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DRAINAGE REPORT ON UNION HILLS DRIVE 27TH AVENUE TO 57TH AVENUE PHOENIX AND GLENDALE, ARIZONA

Erikson & Salmon, Inc.
consulting civil engineers

DRAINAGE REPORT ON
UNION HILLS DRIVE
27TH AVENUE TO 57TH AVENUE
PHOENIX AND GLENDALE, ARIZONA

Flood Control District of Maricopa County
Contract FCD 86-25

Erikson & Salmon, Inc.
4001 East Broadway Road, Suite 1
Phoenix, Arizona 85040

Registered Professional Engineer (Civil)
CERTIFICATE NO. 4234
RULF ERIKSON
Date Signed 8/27/87
ARIZONA, U.S.A.

August 24, 1987

Erikson & Salmon, Inc.
consulting civil engineers

Rolf Erikson, P.E.
Michael D. Salmon, P.E.

August 24, 1987

Mr. Edward A. Raleigh, Chief
Stormwater Drainage Branch
Flood Control District of Maricopa County
3335 West Durango Street
Phoenix, Arizona 85009

Re: Union Hills Drive Drainage Study
FCD 86-25

Dear Mr. Raleigh:

Pursuant to the contract scope of work and the various meetings held since April 5, 1987, we herewith submit six (6) copies of the Preliminary Drainage Report on the above-referenced project.

This report has been prepared basically in accordance with the August 4, 1969 Arizona Department of Transportation memo to consulting engineers in regard to hydraulic reports.

Should you have any questions concerning the foregoing, we remain at your service.

Yours sincerely,

Rolf Erikson

Rolf Erikson, P.E.

RE/is

Enc.

4001 EAST BROADWAY ROAD / SUITE 1 / PHOENIX, ARIZONA 85040 / PHONE (602) 437-0330

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INTRODUCTION

On September 5, 1986, this firm entered into a contract (FCD 86-25) with the Flood Control District of Maricopa County to provide professional engineering services in connection with a study for a storm drain along Union Hills Drive from 27th to 57th Avenues within the corporate limits of the Cities of Phoenix and Glendale, Arizona. This report, which has been funded by all three of these agencies, has been prepared in compliance with the contract agreements and addresses a drainage design on the project.

DESCRIPTION OF AREA AND HYDROLOGIC HISTORY

The overall study watershed of the project (2.32 square miles) is bordered on the north and west variously by Skunk Creek, Scatter Wash, Beardsley Road (future site of the Outer Loop Freeway), and on the east by the I-17 Freeway and drains at an average 0.55% slope in a southwesterly direction. In its original natural state, the terrain was typical Sonoran Desert and Lower Colorado Subdivision, dominated by creosote bush, with some saltbush, desert thorn, and mesquite in the vicinities of the washes, and a scattering of ocotillo, palo verde, ironwood, and hackberry. The amount of actual vegetative cover was low - generally less than 20% - with the concentrations being in the vicinities of the washes. However, during recent years, the natural vegetation has almost completely been obliterated by the urbanized incursion of residential subdivision developments. At present, the only vestiges of the natural state are some undeveloped one-acre lots to the north of Yorkshire Drive (1/2 mile north of Union Hills Drive) and just to the east of 43rd Avenue. Throughout the project area, the watershed soils are the hyperthermic arid types of the Mohall Vecont-Pinamt Association (also known as the Mohall-Laveen Association). These are deep, moderately fine and fine-textured, nearly level to gently sloping loam and clay-loam soils. Generally, they have a moderate to moderately-slow permeability. According to reference 5 of the bibliography, in Soil Conservation Service (S.C.S.) nomenclature, they are classified as Group "B", and according to reference 15, as Group "C".

The portion of the overall watershed easterly of 51st Avenue is within the corporate limits of the City of Phoenix. That portion between 51st and 43rd Avenues has been generally zoned and mostly developed as R1-8 and P.A.D.8 (single-family residences with a minimum of 8000 square feet per lot). Between 43rd and 35th Avenues, the zoning is now RE-43 (single-family residences with a minimum of one acre per lot). From 35th Avenue to the I-17 Freeway, the area generally is zoned R1-8 also, with the exception of three small commercial developments and about 68 acres between 29th Avenue and I-17 and just north of Union Hills Drive, where the zoning is R1-6 (single-family residences having a minimum of 6000 square feet per lot and now used as a mobile-home park). At present, the only significant portion of the watershed still undeveloped consists of about 295 acres (zoned P.C.) in the northeasterly extremity (i.e., north of Yorkshire Drive and east of 33rd Avenue). Only about 20 acres of the entire study watershed lies westerly of 51st Avenue within the corporate limits of the City of Glendale, where the zoning is R-43 (single-family residences with a minimum of one acre per lot) and A-1 (Agricultural Residence District).

Under natural conditions, all drainage over the project's length flowed southwesterly across Union Hills Drive as either sheet flow or in small,

ill-defined washes and, eventually, discharged into Skunk Creek in the region south of Union Hills Drive as part of a watershed totaling about 3.75 square miles. In the early 1960's, the easterly 1.15 square miles of the watershed was modified by the building of the I-17 Freeway. The construction of this roadway provided for three drainage crossings into the easterly boundary of the present watershed: a triple 10' x 3' box culvert about 900 feet northerly of Union Hills Drive, a 50" x 31" corrugated metal arch pipe 2675 feet northerly of the project roadway, and double 24" corrugated metal pipes 4085 feet northerly of Union Hills Drive. The crossing of the I-17 Freeway at Union Hills Drive was accomplished by depressing the latter below the interstate roadway, with the drainage in the depressed section being pumped out at the rate of 36 cfs (10-year event) in the northwest quadrant of the interchange to a concrete-lined drainage channel at the outlet of the aforementioned triple 10' x 3' box culvert. The concrete-lined drainage channel, in turn, discharged into Union Hills Drive about 100 feet westerly of 27th Avenue. According to reference 21, under future conditions (i.e., with the proposed Outer Loop Freeway in place), the triple 10' x 3' box culvert can discharge 360 cfs into the project area, the corrugated metal pipe, 30 cfs, and the double 24" corrugated metal pipes, only 20 cfs. The same reference estimates that, during a 25-year event, a modified pumping station at the depressed section can contribute another 57 cfs into the aforementioned concrete-lined ditch. Beginning at the point at which this ditch connects to the roadway, Union Hills Drive was constructed with an inverted crown to convey the runoff directly westward. Through the intervening years, Union Hills Drive westwardly to 57th Avenue has been continually constructed with an inverted crown (of varying depths) in order to discharge the drainage into Skunk Creek. As a consequence of the roadway's being also a drainageway, during even average storm events, Union Hills Drive becomes impassible to traffic. In addition, the shallower depth of the inverted crown in some portions has reduced the discharge capacity of the roadway section to such a point that overflows have occurred southwesterly across developed land, resulting in stormwater almost entering some residences (principally just east of 51st Avenue).

In other sections of the watershed, residential developments have further altered the natural drainage patterns. North of Union Hills Drive, between 43rd and 35th Avenues, an irrigation system has been established. Southerly of Yorkshire Drive, this system, although elevated somewhat in an east-west direction and serving as a barrier to drainage, has not significantly altered the natural drainage pattern, due to the presence of 37th, 39th, and 41st Avenues, all of which have continual gradients to the south. However, the northerly edge of Yorkshire Drive is continually lower than those intersections along the southerly edge and the adjacent berm with the irrigation lateral. As such, the roadway section acts as a channel, diverting the drainage from a 141-acre sub-watershed to the intersection of Yorkshire Drive and 43rd Avenue. Prior to 1984, this drainage was conveyed westerly by a grader-type road extension of Yorkshire Drive directly into Skunk Creek. However, with the construction of the Overland Trail subdivision west of 43rd Avenue, this drainage was diverted southerly on 43rd Avenue into its intersection with Union Hills Drive.

Among the development projects which have been constructed to date, there have been only four attempts at mitigating the storm flows through the use of retention basins. One of these, which was constructed in connection with the Granville Condominiums (northerly and easterly of the intersec-

tion of Union Hills Drive with 35th Avenue), seems to be an adequate installation for the watershed of 5.2 acres. Also, two other retention basins, one for a church development at the northwest corner of Union Hills Drive and 41st Avenue (5.7 acres) and another for the Village at Canyon View subdivision (with a retained watershed of 35 acres), located generally at the northwest corner of Union Hills Drive and 43rd Avenue, seem to be sufficient installations. However, the fourth retention area, constructed in connection with a commercial development at the northeast corner of Union Hills Drive and 35th Avenue, does not provide sufficient mitigation to storm flows to be of any consideration.

Future developments in the project area should provide some mitigation to the present storm flows along Union Hills Drive. The construction of the Outer Loop Freeway (State Route 417) roughly on the present alignment of Beardsley Road (i.e., one mile north of Union Hills Drive), will divert 0.27 square mile of the upper watershed directly westerly into Scatter Wash. In addition, the drainage facilities and barrier created by the Outer Loop will somewhat reduce the flows entering the watershed through the three aforementioned drainage crossings and the pumping installation at the I-17 Freeway. (A further discussion and analysis of this is contained in references 21 and 26 of the bibliography.) Also, if City of Phoenix drainage policy is adhered to, in accordance with page 4 of reference 15 of the bibliography (i.e., all developments retaining the 100-year, 2-hour-duration storm), then the flows from the 295 acres presently undeveloped in the northeasterly extremity of the study watershed could be reduced in the future.

Although the aforementioned future developments in the study area should somewhat mitigate the flood discharges, the inevitable reconstruction of Union Hills Drive as a normally-crowned roadway will severely reduce its present capacity as a drainageway. This, in turn, will result in considerable overflows into the residential developments along its southerly edge. In consideration of this occurrence, a decision was reached by all three agencies funding this study and report that a storm drain should be designed and built with sufficient capacity to reduce any legal liabilities for flooding which could result from the reconstruction of Union Hills Drive.

SCOPE OF STUDY AND PROCEDURES

In addition to defining the watersheds on the project (Appendix "A"), estimating the runoff capacities of Union Hills Drive (Appendix "B"), and comparing the results of the foregoing (Appendix "C"), this report presents estimates of the 10-year event and the hydraulic design calculations for each storm drain segment, junction, and the more-significant storm drain laterals (Appendix "D").

A general map, with a scale of approximately 1" = 400', defining the limits of all drainage sub-areas and showing all S.C.S. curve numbers, times of concentration, lag times, concentration-point numbers, and flood routing directions, is included in Appendix "A" of this report (inside back cover).

The hydrologic computations for all watersheds and conveyances were prepared in accordance with the procedures detailed in references 13 and 14 of the bibliography. The factors used in computing runoff from the indi-

vidual watersheds consisted of the following:

A. Soil Group "C" (From reference 15 in the bibliography) (See previous discussion in Description of Area and Hydrologic History.)

B. Curve Numbers:

A-1 and R-43 (City of Glendale) and
RE-43 (City of Phoenix).....83
R1-8 and P.A.D.-8 (City of Phoenix).....87
R1-6 (City of Phoenix).....88
P.S.C. (City of Phoenix).....95
P.C. (Presently Undeveloped, City of Phoenix).....83
or (Dependant upon Enforcement of Retention
Requirements by City of Phoenix).....60

C. The design runoffs were calculated by applying the rates in the Rainfall Table at the top of page 16 to the 24-hour 10-year precipitation values at the bottom of the same page in reference 15 of the bibliography. OK

D. Time of concentration for each individual watershed was computed by first estimating the maximum 10-year runoff by means of the rational method, assuming that one-half of the maximum yielded the average street flow mid-way through the watershed, and one-half of the latter was concentrated in each gutter. The chart on page 33 of reference 15 was next used to determine the average gutter velocity, from which the gutter flow time for the length of the watershed was computed. Thirteen minutes (i.e., assumed lot overland flow time into the gutter) were then added to this for the total time of concentration determination.

E. Lag times were computed by estimating the runoff for each segment of future storm drain on the basis of the rational method, selecting a conduit size that would pass the discharge at a hydraulic gradient equal to the terrain slope, computing the conduit velocity on the basis of the continuity equation, and then dividing this into the length of the conduit.

F. Runoff hydrographs, used for flow entering the study area from the east side of the I-17 Freeway, were those determined by extrapolation from reference 21 in the bibliography. These hydrographs were used as the initial input data for all TR-20 computations on this project.

