	224.43	1795.5
XSECTION 67	REACH	.13	1	2	.08	.0	5.07	24.00	3.22	----	12.57	220.72	1765.8
XSECTION 67	RUNOFF	.06	1	2	.08	.0	5.07	24.00	3.72	----	12.45	124.59	1977.6
XSECTION 67	ADDHYD	.19	1	2	.08	.0	5.07	24.00	3.39	----	12.49	338.17	1798.8
XSECTION 69	REACH	.19	1	2	.08	.0	5.07	24.00	3.38	----	12.60	335.53	1784.8
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	5.07	24.00	3.26	----	12.74	1936.72	1444.2
XSECTION 74	REACH	1.34	1	2	.08	.0	5.07	24.00	3.25	----	12.84	1918.97	1431.0
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	5.07	24.00	3.29	----	12.87	3887.85	1360.8
XSECTION 114	REACH	2.86	1	2	.08	.0	5.07	24.00	3.28	----	13.02	3783.51	1324.3
XSECTION 114	RUNOFF	.13	1	2	.08	.0	5.07	24.00	2.64	----	12.92	128.24	1001.9
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	5.07	24.00	3.25	----	13.02	3908.74	1309.5
XSECTION 71	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.41	----	12.52	220.19	1761.5
XSECTION 114	REACH	.13	1	2	.08	.0	5.07	24.00	3.39	----	12.80	195.73	1565.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	5.07	24.00	3.26	----	13.01	4073.79	1309.9
XSECTION 64	RUNOFF	.25	1	2	.08	.0	5.07	24.00	3.12	----	12.48	434.45	1737.8
XSECTION 72	REACH	.25	1	2	.08	.0	5.07	24.00	3.12	----	12.62	411.91	1647.6
XSECTION 72	RUNOFF	.13	1	2	.08	.0	5.07	24.00	3.21	----	12.53	210.93	1687.5
XSECTION 72	ADDHYD	.38	1	2	.08	.0	5.07	24.00	3.15	----	12.58	615.73	1641.9
XSECTION 114	REACH	.38	1	2	.08	.0	5.07	24.00	3.14	----	12.73	585.03	1560.1
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	5.07	24.00	3.25	----	12.96	4519.40	1296.8
XSECTION 115	RUNOFF	.09	1	2	.08	.0	5.07	24.00	3.12	----	12.52	157.72	1677.9
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	5.07	24.00	3.24	----	12.94	4569.12	1276.6
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	5.07	24.00	3.27	----	12.90	13767.41	951.2
XSECTION 119	RUNOFF	.23	1	2	.08	.0	5.07	24.00	3.01	----	12.82	280.72	1215.2
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	5.07	24.00	3.27	----	12.90	14043.95	955.1
XSECTION 118	REACH	14.70	1	2	.08	.0	5.07	24.00	3.26	----	13.04	13862.54	942.8
XSECTION 118	RUNOFF	.23	1	2	.08	.0	5.07	24.00	2.99	----	13.15	217.44	941.3
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	5.07	24.00	3.26	----	13.04	14076.02	942.5

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS										PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
3	1000	149	12.5	145	12.6	----	----	0	1.98	.08	1	.040	1.66	.074	.971	572	.40	.08	.16
3	1400	99	12.5	93	12.7	----	----	0	1.99	.08	1	.040	1.66	.171	.939	945	.26	.08	.27
6	1600	256	12.6	251	12.8	----	----	0	1.78	.08	1	1.73	1.17	.063	.982	379	.55	.16	.11
8	1600	299	12.8	284	13.0	----	----	0	1.55	.08	1	.594	1.26	.094	.952	589	.39	.16	.16
8	1400	45	12.7	43	12.8	----	----	0	.75	.08	1	.491	1.56	.038	.969	361	.57	.08	.10
4	1800	22	12.5	18	13.0	209	12.5	0	1.99	.08	1	.050	1.66	.553	.783	1915	.14	.16	.56
5	1400	209	12.5	201	12.6	----	----	0	1.98	.08	1	.050	1.66	.076	.966	613	.38	.08	.17
8	2100	254	12.6	235	12.9	----	----	0	1.53	.08	2	.486	1.31	.125	.924	746	.32	.16	.21
8	1900	74	12.7	55	13.1	----	----	0	.80	.08	1	.040	1.66	.334	.746	1440	.18	.24	.42
14	3000	650	12.9	565	13.2	----	----	0	1.26	.08	1	.835	1.19	.175	.869	1029	.25	.24	.29
14	2600	64	12.8	61	13.0	620	13.2	0	.75	.08	1	.713	1.50	.058	.941	537	.42	.24	.15
15	1100	80	12.6	80	12.6	111	12.7	0	1.26	.08	1	.540	1.66	.011	.997	168	.92?	.08	.05
27	3000	681	13.1	610	13.4	----	----	0	1.17	.08	1	1.34	1.09	.165	.896	1221	.21	.32	.34
25	2200	60	12.5	50	13.0	93	12.6	0	1.99	.08	1	.050	1.66	.402	.838	1581	.17	.08	.45
27	1700	93	12.6	90	12.7	----	----	0	1.43	.08	1	.718	1.43	.039	.969	383	.55	.16	.11
37	3000	704	13.4	697	13.4	703	13.4	0	1.16	.08	1	.519	1.48	.019	.990	378	.55	.08	.11
37	2100	110	12.6	106	12.6	----	----	0	.96	.08	1	.410	1.66	.038	.962	334	.60	.08	.09
143	1400	716	13.5	714	13.6	----	----	0	1.11	.08	1	.090	1.66	.007	.998	264	.71?	.08	.07
86	1250	0	.0	0	.0	48	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	48	12.5	39	12.8	71	12.6	0	.06	.08	1	.118	1.45	.316	.818	1198	.21	.16	.34
105	2000	71	12.6	57	13.0	----	----	0	.11	.08	1	.285	1.34	.262	.800	1306	.20	.32	.37
11	2700	40	12.6	36	12.8	117	12.8	0	.75	.08	1	.440	1.66	.097	.905	617	.33	.16	.17
28	3300	117	12.8	71	13.5	----	----	0	.75	.08	1	.030	1.66	.749	.610	2476	.11	.40	.75
28	2800	66	12.6	39	13.4	110	13.5	0	1.01	.08	1	.030	1.66	.979	.587	2632	.10	.32	.81
36	3500	135	13.4	115	13.8	121	13.8	0	.81	.08	1	.060	1.66	.148	.856	1635	.16	.48	.47
90	2600	121	13.8	117	14.0	----	----	0	.85	.08	1	.220	1.54	.032	.969	840	.29	.24	.23
35	1320	69	12.6	66	12.8	133	12.6	0	1.13	.08	1	.310	1.54	.045	.969	416	.51	.16	.12
91	2640	133	12.6	117	12.9	185	12.6	0	1.10	.08	1	.220	1.54	.130	.876	825	.30	.24	.23
90	1320	185	12.6	179	12.8	239	12.7	0	1.15	.08	1	.220	1.54	.031	.972	368	.56	.16	.10
88	1320	321	12.8	317	12.9	367	12.9	0	.97	.08	1	.220	1.54	.011	.987	303	.64	.08	.08
88	2000	31	12.6	26	12.9	----	----	0	1.13	.08	1	.220	1.54	.248	.837	1038	.24	.16	.30
101	1050	393	12.9	392	13.0	406	13.0	0	1.00	.08	1	.220	1.54	.008	.995	224	.78?	.08	.06

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV. AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	1																
102	1320	406	13.0	374	13.2	385	13.2	0	1.01	.08	1	.020	1.66	.046	.921	770	.31	.16	.22
105	1320	385	13.2	370	13.4	375	13.4	0	1.01	.08	1	.288	1.33	.037	.963	567	.41	.24	.16
107	1400	420	13.4	407	13.5	410	13.5	0	.58	.08	1	.282	1.34	.037	.968	584	.40	.16	.16
85	2000	714	13.6	699	13.8	701	13.8	0	2.22	.08	1	.142	1.46	.038	.978	649	.36	.24	.18
83	2000	701	13.8	688	14.0	690	14.0	0	2.15	.08	1	.143	1.46	.036	.981	654	.36	.24	.18
83	1320	29	12.6	25	12.8	----	----	0	.80	.08	1	.200	1.54	.144	.877	752	.32	.24	.21
109	2000	1	14.0	0	15.0	44	12.5	0	.00	.08	1	.379	1.35	4.691	.202	5836	.05?	.32	1.07
80	1320	692	14.0	688	14.2	690	14.2	0	4.06	.08	1	.552	1.30	.019	.994	349	.58	.16	.10
79	1320	690	14.2	690	14.2	692	14.2	0	3.81	.08	1	.230	1.54	.006	.999	225	.78?	.08	.06
76	1320	692	14.2	691	14.3	693	14.3	0	3.62	.08	1	.230	1.54	.005	.999	225	.78?	.08	.06
75	1320	693	14.3	692	14.4	695	14.4	0	3.45	.08	1	.230	1.54	.005	.998	225	.78?	.08	.06
113	1800	695	14.4	692	14.6	----	----	0	3.35	.08	1	.080	1.66	.009	.995	368	.56	.16	.10
113	1320	27	12.6	22	12.9	693	14.6	0	.75	.08	1	.080	1.66	.234	.809	976	.26	.24	.28
29	3800	33	12.6	9	13.9	----	----	0	.75	.08	1	.040	1.66	2.554	.269	7217	.04?	.48	1.37
29	2600	89	12.8	83	13.0	84	13.0	0	.84	.08	1	.370	1.54	.075	.929	667	.36	.24	.19
33	2600	162	13.0	154	13.1	217	13.1	0	.80	.08	1	.380	1.54	.040	.954	532	.43	.16	.15
92	3000	217	13.1	194	13.4	204	13.4	0	.78	.08	1	.080	1.66	.093	.894	975	.26	.24	.28
92	1320	126	12.6	118	12.7	----	----	0	1.13	.08	1	.080	1.66	.080	.934	532	.43	.16	.15
98	2500	267	12.7	246	13.0	----	----	0	.89	.08	1	.080	1.66	.039	.921	748	.32	.32	.21
32	3400	35	12.6	10	14.1	59	12.8	0	.75	.08	1	.030	1.66	2.229	.302	6940	.04?	.56	1.41
94	3200	59	12.8	44	13.3	106	12.6	0	.73	.08	1	.090	1.66	.177	.753	1630	.16	.40	.48
95	2400	106	12.6	89	12.8	155	12.8	0	.87	.08	1	.090	1.66	.075	.837	965	.26	.16	.28
98	3000	155	12.8	130	13.1	----	----	0	.95	.08	1	.080	1.66	.097	.841	1114	.23	.32	.32
97	2100	71	12.6	58	12.9	177	12.6	0	1.01	.08	1	.080	1.66	.242	.823	1065	.24	.24	.31
98	1000	177	12.6	172	12.7	----	----	0	1.20	.08	1	.080	1.66	.029	.973	352	.58	.08	.10
99	1250	542	12.9	539	13.0	564	12.9	0	.97	.08	1	.080	1.66	.008	.994	282	.68?	.08	.08
139	1600	564	12.9	552	13.1	----	----	0	.98	.08	1	.050	1.66	.018	.977	472	.47	.24	.13
139	600	56	12.6	55	12.7	578	13.0	0	1.26	.08	1	.050	1.66	.059	.968	442	.49	.08	.12
141	2100	90	13.0	82	13.4	162	12.6	0	1.06	.08	1	.080	1.66	.091	.910	968	.26	.32	.27
140	1320	162	12.6	155	12.8	227	12.6	0	1.17	.08	1	.080	1.66	.025	.953	481	.46	.16	.13
139	2800	265	12.6	221	13.0	----	----	0	1.15	.08	1	.050	1.66	.126	.833	1115	.23	.24	.32
138	3000	67	12.5	63	12.7	203	12.5	0	1.99	.08	1	.170	1.66	.185	.937	985	.26	.08	.28

