

Northridge Plaza Addition
Existing Conditions
2, 5, 10, 25, 50, & 100-yr Return Periods

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*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   MAY 1991
*   VERSION 4.0.1E
*   Lahey F77L-EM/32 version 5.01
*   Dodson & Associates, Inc.
*   RUN DATE 07/02/01 TIME 10:13:59
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
*   609 SECOND STREET
*   DAVIS, CALIFORNIA 95616
*   (916) 551-1748
*****
  
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X X XXXXXXX XXXXX X
X X X X X XX
X X X X X X
XXXXXXXX XXXX X XXXXX X
X X X X X X
X X X X X X
X X XXXXXXX XXXXX XXX
  
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION. NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE, SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY, DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL, LOSS RATE:GREEN AND AMPT INFILTRATION, KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1

HEC-1 INPUT

PAGE 1

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1         ID  NORTH RIDGE PLAZA ADDITION
          * EXISTING CONDITIONS
          *
2         IT      5 02JUL01      0000      300                2001
3         IO      3      0
4         JR      PREC 1.0000  1.3143  1.5143  1.7714  2.0000  2.2286
          *DIAGRAM
          *
5         KK  CENTER
6         BA      20
7         PB      3.2
8         IN      60
9         PC      0  0.011  0.022  0.035  0.048  0.063  0.080  0.098  0.120  0.147
10        PC      0.181  0.235  0.663  0.772  0.820  0.854  0.880  0.902  0.921  0.937
11        PC      0.952  0.965  0.978  0.989  1.000
12        UD      4.5
13        LS      0      75
          *
14        ZZ
  
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

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INPUT
LINE  (V) ROUTING      (--->) DIVERSION OR PUMP FLOW
NO.   (.) CONNECTOR   (<---) RETURN OF DIVERTED OR PUMPED FLOW
5     CENTER
  
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   MAY 1991
*   VERSION 4.0.1E
*   Lahey F77L-EM/32 version 5.01
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*****
  
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TOTAL RAINFALL = 3.20, TOTAL LOSS = 2.11, TOTAL EXCESS = 1.09

+ PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 1567.	17.00	(CFS)	1330.	501.	482.	482.
		(INCHES)	0.618	0.931	0.931	0.931
		(AC-FT)	660.	993.	993.	993.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.21, TOTAL LOSS = 2.38, TOTAL EXCESS = 1.82

+ PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 2694.	16.83	(CFS)	2267.	846.	815.	815.
		(INCHES)	1.054	1.574	1.574	1.574
		(AC-FT)	1124.	1679.	1679.	1679.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 4.85, TOTAL LOSS = 2.52, TOTAL EXCESS = 2.32

+ PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 3477.	16.83	(CFS)	2918.	1086.	1046.	1046.
		(INCHES)	1.356	2.020	2.020	2.020
		(AC-FT)	1447.	2155.	2155.	2155.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 5.67, TOTAL LOSS = 2.67, TOTAL EXCESS = 3.00

+ PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 4535.	16.75	(CFS)	3796.	1411.	1359.	1359.
		(INCHES)	1.765	2.624	2.624	2.624
		(AC-FT)	1882.	2799.	2799.	2799.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 6.40, TOTAL LOSS = 2.77, TOTAL EXCESS = 3.63

+ PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR

+ 5511.	16.67	(CFS)	4605.	1712.	1649.	1649.
		(INCHES)	2.141	3.183	3.183	3.183
		(AC-FT)	2284.	3395.	3395.	3395.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.13, TOTAL LOSS = 2.87, TOTAL EXCESS = 4.27

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 6511.	16.67	5435.	2021.	1946.	1946.	
		(INCHES)	2.527	3.757	3.757	3.757
		(AC-FT)	2695.	4008.	4008.	4008.

CUMULATIVE AREA = 20.00 SQ MI

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION					
				RATIO 1	RATIO 2	RATIO 3	RATIO 4	RATIO 5	RATIO 6
				1.00	1.31	1.51	1.77	2.00	2.23
HYDROGRAPH AT									
+ CENTER	20.00	1	FLOW	1567.	2694.	3477.	4535.	5511.	6511.
			TIME	17.00	16.83	16.83	16.75	16.67	16.67

*** NORMAL END OF HEC-1 ***

Northridge Plaza Addition
 Developed Conditions
 2, 5, 10, 25, 50, & 100-yr Return Periods

```
*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   MAY 1991
*   VERSION 4.0.1E
*   Lahey F77L-EM/32 version 5.01
*   Dodson & Associates, Inc.
* RUN DATE 07/02/01 TIME 10:14:16
*****
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 551-1748
*****
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X   X   XXXXXXX   XXXXX   X
X   X   X         X   X   XX
X   X   X         X         X
XXXXXXX XXXX   X         XXXXX X
X   X   X         X         X
X   X   X         X   X   X
X   X   XXXXXXX   XXXXX   XXX