G. In accordance with page 1 of reference 15 in the bibliography, storm drains are proposed in this study in all streets where the 10-year computed flow exceeded the capacity of the street to the top of the sidewalk, with only some minor exceptions. (See the following Results and Recommendations.)

H. The areas of all watersheds were determined by means of a field inspection performed in conjunction with an evaluation of City of Phoenix quarter section topographic and property-ownership maps.

I. In performing the computations of the hydraulic gradient for the

storm drain along Union Hills Drive, junction losses were calculated in accordance with reference 18 of the bibliography (also given generally on page 5-72 through 5-77 in reference 17).

J. Computations of hydraulic grade at major catch basins and inlets were performed in accordance with the procedures given on pages 18, 19, and 31 through 34 in reference 16 of the bibliography.

K. Storm drain cross-sections were selected as reinforced concrete pipe sizes, with an upper limit of 144" diameter. Any required larger conduit cross-sections would be assumed to be standard ADOT box culvert sizes, as given in reference 19 in the bibliography.

L. Contraction and expansion head losses through a size restriction in the storm drain envisioned at 51st Avenue (in order to pass below an existing 12" sanitary sewer) were estimated in accordance with pages 6-19 through 6-21 of reference 12 in the bibliography.

M. The water surface in Skunk Creek for starting the computation of the hydraulic gradient was assumed to be either the water surface in Skunk Creek as given in reference 23 of the bibliography or critical depth at the outlet of the conduit (whichever was higher).

N. Water surface backwater computations for those portions of storm drain flowing partially full were performed in accordance with pages I-1 through 23 of reference 10 in the bibliography.

O. Energy and hydraulic gradients for those portions of the storm drain flowing full and surcharged were computed on the basis of the standard Manning formula.

P. Minimum slope of any storm drain conduit would be limited to 0.0010'/ft. in order to avoid silting in very low flows.

Q. Minimum velocity in any storm drain under full flow conditions would be 4 feet per second.

RESULTS AND RECOMMENDATIONS

w/ or w/o inverted crown?

On the basis of a graphic comparison of the 10- and 25-year runoffs estimated by the rational method in relation to the existing Union Hills Drive carrying capacity (included in Appendix "C" of the Initial Drainage Report), the 10-year event is the storm frequency recommended for designing the drainage facilities on this project. The runoff produced by this frequency approximates the maximum capacity of Union Hills Drive (1050 cfs) at approximately 35th Avenue and, further to the west, is 42% above the minimum recommended design discharge (i.e., the maximum conveyance capacity of the roadway). (See Appendix "C".) Moreover, the 10-year storm selection is consistent with one of the two acceptable criteria for the initiation of a storm drain system (bottom of page 1 in reference 15 of the bibliography) and is identical to the existing design frequency for the ADOT pumphouse at the Union Hills Drive underpass below the I-17 Black Canyon Freeway.

In order to meet the criteria cited in the Scope of Study section of this report, the total watershed was apportioned into 37 subareas. These subareas were selected generally on the basis of individual runoff characteristics (principally S.C.S. curve numbers) and size (i.e., not yielding a runoff that would exceed the capacity of the street to the top of the sidewalk in the 10-year event).

As a result of the Overland Trail subdivision's diversion of the Yorkshire Drive drainage southerly to the intersection of Union Hills Drive and 43rd Avenue (see Description of Area and Hydrologic History) and the impracticality of constructing a storm drain through the subdivison into Skunk Creek, the above-cited subareas and their TR-20 routing assumes that all drainage north of Yorkshire Drive will be intercepted by the Union Hills Drive storm drain.

On the basis of both the initial computations and the actual TR-20 computer runs, the 10-year design flows were determined to be far in excess of the normal rates used in the design of storm drainage facilities in the Phoenix area. In general, disregarding the additional effect of the input from the three culverts and the pumping station at the I-17 Freeway into the study area, the flows were computed to be over four times the 2-year flows developed by reference 20 in the bibliography for the combined flows on Union Hills Drive and Yorkshire Drive.

The very large flows which would occur on this project westerly of 43rd Avenue could be reduced 12 to 16 percent by strict enforcement of their retention requirements by the City of Phoenix (i.e., in regard to the 295 acres presently undeveloped in the northeasterly area of the watershed). From 43rd Avenue to 29th Avenue, the flows would be reduced 20 to 27 percent by this additional retention. In consideration of this reduction and the City of Phoenix's actual enforcement of these policies, the hydrology presented in this report reflects those resulting from future retention.

Due to the unusually large design discharge volumes which would be generated throughout the study area, some special measures must be taken, both in providing adequate conduits to convey the discharges and, also, in developing special structures to adequately intercept the heavy runoff. In the vicinity westerly of 51st Avenue, it became necessary, due to the anticipated high discharges (i.e., 1493 cfs), to utilize the maximum possible pipe diameter (144"). Also, in order to insure that the main storm drain in Union Hills Drive will fully intercept the design flows, additional large storm drain laterals in various intersecting and parallel streets must be installed. The following four lateral storm drains are envisioned for this purpose:

1. North in 43rd Avenue to Yorkshire Drive and then easterly in Yorkshire Drive to approximately 41st Avenue, requiring pipe sizes ranging from 36" to 66" in diameter

2. North in 35th Avenue to Behrend Drive (i.e., 1/4 mile south of Beardsley Road) and from 35th to 31st Avenues, requiring pipe sizes from 24" to 60" in diameter

3. North in 31st Avenue to Topeka Drive (i.e., 1700' northerly of Union Hills Drive), requiring pipe sizes ranging from 36" to 42" in diameter

4. North in 29th Avenue to Yorkshire Drive and then east in Yorkshire Drive to the southbound frontage road of the I-17 Freeway, requiring pipe sizes varying from 36" to 54" in diameter

All the foregoing systems extend sufficiently into the upper lateral reaches of the watershed that the discharges into the street cross-sections can be accommodated by standard MAG and City of Phoenix catch basins.

However, at seven sites along Union Hills Drive (48th, 47th, 41st, 39th, 37th, and 33rd Avenues and the outlet of the ADOT drainage channel 50 feet easterly of 27th Avenue), it is generally impractical to provide lateral storm drains northerly of Union Hills Drive. At these sites, the curvilinear intersecting streets (where, normally, the laterals would be constructed) are part of well-developed residential areas (complete with all utilities), or the intersecting streets have been constructed with ribbon curb (i.e., 41st, 39th, and 37th Avenues) and, as such, lack the clear definition as drainageways. Therefore, it is recommended that, at six of these sites, special catch basins be installed, spanning the entire width of the side streets. (See special Type I inlets, Appendix "G".) Catch basins of this magnitude were first introduced into the Phoenix area by ADOT in connection with the major drainage interceptor along the north side of the Papago Freeway between 27th and 43rd Avenues and, very recently, have been used on 64th and 66th Streets just north of LaFayette Boulevard by the City of Scottsdale. In the vicinities of 41st, 39th, and 37th Avenues, it is recommended that, in addition to the special catch basins, measures be taken in establishing the gradients of Union Hills Drive which will insure that these installations will intercept the design runoffs. At the outlet of the I-17 concrete-lined channel into Union Hills Drive, some 50 feet easterly of 27th Avenue, a special inlet drop headwall with an access barrier across the opening of the 84-inch-diameter storm drain is recommended. In addition to the special interceptor structures required along the main storm drain, some special runoff interception measures must be undertaken on the east side of 29th Avenue and at other sites, in order to intercept the runoff entering the roadway. (See special Type II inlet, Appendix "G".)

In addition to the above-cited problems relating to intercepting the drainage in the project area, there are some difficulties in achieving an outlet for the Union Hills Drive storm drain into Skunk Creek. In all, three outlet sites appear possible: at 1 51st Avenue, approximately one-half mile north of Union Hills Drive; 2 just east of 57th Drive, about 300 feet north of Union Hills Drive; 3 and at the site of the existing outflow ditch for the roadway, just to the west of 57th Drive. Of these, the former would provide insufficient elevation differential from the intersection of Union Hills Drive and 51st Avenue to allow the installation of an adequate structure. The latter site, although providing a sufficient slope for an hydraulically-adequate structure, would permit the installation of only an uneconomical multi-barrel, low-head drainage structure, due to inadequate clearance (about 9') between any storm drain flowline and the pavement of Union Hills Drive. The site just to the east of 57th Drive is recommended as the most feasible location for the storm drain outlet. In this region, it appears that the future northerly gutter profiles and the centerline grade of Union Hills Drive near 55th Avenue (at approximately Sta. 229+75 of the City of Glendale Paving Project P-856052 being prepared by Franzoy-Corey, Engineers & Architects) can be adjusted to provide clearance for

the recommended drainage structure. This would extend west-northwesterly from the roadway through a new park proposed by the City of Glendale and outlet through an ADOT Std. B-12.20 headwall (per reference 19 of the bibliography) into Skunk Creek approximately 600 feet easterly of 57th Drive.

The recommended storm drain can be constructed through the project area without the relocation of any significant utilities (sanitary sewer, water lines, or telephone). The only major utility conflict occurs at the intersection of Union Hills Drive and 51st Avenue, where an existing 12" sanitary sewer limits the height of the drainage structure to about 7 feet. At this site, it is recommended that the upper one-third of a 10-foot section of 144-inch-diameter storm drain be removed and reconstructed with a flat section and end panels across the cut-out opening. This, in effect, would create a "slot" in the storm drain roof to allow space for the sanitary sewer crossing and, even with the resultant abrupt transitions, would elevate the hydraulic gradient less than two feet. (See sheet 1, Appendix "E".)

At the outlet of the system into Skunk Creek, the flow line should match that of the existing low-flow channel (approximatley 1265.50) as closely as possible, and this, in turn, will require a low-flow junction channel (about 1' deep) from the storm drain. During the peak design flow, discharge from the storm drain will occur at about critical depth (8.6' - at around elevation 1274), which is almost 4 feet above the 50-year flood water surface of Skunk Creek (elevation 1270.23 at 5835 cfs, according to reference 23 of the bibliography). Consequently, under any flow conditions in Skunk Creek, severely high velocities and supercritical flow will occur at the outlet of the system. Therefore, it is retommended that spetial attention be given to the design of the system's outlet protection. Besides bank protection, this should include estimating the depth, width, and length of the scour hole, which may require "armoring" if it extends sufficiently downstream to endanger the existing low-water crossing of 57th Drive in Skunk Creek.

In addition to the difficulties relating to an outlet in Skunk Creek, the Union Hills Drive storm drain may introduce problems further downstream by adding discharge to the drainageway. It should not have a significant impact on the low-water crossing of 57th Drive and Skunk Creek, since the latter has been designed for only 130 cfs and will be continually inundated by even minor storm events from its own immediate watershed (the 2-year discharge being about 800 cfs). However, the 59th Avenue Bridge over Skunk Creek may be affected to a considerable degree. Under the present conditions, during the 50- and 100-year events, the bridge operates under pressure (orifice) flow conditions, and the impact from the introduction of additional flow into the watercourse by the Union Hills Drive storm drain has been investigated. Although the upstream water surface will be increased by 1.30 feet, this will still be over 2 feet below the existing building floor elevations. (See Appendix "I".) In addition, the effect of the additional water depth on the structural integrity of the bridge has been investigated and found not to be of major significance. (See Appendix "I".)

Because of the above-cited problems, this storm drain project could be contested on the basis that it is diverting flood waters and is, therefore, in violation of the Civil Law rule relating to natural drainage (as cited

on pages 130 and 131 of reference 1 of the bibliography) which states that an owner "has a lawful right to complain of others, who, by interfering with natural conditions, cause such surface water to be discharged in greater quantity or in a different manner upon his land, than would occur under natural conditions." However, in this context, since the project is in an urban area (in which the natural drainage rule is modified), the project is defensible under the Common Enemy Doctrine and Reasonable Use Rule (pages 132 and 133 of reference 1). In the State of Arizona, the Common Enemy Doctrine was invoked by the courts in the case of Gillespie Land and Irrigation Company versus Gonzales, in which it was stated, "We have also stated that the law of this state does not require a landowner to carry away flood waters, such being those waters which escape from a water course in great volume and flow over adjoining lands in no regular channel, but permits him to divert such waters from his land as a common enemy" (reference 4 in the bibliography).