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV. AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	TRAVEL STOR-AGE (HR)	TIME KINE-MATIC (HR)
ALTERNATE	1	STORM	1																
139	2000	203	12.5	177	12.7	----	----	0	1.34	.08	1	.050	1.66	.181	.869	885	.28	.16	.25
127	2500	104	12.5	87	12.8	----	----	0	1.15	.08	1	.080	1.66	.324	.833	1086	.23	.08	.31
127	2300	23	12.5	15	13.0	99	12.8	0	.91	.08	1	.080	1.66	.872	.635	1822	.15	.16	.55
131	2000	119	12.5	113	12.6	----	----	0	1.40	.08	1	.170	1.66	.081	.947	524	.43	.08	.15
126	1500	367	12.5	359	12.6	498	12.6	0	1.18	.08	1	.110	1.66	.030	.980	327	.61	.16	.09
134	1500	498	12.6	490	12.6	----	----	0	1.34	.08	1	.130	1.66	.019	.984	261	.71?	.08	.07
134	3200	43	12.5	38	12.9	524	12.6	0	1.98	.08	1	.130	1.66	.367	.877	1476	.18	.08	.42
124	2500	730	12.5	695	12.6	819	12.6	0	1.41	.08	1	.090	1.66	.046	.952	467	.47	.16	.13
103	1400	989	12.9	989	12.9	1002	12.8	0	1.06	.08	0	.960	1.51	.002	1.000	93	1.00?	.00	.00
104	1320	1002	12.8	1002	12.8	----	----	0	1.06	.08	0	.960	1.51	.002	1.000	87	1.00?	.00	.00
107	1000	1765	12.6	1765	12.6	----	----	0	1.14	.08	0	.850	1.53	.001	1.000	55	1.00?	.00	.00
108	1700	2052	12.6	2052	12.6	----	----	0	.96	.08	0	.850	1.53	.002	1.000	88	1.00?	.00	.00
108	700	29	12.6	27	12.8	34	12.6	0	.85	.08	1	.080	1.66	.068	.932	503	.45	.08	.14
110	1320	2119	12.6	2119	12.6	----	----	0	.88	.08	0	.850	1.53	.001	1.000	68	1.00?	.00	.00
111	1320	2400	12.6	2400	12.6	2429	12.6	0	.89	.08	0	1.07	1.53	.001	1.000	56	1.00?	.00	.00
112	1320	2429	12.6	2364	12.7	2440	12.6	0	.89	.08	1	.040	1.63	.010	.973	287	.67?	.16	.08
113	1320	2440	12.6	2403	12.8	----	----	0	.92	.08	1	.040	1.63	.009	.985	286	.67?	.16	.08
114	3000	2750	12.7	2606	13.0	----	----	0	1.14	.08	1	.040	1.63	.022	.947	621	.38	.24	.17
48	1320	87	12.5	82	12.7	138	12.6	0	1.99	.08	1	.040	1.66	.168	.940	935	.27	.08	.26
48	2640	66	12.5	51	13.1	----	----	0	1.98	.08	1	.040	1.66	.657	.778	2094	.13	.08	.61
56	1866	175	12.7	166	12.9	174	12.8	0	1.46	.08	1	.120	1.66	.048	.953	518	.44	.16	.15
57	1320	174	12.8	172	13.0	182	12.6	0	1.37	.08	1	.200	1.54	.028	.991	400	.53	.16	.11
60	1867	182	12.6	176	13.0	195	12.8	0	1.31	.08	1	.120	1.66	.032	.970	510	.44	.40	.14
60	1320	45	12.5	42	12.6	----	----	0	1.13	.08	1	.250	1.54	.105	.929	556	.41	.16	.16
65	1320	232	12.7	227	12.8	247	12.8	0	1.25	.08	1	.280	1.54	.016	.980	290	.66	.08	.08
68	1320	247	12.8	241	12.9	248	12.9	0	1.19	.08	1	.250	1.54	.017	.977	306	.64	.08	.09
46	1320	79	12.5	78	12.6	155	12.6	0	1.01	.08	1	.510	1.54	.037	.982	287	.67?	.16	.08
59	1867	155	12.6	142	12.7	161	12.6	0	1.01	.08	1	.110	1.66	.100	.920	573	.40	.08	.16
45	2700	139	12.5	101	12.9	175	12.6	0	1.10	.08	1	.050	1.66	.349	.723	1388	.19	.32	.41
59	1400	175	12.6	168	12.8	----	----	0	1.15	.08	1	.110	1.66	.031	.958	409	.52	.16	.11
66	1320	323	12.7	317	12.9	340	12.8	0	1.09	.08	1	.110	1.66	.020	.983	302	.65	.16	.08
68	1877	340	12.8	332	13.0	----	----	0	1.08	.08	1	.250	1.54	.033	.977	388	.54	.16	.11