```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT

```

1
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1         ID  NORTH RIDGE PLAZA ADDITION
          * DEVELOPED CONDITIONS
          *
2         IT    10 02JUL01    0000    300                2001
3         IO     3      0
4         JR  PREC  1.0000  1.3143  1.5143  1.7714  2.0000  2.2286
          *DIAGRAM
          *
5         KK  BASIN
6         BA  19.93
7         PB   3.2
8         IN   60
9         PC   0   0.011  0.022  0.035  0.048  0.063  0.080  0.098  0.120  0.147
10        PC  0.181  0.235  0.663  0.772  0.820  0.854  0.880  0.902  0.921  0.937
11        PC  0.952  0.965  0.978  0.989  1.000
12        UD   4.53
13        LS   0      75
          *
14        KK  SITE
15        BA   0.07
16        UD   0.15
17        LS   0      95
          *
18        KK  COMBO
19        HC   2
          *
20        ZZ

```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```

INPUT
LINE  (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.   (.) CONNECTOR      (<---) RETURN OF DIVERTED OR PUMPED FLOW

```

5 BASIN
 .
 .
 14 . SITE
 .
 .
 18 COMBO.....

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

 * FLOOD HYDROGRAPH PACKAGE (HEC-1) *
 * MAY 1991 *
 * VERSION 4.0.1E *
 * Lahey F77L-EM/32 version 5.01 *
 * Dodson & Associates, Inc. *
 * RUN DATE 07/02/01 TIME 10:14:16 *

 * U.S. ARMY CORPS OF ENGINEERS *
 * HYDROLOGIC ENGINEERING CENTER *
 * 609 SECOND STREET *
 * DAVIS, CALIFORNIA 95616 *
 * (916) 551-1748 *

NORTH RIDGE PLAZA ADDITION

3 IO OUTPUT CONTROL VARIABLES
 IPRNT 3 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
 NMIN 10 MINUTES IN COMPUTATION INTERVAL
 IDATE 2JUL 1 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 300 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 4JUL 1 ENDING DATE
 NDTIME 0150 ENDING TIME
 ICENT 20 CENTURY MARK

COMPUTATION INTERVAL 0.17 HOURS
 TOTAL TIME BASE 49.83 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
 PRECIPITATION DEPTH INCHES
 LENGTH, ELEVATION FEET
 FLOW CUBIC FEET PER SECOND
 STORAGE VOLUME ACRE-FEET
 SURFACE AREA ACRES
 TEMPERATURE DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION
 NPLAN 1 NUMBER OF PLANS

JR MULTI-RATIO OPTION
 RATIOS OF PRECIPITATION
 1.00 1.31 1.51 1.77 2.00 2.23

*** **

 * BASIN *

8 IN TIME DATA FOR INPUT TIME SERIES
 JXMIN 60 TIME INTERVAL IN MINUTES
 JXDATE 2JUL 1 STARTING DATE
 JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
 TAREA 19.93 SUBBASIN AREA

PRECIPITATION DATA

7 PB STORM 3.20 BASIN TOTAL PRECIPITATION

9 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.07	0.07	0.07
0.07	0.07	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

13 LS SCS LOSS RATE
 STRTL 0.67 INITIAL ABSTRACTION
 CRVNR 75.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

12 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 4.53 LAG

UNIT HYDROGRAPH
 138 END-OF-PERIOD ORDINATES

23.	45.	75.	128.	180.	240.	308.	376.	459.	550.
640.	759.	880.	1004.	1147.	1290.	1425.	1545.	1666.	1763.
1846.	1929.	1980.	2025.	2067.	2074.	2082.	2085.	2077.	2069.
2041.	1996.	1951.	1899.	1847.	1794.	1734.	1673.	1609.	1534.
1458.	1376.	1285.	1195.	1115.	1040.	964.	910.	857.	806.
761.	715.	673.	636.	598.	567.	539.	512.	484.	457.
430.	407.	384.	362.	339.	317.	298.	283.	268.	253.
238.	223.	212.	200.	189.	178.	166.	157.	148.	140.
132.	123.	115.	109.	104.	98.	92.	87.	82.	78.
73.	69.	65.	61.	58.	55.	52.	49.	46.	43.
41.	39.	36.	34.	32.	30.	29.	27.	26.	24.
23.	22.	21.	20.	19.	18.	17.	16.	15.	15.
14.	13.	12.	11.	10.	9.	9.	8.	7.	6.
6.	5.	4.	3.	3.	2.	1.	0.		

TOTAL RAINFALL = 3.20, TOTAL LOSS = 2.11, TOTAL EXCESS = 1.09

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.83-HR
1543.	17.00	1315.	584.	282.	282.
		(INCHES) 0.614	1.090	1.094	1.094
		(AC-FT) 652.	1159.	1163.	1163.

CUMULATIVE AREA = 19.93 SQ MI