In addition to the obvious benefits (and purpose) of this project in protecting adjacent landowners from flooding, there is yet another advantage created in that it will reduce the drainage reaching Bell Road (a future important arterial one mile to the south of Union Hills Drive). This aspect is further detailed by reference 27 of the bibliography.

With some modifications, this project could create yet another benefit through the elimination of the pumping station (and continued flooding) in the Union Hills Drive undercrossing at the I-17 Freeway. This would require a somewhat larger structure at a lower gradient (and, consequently, a greater cost), which is further detailed in reference 22 of the bibliography.

The probable total construction cost of this project is envisioned as $10.9 million (shown in Appendix "H"), of which, $2.4 million would consist of storm drain laterals, and $8.5 million would be for the main storm drain in Union Hills Drive. $2.0 million of the Union Hills Drive storm drain costs would occur within the City of Glendale. (All of the foregoing costs are exclusive of special Type I and Type II structures, miscellaneous catch basins, and connector pipes, which would be installed as parts of various street improvement projects.)

APPENDIX A

WATERSHED SUMMARY

NO.	AREA (ACRES)	ZONING	S.C.S. CURVE NO.	LENGTH	SLOPE	TIME OF CONCENTRATION
1	64.9 *(147)*	P.C.	83 *(90)*	3300	0.0050	27 *(15)*
2	79.7 *(6.3)*	P.C.	83 *(85)*	3550 *(2600)*	0.0045	29 *(12)*
3	51.8 *(276)*	R1-B & P.C.	83 *(87)*	3600 *(2600)*	0.0036	30 *(18)*
4	16.0	R1-B	87	1300	0.0048	20
5	25.5	R1-B	88	1750	0.0044	22
6	42.4	R1-B	88	2500	0.0049	27
7	80.3 *(157)*	R1-B & P.C.	83 *(91)*	3950 *(2600)*	0.0045	29 *(19)*
8	79.7 *(111)*	R1-B & P.C.	83 *(92)*	3900 *(2600)*	0.0041	30 *(17)*
9	16.7	R1-B	87	2600	0.0035	30
10-11	35.5	P.S.C. & R1-B	90	2400	0.0031	26
12	16.7	R1-B	87	1600	0.0038	23
13	11.7	R1-B	87	1300	0.0028	23
14	17.3	R1-B	87	1400	0.0040	21
15	19.3	R1-B	87	1500	0.0040	21
16	6.3	R1-B	87	800	0.0042	19
17-1	28.8	R1-B	87	2100	0.0045	24
17-2	22.6	R1-B	87	2000	0.0051	23
17-3	28.6	R1-B	87	2100	0.0049	23
18	92.2	R1-B	87	3950	0.0037	29
19	10.2	R1-B	87	1100	0.0055	20
20	10.3	P.S.C.	95	N/A	N/A	10
21	80.9	RE-43	83	3950	0.0047	29
22	80.6	RE-43	83	3950	0.0046	29
23	80.6	RE-43	83	3950	0.0041	30
24-1	39.2	RE-43	83	2650	0.0044	27
24-2	46.3	RE-43	83	2650	0.0036	27
25	55.8	RE-43	83	3650	0.0047	29
26	20.9	RE-43	83	1900	0.0046	24
27	20.9	RE-43	83	1950	0.0050	25
28	36.7	RE-43	83	2650	0.0048	26
29	14.6	P.A.D. & RE-43	85	1700	0.0042	24
30	7.2	R1-B	87	850	0.0030	20
31	155.2	R1-B	87	5800	0.0036	35
32	37.7	R1-B	87	1800	0.0043	21
33	32.7	R1-B	87	2050	0.0035	24
34	19.7	A-1* & R-43*	83	2200	0.0032	27

*City of Glendale
( ) with Retention

MAP SYMBOLS

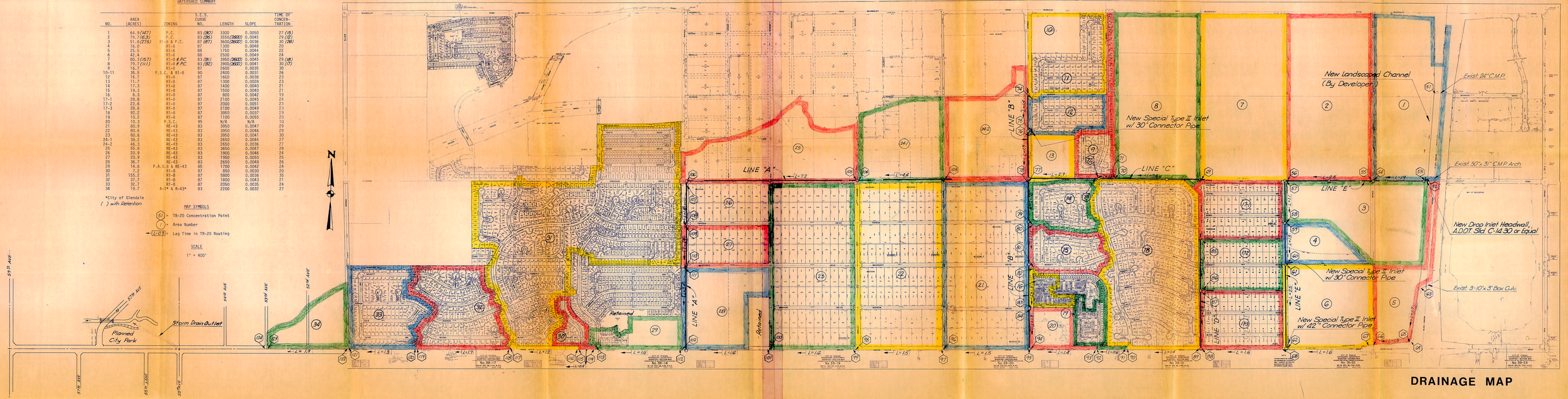
(51) = TR-20 Concentration Point

(7) = Area Number

→ (L=2.5) = Lag Time in TR-20 Routing

SCALE

1" = 400'



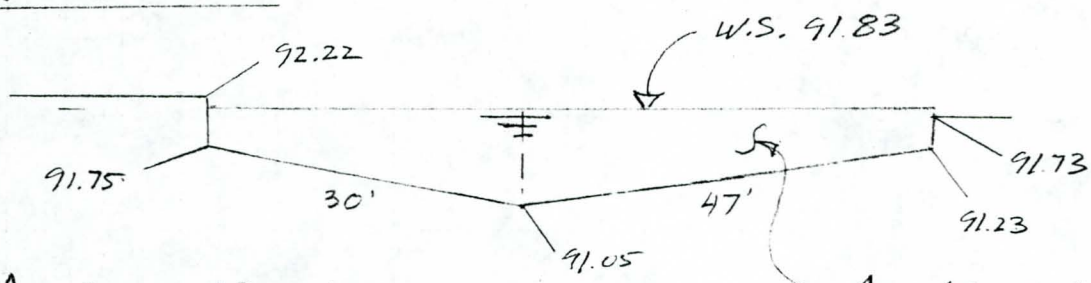
DRAINAGE MAP

APPENDIX B

RUNOFF CAPACITIES OF UNION HILLS DRIVE

EXISTING

Sta. 260+00



$A = 30 \times 0.43 = 12.9$

$A = 47 \times 0.69 = 32.43$

$\Sigma A = 32.4 + 12.9 = 45.3$

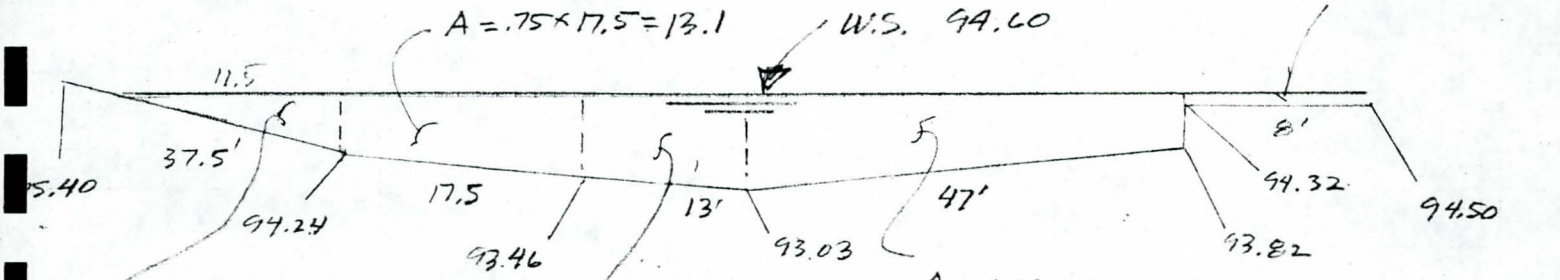
93.46
91.05
$S = 2.41 \div 900$
$= 0.0027$

$$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$V = 99.06 \times \left(\frac{45.3}{77.88}\right)^{2/3} \times 0.0027^{1/2} = 3.59$$

$$Q = 45.3 \times 3.59 = 162 \text{ CFS}$$

Sta. 269+00



$A = 0.18 \times 11.5 = 2.1$

$A = 1.35 \times 13 = 17.6$

$A = 1.18 \times 47 = 55.5$

$\Sigma A = 89.8$

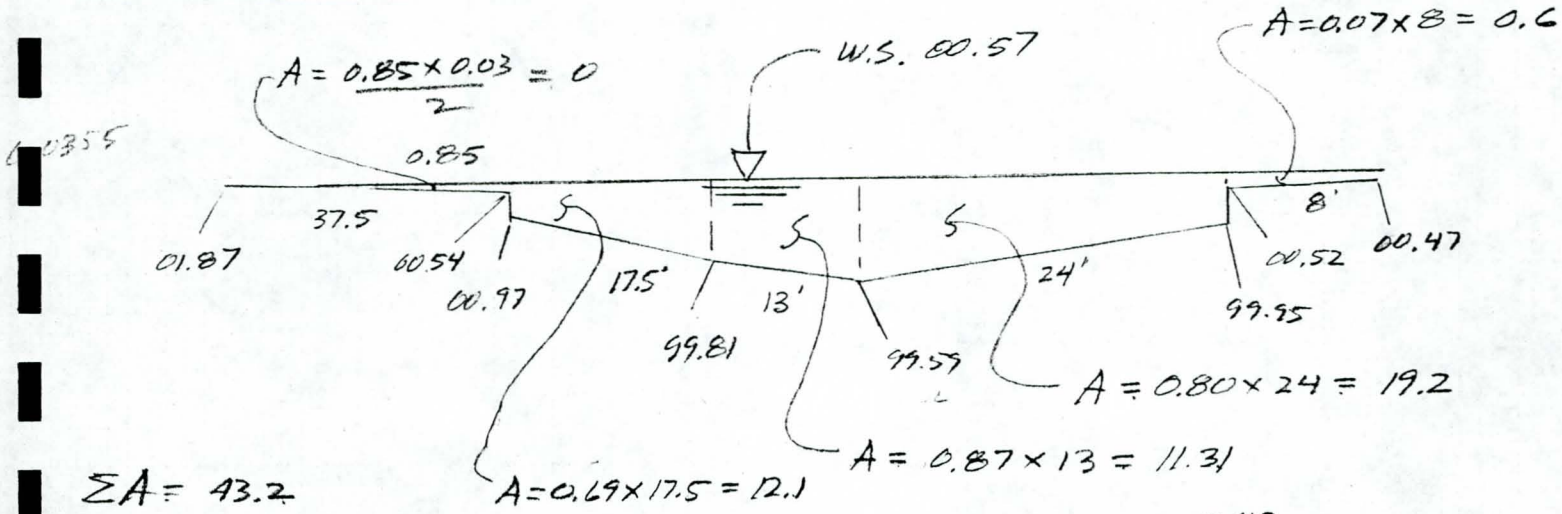
99.81
93.46
$S = 6.35 \div 1300$
$= 0.0049$

$$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$V = 99.06 \times \left(\frac{89.8}{97.5}\right)^{2/3} \times 0.0049^{1/2} = 6.57$$