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV. AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO Q/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	1																
70	1320	578	13.0	574	13.0	579	13.0	0	1.13	.08	1	.180	1.54	.016	.993	281	.68?	.08	.08
74	1320	579	13.0	573	13.1	578	13.1	0	1.14	.08	1	.090	1.66	.011	.989	270	.70?	.08	.08
40	2650	92	12.5	82	12.8	---	---	0	1.99	.08	1	.080	1.66	.258	.887	1209	.21	.16	.34
40	1800	64	12.6	52	12.8	134	12.8	0	.85	.08	1	.080	1.66	.226	.819	951	.26	.16	.27
82	1400	178	12.7	172	12.9	184	12.6	0	1.23	.08	1	.100	1.66	.040	.966	430	.50	.16	.12
82	1867	81	12.6	72	12.8	---	---	0	1.19	.08	1	.100	1.66	.139	.889	785	.31	.16	.22
81	1320	254	12.8	251	13.0	267	12.9	0	1.20	.08	1	.220	1.54	.026	.988	329	.61	.16	.09
78	1320	267	12.9	263	13.0	269	13.0	0	1.15	.08	1	.090	1.66	.025	.986	368	.56	.16	.10
41	3100	93	12.6	84	12.8	182	12.6	0	1.07	.08	1	.240	1.66	.133	.895	726	.33	.16	.21
78	1600	230	12.6	216	12.7	---	---	0	1.09	.08	1	.090	1.66	.056	.939	473	.47	.08	.13
77	1320	471	12.8	466	12.9	476	12.9	0	1.13	.08	1	.230	1.54	.016	.989	257	.72?	.08	.07
69	1320	476	12.9	469	13.0	488	13.0	0	1.11	.08	1	.200	1.54	.018	.986	281	.68?	.16	.08
67	1320	83	12.5	80	12.6	126	12.6	0	1.07	.08	1	.250	1.54	.074	.958	447	.49	.16	.13
69	1320	126	12.6	121	12.7	---	---	0	1.18	.08	1	.200	1.54	.064	.958	447	.49	.08	.13
74	1867	582	12.9	568	13.0	---	---	0	1.11	.08	1	.090	1.66	.024	.977	382	.55	.16	.11
114	3300	1138	13.1	1068	13.4	1097	13.3	0	1.13	.08	1	.050	1.66	.061	.939	736	.33	.24	.21
114	2200	83	12.6	64	13.0	---	---	0	1.19	.08	1	.050	1.66	.374	.770	1390	.19	.24	.41
72	2650	156	12.5	133	12.7	198	12.6	0	1.01	.08	1	.180	1.54	.211	.855	892	.28	.16	.25
114	2000	198	12.6	172	12.9	---	---	0	1.03	.08	1	.050	1.66	.157	.871	895	.28	.24	.26
118	4000	3865	13.0	3770	13.3	3837	13.3	0	1.13	.08	1	.050	1.66	.019	.975	549	.42	.24	.15
ALTERNATE	1	STORM	2																
3	1000	217	12.5	214	12.6	---	---	0	3.00	.08	1	.040	1.66	.054	.985	493	.45	.08	.14
3	1400	143	12.5	138	12.7	---	---	0	3.00	.08	1	.040	1.66	.125	.967	816	.30	.08	.23
6	1600	386	12.6	383	12.7	---	---	0	2.74	.08	1	1.59	1.20	.052	.992	342	.59	.08	.10
8	1600	471	12.7	454	12.9	---	---	0	2.47	.08	1	.644	1.24	.088	.963	554	.41	.16	.15
8	1400	86	12.6	85	12.8	---	---	0	1.47	.08	1	.530	1.53	.029	.983	296	.65	.16	.08
4	1800	32	12.5	27	13.0	305	12.5	0	3.00	.08	1	.050	1.66	.403	.843	1654	.16	.08	.47
5	1400	305	12.5	298	12.6	---	---	0	3.00	.08	1	.050	1.66	.056	.979	528	.43	.08	.15
8	2100	397	12.6	371	12.9	---	---	0	2.43	.08	1	.627	1.25	.127	.933	745	.32	.16	.21
8	1900	139	12.6	115	13.0	---	---	0	1.53	.08	1	.040	1.66	.213	.829	1118	.23	.32	.32
14	3000	1104	12.9	987	13.1	---	---	0	2.10	.08	1	.787	1.20	.157	.894	926	.27	.16	.26
14	2600	127	12.8	122	13.0	1100	13.1	0	1.46	.08	1	.776	1.47	.046	.963	447	.49	.16	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV. AREA		BASE-	VOLUME	MAIN	ITER-	Q AND A EQUATION			PEAK	S/Q	ATT-	TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	FLOW (CFS)	ABOVE BASE (IN)	TIME INCR (HR)	ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	RATIO O/I (Q*)	@PEAK (K) (SEC)	KIN COEFF (C)	STOR- AGE (HR)	KINE- MATIC (HR)
ALTERNATE	1	STORM	2																
15	1100	132	12.6	132	12.6	185	12.6	0	2.14	.08	0	.540	1.66	.007	1.000	138	1.00?	.00	.00
27	3000	1204	13.0	1139	13.3	---	---	0	1.99	.08	1	.471	1.29	.096	.946	844	.29	.24	.24
25	2200	87	12.5	77	12.9	159	12.6	0	3.00	.08	1	.050	1.66	.294	.890	1366	.19	.08	.39
27	1700	159	12.6	155	12.7	---	---	0	2.33	.08	1	.776	1.40	.036	.973	337	.60	.16	.09
37	3000	1319	13.2	1310	13.4	1320	13.4	0	1.98	.08	1	.500	1.48	.016	.993	312	.63	.16	.09
37	2100	194	12.6	191	12.6	---	---	0	1.75	.08	1	.410	1.66	.024	.986	267	.70?	.08	.07
143	1400	1349	13.4	1348	13.4	---	---	0	1.94	.08	1	.090	1.66	.005	.999	205	.83?	.08	.06
86	1250	0	.0	0	.0	77	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	77	12.5	68	12.8	125	12.6	0	.10	.08	1	.118	1.45	.235	.876	1034	.24	.16	.29
105	2000	125	12.6	105	13.0	---	---	0	.19	.08	1	.286	1.34	.219	.845	1137	.22	.24	.32
11	2700	75	12.6	72	12.7	230	12.7	0	1.47	.08	1	.440	1.66	.060	.952	478	.46	.16	.13
28	3300	230	12.7	162	13.3	---	---	0	1.46	.08	1	.030	1.66	.483	.703	1891	.14	.40	.56
28	2800	116	12.6	79	13.2	240	13.2	0	1.82	.08	1	.030	1.66	.644	.678	2105	.13	.40	.63
36	3500	315	13.1	278	13.4	292	13.4	0	1.56	.08	1	.060	1.66	.118	.882	1166	.22	.32	.33
90	2600	292	13.4	285	13.6	---	---	0	1.61	.08	1	.220	1.54	.029	.978	617	.38	.24	.17
35	1320	118	12.6	116	12.8	233	12.6	0	1.98	.08	1	.310	1.54	.033	.978	344	.59	.16	.10
91	2640	233	12.6	215	12.8	333	12.6	0	1.94	.08	1	.220	1.54	.095	.921	677	.35	.16	.19
90	1320	333	12.6	326	12.7	430	12.7	0	2.00	.08	1	.220	1.54	.024	.977	299	.65	.08	.08
88	1320	626	12.8	623	12.9	704	12.9	0	1.77	.08	1	.220	1.54	.009	.995	240	.75?	.08	.07
88	2000	52	12.5	46	12.7	---	---	0	1.98	.08	1	.220	1.54	.175	.889	867	.28	.24	.25
101	1050	747	12.8	744	12.9	774	12.9	0	1.80	.08	1	.220	1.54	.006	.996	179	.89?	.08	.05
102	1320	774	12.9	734	13.0	761	13.0	0	1.82	.08	1	.020	1.66	.033	.949	596	.39	.16	.17
105	1320	761	13.0	744	13.2	759	13.2	0	1.82	.08	1	.226	1.38	.028	.977	445	.49	.16	.12
107	1400	851	13.2	834	13.4	840	13.4	0	1.04	.08	1	.212	1.40	.028	.980	450	.48	.16	.13
85	2000	1348	13.4	1332	13.6	1338	13.6	0	3.87	.08	1	.119	1.49	.029	.988	510	.44	.16	.14
83	2000	1338	13.6	1322	13.8	1327	13.8	0	3.75	.08	1	.120	1.49	.028	.989	512	.44	.16	.14
83	1320	54	12.6	50	12.7	---	---	0	1.54	.08	1	.200	1.54	.098	.923	603	.39	.16	.17
109	2000	62	13.8	54	14.1	73	12.5	0	.14	.08	1	.387	1.34	.273	.879	1066	.24	.24	.30
80	1320	1271	13.8	1266	13.8	1270	13.8	0	6.97	.08	1	.768	1.23	.023	.996	340	.59	.08	.09
79	1320	1270	13.8	1269	13.9	1272	13.9	0	6.55	.08	1	.230	1.54	.005	.999	182	.88?	.08	.05
76	1320	1272	13.9	1271	14.1	1274	14.1	0	6.22	.08	1	.230	1.54	.004	.999	182	.88?	.16	.05
75	1320	1274	14.1	1274	14.2	1278	14.2	0	5.93	.08	1	.230	1.54	.004	1.000	181	.89?	.08	.05

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K‡)	PEAK RATIO O/I (Q‡)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	2																
113	1800	1278	14.2	1276	14.2	---	---	0	5.73	.08	1	.080	1.66	.006	.998	289	.67	.08	.08
113	1320	52	12.6	46	12.8	1279	14.2	0	1.47	.08	1	.080	1.66	.145	.886	759	.32	.16	.22
29	3800	61	12.6	26	13.6	---	---	0	1.47	.08	1	.040	1.66	1.565	.429	4210	.07?	.32	1.00
29	2600	170	12.8	162	13.0	171	13.0	0	1.60	.08	1	.370	1.54	.054	.953	532	.43	.16	.15
33	2600	322	13.0	314	13.1	441	13.0	0	1.54	.08	1	.380	1.54	.029	.974	418	.51	.16	.12
92	3000	441	13.0	412	13.3	431	13.2	0	1.52	.08	1	.080	1.66	.063	.933	735	.33	.24	.21
92	1320	212	12.6	205	12.7	---	---	0	1.98	.08	1	.080	1.66	.053	.967	433	.50	.08	.12
98	2500	554	12.8	536	13.0	---	---	0	1.66	.08	1	.080	1.66	.029	.967	559	.41	.24	.16
32	3400	66	12.6	30	13.7	120	12.8	0	1.47	.08	1	.030	1.66	1.390	.464	4026	.07?	.40	1.02
94	3200	120	12.8	101	13.2	203	12.6	0	1.45	.08	1	.090	1.66	.117	.843	1226	.21	.40	.35
95	2400	203	12.6	181	12.8	293	12.8	0	1.63	.08	1	.090	1.66	.050	.891	745	.32	.16	.21
98	3000	293	12.8	262	13.0	---	---	0	1.74	.08	1	.080	1.66	.067	.894	865	.29	.24	.25
97	2100	124	12.6	109	12.8	305	12.6	0	1.83	.08	1	.080	1.66	.159	.883	854	.29	.16	.24
98	1000	305	12.6	302	12.7	---	---	0	2.07	.08	1	.080	1.66	.020	.990	284	.67?	.08	.08
99	1250	1070	12.9	1067	13.0	1106	12.9	0	1.76	.08	1	.080	1.66	.006	.997	215	.80?	.08	.06
139	1600	1106	12.9	1095	13.0	---	---	0	1.78	.08	1	.050	1.66	.013	.990	361	.57	.16	.10
139	600	92	12.5	90	12.6	1125	13.0	0	2.15	.08	1	.050	1.66	.040	.980	364	.57	.16	.10
141	2100	162	13.0	152	13.3	283	12.6	0	1.89	.08	1	.080	1.66	.062	.939	766	.32	.24	.22
140	1320	283	12.6	275	12.8	395	12.6	0	2.03	.08	1	.080	1.66	.018	.968	386	.54	.16	.11
139	2800	463	12.6	410	12.9	---	---	0	2.00	.08	1	.050	1.66	.088	.886	893	.28	.16	.25
138	3000	97	12.5	94	12.7	328	12.5	0	3.00	.08	1	.170	1.66	.135	.965	851	.29	.08	.24
139	2000	328	12.5	300	12.7	---	---	0	2.23	.08	1	.050	1.66	.125	.916	732	.33	.16	.21
127	2500	169	12.5	152	12.7	---	---	0	2.00	.08	1	.080	1.66	.208	.902	898	.28	.08	.25
127	2300	39	12.5	30	12.9	177	12.7	0	1.69	.08	1	.080	1.66	.530	.751	1473	.18	.08	.43
131	2000	187	12.5	182	12.6	---	---	0	2.32	.08	1	.170	1.66	.055	.974	438	.49	.08	.12
126	1500	643	12.5	631	12.6	845	12.6	0	2.04	.08	1	.110	1.66	.021	.981	261	.71?	.16	.07
134	1500	845	12.6	840	12.6	---	---	0	2.24	.08	1	.130	1.66	.014	.995	212	.81?	.08	.06
134	3200	62	12.5	57	12.9	893	12.6	0	2.99	.08	1	.130	1.66	.267	.922	1276	.20	.08	.36
124	2500	1235	12.5	1196	12.6	1418	12.6	0	2.31	.08	1	.090	1.66	.034	.968	379	.55	.16	.11
103	1400	1864	12.8	1864	12.8	1886	12.8	0	1.88	.08	0	.960	1.51	.002	1.000	75	1.00?	.00	.00
104	1320	1886	12.8	1886	12.8	---	---	0	1.89	.08	0	.960	1.51	.001	1.000	70	1.00?	.00	.00
107	1000	3223	12.6	3223	12.6	---	---	0	1.08	.08	0	.850	1.53	.001	1.000	44	1.00?	.00	.00