HYDROGRAPH AT STATION BASIN
 FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 3.20, TOTAL LOSS = 2.11, TOTAL EXCESS = 1.09

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.83-HR
1543.	17.00	1315.	584.	282.	282.
		(INCHES) 0.614	1.090	1.094	1.094
		(AC-FT) 652.	1159.	1163.	1163.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.21, TOTAL LOSS = 2.38, TOTAL EXCESS = 1.82

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	49.83-HR
		(CFS)				
+ 2652.	16.83		2242.	973.	470.	470.
		(INCHES)	1.046	1.816	1.823	1.823
		(AC-FT)	1112.	1930.	1937.	1937.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 4.85, TOTAL LOSS = 2.52, TOTAL EXCESS = 2.32

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	49.83-HR
		(CFS)				
+ 3424.	16.83		2885.	1241.	600.	600.
		(INCHES)	1.346	2.316	2.325	2.325
		(AC-FT)	1431.	2462.	2471.	2471.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 5.67, TOTAL LOSS = 2.67, TOTAL EXCESS = 3.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	49.83-HR
		(CFS)				
+ 4465.	16.83		3754.	1602.	775.	775.
		(INCHES)	1.751	2.990	3.002	3.002
		(AC-FT)	1862.	3178.	3190.	3190.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 6.40, TOTAL LOSS = 2.77, TOTAL EXCESS = 3.63

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	49.83-HR
		(CFS)				
+ 5424.	16.67		4555.	1934.	936.	936.
		(INCHES)	2.125	3.610	3.625	3.625
		(AC-FT)	2259.	3837.	3854.	3854.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 2.23

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 122.	12.00	33.	11.	5.	5.	
		(INCHES)	4.364	5.809	5.809	5.809
		(AC-FT)	16.	22.	22.	22.

CUMULATIVE AREA = 0.07 SQ MI

*** **

HYDROGRAPH AT STATION SITE
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.13, TOTAL LOSS = 0.59, TOTAL EXCESS = 6.54

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 136.	12.00	37.	12.	6.	6.	
		(INCHES)	4.890	6.537	6.537	6.537
		(AC-FT)	18.	24.	24.	24.

CUMULATIVE AREA = 0.07 SQ MI

*** **

* *
18 KK * COMBO *
* *

19 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

*** **

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 1546.	17.00	1318.	588.	285.	285.	
		(INCHES)	0.613	1.093	1.099	1.099
		(AC-FT)	654.	1166.	1173.	1173.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 2656.	16.83	2246.	979.	474.	474.	
		(INCHES)	1.044	1.820	1.829	1.829
		(AC-FT)	1114.	1941.	1951.	1951.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.51

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 3429.	16.83	(CFS)	2890.	1248.	604.	604.
		(INCHES)	1.343	2.320	2.332	2.332
		(AC-FT)	1433.	2475.	2487.	2487.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.77

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 4470.	16.83	(CFS)	3760.	1610.	779.	779.
		(INCHES)	1.748	2.994	3.009	3.009
		(AC-FT)	1864.	3193.	3209.	3209.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 2.00

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 5431.	16.67	(CFS)	4561.	1944.	941.	941.
		(INCHES)	2.120	3.614	3.633	3.633
		(AC-FT)	2262.	3855.	3875.	3875.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 2.23

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 6417.	16.67	(CFS)	5382.	2285.	1107.	1107.
		(INCHES)	2.502	4.250	4.273	4.273
		(AC-FT)	2669.	4533.	4558.	4558.

CUMULATIVE AREA = 20.00 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION						
				RATIO 1 1.00	RATIO 2 1.31	RATIO 3 1.51	RATIO 4 1.77	RATIO 5 2.00	RATIO 6 2.23	
HYDROGRAPH AT +	BASIN	19.93	1	FLOW TIME	1543. 17.00	2652. 16.83	3424. 16.83	4465. 16.83	5424. 16.67	6410. 16.67
HYDROGRAPH AT +	SITE	0.07	1	FLOW TIME	58. 12.00	78. 12.00	91. 12.00	107. 12.00	122. 12.00	136. 12.00
2 COMBINED AT +	COMBO	20.00	1	FLOW TIME	1546. 17.00	2656. 16.83	3429. 16.83	4470. 16.83	5431. 16.67	6417. 16.67

*** NORMAL END OF HEC-1 ***

Northridge Plaza Addition
Existing Conditions
2, 5, 10, 25, 50, & 100-yr Return Periods