$$Q = 89.8 \times 6.57 = 590 \text{ CFS}$$

Sta. 282+20



$\Sigma A = 43.2$

105.43
99.81

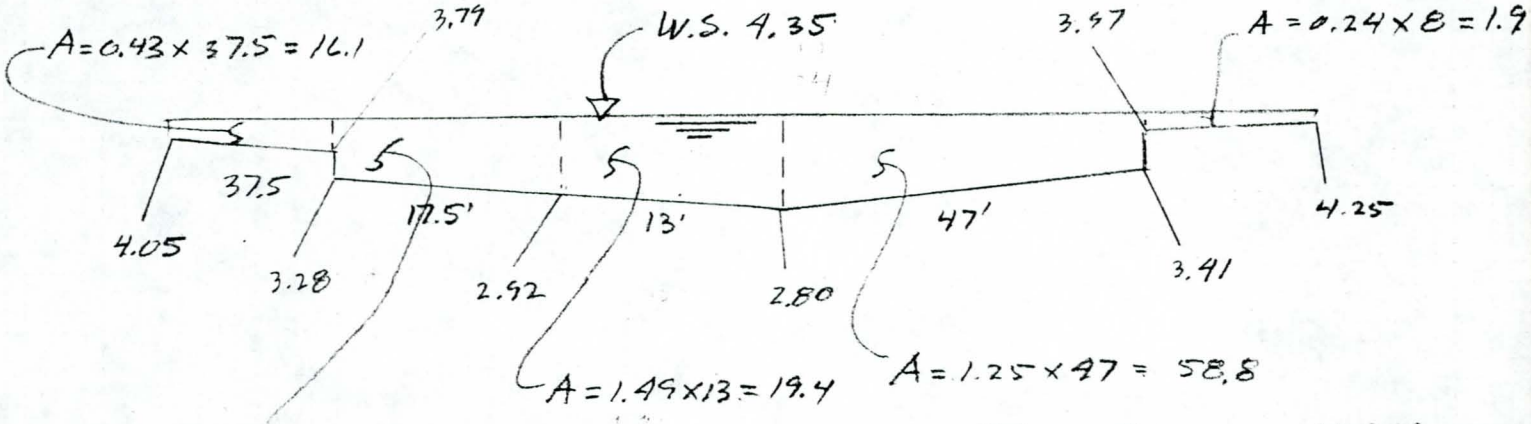
$S = 5.62 \div 1300$

$S = 0.0043$

$$V = 99.06 \left(\frac{43.2}{74.49}\right)^{2/3} \times 0.0043^{1/2} = 4.52$$

$Q = 4.52 \times 43.2 = 195$ CFS

Sta. 295+20



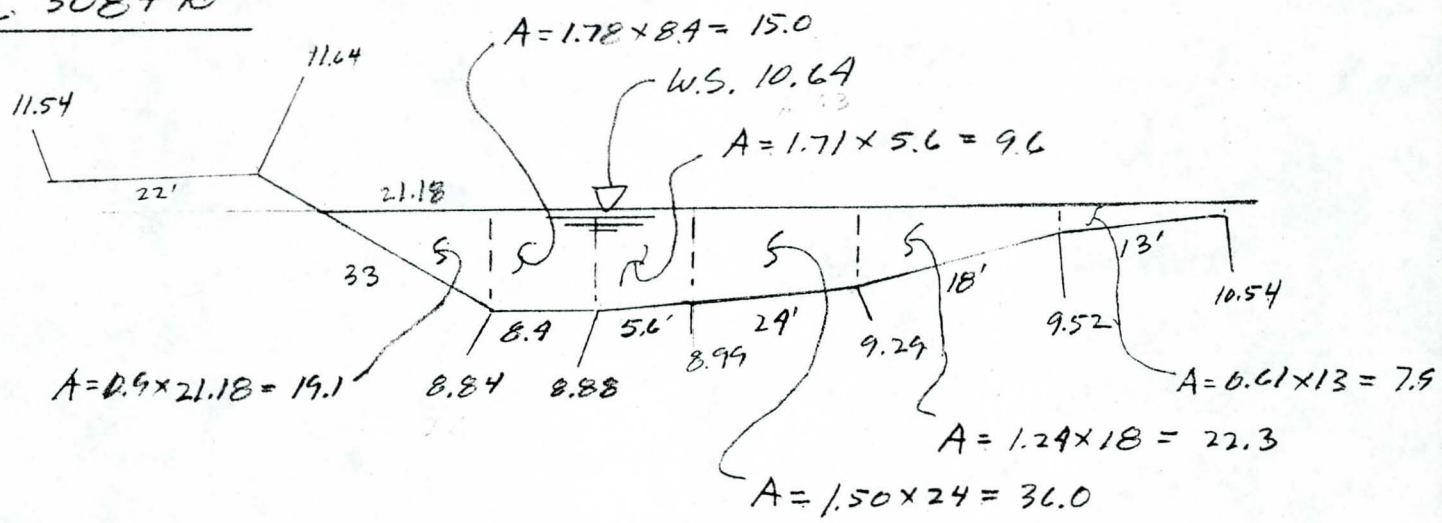
$\Sigma A = 118.1$

$$S = \frac{108.99 - 102.92}{6.07 \div 1350} = 0.0045$$

$$V = 99.06 \times \left(\frac{118.1}{111.07}\right)^{2/3} \times (0.0045)^{1/2} = 6.92$$

$$Q = 118.1 \times 6.92 = 818 \text{ CFS}$$

Sta. 308+70



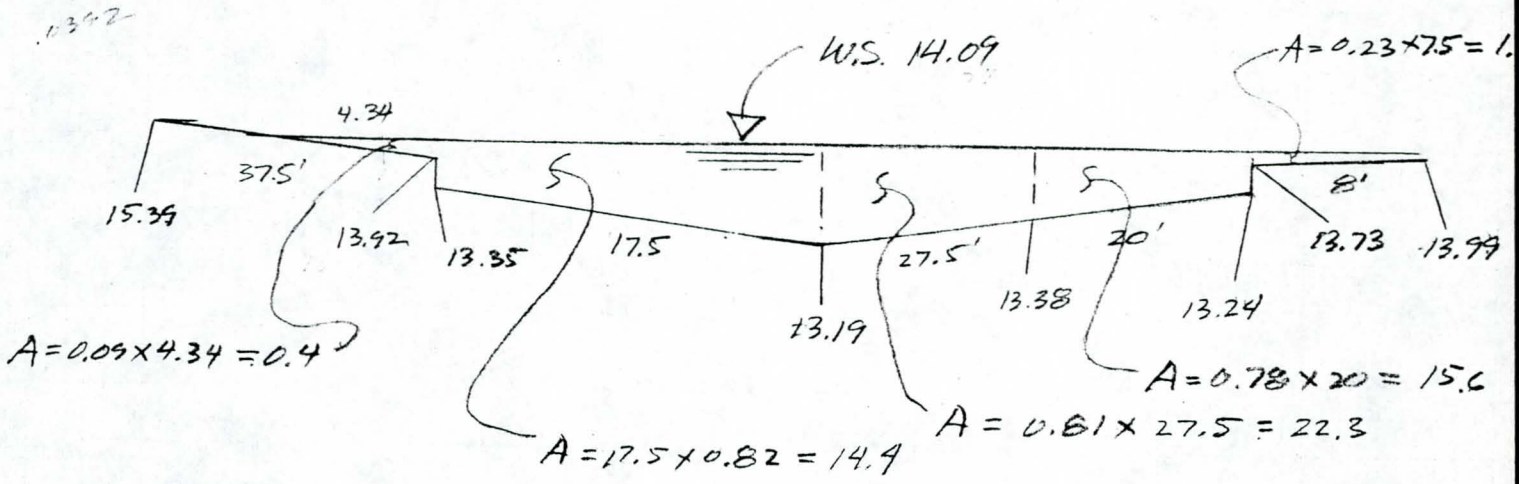
$\Sigma A = 109.9$

$$S = \frac{13.19 - 8.99}{4.20 \div 930} = 0.0045$$

$$V = 99.06 \times \left(\frac{109.9}{109.18}\right)^{2/3} \times (0.0045)^{1/2} = 6.67$$

$$Q = 109.9 \times 6.67 = 734 \text{ CFS}$$

Sta. 318+00



$\Sigma A = 54.4$

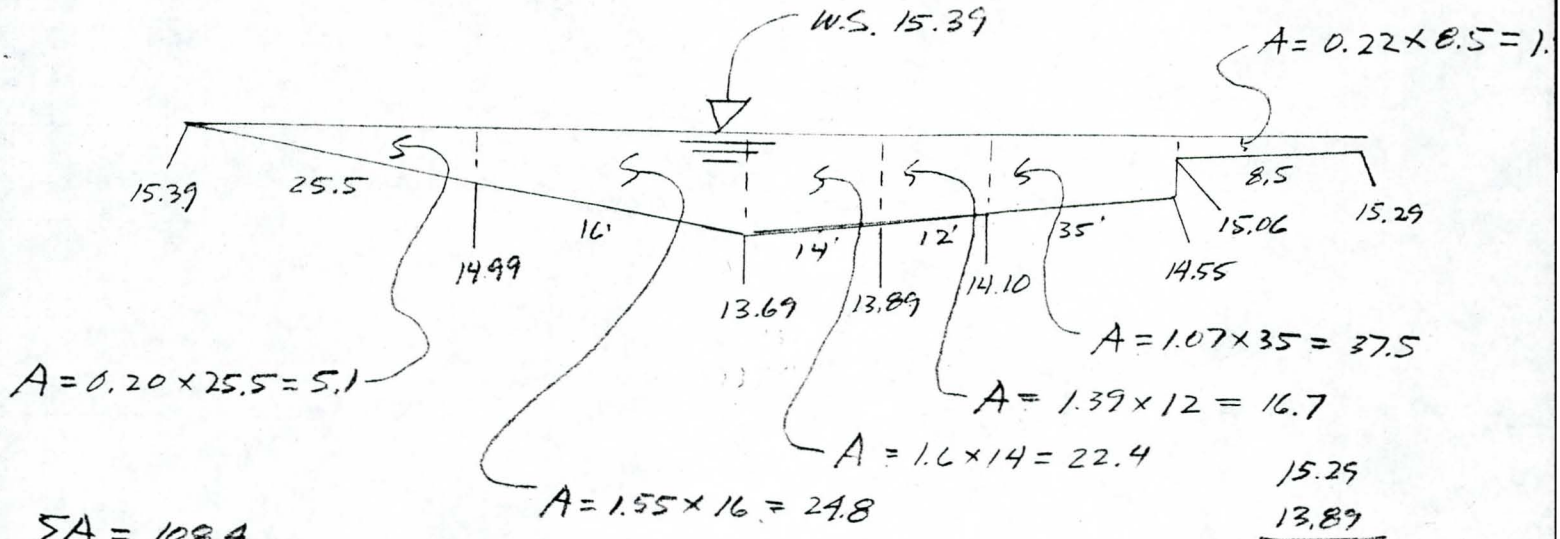
13.69
13.19
$S = 0.50 \div 550$
$= 0.0009$