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA		BASE-	VOLUME	MAIN	ITER-	Q AND A EQUATION			PEAK	S/Q	ATT-	TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	FLOW (CFS)	ABOVE BASE (IN)	TIME INCR (HR)	ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	RATIO O/I (Q*)	@PEAK (K) (SEC)	KIN COEFF (C)	STOR- AGE (HR)	KINE- MATIC (HR)
ALTERNATE		1	STORM	2															
108	1700	3859	12.6	3859	12.6	---	---	0	1.67	.08	0	.850	1.53	.001	1.000	71	1.00?	.00	.00
108	700	54	12.6	53	12.7	72	12.6	0	1.61	.08	1	.080	1.66	.043	.970	395	.53	.16	.11
110	1320	3982	12.6	3982	12.6	---	---	0	1.55	.08	0	.850	1.53	.001	1.000	54	1.00?	.00	.00
111	1320	4431	12.6	4431	12.6	4486	12.6	0	1.57	.08	0	1.07	1.53	.001	1.000	45	1.00?	.00	.00
112	1320	4486	12.6	4411	12.6	4544	12.6	0	1.57	.08	1	.040	1.63	.007	.983	226	.78?	.08	.06
113	1320	4544	12.6	4501	12.7	---	---	0	1.60	.08	1	.040	1.63	.007	.991	225	.78?	.08	.06
114	3000	5227	12.7	5043	12.9	---	---	0	1.98	.08	1	.040	1.63	.017	.965	485	.46	.16	.14
48	1320	126	12.5	122	12.7	227	12.6	0	3.00	.08	1	.040	1.66	.123	.968	807	.30	.08	.23
48	2640	95	12.5	79	13.0	---	---	0	2.99	.08	1	.040	1.66	.478	.838	1810	.15	.08	.52
56	1866	288	12.6	281	12.8	307	12.6	0	2.35	.08	1	.120	1.66	.036	.977	424	.51	.16	.12
57	1320	307	12.6	301	12.7	338	12.6	0	2.25	.08	1	.200	1.54	.023	.980	327	.61	.16	.09
60	1867	338	12.6	325	12.8	375	12.7	0	2.18	.08	1	.120	1.66	.026	.963	398	.53	.16	.11
60	1320	74	12.5	71	12.6	---	---	0	1.99	.08	1	.250	1.54	.073	.959	467	.47	.08	.13
65	1320	445	12.7	441	12.8	477	12.8	0	2.10	.08	1	.280	1.54	.014	.991	231	.77?	.08	.06
63	1320	477	12.8	473	12.9	484	12.9	0	2.03	.08	1	.250	1.54	.014	.992	243	.74?	.08	.07
46	1320	135	12.5	134	12.6	265	12.6	0	1.83	.08	1	.510	1.54	.026	.986	237	.76?	.08	.07
59	1867	265	12.6	256	12.7	299	12.6	0	1.83	.08	1	.110	1.66	.064	.967	463	.47	.08	.13
45	2700	240	12.5	189	12.8	318	12.6	0	1.95	.08	1	.050	1.66	.234	.787	1119	.23	.24	.33
59	1400	318	12.6	308	12.7	---	---	0	2.01	.08	1	.110	1.66	.022	.970	323	.62	.08	.09
66	1320	590	12.7	587	12.8	631	12.7	0	1.92	.08	1	.110	1.66	.014	.995	238	.75?	.08	.07
68	1877	631	12.7	624	12.9	---	---	0	1.92	.08	1	.250	1.54	.026	.988	313	.63	.16	.09
70	1320	1108	12.9	1102	13.0	1112	13.0	0	1.97	.08	1	.180	1.54	.013	.995	223	.78?	.08	.06
74	1320	1112	13.0	1107	13.0	1115	13.0	0	1.98	.08	1	.090	1.66	.009	.995	209	.82?	.08	.06
40	2650	134	12.5	124	12.8	---	---	0	3.00	.08	1	.080	1.66	.188	.927	1043	.24	.08	.29
40	1800	116	12.6	103	12.8	227	12.8	0	1.61	.08	1	.080	1.66	.142	.893	751	.32	.16	.21
82	1400	302	12.7	297	12.8	326	12.6	0	2.07	.08	1	.100	1.66	.028	.984	349	.58	.08	.10
82	1867	135	12.6	126	12.7	---	---	0	2.06	.08	1	.100	1.66	.093	.934	640	.37	.16	.18
81	1320	449	12.6	445	12.8	487	12.7	0	2.06	.08	1	.220	1.54	.020	.991	269	.70?	.16	.07
78	1320	487	12.7	481	12.9	496	12.8	0	1.99	.08	1	.090	1.66	.019	.987	290	.66	.16	.08
41	3100	159	12.6	149	12.7	381	12.6	0	1.90	.08	1	.240	1.66	.037	.936	587	.39	.16	.17
78	1600	412	12.6	403	12.6	---	---	0	1.94	.08	1	.090	1.66	.039	.978	375	.55	.08	.10
77	1320	873	12.6	868	12.8	902	12.7	0	1.97	.08	1	.230	1.54	.013	.994	207	.82?	.16	.06

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV. AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	2																
69	1320	902	12.7	894	12.9	937	12.8	0	1.94	.08	1	.200	1.54	.014	.991	224	.78?	.16	.06
67	1320	140	12.5	136	12.6	211	12.5	0	1.91	.08	1	.250	1.54	.051	.968	373	.56	.16	.10
69	1320	211	12.5	207	12.6	---	---	0	2.04	.08	1	.200	1.54	.046	.982	373	.56	.16	.10
74	1867	1107	12.8	1091	12.9	---	---	0	1.95	.08	1	.090	1.66	.018	.985	296	.66	.08	.08
114	3300	2169	13.0	2080	13.1	2146	13.1	0	1.97	.08	1	.050	1.66	.046	.959	570	.40	.16	.16
114	2200	138	12.6	116	12.9	---	---	0	2.06	.08	1	.050	1.66	.250	.838	1136	.23	.16	.33
72	2650	268	12.5	244	12.7	359	12.6	0	1.83	.08	1	.180	1.54	.146	.913	738	.33	.16	.21
114	2000	359	12.6	329	12.8	---	---	0	1.85	.08	1	.050	1.66	.108	.916	706	.34	.16	.20
118	4000	7662	13.0	7523	13.1	7648	13.1	0	1.96	.08	1	.050	1.66	.015	.982	418	.51	.16	.12
ALTERNATE	1	STORM	3																
3	1000	247	12.5	244	12.6	---	---	0	3.46	.08	1	.040	1.66	.049	.989	468	.47	.08	.13
3	1400	162	12.5	158	12.7	---	---	0	3.46	.08	1	.040	1.66	.112	.974	775	.31	.08	.22
6	1600	446	12.6	443	12.7	---	---	0	3.19	.08	1	1.53	1.21	.049	.992	329	.61	.16	.09
8	1600	550	12.7	531	12.9	---	---	0	2.90	.08	1	.655	1.24	.085	.967	540	.42	.16	.15
8	1400	107	12.6	105	12.8	---	---	0	1.83	.08	1	.542	1.52	.026	.982	278	.68?	.16	.08
4	1800	37	12.5	32	13.0	348	12.5	0	3.47	.08	1	.050	1.66	.362	.861	1571	.17	.08	.45
5	1400	348	12.5	342	12.6	---	---	0	3.46	.08	1	.050	1.66	.051	.983	500	.45	.08	.14
8	2100	463	12.6	434	12.9	---	---	0	2.85	.08	1	.643	1.24	.123	.938	729	.33	.16	.20
8	1900	172	12.6	146	13.0	---	---	0	1.90	.08	1	.040	1.66	.184	.852	1029	.25	.24	.29
14	3000	1309	12.9	1184	13.1	---	---	0	2.50	.08	1	.755	1.21	.148	.905	890	.28	.16	.25
14	2600	157	12.8	152	13.0	1323	13.1	0	1.82	.08	1	.815	1.45	.044	.967	426	.51	.16	.12
15	1100	156	12.6	156	12.6	221	12.6	0	2.56	.08	0	.540	1.66	.006	1.000	129	1.00?	.00	.00
27	3000	1452	13.0	1387	13.3	---	---	0	2.39	.08	1	.379	1.33	.083	.955	767	.32	.24	.21
25	2200	99	12.5	90	12.9	189	12.6	0	3.47	.08	1	.050	1.66	.263	.906	1297	.20	.08	.37
27	1700	189	12.6	183	12.7	---	---	0	2.76	.08	1	.793	1.40	.035	.973	324	.62	.16	.09
37	3000	1608	13.2	1603	13.3	1614	13.3	0	2.38	.08	1	.447	1.51	.014	.936	284	.67?	.08	.08
37	2100	233	12.6	231	12.6	---	---	0	2.14	.08	1	.410	1.66	.021	.991	248	.74?	.08	.07
143	1400	1651	13.3	1650	13.4	---	---	0	2.33	.08	1	.090	1.66	.005	.999	189	.86?	.08	.05
86	1250	0	.0	0	.0	91	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	91	12.5	81	12.7	153	12.6	0	.12	.08	1	.118	1.45	.212	.892	984	.26	.16	.28
105	2000	153	12.6	131	13.0	---	---	0	.23	.08	1	.286	1.34	.210	.855	1079	.24	.16	.31
11	2700	93	12.6	89	12.7	286	12.7	0	1.83	.08	1	.440	1.66	.052	.962	440	.49	.16	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV AREA		BASE-	VOLUME	MAIN	ITER-	Q AND A EQUATION			PEAK	S/Q	ATT-	TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	FLOW (CFS)	ABOVE BASE (IN)	TIME INCR (HR)	ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	RATIO O/I (Q*)	@PEAK (K) (SEC)	KIN COEFF (C)	STOR- AGE (HR)	KINE- MATIC (HR)
ALTERNATE	1	STORM	3																
28	3300	286	12.7	209	13.2	---	---	0	1.82	.08	1	.030	1.66	.418	.731	1735	.15	.32	.51
28	2800	140	12.6	99	13.1	308	13.2	0	2.22	.08	1	.030	1.66	.561	.706	1954	.14	.32	.58
36	3500	401	13.1	360	13.4	376	13.4	0	1.93	.08	1	.060	1.66	.106	.898	1059	.24	.24	.30
90	2600	376	13.4	367	13.6	---	---	0	1.98	.08	1	.220	1.54	.027	.977	564	.41	.16	.16
35	1320	142	12.6	139	12.8	280	12.6	0	2.38	.08	1	.310	1.54	.030	.979	323	.62	.16	.09
91	2640	280	12.6	261	12.8	403	12.6	0	2.34	.08	1	.220	1.54	.085	.932	635	.37	.16	.18
90	1320	403	12.6	396	12.7	520	12.7	0	2.41	.08	1	.220	1.54	.021	.983	280	.68?	.08	.08
88	1320	750	12.7	747	12.9	846	12.8	0	2.15	.08	1	.220	1.54	.008	.997	225	.78?	.16	.06
88	2000	62	12.5	56	12.7	---	---	0	2.39	.08	1	.220	1.54	.156	.906	816	.30	.16	.23
101	1050	902	12.8	900	12.9	935	12.9	0	2.19	.08	1	.220	1.54	.005	.997	168	.92?	.08	.05
102	1320	935	12.9	895	13.0	927	13.0	0	2.21	.08	1	.020	1.66	.029	.957	553	.41	.16	.15
105	1320	927	13.0	908	13.2	926	13.2	0	2.21	.08	1	.202	1.41	.024	.980	409	.52	.16	.11
107	1400	1050	13.1	1032	13.3	1040	13.3	0	1.26	.08	1	.187	1.42	.024	.982	412	.52	.16	.11
85	2000	1650	13.4	1634	13.5	1641	13.5	0	4.66	.08	1	.118	1.50	.026	.991	476	.46	.16	.13
83	2000	1641	13.5	1626	13.7	1632	13.7	0	4.52	.08	1	.118	1.50	.025	.990	477	.46	.16	.13
83	1320	66	12.6	62	12.7	---	---	0	1.90	.08	1	.200	1.54	.087	.936	562	.41	.16	.16
109	2000	113	13.7	104	13.9	108	13.9	0	.29	.08	1	.388	1.34	.191	.925	916	.27	.24	.26
80	1320	1527	13.7	1520	13.8	1525	13.8	0	8.29	.08	1	.783	1.23	.022	.996	331	.61	.08	.09
79	1320	1525	13.8	1524	13.8	1528	13.8	0	7.79	.08	1	.230	1.54	.004	.999	170	.92?	.08	.05
76	1320	1528	13.8	1528	14.0	1532	14.0	0	7.40	.08	1	.230	1.54	.004	1.000	170	.92?	.16	.05
75	1320	1532	14.0	1532	14.1	1536	14.1	0	7.06	.08	1	.230	1.54	.004	1.000	170	.92?	.08	.05
113	1800	1536	14.1	1534	14.2	---	---	0	6.81	.08	1	.080	1.66	.006	.999	269	.70?	.08	.07
113	1320	63	12.6	57	12.7	1538	14.2	0	1.83	.08	1	.080	1.66	.124	.906	700	.34	.16	.20
29	3800	74	12.6	37	13.4	---	---	0	1.83	.08	1	.040	1.66	1.331	.494	3503	.08?	.32	.91
29	2600	209	12.8	201	13.0	222	13.0	0	1.97	.08	1	.370	1.54	.048	.961	495	.45	.16	.14
33	2600	409	13.0	401	13.0	559	13.0	0	1.91	.08	1	.380	1.54	.027	.980	384	.55	.08	.11
92	3000	559	13.0	526	13.3	553	13.2	0	1.88	.08	1	.080	1.66	.056	.942	669	.35	.24	.19
92	1320	251	12.6	245	12.6	---	---	0	2.39	.08	1	.080	1.66	.046	.976	405	.53	.08	.11
98	2500	680	12.8	658	13.0	---	---	0	2.04	.08	1	.080	1.66	.025	.968	516	.44	.16	.14
32	3400	81	12.6	42	13.5	154	12.8	0	1.82	.08	1	.030	1.66	1.193	.525	3346	.08?	.40	.92
94	3200	154	12.8	134	13.1	251	12.6	0	1.81	.08	1	.090	1.66	.104	.869	1109	.23	.32	.32
95	2400	251	12.6	227	12.7	359	12.7	0	2.00	.08	1	.090	1.66	.044	.904	686	.35	.16	.19