```

*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   MAY 1991
*   VERSION 4.0.1E
*   Lahey F77L-EM/32 version 5.01
*   Dodson & Associates, Inc.
* RUN DATE 07/02/01 TIME 10:13:59
*****
  
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
*   609 SECOND STREET
*   DAVIS, CALIFORNIA 95616
*   (916) 551-1748
*****
  
```

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X   X XXXXXXX XXXXX   X
X   X X   X   X   XX
X   X X   X   X   X
XXXXXXX XXXX   X   XXXXX X
X   X X   X   X   X
X   X X   X   X   X
X   X XXXXXXX XXXXX   XXX
  
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1

HEC-1 INPUT

PAGE 1

```

LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1         ID NORTH RIDGE PLAZA ADDITION
          * EXISTING CONDITIONS
          *
2         IT      5 02JUL01   0000   300           2001
3         IO      3      0
4         JR  PREC 1.0000  1.3143  1.5143  1.7714  2.0000  2.2286
          *DIAGRAM
          *
5         KK CENTER
6         BA      20
7         PB      3.2
8         IN      60
9         PC      0  0.011  0.022  0.035  0.048  0.063  0.080  0.098  0.120  0.147
10        PC  0.181  0.235  0.663  0.772  0.820  0.854  0.880  0.902  0.921  0.937
11        PC  0.952  0.965  0.978  0.989  1.000
12        UD      4.5
13        LS      0      75
          *
14        ZZ
  
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```

INPUT
LINE  (V) ROUTING      (--->) DIVERSION OR PUMP FLOW

NO.   (.) CONNECTOR   (<---) RETURN OF DIVERTED OR PUMPED FLOW

5     CENTER
  
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```

*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   MAY 1991
*   VERSION 4.0.1E
*   Lahey F77L-EM/32 version 5.01
*   Dodson & Associates, Inc.
*****
  
```

```

*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
*   609 SECOND STREET
*   DAVIS, CALIFORNIA 95616
*   (916) 551-1748
*****
  
```


TOTAL RAINFALL = 3.20, TOTAL LOSS = 2.11, TOTAL EXCESS = 1.09

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 1567.	17.00	(CFS)	1330.	501.	482.	482.
		(INCHES)	0.618	0.931	0.931	0.931
		(AC-FT)	660.	993.	993.	993.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.21, TOTAL LOSS = 2.38, TOTAL EXCESS = 1.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 2694.	16.83	(CFS)	2267.	846.	815.	815.
		(INCHES)	1.054	1.574	1.574	1.574
		(AC-FT)	1124.	1679.	1679.	1679.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 4.85, TOTAL LOSS = 2.52, TOTAL EXCESS = 2.32

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 3477.	16.83	(CFS)	2918.	1086.	1046.	1046.
		(INCHES)	1.356	2.020	2.020	2.020
		(AC-FT)	1447.	2155.	2155.	2155.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 5.67, TOTAL LOSS = 2.67, TOTAL EXCESS = 3.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ 4535.	16.75	(CFS)	3796.	1411.	1359.	1359.
		(INCHES)	1.765	2.624	2.624	2.624
		(AC-FT)	1882.	2799.	2799.	2799.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 6.40, TOTAL LOSS = 2.77, TOTAL EXCESS = 3.63

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR

5511.	16.67	(CFS)	4605.	1712.	1649.	1649.
		(INCHES)	2.141	3.183	3.183	3.183
		(AC-FT)	2284.	3395.	3395.	3395.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION CENTER
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.13, TOTAL LOSS = 2.87, TOTAL EXCESS = 4.27

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+	(CFS)	(HR)				
+	6511.	16.67	(CFS)			
			5435.	2021.	1946.	1946.
			(INCHES)	2.527	3.757	3.757
			(AC-FT)	2695.	4008.	4008.

CUMULATIVE AREA = 20.00 SQ MI

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION						
				RATIO 1	RATIO 2	RATIO 3	RATIO 4	RATIO 5	RATIO 6	
				1.00	1.31	1.51	1.77	2.00	2.23	
HYDROGRAPH AT										
+	CENTER	20.00	1	FLOW	1567.	2694.	3477.	4535.	5511.	6511.
				TIME	17.00	16.83	16.83	16.75	16.67	16.67

*** NORMAL END OF HEC-1 ***

Northridge Plaza Addition
Developed Conditions
2, 5, 10, 25, 50, & 100-yr Return Periods