0.03

$$V = 99.06 \times \left(\frac{54.4}{77.9}\right)^{2/3} \times 0.0009^{1/2} = 2.34$$

$$Q = 54.4 \times 2.34 = 127 \text{ CFS}$$

Sta. 323+50



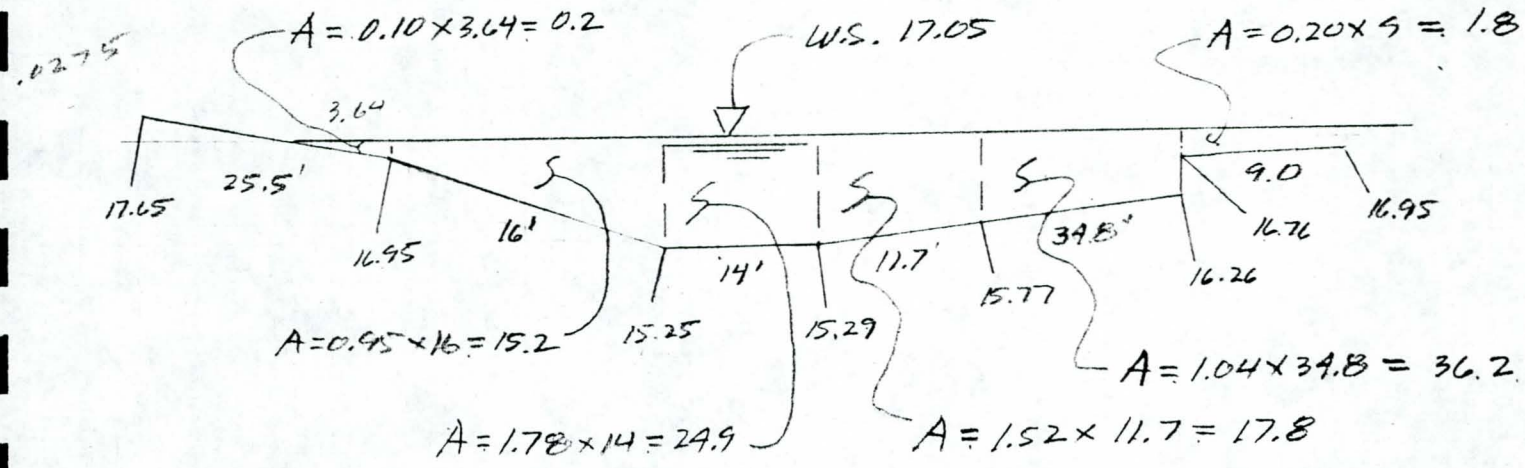
$\Sigma A = 108.4$

15.29
13.89
$S = 1.40 \div 450$
$S = 0.0031$

$$V = 99.06 \left(\frac{108.4}{111.51}\right)^{2/3} \times 0.0031^{1/2} = 5.41$$

$$Q = 108.4 \times 5.41 = 586 \text{ CFS}$$

Sta. 328+00



$\Sigma A = 96.1$

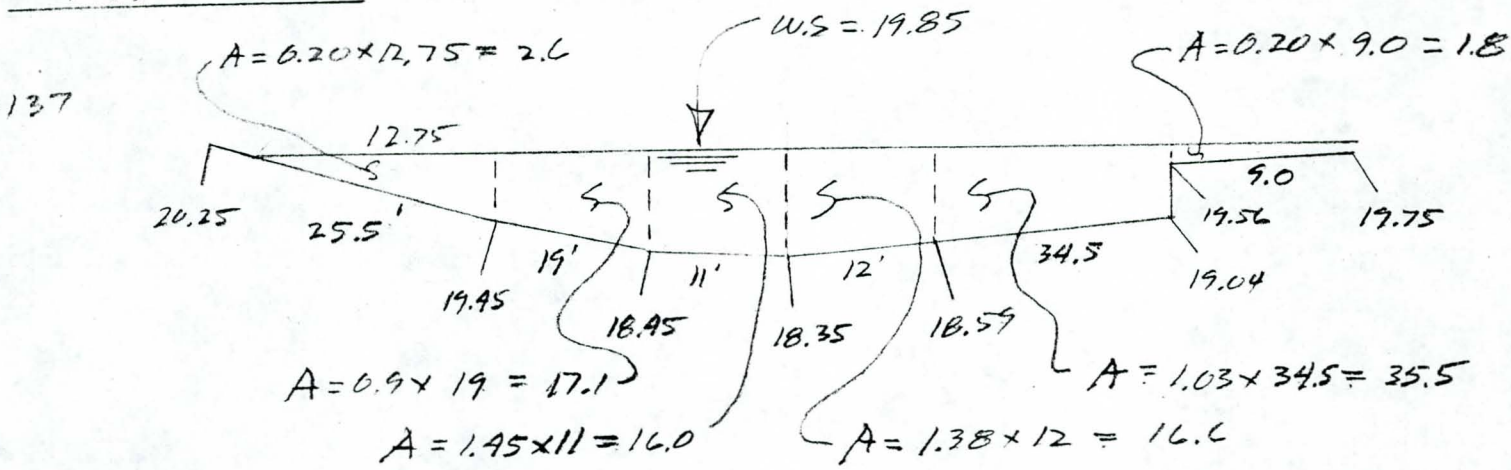
18.35
15.29
S = 3.06 ÷ 700
S = 0.0044

1.047

$$V = 99.06\left(\frac{96.1}{89.64}\right)^{2/3} \times 0.0044^{1/2} = 6.88$$

$$Q = 96.1 \times 6.88 = 661 \text{ CFS}$$

Sta. 335+00



$\Sigma A = 89.6$

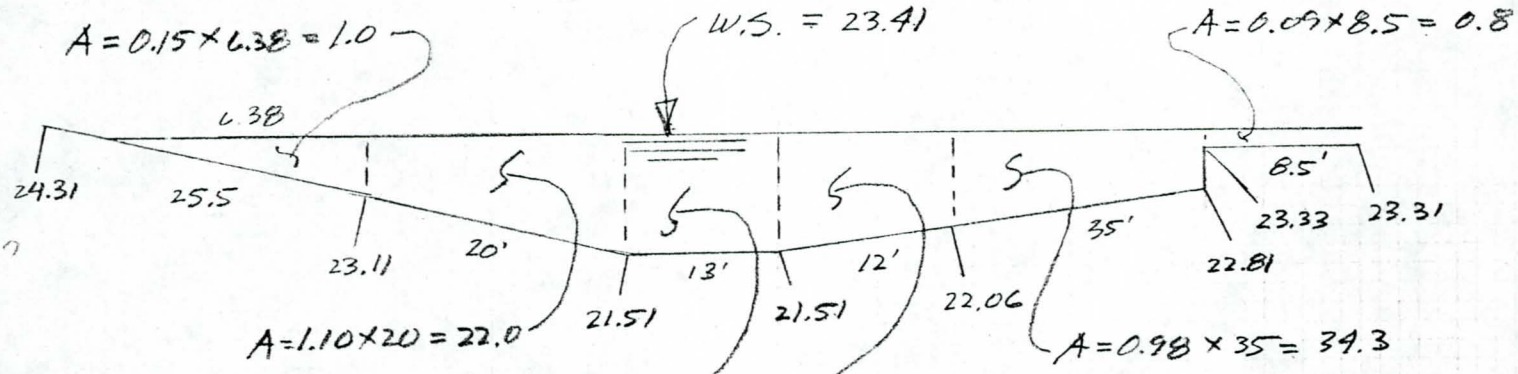
21.51
18.35
S = 3.16 ÷ 900
S = 0.0035

.937

$$V = 99.06\left(\frac{89.6}{98.77}\right) \times 0.0035^{1/2} = 5.49$$

$$Q = 89.6 \times 5.49 = 492 \text{ CFS}$$

Sta. 344+00



$\Sigma A = 102.4$

24.85
21.51
S = 3.34 ÷ 1070
S = 0.0031

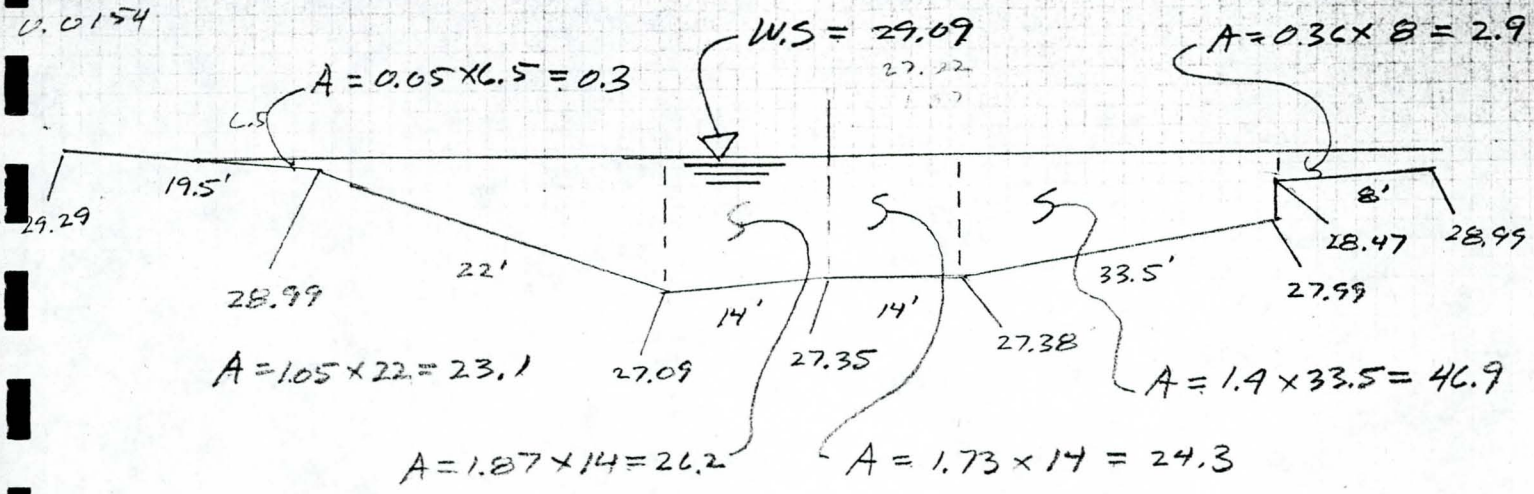
1.048

$$V = 99.06\left(\frac{102.4}{95.4}\right)^{2/3} \times 0.0031^{1/2} = 5.78$$

$$Q = 102.4 \times 5.78 = 592 \text{ CFS}$$

Sta. 354+70

0.0154



$\Sigma A = 123.7$

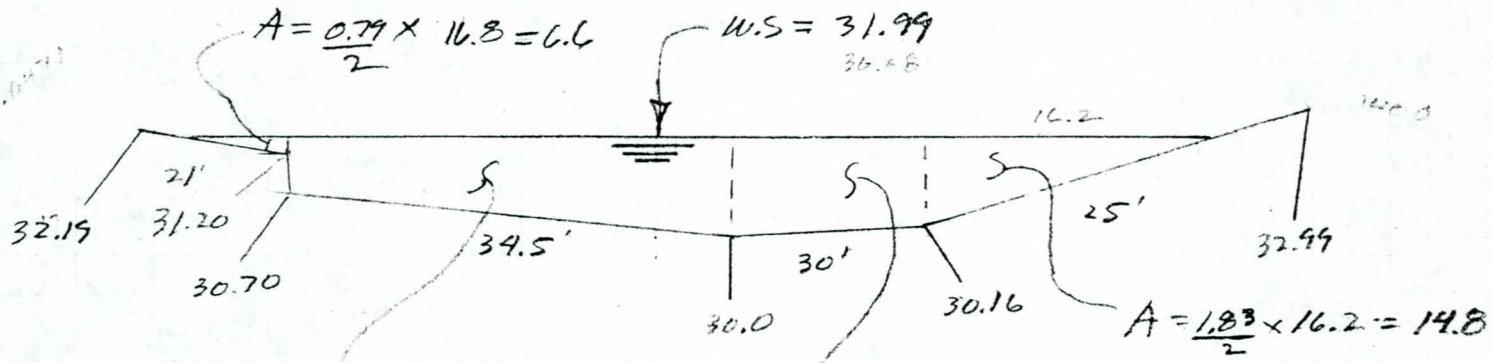
30.00
27.35
S = 2.65 ÷ 650
S = 0.0041

1.164

$$V = 99.06\left(\frac{123.7}{98.48}\right)^{2/3} \times 0.0041^{1/2} = 7.38$$

$$Q = 123.7 \times 7.38 = 913 \text{ CFS}$$

Sta. 361+20



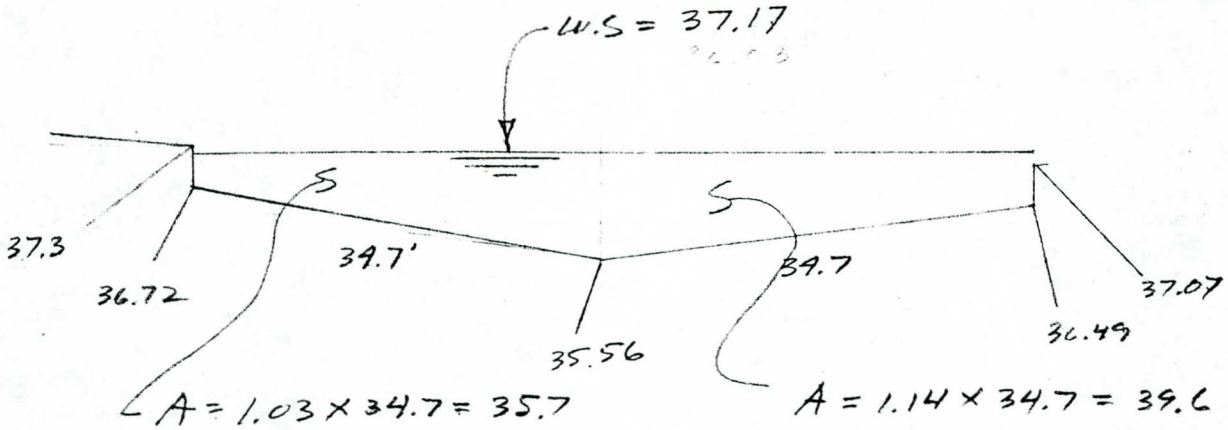
$\Sigma A = 135.3$

35.56
30.00
S = 5.56 ÷ 1380
S = 0.0040

$$V = 99.06 \times \left(\frac{135.3}{98.0}\right)^{2/3} \times 0.0040^{1/2} = 7.77$$