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE 1 STORM 3																			
98	3000	359	12.7	326	13.0	---	---	0	2.13	.08	1	.080	1.66	.059	.908	798	.31	.24	.23
97	2100	148	12.6	134	12.8	365	12.6	0	2.22	.08	1	.080	1.66	.138	.902	794	.31	.16	.23
98	1000	365	12.6	363	12.7	---	---	0	2.48	.08	1	.080	1.66	.018	.994	264	.71?	.08	.07
99	1250	1346	12.8	1340	12.9	1402	12.9	0	2.15	.08	1	.080	1.66	.005	.996	197	.85?	.08	.05
139	1600	1402	12.9	1383	13.0	---	---	0	2.16	.08	1	.050	1.66	.012	.986	329	.61	.08	.09
139	600	108	12.5	106	12.6	1430	13.0	0	2.57	.08	1	.050	1.66	.035	.982	341	.59	.16	.10
141	2100	196	13.0	186	13.3	341	12.6	0	2.28	.08	1	.080	1.66	.055	.947	710	.34	.24	.20
140	1320	341	12.6	332	12.7	475	12.6	0	2.44	.08	1	.080	1.66	.016	.972	358	.57	.08	.10
139	2800	557	12.6	503	12.9	---	---	0	2.40	.08	1	.050	1.66	.077	.903	830	.30	.16	.24
138	3000	111	12.5	108	12.7	385	12.5	0	3.47	.08	1	.170	1.66	.121	.972	808	.30	.08	.23
139	2000	385	12.5	357	12.6	---	---	0	2.65	.08	1	.050	1.66	.110	.927	687	.35	.16	.19
127	2500	198	12.5	182	12.7	---	---	0	2.41	.08	1	.080	1.66	.180	.921	843	.29	.08	.24
127	2300	47	12.5	37	12.9	214	12.7	0	2.07	.08	1	.080	1.66	.450	.787	1374	.19	.08	.40
131	2000	217	12.5	213	12.6	---	---	0	2.76	.08	1	.170	1.66	.048	.980	412	.52	.08	.12
126	1500	773	12.5	763	12.6	1008	12.6	0	2.45	.08	1	.110	1.66	.019	.986	243	.74?	.08	.07
134	1500	1008	12.6	1005	12.6	---	---	0	2.66	.08	1	.130	1.66	.012	.997	198	.84?	.08	.05
134	3200	71	12.5	66	12.8	1068	12.6	0	3.45	.08	1	.130	1.66	.240	.934	1212	.21	.08	.34
124	2500	1479	12.5	1437	12.6	1710	12.6	0	2.74	.08	1	.090	1.66	.031	.971	353	.58	.16	.10
103	1400	2296	12.8	2296	12.8	2330	12.7	0	2.28	.08	0	.960	1.51	.002	1.000	70	1.00?	.00	.00
104	1320	2330	12.7	2330	12.7	---	---	0	2.28	.08	0	.960	1.51	.001	1.000	65	1.00?	.00	.00
107	1000	3985	12.6	3985	12.6	---	---	0	2.39	.08	0	.850	1.53	.001	1.000	41	1.00?	.00	.00
108	1700	4784	12.6	4784	12.6	---	---	0	2.01	.08	0	.850	1.53	.001	1.000	66	1.00?	.00	.00
108	700	66	12.6	64	12.7	88	12.6	0	1.98	.08	1	.080	1.66	.037	.974	365	.57	.16	.10
110	1320	4933	12.6	4933	12.6	---	---	0	1.87	.08	0	.850	1.53	.001	1.000	50	1.00?	.00	.00
111	1320	5479	12.6	5479	12.6	5547	12.6	0	1.89	.08	0	1.07	1.53	.001	1.000	42	1.00?	.00	.00
112	1320	5547	12.6	5480	12.6	5632	12.6	0	1.89	.08	1	.040	1.63	.007	.988	208	.82?	.08	.06
113	1320	5632	12.6	5597	12.7	---	---	0	1.93	.08	1	.040	1.63	.006	.994	207	.82?	.08	.06
114	3000	6516	12.7	6322	12.9	---	---	0	2.38	.08	1	.040	1.63	.016	.970	445	.49	.16	.12
48	1320	144	12.5	140	12.7	208	12.6	0	3.46	.08	1	.040	1.66	.110	.975	766	.32	.08	.21
48	2640	108	12.5	92	13.0	---	---	0	3.45	.08	1	.040	1.66	.429	.856	1720	.15	.08	.49
56	1866	346	12.6	339	12.8	378	12.6	0	2.77	.08	1	.120	1.66	.033	.981	395	.53	.16	.11
57	1320	378	12.6	371	12.7	418	12.6	0	2.67	.08	1	.200	1.54	.022	.981	304	.64	.16	.08