```
*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*   MAY 1991 *
*   VERSION 4.0.1E *
*   Lahey F77L-EM/32 version 5.01 *
*   Dodson & Associates, Inc. *
*   RUN DATE 07/02/01 TIME 10:14:16 *
*****
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*****
*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 551-1748 *
*****
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X X XXXXXXX XXXXX X
X X X X X XX
X X X X X X
XXXXXXX XXXX X XXXXX X
X X X X X X
X X X X X X
X X XXXXXXX XXXXX XXX

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE, SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY, DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1

HEC-1 INPUT

PAGE 1

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1         ID  NORTH RIDGE PLAZA ADDITION
          * DEVELOPED CONDITIONS
          *
2         IT    10 02JUL01    0000    300                2001
3         IO     3      0
4         JR  PREC  1.0000  1.3143  1.5143  1.7714  2.0000  2.2286
          *DIAGRAM
          *
5         KK  BASIN
6         BA  19.93
7         PB   3.2
8         IN   60
9         PC   0   0.011  0.022  0.035  0.048  0.063  0.080  0.098  0.120  0.147
10        PC  0.181  0.235  0.663  0.772  0.820  0.854  0.880  0.902  0.921  0.937
11        PC  0.952  0.965  0.978  0.989  1.000
12        UD   4.53
13        LS   0      75
          *
14        KK  SITE
15        BA   0.07
16        UD   0.15
17        LS   0      95
          *
18        KK  COMBO
19        HC   2
          *
20        ZZ

```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```

INPUT
LINE  (V) ROUTING      (--->) DIVERSION OR PUMP FLOW
NO.   (.) CONNECTOR   (<---) RETURN OF DIVERTED OR PUMPED FLOW

```

5 BASIN
 .
 14 . SITE
 .
 18 COMBO.....

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

 * FLOOD HYDROGRAPH PACKAGE (HEC-1) *
 * MAY 1991 *
 * VERSION 4.0.1E *
 * Lahey F77L-EM/32 version 5.01 *
 * Dodson & Associates, Inc. *
 * RUN DATE 07/02/01 TIME 10:14:16 *

 * U.S. ARMY CORPS OF ENGINEERS *
 * HYDROLOGIC ENGINEERING CENTER *
 * 609 SECOND STREET *
 * DAVIS, CALIFORNIA 95616 *
 * (916) 551-1748 *

NORTH RIDGE PLAZA ADDITION

3 IO OUTPUT CONTROL VARIABLES
 IPRNT 3 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
 NMIN 10 MINUTES IN COMPUTATION INTERVAL
 IDATE 2JUL 1 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 300 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 4JUL 1 ENDING DATE
 NDTIME 0150 ENDING TIME
 ICENT 20 CENTURY MARK

COMPUTATION INTERVAL 0.17 HOURS
 TOTAL TIME BASE 49.83 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
 PRECIPITATION DEPTH INCHES
 LENGTH, ELEVATION FEET
 FLOW CUBIC FEET PER SECOND
 STORAGE VOLUME ACRE-FEET
 SURFACE AREA ACRES
 TEMPERATURE DEGREES FAHRENHEIT

JP MULTI-PLAN OPTION
 NPLAN 1 NUMBER OF PLANS

JR MULTI-RATIO OPTION
 RATIOS OF PRECIPITATION
 1.00 1.31 1.51 1.77 2.00 2.23

*** **

 * BASIN *

8 IN TIME DATA FOR INPUT TIME SERIES
 JXMIN 60 TIME INTERVAL IN MINUTES
 JXDATE 2JUL 1 STARTING DATE
 JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
 TAREA 19.93 SUBBASIN AREA

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.21, TOTAL LOSS = 2.38, TOTAL EXCESS = 1.82

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 2652.	16.83	(CFS)	2242.	973.	470.	470.
		(INCHES)	1.046	1.816	1.823	1.823
		(AC-FT)	1112.	1930.	1937.	1937.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 4.85, TOTAL LOSS = 2.52, TOTAL EXCESS = 2.32

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 3424.	16.83	(CFS)	2885.	1241.	600.	600.
		(INCHES)	1.346	2.316	2.325	2.325
		(AC-FT)	1431.	2462.	2471.	2471.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 5.67, TOTAL LOSS = 2.67, TOTAL EXCESS = 3.00

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 4465.	16.83	(CFS)	3754.	1602.	775.	775.
		(INCHES)	1.751	2.990	3.002	3.002
		(AC-FT)	1862.	3178.	3190.	3190.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 6.40, TOTAL LOSS = 2.77, TOTAL EXCESS = 3.63

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			49.83-HR
			6-HR	24-HR	72-HR	
+ 5424.	16.67	(CFS)	4555.	1934.	936.	936.
		(INCHES)	2.125	3.610	3.625	3.625
		(AC-FT)	2259.	3837.	3854.	3854.