$$Q = 135.3 \times 7.77 = 1051 \text{ CFS}$$

Sta. 375+00



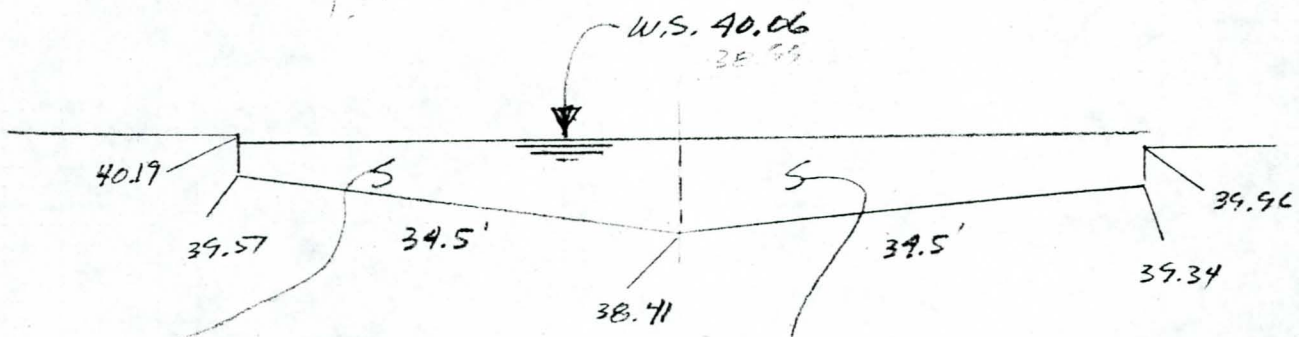
$\Sigma A = 75.3$

38.41
35.56
S = 2.85 ÷ 500
S = 0.0057

$$V = 99.06 \left(\frac{75.3}{70.43}\right)^{2/3} \times 0.0057^{1/2} = 7.82$$

$$Q = 75.3 \times 7.82 = 589 \text{ CFS}$$

Sta 380+00



$A = 1.07 \times 34.5 = 36.9$

$A = 1.19 \times 34.5 = 41.1$

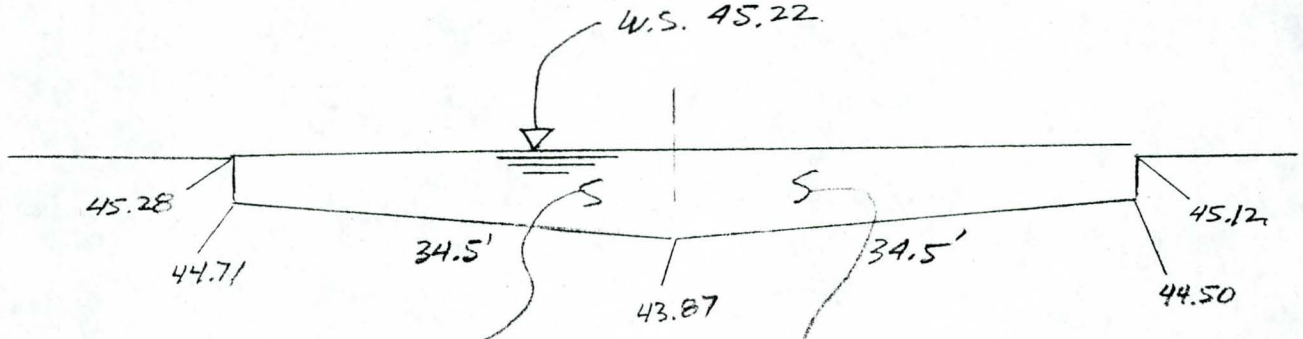
$\Sigma A = 78$

43.87
38.41
$S = 5.46 \div 800$
$S = 0.0068$

$$V = 99.06 \left(\frac{78}{70.11}\right)^{2/3} \times 0.0068^{1/2} = 8.77$$

$Q = 78 \times 8.77 = 684$ CFS

Sta. 388+00



$A = 0.93 \times 34.5 = 32.1$

$A = 1.03 \times 34.5 = 35.5$

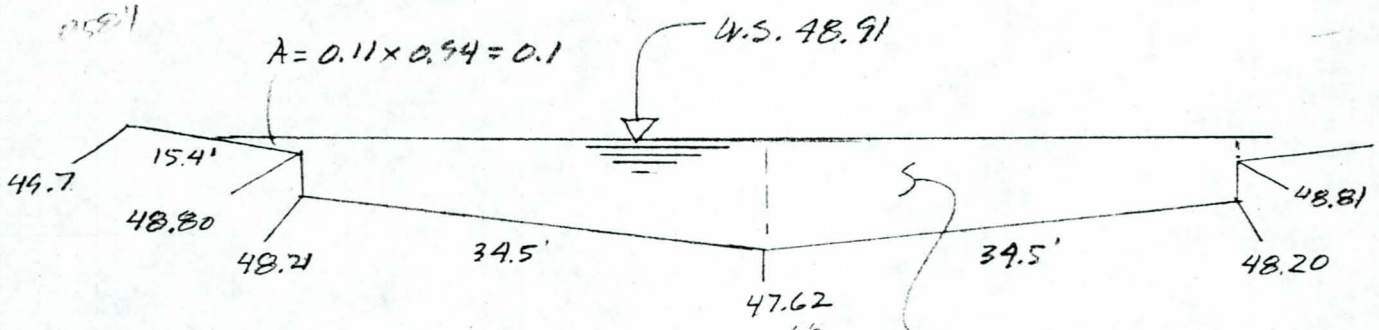
$\Sigma A = 67.6$

47.62
43.87
$S = 3.75 \div 600$
$S = 0.0063$

$$V = 99.06 \left(\frac{67.6}{70.23}\right)^{2/3} \times 0.0063^{1/2} = 7.67$$

$Q = 67.6 \times 7.67 = 518$ CFS

Sta. 354+00



$A = 0.99 \times 34.5 = 34.2$

$A = 1.00 \times 34.5 = 34.5$

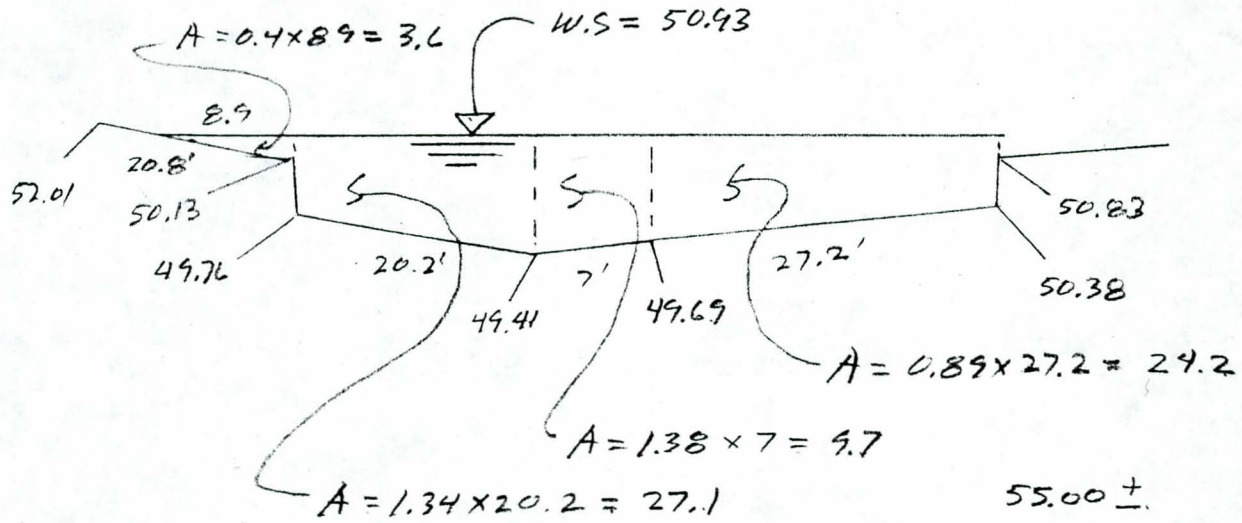
$\Sigma A = 68.8$

49.69
47.62
$S = 2.07 \div 900$
$S = 0.0023$

$$V = 99.06 \left(\frac{68.8}{72.2}\right)^{2/3} \times 0.0023^{1/2} = 4.60$$

$Q = 68.8 \times 4.60 = 317$ CFS

Sta. 403+00



$A = 0.89 \times 27.2 = 24.2$

$A = 1.38 \times 7 = 9.7$

$A = 1.34 \times 20.2 = 27.1$

55.00 ±
49.69
$S = 5.31 \div 1000$
$S = 0.0053$

$\Sigma A = 64.6$

$$V = 99.06 \left(\frac{64.6}{58}\right)^{2/3} \times 0.0053^{1/2} = 7.75$$

$Q = 64.6 \times 7.75 = 501$ CFS

FUTURE ROADWAY CAPACITIES

$z/n = 3333$ $d_R = 0.84$ $d_L = 0.68$

Sta. 260+00 $S = 0.0027$

$Q_T = Q_R + Q_L = 59 + 35 = 94$ CFS

Sta 269+00 $S = 0.0049$

$Q_T = 80 + 48 = 128$ CFS

Sta. 282+20 $S = 0.0043$

$Q_T = 75 + 45 = 120$ CFS

Sta. 295+20 $S = 0.0045$

$Q_T = 78 + 45 = 123$ CFS

Sta. 308+70 $S = 0.0045$

$Q_T = 78 + 45 = 123$ CFS

Sta. 318+00 $S = 0.0009$

$Q_T = 36 + 22 = 58$ CFS

Sta. 323+50 $S = 0.0031$

$Q_T = 65 + 29 = 94$ CFS

Sta. 328+00 $S = 0.0044$

$Q_T = 77 + 45 = 122$ CFS

Sta. 335+00 $S = 0.0035$

$Q_T = 70 + 40 = 110$ CFS

Sta. 344+00 $S = 0.0031$

$Q_T = 65 + 29 = 94$ CFS

Sta. 354+70 $S = 0.0041$

$Q_T = 75 + 44 = 119$ CFS

Sta. 361+20 $S = 0.0040$

$Q_T = 74 + 44 = 118$ CFS

Sta. 375+00 $S = 0.0057$

$Q_T = 85 + 50 = 135$ CFS

Sta. 380+00 $S = 0.0068$

$Q_T = 94 + 55 = 149$ CFS

Sta. 388+00 $S = 0.0063$

$Q_T = 92 + 54 = 146$ CFS

Sta. 394+00 $S = 0.0023$

$Q_T = 56 + 32 = 88$ CFS

Sta. 403+00 $S = 0.0053$

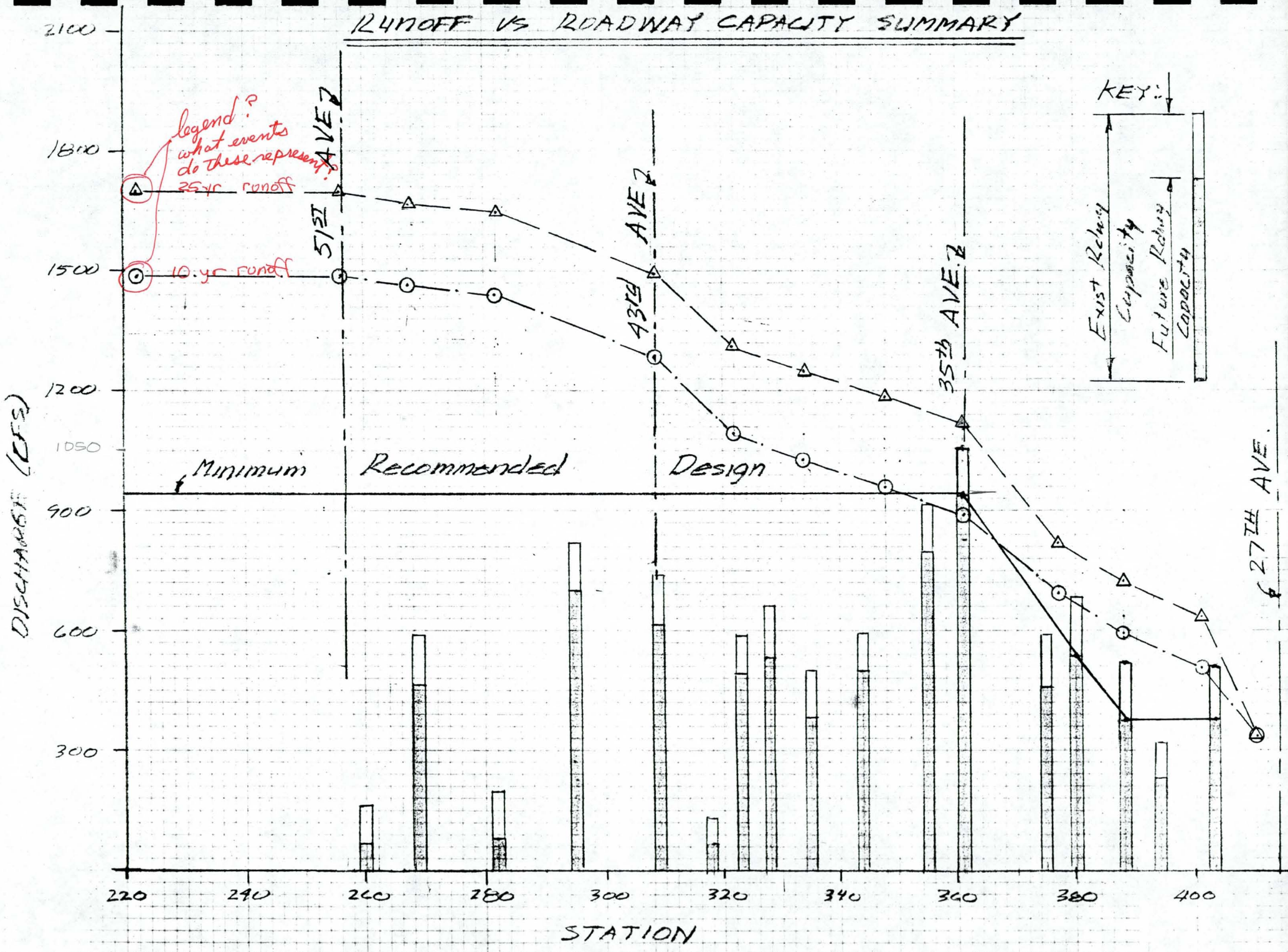
$Q_T = 85 + 49 = 134$ CFS

MINIMUM DESIGN DISCHARGES

Station	Existing	Future	Difference (Minimum)
260+00	162	94	68
269+00	590	128	462
282+20	195	120	75
295+20	818	123	695
308+70	734	123	611
318+00	127	58	69
323+50	586	94	492
328+00	661	128	533
335+00	492	110	382
344+00	592	94	498
354+70	913	119	794
361+20	1051	118	933
375+00	589	135	454
380+00	684	149	535
388+00	518	146	372
394+00	317	88	229
403+00	501	134	367

APPENDIX C

RUNOFF VS ROADWAY CAPACITY SUMMARY



APPENDIX D

UNION HILLS STORMDRAIN

TR-20 HYDROLOGY

PROGRAM DATE - FEB. 14, 1974 S/360

EXECUTIVE CONTROL CARD OPERATION INCREM, MAIN TIME INCREMENT= 0.10 PASS= 1

DISCHARGE HYDROGRAPH, HYDROGRAPH LOCATION 7

STARTING TIME= 11.00 TIME INCREMENT= 0.10 DRAINAGE AREA= 0.09 BASE FLOW= 0.0

8	1.0200	1.0800	1.1700	1.2400	1.2600
8	1.2600	2.2800	5.1800	9.0900	20.0000
8	20.0000	20.0000	20.0000	20.0000	20.0000
8	20.0000	15.6000	8.6000	5.2000	3.7000
8	3.1500	2.9700	3.0000	3.0300	2.9700
8	2.9000	2.6700	2.1500	1.8400	1.6400
8	1.5100	1.5000	1.5700	1.6300	1.6500
8	1.6600	1.6300	1.5200	1.4800	1.5300
8	1.6100	1.5300	1.2400	1.0600	0.9900
8	0.9700	1.0000	1.1000	1.1500	1.0900
8	0.9600	0.9900	1.1000	1.1500	1.1000
8	1.0100	0.9800	0.9700	0.9700	0.9700
8	0.9600	0.8800	0.6800	0.5500	0.4100
9 ENDTBL					

DISCHARGE HYDROGRAPH, HYDROGRAPH LOCATION 6

STARTING TIME= 10.00 TIME INCREMENT= 0.10 DRAINAGE AREA= 0.02 BASE FLOW= 0.0

8	0.5300	0.5500	0.5400	0.5400	0.5900
8	0.6500	0.7900	1.1100	1.3300	1.4400
8	1.4800	1.5600	1.6900	1.7900	1.8200
8	1.8300	3.3100	7.5100	13.1700	29.0000
8	29.0000	29.0000	29.0000	29.0000	29.0000
8	29.0000	22.5600	12.4100	7.4800	5.4200
8	4.5600	4.3100	4.3500	4.3900	4.3100
8	4.2000	3.8700	3.1200	2.6600	2.3800
8	2.1900	2.1700	2.2800	2.3600	2.3900
8	2.4100	2.3600	2.2100	2.1400	2.2200
8	2.3400	2.2200	1.8000	1.5400	1.4400
8	1.4000	1.4500	1.5900	1.6700	1.5800
8	1.4700	1.4200	1.4000	1.3900	1.3900
8	1.3900	1.3900	1.3900	1.3900	1.3900
8	1.3900	1.4400	1.6000	1.6700	1.5900
8	1.4700	1.4200	1.4000	1.4000	1.4000
8	1.3900	1.2800	0.9800	0.7900	0.6000
8	0.4500	0.4400	0.5700	0.6500	0.6800
9 ENDTBL					

DISCHARGE HYDROGRAPH, HYDROGRAPH LOCATION 3