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE 1 STORM 3																			
60	1867	418	12.6	407	12.7	468	12.7	0	2.59	.08	1	.120	1.66	.024	.973	366	.56	.08	.10
60	1320	87	12.5	84	12.6	----	----	0	2.40	.08	1	.250	1.54	.064	.968	440	.49	.08	.12
65	1320	550	12.7	548	12.8	592	12.7	0	2.51	.08	1	.280	1.54	.013	.996	214	.80?	.08	.06
68	1320	592	12.7	589	12.9	602	12.9	0	2.44	.08	1	.250	1.54	.014	.995	225	.78?	.16	.06
46	1320	161	12.5	160	12.6	316	12.5	0	2.23	.08	1	.510	1.54	.023	.990	223	.78?	.08	.06
59	1867	316	12.5	308	12.6	378	12.6	0	2.22	.08	1	.110	1.66	.055	.975	431	.50	.16	.12
45	2700	286	12.5	232	12.8	367	12.6	0	2.35	.08	1	.050	1.66	.205	.809	1043	.24	.16	.30
59	1400	367	12.6	363	12.8	----	----	0	2.42	.08	1	.110	1.66	.019	.990	305	.64	.16	.08
66	1320	700	12.6	696	12.7	758	12.7	0	2.32	.08	1	.110	1.66	.012	.994	222	.79?	.08	.06
68	1877	758	12.7	748	12.8	----	----	0	2.32	.08	1	.250	1.54	.023	.987	293	.66	.08	.08
70	1320	1350	12.8	1340	12.9	1354	12.9	0	2.37	.08	1	.180	1.54	.012	.993	208	.82?	.08	.06
74	1320	1354	12.9	1350	13.0	1359	13.0	0	2.38	.08	1	.090	1.66	.008	.997	193	.85?	.16	.05
40	2650	153	12.5	143	12.7	----	----	0	3.46	.08	1	.080	1.66	.169	.939	991	.25	.08	.28
40	1800	140	12.6	127	12.7	270	12.7	0	1.98	.08	1	.080	1.66	.122	.910	696	.34	.16	.20
82	1400	373	12.6	366	12.7	414	12.6	0	2.48	.08	1	.100	1.66	.026	.980	320	.62	.08	.09
82	1867	160	12.6	151	12.7	----	----	0	2.48	.08	1	.100	1.66	.082	.944	598	.39	.16	.17
81	1320	562	12.6	557	12.7	612	12.7	0	2.46	.08	1	.220	1.54	.019	.991	249	.73?	.08	.07
78	1320	612	12.7	605	12.8	628	12.8	0	2.39	.08	1	.090	1.66	.017	.989	264	.71?	.08	.07
41	3100	190	12.6	180	12.7	386	12.6	0	2.30	.08	1	.240	1.66	.076	.945	548	.42	.08	.15
78	1600	481	12.5	472	12.6	----	----	0	2.34	.08	1	.090	1.66	.033	.982	353	.58	.16	.10
77	1320	1085	12.6	1077	12.7	1123	12.7	0	2.38	.08	1	.230	1.54	.012	.993	192	.86?	.08	.05
69	1320	1123	12.7	1114	12.8	1171	12.8	0	2.34	.08	1	.200	1.54	.013	.992	208	.82?	.08	.06
67	1320	166	12.5	162	12.6	251	12.5	0	2.31	.08	1	.250	1.54	.045	.974	351	.58	.08	.10
69	1320	251	12.5	247	12.6	----	----	0	2.46	.08	1	.200	1.54	.041	.984	351	.58	.16	.10
74	1867	1369	12.8	1359	12.9	----	----	0	2.35	.08	1	.090	1.66	.017	.992	272	.69?	.08	.08
114	3300	2683	13.0	2591	13.1	2673	13.1	0	2.37	.08	1	.050	1.66	.042	.966	524	.43	.16	.15
114	2200	163	12.6	140	12.9	----	----	0	2.48	.08	1	.050	1.66	.219	.860	1062	.24	.16	.30
72	2650	319	12.5	296	12.6	443	12.6	0	2.22	.08	1	.180	1.54	.129	.926	694	.34	.16	.20
114	2000	443	12.6	411	12.8	----	----	0	2.25	.08	1	.050	1.66	.006	.929	649	.36	.08	.18
118	4000	9597	13.0	9437	13.1	9590	13.1	0	2.36	.08	1	.050	1.66	.014	.983	382	.55	.16	.11
ALTERNATE 1 STORM 4																			
3	1000	313	12.5	311	12.6	----	----	0	4.47	.08	1	.040	1.66	.040	.993	426	.51	.08	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS										PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO Q/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	4															
3	1400	206	12.4	202	12.6	----	----	0	4.48	.08	1	.040	1.66	.093	.983	705	.34	.16	.20
6	1600	585	12.6	575	12.7	----	----	0	4.17	.08	1	1.05	1.20	.071	.984	443	.49	.08	.12
8	1600	725	12.7	703	12.9	----	----	0	3.85	.08	1	.638	1.24	.077	.970	507	.44	.16	.14
8	1400	153	12.6	151	12.7	----	----	0	2.66	.08	1	.570	1.50	.022	.988	251	.73?	.08	.07
4	1800	47	12.4	42	12.8	448	12.5	0	4.48	.08	1	.050	1.66	.299	.890	1430	.18	.16	.41
5	1400	448	12.5	443	12.6	----	----	0	4.47	.08	1	.050	1.66	.043	.990	453	.48	.08	.13
8	2100	615	12.6	584	12.8	----	----	0	3.80	.08	1	.648	1.24	.115	.950	691	.34	.08	.19
8	1900	245	12.6	217	12.9	----	----	0	2.74	.08	1	.040	1.66	.143	.885	893	.28	.24	.25
14	3000	1803	12.8	1655	13.0	----	----	0	3.41	.08	1	.687	1.23	.134	.918	818	.30	.24	.23
14	2600	227	12.8	222	12.9	1867	13.0	0	2.65	.08	1	.892	1.42	.040	.975	395	.53	.08	.11
15	1100	208	12.6	208	12.6	301	12.6	0	3.51	.08	0	.540	1.66	.005	1.000	115	1.00?	.00	.00
27	3000	2108	12.9	2040	13.1	----	----	0	3.29	.08	1	.272	1.39	.067	.968	648	.36	.24	.18
25	2200	125	12.4	116	12.7	262	12.6	0	4.48	.08	1	.050	1.66	.218	.928	1181	.22	.16	.33
27	1700	262	12.6	259	12.6	----	----	0	3.71	.08	1	.827	1.38	.033	.987	300	.65	.08	.08
37	3000	2384	13.0	2380	13.1	2400	13.1	0	3.28	.08	1	.325	1.57	.010	.998	233	.76?	.08	.06
37	2100	320	12.6	319	12.6	----	----	0	3.03	.08	1	.410	1.66	.016	.996	218	.79?	.08	.06
143	1400	2491	13.0	2490	13.1	----	----	0	3.23	.08	1	.090	1.66	.004	1.000	161	.95?	.08	.04
86	1250	76	13.1	63	13.4	120	12.5	0	.07	.08	1	.118	1.45	.422	.828	985	.26	.32	.28
87	1320	120	12.5	110	12.7	209	12.6	0	.24	.08	1	.116	1.45	.110	.916	898	.28	.16	.25
105	2000	209	12.6	185	12.9	----	----	0	.37	.08	1	.287	1.33	.146	.884	999	.25	.24	.28
11	2700	133	12.6	129	12.7	413	12.7	0	2.66	.08	1	.440	1.66	.040	.971	382	.55	.16	.11
28	3300	413	12.7	321	13.1	----	----	0	2.65	.08	1	.030	1.66	.324	.778	1499	.18	.32	.44
29	2800	194	12.6	146	13.0	465	13.0	0	3.12	.08	1	.030	1.66	.441	.752	1718	.15	.32	.50
36	3500	623	13.0	569	13.3	603	13.2	0	2.78	.08	1	.060	1.66	.090	.913	989	.28	.32	.25
90	2600	603	13.2	594	13.4	----	----	0	2.84	.08	1	.220	1.54	.025	.985	478	.46	.16	.13
35	1320	193	12.6	191	12.7	385	12.6	0	3.30	.08	1	.310	1.54	.024	.986	289	.66	.08	.08
91	2640	385	12.6	365	12.7	560	12.6	0	3.26	.08	1	.220	1.54	.070	.946	568	.40	.16	.16
90	1320	560	12.6	555	12.7	721	12.7	0	3.34	.08	1	.220	1.54	.018	.991	249	.73?	.08	.07
88	1320	1167	12.8	1165	12.9	1291	12.8	0	3.04	.08	1	.220	1.54	.007	.998	193	.86?	.08	.05
88	2000	84	12.5	78	12.7	----	----	0	3.32	.08	1	.220	1.54	.127	.930	735	.33	.16	.21
101	1050	1368	12.8	1368	12.9	1414	12.9	0	3.08	.08	1	.220	1.54	.005	1.000	145	1.00?	.08	.04
102	1320	1414	12.9	1370	13.0	1414	13.0	0	3.10	.08	1	.020	1.66	.025	.969	469	.47	.16	.13

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA		BASE-	VOLUME	MAIN	ITER-	Q AND A EQUATION			PEAK	S/Q	ATT-	TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	FLOW (CFS)	ABOVE BASE (IN)	TIME INCR (HR)	ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	RATIO O/I (Q*)	@PEAK (K) (SEC)	KIN COEFF (C)	STOR- AGE (HR)	KINE- MATIC (HR)
ALTERNATE	1	STORM	4																
105	1320	1414	13.0	1392	13.1	1424	13.1	0	3.10	.08	1	.163	1.44	.020	.985	345	.59	.08	.10
107	1400	1582	13.1	1561	13.2	1575	13.2	0	1.81	.08	1	.157	1.45	.020	.987	351	.58	.08	.10
85	2000	2414	13.1	2395	13.3	2411	13.3	0	6.39	.08	1	.115	1.50	.024	.992	417	.51	.16	.12
83	2000	2411	13.3	2393	13.4	2404	13.4	0	6.21	.08	1	.115	1.50	.023	.992	418	.51	.16	.12
83	1320	93	12.6	88	12.7	----	----	0	2.75	.08	1	.200	1.54	.069	.952	498	.45	.16	.14
109	2000	279	13.4	266	13.7	272	13.7	0	.76	.08	1	.398	1.34	.130	.953	732	.33	.24	.20
80	1320	2143	13.4	2135	13.5	2144	13.5	0	11.05	.08	1	.771	1.23	.022	.997	309	.64	.08	.09
79	1320	2144	13.5	2144	13.6	2151	13.6	0	10.40	.08	1	.230	1.54	.004	1.000	151	.98?	.08	.04
76	1320	2151	13.6	2151	13.7	2157	13.7	0	9.89	.08	1	.230	1.54	.004	1.000	151	.98?	.08	.04
75	1320	2157	13.7	2156	13.8	2165	13.8	0	9.43	.08	1	.230	1.54	.003	1.000	151	.98?	.08	.04
113	1800	2165	13.8	2161	13.9	----	----	0	9.10	.08	1	.080	1.66	.005	.998	234	.76?	.16	.07
113	1320	90	12.6	83	12.7	2168	13.9	0	2.66	.08	1	.080	1.66	.094	.931	610	.38	.16	.17
29	3800	104	12.6	64	13.4	----	----	0	2.66	.08	1	.040	1.66	1.005	.616	2517	.11?	.24	.76
29	2600	298	12.8	289	13.0	330	13.0	0	2.83	.08	1	.370	1.54	.039	.970	437	.50	.16	.12
33	2600	600	12.9	592	13.0	822	13.0	0	2.76	.08	1	.380	1.54	.022	.987	336	.60	.16	.09
92	3000	822	13.0	789	13.2	827	13.1	0	2.72	.08	1	.080	1.66	.045	.960	574	.40	.24	.16
92	1320	339	12.5	334	12.6	----	----	0	3.31	.08	1	.080	1.66	.036	.985	359	.57	.16	.10
98	2500	1012	12.8	988	13.0	----	----	0	2.91	.08	1	.080	1.66	.021	.976	440	.49	.16	.12
32	3400	116	12.6	72	13.4	244	12.9	0	2.66	.08	1	.030	1.66	.916	.619	2561	.11	.40	.78
94	3200	244	12.9	221	13.1	366	12.6	0	2.64	.08	1	.090	1.66	.088	.907	924	.27	.24	.26
95	2400	366	12.6	338	12.7	518	12.7	0	2.87	.08	1	.090	1.66	.035	.925	590	.39	.16	.17
98	3000	518	12.7	480	13.0	----	----	0	3.01	.08	1	.080	1.66	.048	.926	690	.35	.24	.19
97	2100	203	12.6	189	12.7	513	12.6	0	3.12	.08	1	.080	1.66	.107	.928	700	.34	.16	.20
98	1000	513	12.6	508	12.6	----	----	0	3.41	.08	1	.080	1.66	.015	.990	231	.77?	.08	.06
99	1250	1976	12.8	1974	12.9	2055	12.9	0	3.03	.08	1	.080	1.66	.004	.999	169	.92?	.08	.05
139	1600	2055	12.9	2043	13.0	----	----	0	3.05	.08	1	.050	1.66	.010	.994	282	.68?	.08	.08
139	600	144	12.5	142	12.6	2102	13.0	0	3.51	.08	1	.050	1.66	.027	.984	304	.64	.08	.08
141	2100	273	13.0	262	13.2	472	12.6	0	3.19	.08	1	.080	1.66	.044	.959	623	.38	.16	.17
140	1320	472	12.6	463	12.7	653	12.6	0	3.36	.08	1	.080	1.66	.013	.980	315	.63	.08	.09
139	2800	767	12.6	710	12.9	----	----	0	3.33	.08	1	.050	1.66	.062	.927	731	.33	.16	.21
138	3000	140	12.5	138	12.7	509	12.5	0	4.49	.08	1	.170	1.66	.100	.982	736	.33	.08	.21
139	2000	509	12.5	481	12.6	----	----	0	3.60	.08	1	.050	1.66	.088	.944	615	.38	.08	.17