CUMULATIVE AREA = 19.93 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION BASIN
FOR PLAN 1, RATIO = 2.23

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 122.	12.00	33.	11.	5.	5.	
		(INCHES)	4.364	5.809	5.809	5.809
		(AC-FT)	16.	22.	22.	22.

CUMULATIVE AREA = 0.07 SQ MI

*** **

HYDROGRAPH AT STATION SITE
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.13, TOTAL LOSS = 0.59, TOTAL EXCESS = 6.54

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 136.	12.00	37.	12.	6.	6.	
		(INCHES)	4.890	6.537	6.537	6.537
		(AC-FT)	18.	24.	24.	24.

CUMULATIVE AREA = 0.07 SQ MI

*** **

* *
18 KK * COMBO *
* *

19 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

*** **

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 1546.	17.00	1318.	588.	285.	285.	
		(INCHES)	0.613	1.093	1.099	1.099
		(AC-FT)	654.	1166.	1173.	1173.

CUMULATIVE AREA = 20.00 SQ MI

*** **

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ (CFS)	(HR)	(CFS)				
+ 2656.	16.83	2246.	979.	474.	474.	
		(INCHES)	1.044	1.820	1.829	1.829
		(AC-FT)	1114.	1941.	1951.	1951.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.51

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ 3429.	16.83	(CFS)	2890.	1248.	604.	604.
		(INCHES)	1.343	2.320	2.332	2.332
		(AC-FT)	1433.	2475.	2487.	2487.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 1.77

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ 4470.	16.83	(CFS)	3760.	1610.	779.	779.
		(INCHES)	1.748	2.994	3.009	3.009
		(AC-FT)	1864.	3193.	3209.	3209.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 2.00

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ 5431.	16.67	(CFS)	4561.	1944.	941.	941.
		(INCHES)	2.120	3.614	3.633	3.633
		(AC-FT)	2262.	3855.	3875.	3875.

CUMULATIVE AREA = 20.00 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION COMBO
FOR PLAN 1, RATIO = 2.23

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.83-HR
+ 6417.	16.67	(CFS)	5382.	2285.	1107.	1107.
		(INCHES)	2.502	4.250	4.273	4.273
		(AC-FT)	2669.	4533.	4558.	4558.

CUMULATIVE AREA = 20.00 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION					
					RATIO 1	RATIO 2	RATIO 3	RATIO 4	RATIO 5	RATIO 6
					1.00	1.31	1.51	1.77	2.00	2.23
HYDROGRAPH AT +	BASIN	19.93	1	FLOW TIME	1543. 17.00	2652. 16.83	3424. 16.83	4465. 16.83	5424. 16.67	6410. 16.67
HYDROGRAPH AT +	SITE	0.07	1	FLOW TIME	58. 12.00	78. 12.00	91. 12.00	107. 12.00	122. 12.00	136. 12.00
2 COMBINED AT +	COMBO	20.00	1	FLOW TIME	1546. 17.00	2656. 16.83	3429. 16.83	4470. 16.83	5431. 16.67	6417. 16.67

*** NORMAL END OF HEC-1 ***



BAUGHMAN COMPANY, P.A.
ENGINEERING, SURVEYING & PLANNING
316/262-7271 • FAX 316/262-0149 • 315 ELLIS • WICHITA, KANSAS 67211

July 2, 2001

Vicky Huang, P.E.
Department of Engineering
City Hall - 7th Floor
455 N. Main
Wichita, KS 67202

RECEIVED
JUL 02 2001
CITY - ENGINEERING

**Re: Northridge Plaza Addition
Drainage Plan**

Dear Vicky,

Enclosed please find the "Drainage Plan" for the above referenced project. Also included with the "drainage plan" is the HEC-1 calculations showing the effect of the development. Due to the overall size of the drainage basin for the Big Slough North, the increase in impervious areas within the development, will not increase the peak runoff rate downstream of the site.

Thank you.
Baughman Co., P.A.