STARTING TIME= 9.50 TIME INCREMENT= 0.10 DRAINAGE AREA= 0.37 BASE FLOW= 0.0

8	0.9400	1.1000	1.2600	1.4400	1.6200
8	1.8200	2.0500	2.2700	2.5000	2.7300
8	2.9500	3.1900	3.4600	3.7900	4.2000
8	4.6800	5.2300	5.8200	6.4500	7.1100
8	7.7900	8.5600	9.6600	11.7000	18.1500
8	37.1400	77.6600	132.9200	191.3900	228.9200
8	259.6499	277.8999	287.4199	289.6899	286.5398
8	279.6199	270.4399	260.1499	247.8500	235.5500

```
8              223.6100    212.2000    201.3900    191.1200    177.9000
8              163.9900    151.0100    139.0100    128.0100    118.0300
8              109.0100    100.8900     93.6100     87.0400     81.0700
8               75.6600     70.7700     66.3200     62.2200     58.3600
8               54.6900     51.3800     48.4600     45.7800     43.3500
8               41.1300     39.0900     37.2000     35.4400     33.7900
8               32.2700     30.8700     29.5900     28.4200     27.3400
8               26.3800     25.7500     25.1700     24.6600     24.2200
8               23.8300     23.4700     23.1100     22.7500     22.3900
8               22.0400     21.7000     21.3400     20.9400     20.4600
9 ENDTBL

  DISCHARGE HYDROGRAPH,  HYDROGRAPH LOCATION 4

  STARTING TIME= 11.70      TIME INCREMENT=  0.10      DRAINAGE AREA=   0.74      BASE FLOW=   0.0

8                0.1000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
8               36.0000     36.0000     36.0000     36.0000      0.0
9 ENDTBL
EXECUTIVE CONTROL CARD          OPERATION  COMPUT,     FROM XSECTN/STRUCT  53/  0     TO XSECTN/STRUCT 125/  0
        STARTING TIME=  0.0     RAIN DEPTH=  2.53     RAIN DURATION= 24.00     RAIN TABLE NO.= 1     SOIL CONDITION= 2
        ALTERNATE NO.= 1        STORM NO.= 1

SUBROUTINE REACH     CROSS SECTION  53
           LENGTH=   1350.00     INPUT COEFFICIENT=  0.6000     INPUT ROUTINGS=  0.0

           AVERAGE WATER VELOCITY=   2.550      AVERAGE ROUTING COEFF= 0.6000      NUMBER OF ROUTINGS=  0.88

           NULL STRUCTURE...NO ELEVATIONS GIVEN

           PEAK TIMES                PEAK DISCHARGES              PEAK ELEVATIONS
              12.46                       19.803                      (NULL)
              14.59                        1.630                      (NULL)
              15.10                        1.556                      (NULL)
              15.91                        1.116                      (NULL)
              16.42                        1.118                      (NULL)

  TIME                                HYDROGRAPH, TZERO=  11.00      DELTA T= 0.10      DRAINAGE AREA=   0.09
 11.00    DISCHG        1.02     1.02     1.07     1.14     1.20     1.24     1.33     2.14     4.35     8.15
 12.00    DISCHG       15.63    18.39    19.41    19.78    19.92    19.97    19.66    16.58    11.29     7.33
 13.00    DISCHG        5.00     3.82     3.29     3.11     3.05     3.00     2.92     2.72     2.34     2.01
 14.00    DISCHG        1.77     1.60     1.54     1.56     1.61     1.64     1.65     1.63     1.56     1.51
 15.00    DISCHG        1.53     1.57     1.52     1.33     1.15     1.05     1.00     1.01     1.07     1.12
 16.00    DISCHG        1.09     1.01     1.01     1.07     1.12     1.10     1.04     1.00     0.98     0.97
 17.00    DISCHG        0.97     0.96     0.89     0.75     0.61     0.45     0.17     0.06     0.02     0.0
```

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 0.4555 CFS-HRS= 26.46 ACRE-FT= 2.19

SUBROUTINE ADDHYD CROSS SECTION 53
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
10.12	0.555	(NULL)
12.45	49.317	(NULL)
14.51	4.000	(NULL)
15.01	3.827	(NULL)
15.83	2.778	(NULL)
16.42	2.508	(NULL)
17.21	2.494	(NULL)

HYDROGRAPH, TZERO= 10.00 DELTA T= 0.10 DRAINAGE AREA= 0.11

TIME											
10.00	DISCHG	0.53	0.55	0.54	0.54	0.59	0.65	0.79	1.11	1.33	1.44
11.00	DISCHG	1.48	2.58	2.76	2.93	3.02	3.07	4.64	9.65	17.52	37.15
12.00	DISCHG	44.63	47.39	48.41	48.78	48.92	48.97	42.22	28.99	18.77	12.75
13.00	DISCHG	9.56	8.13	7.64	7.50	7.36	7.20	6.79	5.84	5.00	4.39
14.00	DISCHG	3.96	3.77	3.82	3.92	4.00	4.05	4.01	3.84	3.70	3.73
15.00	DISCHG	3.87	3.79	3.32	2.87	2.59	2.45	2.45	2.60	2.74	2.70
16.00	DISCHG	2.56	2.43	2.41	2.46	2.51	2.49	2.43	2.39	2.37	2.36
17.00	DISCHG	2.36	2.40	2.49	2.42	2.20	1.92	1.59	1.46	1.42	1.40
18.00	DISCHG	1.39	1.28	0.98	0.79	0.60	0.45	0.44	0.57	0.65	0.68

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 0.9486 CFS-HRS= 67.34 ACRE-FT= 5.56

SUBROUTINE REACH CROSS SECTION 54
LENGTH= 830.00 INPUT COEFFICIENT= 0.8300 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 8.300 AVERAGE ROUTING COEFF= 0.8300 NUMBER OF ROUTINGS= 0.23