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS										PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV AREA						Q AND A EQUATION								
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	TRAVEL TIME STOR-AGE (HR)	TRAVEL TIME KINE-MATIC (HR)
ALTERNATE	1	STORM	4																
127	2500	262	12.5	248	12.7	----	----	0	3.33	.08	1	.080	1.66	.139	.947	754	.32	.08	.21
127	2300	64	12.5	54	12.8	299	12.7	0	2.95	.08	1	.080	1.66	.339	.843	1217	.21	.08	.35
131	2000	284	12.5	281	12.6	----	----	0	3.72	.08	1	.170	1.66	.038	.988	371	.56	.08	.10
126	1500	1053	12.5	1045	12.6	1355	12.6	0	3.38	.08	1	.110	1.66	.015	.993	215	.80?	.08	.06
134	1500	1355	12.6	1353	12.6	----	----	0	3.60	.08	1	.130	1.66	.010	.999	176	.90?	.08	.05
134	3200	89	12.4	85	12.7	1437	12.6	0	4.46	.08	1	.130	1.66	.198	.953	1104	.23	.16	.31
124	2500	1996	12.5	1953	12.6	2325	12.6	0	3.69	.08	1	.090	1.66	.025	.979	313	.63	.08	.09
103	1400	3381	12.8	3381	12.8	3419	12.7	0	3.18	.08	0	.960	1.51	.001	1.000	61	1.00?	.00	.00
104	1320	3419	12.7	3419	12.7	----	----	0	3.19	.08	0	.960	1.51	.001	1.000	58	1.00?	.00	.00
107	1000	5625	12.6	5625	12.6	----	----	0	3.30	.08	0	.850	1.53	.001	1.000	37	1.00?	.00	.00
108	1700	6882	12.6	6882	12.6	----	----	0	2.79	.08	0	.850	1.53	.001	1.000	58	1.00?	.00	.00
108	700	93	12.6	91	12.7	126	12.6	0	2.84	.08	1	.080	1.66	.029	.977	318	.62	.16	.09
110	1320	7108	12.6	7108	12.6	----	----	0	2.63	.08	0	.850	1.53	.001	1.000	44	1.00?	.00	.00
111	1320	7810	12.6	7810	12.6	7908	12.6	0	2.66	.08	0	1.07	1.53	.001	1.000	37	1.00?	.00	.00
112	1320	7908	12.6	7857	12.6	8049	12.6	0	2.66	.08	1	.040	1.63	.005	.994	182	.88?	.08	.05
113	1320	8049	12.6	8024	12.7	----	----	0	2.70	.08	1	.040	1.63	.005	.997	180	.89?	.08	.05
114	3000	9433	12.7	9223	12.9	----	----	0	3.29	.08	1	.040	1.63	.018	.978	386	.54	.16	.11
48	1320	182	12.4	179	12.6	361	12.6	0	4.48	.08	1	.040	1.66	.091	.984	698	.34	.16	.19
48	2640	136	12.5	121	13.0	----	----	0	4.46	.08	1	.040	1.66	.353	.886	1567	.17	.08	.45
56	1866	459	12.6	451	12.7	528	12.6	0	3.72	.08	1	.120	1.66	.027	.982	353	.58	.16	.10
57	1320	528	12.6	518	12.6	599	12.6	0	3.60	.08	1	.200	1.54	.020	.981	271	.69?	.08	.08
60	1867	599	12.6	586	12.7	675	12.6	0	3.52	.08	1	.120	1.66	.020	.977	317	.62	.16	.09
60	1320	116	12.5	114	12.6	----	----	0	3.32	.08	1	.250	1.54	.052	.980	398	.53	.08	.11
65	1320	785	12.6	780	12.7	856	12.7	0	3.43	.08	1	.280	1.54	.011	.994	189	.86?	.08	.05
68	1320	856	12.7	852	12.8	877	12.8	0	3.35	.08	1	.250	1.54	.012	.995	198	.84?	.08	.05
46	1320	219	12.5	218	12.6	432	12.5	0	3.13	.08	1	.510	1.54	.018	.995	201	.84?	.08	.06
59	1867	432	12.5	424	12.6	522	12.6	0	3.12	.08	1	.110	1.66	.043	.981	381	.55	.16	.11
45	2700	390	12.5	329	12.7	538	12.6	0	3.27	.08	1	.050	1.66	.161	.844	922	.27	.16	.26
59	1400	538	12.6	530	12.7	----	----	0	3.34	.08	1	.110	1.66	.016	.987	262	.71?	.08	.07
66	1320	1008	12.6	1006	12.7	1096	12.6	0	3.24	.08	1	.110	1.66	.010	.998	192	.86?	.08	.05
68	1877	1096	12.6	1086	12.8	----	----	0	3.23	.08	1	.250	1.54	.020	.991	258	.72?	.16	.07
70	1320	1963	12.8	1961	12.9	1978	12.9	0	3.29	.08	1	.180	1.54	.011	.999	183	.88?	.08	.05

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	4																
74	1320	1978	12.9	1977	13.0	1991	13.0	0	3.29	.08	1	.090	1.66	.007	.999	166	.93?	.08	.05
40	2650	193	12.5	185	12.7	----	----	0	4.48	.08	1	.080	1.66	.140	.956	902	.28	.08	.25
40	1800	195	12.6	182	12.7	367	12.7	0	2.84	.08	1	.080	1.66	.093	.936	611	.38	.08	.17
82	1400	502	12.6	495	12.8	564	12.6	0	3.39	.08	1	.100	1.66	.021	.986	285	.67?	.16	.08
82	1867	215	12.6	206	12.7	----	----	0	3.41	.08	1	.100	1.66	.065	.957	532	.43	.16	.15
81	1320	765	12.6	762	12.7	840	12.7	0	3.38	.08	1	.220	1.54	.016	.996	223	.78?	.08	.06
78	1320	840	12.7	837	12.8	874	12.7	0	3.30	.08	1	.090	1.66	.014	.996	233	.76?	.08	.06
41	3100	258	12.6	249	12.7	531	12.6	0	3.22	.08	1	.240	1.66	.059	.967	485	.46	.08	.14
78	1600	662	12.5	652	12.6	----	----	0	3.26	.08	1	.090	1.66	.026	.985	311	.63	.16	.09
77	1320	1516	12.6	1512	12.7	1576	12.7	0	3.29	.08	1	.230	1.54	.010	.997	171	.92?	.08	.05
69	1320	1576	12.7	1571	12.8	1649	12.8	0	3.25	.08	1	.200	1.54	.011	.997	184	.88?	.08	.05
67	1320	224	12.5	221	12.6	338	12.5	0	3.22	.08	1	.250	1.54	.037	.983	316	.63	.08	.09
69	1320	338	12.5	333	12.6	----	----	0	3.39	.08	1	.200	1.54	.034	.985	316	.63	.16	.09
74	1867	1935	12.7	1909	12.9	----	----	0	3.26	.08	1	.090	1.66	.014	.987	237	.76?	.16	.07
114	3300	3887	12.9	3781	13.0	3906	13.0	0	3.29	.08	1	.050	1.66	.035	.973	452	.48	.16	.13
114	2200	219	12.6	196	12.8	----	----	0	3.41	.08	1	.050	1.66	.172	.894	945	.26	.16	.27
72	2650	434	12.5	411	12.6	615	12.6	0	3.12	.08	1	.180	1.54	.104	.945	623	.38	.16	.17
114	2000	615	12.6	585	12.7	----	----	0	3.15	.08	1	.050	1.66	.076	.951	570	.40	.16	.16
118	4000	14036	12.9	13862	13.0	14076	13.0	0	3.27	.08	1	.050	1.66	.012	.988	329	.61	.16	.09

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
STRUCTURE 37	2.27				
ALTERNATE 1		703.04	1319.75	1612.18	2398.30
XSECTION 1	.15				
ALTERNATE 1		149.82	217.93	248.49	315.14
XSECTION 2	.10				
ALTERNATE 1		100.45	145.51	165.73	205.68
XSECTION 3	.29				
ALTERNATE 1		255.59	387.57	446.92	587.18
XSECTION 4	.22				
ALTERNATE 1		210.49	307.71	351.51	453.15
XSECTION 5	.34				
ALTERNATE 1		253.80	398.25	464.83	619.18
XSECTION 6	.40				
ALTERNATE 1		300.45	471.05	549.88	724.65
XSECTION 7	.12				
ALTERNATE 1		44.80	86.33	106.65	153.08
XSECTION 8	1.18				
ALTERNATE 1		650.56	1108.39	1315.07	1804.46
XSECTION 9	.20				
ALTERNATE 1		64.48	126.67	157.37	227.90
XSECTION 10	.09				
ALTERNATE 1		39.88	75.75	93.22	132.97
XSECTION 11	.33				
ALTERNATE 1		117.15	230.38	285.92	413.00
XSECTION 12	.07				
ALTERNATE 1		32.53	60.86	74.48	105.26
XSECTION 13	.13				
ALTERNATE 1		66.41	116.76	140.57	193.87

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 14	1.74				
ALTERNATE 1		681.16	1206.43	1453.15	2109.76
XSECTION 15	.19				
ALTERNATE 1		111.65	186.03	221.76	301.24
XSECTION 16	.12				
ALTERNATE 1		79.99	132.00	155.97	208.86
XSECTION 17	.06				
ALTERNATE 1		61.59	89.14	101.51	125.18
XSECTION 18	.18				
ALTERNATE 1		73.81	139.85	171.98	245.14
XSECTION 19	.02				
ALTERNATE 1		22.96	33.24	37.85	46.68
XSECTION 20	.06				
ALTERNATE 1		71.16	102.73	116.90	147.81
XSECTION 21	.24				
ALTERNATE 1		139.88	240.93	288.15	393.16
XSECTION 22	.15				
ALTERNATE 1		93.43	159.92	190.91	259.70
XSECTION 23	.09				
ALTERNATE 1		93.41	135.51	154.39	195.58
XSECTION 24	.20				
ALTERNATE 1		110.32	194.33	233.88	322.19
XSECTION 25	.15				
ALTERNATE 1		93.03	159.42	188.68	262.79
XSECTION 26	.07				
ALTERNATE 1		48.39	79.23	93.38	124.48
XSECTION 27	2.15				
ALTERNATE 1		704.39	1319.07	1609.84	2386.33