Sincerely,

Brian L. Glenn, P.E.

cc: file

STAFF REPORT
(One-Step Final Plat)

CASE NUMBER: SUB 2001-67 -- NORTHRIDGE PLAZA ADDITION

OWNER/APPLICANT: Ritchie Associates, Inc., Attn: R. Ramseyer and Ritchie Investment Company, Inc., 8100 E. 22nd St. N., Bldg. 1000, Wichita, KS 67226

SURVEYOR/ENGINEER: Baughman Company, P.A., 315 Ellis, Wichita, KS 67211

LOCATION: Northwest corner of 37th St. North and Ridge Road

SITE SIZE: 55.46 Acres

NUMBER OF LOTS

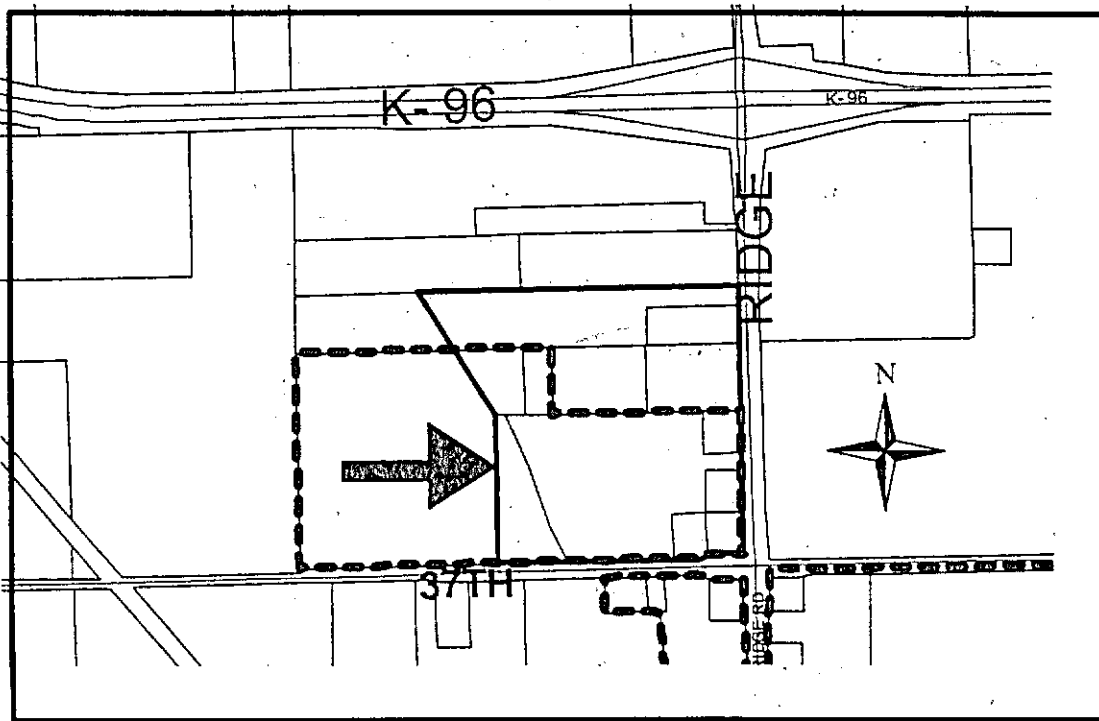
Residential:	
Office:	
Commercial:	11
Industrial:	
Total:	11

MINIMUM LOT AREA: 4.14 Acres

CURRENT ZONING: LC, Limited Commercial; SF- 5, Single-Family Residential, SF- 20, Single-Family Residential

PROPOSED ZONING: LC, Limited Commercial

VICINITY MAP



NOTE: This is a replat of the Starwest Addition (located in the City of Wichita) in addition to unplatted property to the north (located in the County). The site has been approved for a zone change (ZON 2001-19) from SF-5 Single-Family Residential and SF-20, Single-Family Residential to GC, General Commercial. The site is also subject to the Northridge Plaza Community Unit Plan (CUP 2001-13, DP-250). The site is located within the 100-year floodplain.