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 28	.61				
ALTERNATE 1		134.67	315.19	402.24	623.94
XSECTION 29	.57				
ALTERNATE 1		161.83	322.92	409.79	601.17
XSECTION 30	.25				
ALTERNATE 1		89.50	169.84	208.97	298.17
XSECTION 31	.08				
ALTERNATE 1		34.54	65.99	81.11	115.86
XSECTION 32	.26				
ALTERNATE 1		58.74	120.32	154.88	244.89
XSECTION 33	.80				
ALTERNATE 1		217.09	440.92	559.08	823.73
XSECTION 34	.13				
ALTERNATE 1		68.82	118.43	141.66	193.40
XSECTION 35	.25				
ALTERNATE 1		133.11	234.08	281.50	386.73
XSECTION 36	.74				
ALTERNATE 1		120.71	292.02	375.82	603.38
XSECTION 37	2.47				
ALTERNATE 1		716.55	1349.81	1651.19	2491.17
XSECTION 38	.13				
ALTERNATE 1		63.86	115.83	140.54	196.03
XSECTION 39	.13				
ALTERNATE 1		80.82	135.10	160.23	215.79
XSECTION 40	.31				
ALTERNATE 1		177.94	302.51	373.29	502.15
XSECTION 41	.32				
ALTERNATE 1		181.67	331.49	386.12	531.63

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 42	.40				
ALTERNATE 1		232.12	417.50	484.05	664.38
XSECTION 43	.05				
ALTERNATE 1		41.16	65.02	75.81	99.37
XSECTION 44	.13				
ALTERNATE 1		83.51	140.24	166.48	224.43
XSECTION 45	.36				
ALTERNATE 1		175.58	317.79	368.14	538.10
XSECTION 46	.25				
ALTERNATE 1		155.77	268.27	317.51	432.40
XSECTION 47	.13				
ALTERNATE 1		79.43	135.44	161.49	219.21
XSECTION 48	.28				
ALTERNATE 1		174.68	289.21	346.06	459.88
XSECTION 49	.09				
ALTERNATE 1		89.06	129.01	146.94	182.36
XSECTION 56	.34				
ALTERNATE 1		173.63	308.95	378.97	528.19
XSECTION 57	.40				
ALTERNATE 1		181.93	338.43	420.11	600.07
XSECTION 58	.06				
ALTERNATE 1		44.80	73.94	87.32	116.74
XSECTION 59	.67				
ALTERNATE 1		322.67	591.34	700.67	1011.92
XSECTION 60	.53				
ALTERNATE 1		232.12	445.48	552.40	784.90
XSECTION 64	.25				
ALTERNATE 1		156.50	267.71	319.51	434.45

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 65	.59				
ALTERNATE 1		246.93	478.05	595.00	857.06
XSECTION 66	.74				
ALTERNATE 1		340.18	631.80	759.54	1099.27
XSECTION 67	.19				
ALTERNATE 1		127.33	211.86	251.26	338.17
XSECTION 68	1.39				
ALTERNATE 1		580.11	1108.81	1351.77	1967.76
XSECTION 69	1.34				
ALTERNATE 1		582.09	1108.89	1376.45	1936.72
XSECTION 70	1.45				
ALTERNATE 1		579.29	1111.77	1357.22	1982.17
XSECTION 71	.13				
ALTERNATE 1		83.02	138.29	163.81	220.19
XSECTION 72	.38				
ALTERNATE 1		198.79	359.31	446.87	615.73
XSECTION 74	2.86				
ALTERNATE 1		1139.15	2169.44	2690.12	3887.85
XSECTION 75	.96				
ALTERNATE 1		695.24	1278.91	1537.20	2165.14
XSECTION 76	.90				
ALTERNATE 1		693.49	1275.56	1532.97	2157.30
XSECTION 77	1.09				
ALTERNATE 1		476.05	904.01	1123.92	1576.79
XSECTION 78	1.03				
ALTERNATE 1		470.94	876.99	1086.75	1516.12
XSECTION 79	.84				
ALTERNATE 1		692.24	1272.78	1529.44	2151.68

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 80	.77				
ALTERNATE 1		690.89	1270.05	1525.97	2145.07
XSECTION 81	.56				
ALTERNATE 1		267.02	487.43	612.52	842.72
XSECTION 82	.50				
ALTERNATE 1		254.04	449.67	562.06	766.63
XSECTION 83	1.42				
ALTERNATE 1		693.00	1333.54	1639.85	2421.82
XSECTION 84	.06				
ALTERNATE 1		28.86	53.75	65.73	92.83
XSECTION 85	1.30				
ALTERNATE 1		701.97	1337.96	1641.24	2411.19
XSECTION 86	1.30				
ALTERNATE 1		48.06	77.42	90.81	120.15
XSECTION 87	1.36				
ALTERNATE 1		71.43	124.77	154.05	210.16
XSECTION 88	1.36				
ALTERNATE 1		394.19	748.21	902.96	1370.56
XSECTION 89	.05				
ALTERNATE 1		31.57	52.42	62.16	83.69
XSECTION 90	1.22				
ALTERNATE 1		322.55	627.92	753.15	1168.72
XSECTION 91	.38				
ALTERNATE 1		184.82	333.10	403.27	560.50
XSECTION 92	1.12				
ALTERNATE 1		267.02	555.84	681.09	1014.16
XSECTION 93	.19				
ALTERNATE 1		126.61	213.06	253.10	340.19

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 94	.40				
ALTERNATE 1		106.76	203.78	251.01	365.85
XSECTION 95	.53				
ALTERNATE 1		155.12	292.91	358.85	517.69
XSECTION 96	.13				
ALTERNATE 1		70.81	123.52	148.27	203.49
XSECTION 97	.31				
ALTERNATE 1		177.34	306.67	367.44	513.80
XSECTION 98	2.06				
ALTERNATE 1		543.09	1070.03	1346.52	1976.26
XSECTION 99	2.15				
ALTERNATE 1		565.11	1108.11	1402.31	2060.41
XSECTION 100	.08				
ALTERNATE 1		57.05	92.22	108.52	144.36
XSECTION 101	1.41				
ALTERNATE 1		407.17	774.38	934.88	1413.70
XSECTION 102	1.47				
ALTERNATE 1		384.82	761.56	926.60	1414.35
XSECTION 103	3.41				
ALTERNATE 1		1003.13	1886.09	2332.70	3427.98
XSECTION 104	4.81				
ALTERNATE 1		1766.25	3222.84	3990.28	5631.17
XSECTION 105	2.89				
ALTERNATE 1		420.38	852.86	1050.46	1583.20
XSECTION 106	.06				
ALTERNATE 1		29.64	54.38	66.28	93.14
XSECTION 107	7.97				
ALTERNATE 1		2055.57	3861.29	4792.97	6886.92

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 108	8.06				
ALTERNATE 1		2089.38	3931.35	4879.66	7009.28
XSECTION 109	8.84				
ALTERNATE 1		2137.01	3990.19	4951.57	7119.50
XSECTION 110	9.27				
ALTERNATE 1		2404.66	4440.26	5486.72	7825.70
XSECTION 111	9.34				
ALTERNATE 1		2433.68	4496.02	5555.38	7923.65
XSECTION 112	9.59				
ALTERNATE 1		2440.64	4544.68	5632.03	8048.74
XSECTION 113	10.89				
ALTERNATE 1		2753.11	5231.73	6517.92	9435.23
XSECTION 114	14.47				
ALTERNATE 1		3783.86	7505.74	9411.90	13767.41
XSECTION 115	.09				
ALTERNATE 1		55.56	96.28	115.33	157.72
XSECTION 118	14.93				
ALTERNATE 1		3837.18	7650.77	9600.37	14076.02
XSECTION 119	14.70				
ALTERNATE 1		3865.82	7663.12	9606.45	14043.95
XSECTION 120	23				
ALTERNATE 1		181.43	289.16	338.15	445.41
XSECTION 121	25				
ALTERNATE 1		260.66	377.34	429.70	530.40
XSECTION 122	9.19				
ALTERNATE 1		2372.53	4379.70	5412.53	7720.70
XSECTION 123	21				
ALTERNATE 1		217.28	315.47	359.53	450.76

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 124	1.33				
ALTERNATE 1		819.97	1418.47	1711.36	2330.38
XSECTION 125	1.11				
ALTERNATE 1		732.36	1236.39	1479.64	1995.51
XSECTION 126	.76				
ALTERNATE 1		498.94	847.87	1012.49	1364.23
XSECTION 127	.33				
ALTERNATE 1		174.57	326.34	394.20	550.36
XSECTION 128	.04				
ALTERNATE 1		23.68	40.62	48.49	65.88
XSECTION 129	.14				
ALTERNATE 1		109.73	177.54	208.53	276.55
XSECTION 130	.03				
ALTERNATE 1		31.77	47.51	54.56	69.92
XSECTION 131	.60				
ALTERNATE 1		369.05	643.65	773.58	1052.58
XSECTION 132	.14				
ALTERNATE 1		119.20	187.27	218.08	285.39
XSECTION 134	1.00				
ALTERNATE 1		643.33	1096.89	1314.12	1776.53
XSECTION 135	.04				
ALTERNATE 1		47.03	67.87	77.22	89.33
XSECTION 136	.07				
ALTERNATE 1		69.58	100.66	114.61	145.03
XSECTION 137	.08				
ALTERNATE 1		38.50	70.30	85.47	119.63
XSECTION 138	.27				
ALTERNATE 1		203.22	328.00	385.03	510.22

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4
XSECTION 139	3.33				
ALTERNATE 1		990.56	1964.05	2297.86	3384.00
XSECTION 140	.64				
ALTERNATE 1		265.24	464.15	558.48	770.22
XSECTION 141	.44				
ALTERNATE 1		162.39	283.56	341.50	472.26
XSECTION 142	.25				
ALTERNATE 1		90.23	162.01	196.23	273.30
XSECTION 143	2.47				
ALTERNATE 1		714.31	1348.13	1649.80	2490.55