STAFF COMMENTS:

- A. Municipal services appear to be available to serve the site. City Engineering needs to comment on the need for guarantees or easements.
- B. As the northern portion of this site is adjacent to Wichita's City limits, the Applicant shall submit a request for annexation. Prior to this plat being scheduled for City Council review, annexation of the property will need to be completed.
- C. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning department for recording.
- D. County Engineering needs to comment on the status of the applicant's drainage plan.
- E. County Engineering has recommended that the plat boundary be extended to the west line of the quarter section due to its common ownership.
- F. County Engineering needs to comment on the need for improvements to perimeter streets. *No improvements are required.*
- G. In accordance with the approved CUP, the plat proposes four openings along Ridge Road and three openings along 37th St. North. Distances should be shown for all segments of access control. In accordance with the Subdivision regulations, any access openings located within 250 feet of the intersection of 37th St. North and Ridge Road are limited to right-turns only, and shall be referenced on the face of the plat; or a guarantee provided for the future construction of a raised medial.
- H. The applicant shall guarantee the closure of any driveway openings located in areas of complete access control or that exceed the number of allowed openings.
- I. The joint access openings along Ridge Road and 37th St. North shall be established by separate instrument. Initial construction responsibilities and future maintenance of the driveway within the easement should also be addressed by the text of the instrument.
- J. The 10-ft utility easement along the north property line shall be platted separately from the wall easement which is required by the CUP.
- K. In accordance with the CUP approval, a cross-lot circulation agreement is required to assure internal vehicular movement between the lots.
- L. Cross-circulation access shall be provided between this site and the property to the north.
- M. Although currently zoned SF-20, Single-Family Residential, the property to the north has been approved for a zone change to NR, Neighborhood Retail per SCZ-0769 subject to platting. Due to this potential zone change, the east 336 feet of this subject plat may abut non-residential property, and a wall easement would subsequently not be required at this location. Therefore,

it is recommended that a temporary wall easement shall be platted for the east 336 feet which is to be automatically vacated upon the rezoning to a non-residential district of the property to the north.

- N. Transportation improvements (including decel lanes, storage lanes, signalization) are required as approved per the CUP.
- O. The Applicant shall provide a guarantee for the paving of 37th St. North.
- P. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over those responsibilities.
- Q. For those reserves being platted for drainage purposes, the required covenant which provides for ownership and maintenance of the reserves shall grant, to the City, the authority to maintain the drainage reserves in the event the owner(s) fail to do so. The covenant shall provide for the cost of such maintenance to be charged back to the owner(s) by the governing body.
- R. This property is within a zone identified by the City Engineers' office as likely to have groundwater at some or all times within 10 feet of the ground surface elevation. Building with specially engineered foundations or with the lowest floor opening above groundwater is recommended, and owners seeking building permits on this property will be similarly advised. More detailed information on recorded groundwater elevations in the vicinity of this property is available in the City Engineers' office.
- S. A CUP Certificate shall be submitted to MAPD prior to City Council consideration, identifying the approved Community Unit Plan and its special conditions for development on this property.
- T. Based upon the platting binder, property taxes are still outstanding. Before the plat is scheduled for City Council consideration, proof shall be provided indicating that all applicable property taxes have been paid.
- U. The plat's text shall include language that a drainage plan has been developed for the plat and that all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.
- V. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations. (Water service and fire hydrants required by Article 8 for fire protection shall be as per the direction and approval of the Chief of the Fire Department.)
- W. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- X. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (Phone 316-729-0102) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.

- Y. The applicant is advised that various State and Federal requirements (specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 317, Valley Center, KS 67147) for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- Z. The owner of the subdivision should be aware of the fact that the development of any subdivision greater than five (5) acres in size may require an NPDES Storm Water Discharge Permit from the Kansas Department of Health and Environment in Topeka. Further, on all construction sites, the City of Wichita requires that best management practices be used to reduce pollutant loadings in storm water runoffs.
- AA. Perimeter closure computations shall be submitted with the final plat tracing.
- BB. Recording of the plat within thirty (30) days after approval by the City Council and/or County Commission.
- CC. The representatives from the utility companies should be prepared to comment on the need for any additional utility easements to be platted on this property.
- DD. The applicant is reminded that a disk shall be submitted with the final plat tracing to the Planning Department detailing this plat in digital format in AutoCAD. This will be used by the City and County GIS Department.

CLOSURE: NORTHRIDGE PLAZA ADDITION

PT. 1	North: 9071.51	East : 3771.70
Line	Course: S 00-09-29 E	Length: 1646.13
PT. 2	North: 7425.39	East : 3776.24
Line	Course: N 90-00-00 W	Length: 1752.45
PT. 3	North: 7425.39	East : 2023.79
Line	Course: N 22-03-30 W	Length: 1419.98
PT. 4	North: 8741.43	East : 1490.52
Line	Course: N 00-09-29 W	Length: 330.50
PT. 5	North: 9071.93	East : 1489.60
Line	Course: S 89-59-24 E	Length: 2282.09
PT. 1	North: 9071.53	East : 3771.69