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.45	49.103	(NULL)
14.53	3.991	(NULL)
15.03	3.800	(NULL)
15.85	2.752	(NULL)
16.45	2.500	(NULL)
17.22	2.474	(NULL)
18.86	0.743	(NULL)

HYDROGRAPH, TZERO= 10.00 DELTA T= 0.10 DRAINAGE AREA= 0.11

TIME											
10.00	DISCHG	0.53	0.55	0.54	0.54	0.58	0.64	0.76	1.04	1.28	1.41
11.00	DISCHG	1.47	2.33	2.72	2.89	3.00	3.06	4.27	8.48	15.68	32.57
12.00	DISCHG	42.87	46.74	48.17	48.69	48.89	48.96	43.80	32.08	21.16	14.16
13.00	DISCHG	10.31	8.46	7.75	7.53	7.40	7.24	6.88	6.06	5.20	4.53
14.00	DISCHG	4.06	3.82	3.81	3.90	3.98	4.03	4.02	3.88	3.73	3.72
15.00	DISCHG	3.84	3.81	3.43	2.98	2.66	2.48	2.45	2.56	2.71	2.71
16.00	DISCHG	2.59	2.46	2.41	2.45	2.50	2.49	2.44	2.40	2.38	2.37
17.00	DISCHG	2.36	2.39	2.47	2.44	2.25	1.99	1.67	1.49	1.43	1.41
18.00	DISCHG	1.39	1.31	1.05	0.83	0.64	0.49	0.44	0.54	0.63	0.67
19.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 0.9480 CFS-HRS= 67.30 ACRE-FT= 5.56

SUBROUTINE RUNOFF CROSS SECTION 1
AREA= 0.02 INPUT RUNOFF CURVE= 90.0 TIME OF CONCENTRATION= 0.25

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.47	20.563	(RUNOFF)
14.47	0.929	(RUNOFF)
16.47	0.330	(RUNOFF)
17.95	0.333	(RUNOFF)
18.97	0.331	(RUNOFF)
20.47	0.332	(RUNOFF)
21.47	0.332	(RUNOFF)
22.47	0.333	(RUNOFF)
23.95	0.339	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.04	0.05
10.00	DISCHG	0.06	0.07	0.08	0.09	0.10	0.11	0.13	0.17	0.21	0.24
11.00	DISCHG	0.26	0.31	0.40	0.47	0.53	0.62	2.04	6.02	10.00	12.91
12.00	DISCHG	15.08	16.70	17.95	18.93	19.70	20.21	17.51	9.97	5.03	3.11
13.00	DISCHG	2.39	1.99	1.62	1.41	1.35	1.32	1.23	1.04	0.92	0.88
14.00	DISCHG	0.86	0.87	0.89	0.91	0.92	0.92	0.91	0.88	0.87	0.86
15.00	DISCHG	0.86	0.76	0.51	0.36	0.30	0.28	0.27	0.27	0.26	0.26
16.00	DISCHG	0.26	0.28	0.30	0.32	0.33	0.33	0.32	0.29	0.28	0.27
17.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.33	0.33	0.33	0.33
18.00	DISCHG	0.33	0.32	0.29	0.28	0.27	0.27	0.28	0.30	0.32	0.33
19.00	DISCHG	0.33	0.32	0.29	0.28	0.27	0.27	0.27	0.27	0.27	0.27
20.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.32	0.29	0.28	0.27
21.00	DISCHG	0.27	0.28	0.31	0.32	0.33	0.33	0.32	0.30	0.28	0.27
22.00	DISCHG	0.27	0.28	0.31	0.32	0.33	0.33	0.32	0.30	0.28	0.27
23.00	DISCHG	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.31	0.32	0.33
24.00	DISCHG	0.33	0.28	0.14	0.05	0.02	0.01	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.5549 CFS-HRS= 23.08 ACRE-FT= 1.91

SUBROUTINE ADDHYD CROSS SECTION 55
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.46	70.550	(NULL)
14.52	5.008	(NULL)
15.00	4.748	(NULL)
15.85	2.949	(NULL)
16.45	2.830	(NULL)
17.24	2.783	(NULL)
18.86	1.068	(NULL)
21.47	0.332	(NULL)

22.47	0.333	(NULL)
23.95	0.339	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.04	0.05
10.00	DISCHG	0.06	0.62	0.62	0.63	0.68	0.75	0.89	1.21	1.49	1.65
11.00	DISCHG	1.73	2.63	3.11	3.36	3.53	3.68	6.31	14.51	25.68	45.48
12.00	DISCHG	57.95	63.44	66.11	67.62	68.58	69.16	61.31	42.05	26.20	17.28
13.00	DISCHG	12.70	10.46	9.37	8.94	8.74	8.56	8.12	7.11	6.12	5.41
14.00	DISCHG	4.92	4.68	4.70	4.81	4.90	4.95	4.93	4.76	4.60	4.59
15.00	DISCHG	4.70	4.57	3.95	3.34	2.96	2.76	2.72	2.83	2.97	2.97
16.00	DISCHG	2.86	2.74	2.71	2.77	2.82	2.82	2.76	2.69	2.65	2.63
17.00	DISCHG	2.63	2.67	2.77	2.76	2.58	2.32	2.00	1.82	1.76	1.74
18.00	DISCHG	1.72	1.63	1.34	1.11	0.91	0.75	0.72	0.84	0.95	1.00
19.00	DISCHG	0.33	0.32	0.29	0.28	0.27	0.27	0.27	0.27	0.27	0.27
20.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.32	0.29	0.28	0.27
21.00	DISCHG	0.27	0.28	0.31	0.32	0.33	0.33	0.32	0.30	0.28	0.27
22.00	DISCHG	0.27	0.28	0.31	0.32	0.33	0.33	0.32	0.30	0.28	0.27
23.00	DISCHG	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.31	0.32	0.33
24.00	DISCHG	0.33	0.28	0.14	0.05	0.02	0.01	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0527 CFS-HRS= 90.36 ACRE-FT= 7.47

SUBROUTINE REACH CROSS SECTION 56
LENGTH= 1300.00 INPUT COEFFICIENT= 0.8400 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 8.925 AVERAGE ROUTING COEFF= 0.8400 NUMBER OF ROUTINGS= 0.34

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.46	69.964	(NULL)
14.55	5.002	(NULL)
15.01	4.710	(NULL)
15.89	2.934	(NULL)
16.48	2.823	(NULL)
17.27	2.770	(NULL)
18.86	1.015	(NULL)
21.49	0.331	(NULL)
22.49	0.332	(NULL)
23.96	0.335	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.03	0.05
10.00	DISCHG	0.06	0.42	0.62	0.63	0.66	0.72	0.84	1.10	1.39	1.59
11.00	DISCHG	1.70	2.32	2.94	3.27	3.47	3.62	5.39	11.63	21.73	38.49
12.00	DISCHG	53.48	61.45	65.15	67.08	68.24	68.96	64.05	48.83	31.85	20.48
13.00	DISCHG	14.35	11.27	9.76	9.10	8.81	8.62	8.27	7.46	6.47	5.66
14.00	DISCHG	5.10	4.77	4.70	4.77	4.87	4.93	4.93	4.82	4.66	4.59
15.00	DISCHG	4.66	4.61	4.17	3.55	3.09	2.83	2.74	2.79	2.92	2.97
16.00	DISCHG	2.90	2.78	2.72	2.75	2.80	2.82	2.78	2.72	2.67	2.64
17.00	DISCHG	2.63	2.65	2.74	2.76	2.64	2.41	2.11	1.89	1.79	1.75
18.00	DISCHG	1.73	1.66	1.44	1.19	0.98	0.81	0.73	0.80	0.91	0.98
19.00	DISCHG	0.56	0.33	0.30	0.28	0.27	0.27	0.27	0.27	0.27	0.27
20.00	DISCHG	0.27	0.27	0.30	0.32	0.33	0.33	0.32	0.30	0.28	0.27
21.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.33	0.30	0.28	0.27
22.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.33	0.31	0.28	0.27
23.00	DISCHG	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.30	0.32	0.33
24.00	DISCHG	0.33	0.30	0.19	0.08	0.03	0.01	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0519 CFS-HRS= 90.29 ACRE-FT= 7.46

SUBROUTINE RUNOFF CROSS SECTION 2
AREA= 0.01 INPUT RUNOFF CURVE= 95.0 TIME OF CONCENTRATION= 0.20

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.45	10.296	(RUNOFF)
14.46	0.437	(RUNOFF)
16.45	0.155	(RUNOFF)
17.95	0.156	(RUNOFF)
18.95	0.155	(RUNOFF)
20.46	0.156	(RUNOFF)
21.46	0.156	(RUNOFF)
22.45	0.156	(RUNOFF)
23.95	0.160	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.01

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.05	0.07	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.17
10.00	DISCHG	0.18	0.18	0.18	0.18	0.19	0.19	0.22	0.28	0.31	0.32
11.00	DISCHG	0.33	0.39	0.48	0.53	0.55	0.61	2.33	5.70	7.56	8.49
12.00	DISCHG	9.03	9.37	9.60	9.77	9.90	9.94	7.57	3.36	1.65	1.14
13.00	DISCHG	0.98	0.85	0.69	0.64	0.62	0.62	0.56	0.46	0.42	0.41
14.00	DISCHG	0.40	0.41	0.42	0.43	0.43	0.43	0.42	0.41	0.40	0.40
15.00	DISCHG	0.40	0.33	0.20	0.15	0.13	0.13	0.12	0.12	0.12	0.12
16.00	DISCHG	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.12
17.00	DISCHG	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
18.00	DISCHG	0.15	0.15	0.13	0.13	0.12	0.12	0.13	0.15	0.15	0.15
19.00	DISCHG	0.15	0.15	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12
20.00	DISCHG	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.12
21.00	DISCHG	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.12
22.00	DISCHG	0.12	0.13	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.12

23.00	DISCHG	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.15	0.15	0.15
24.00	DISCHG	0.15	0.11	0.04	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.9881 CFS-HRS= 12.63 ACRE-FT= 1.04

SUBROUTINE ADDHYD CROSS SECTION 57
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.46	80.249	(NULL)
14.54	5.430	(NULL)
14.99	5.116	(NULL)
15.89	3.056	(NULL)
16.48	2.977	(NULL)
17.27	2.921	(NULL)
18.86	1.168	(NULL)
21.47	0.486	(NULL)
22.47	0.487	(NULL)
23.96	0.495	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.14

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.05	0.07	0.10	0.12	0.13	0.14	0.16	0.18	0.20	0.22
10.00	DISCHG	0.24	0.61	0.80	0.81	0.85	0.91	1.06	1.38	1.70	1.91
11.00	DISCHG	2.04	2.71	3.42	3.80	4.02	4.23	7.71	17.32	29.28	46.99
12.00	DISCHG	62.51	70.82	74.75	76.85	78.14	78.89	71.63	52.19	33.50	21.62
13.00	DISCHG	15.32	12.11	10.46	9.74	9.44	9.24	8.83	7.92	6.89	6.07
14.00	DISCHG	5.50	5.18	5.12	5.20	5.30	5.36	5.36	5.23	5.06	4.99
15.00	DISCHG	5.06	4.94	4.36	3.70	3.23	2.96	2.86	2.92	3.04	3.09
16.00	DISCHG	3.02	2.91	2.87	2.90	2.96	2.98	2.93	2.85	2.79	2.77
17.00	DISCHG	2.75	2.79	2.88	2.91	2.80	2.57	2.27	2.04	1.94	1.90
18.00	DISCHG	1.88	1.81	1.57	1.32	1.11	0.93	0.86	0.95	1.07	1.14
19.00	DISCHG	0.72	0.47	0.43	0.41	0.40	0.39	0.39	0.39	0.39	0.39
20.00	DISCHG	0.39	0.41	0.44	0.47	0.48	0.49	0.47	0.44	0.41	0.40
21.00	DISCHG	0.39	0.41	0.44	0.47	0.48	0.49	0.47	0.44	0.41	0.40
22.00	DISCHG	0.39	0.41	0.44	0.47	0.48	0.49	0.47	0.44	0.41	0.40
23.00	DISCHG	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.44	0.47	0.48
24.00	DISCHG	0.49	0.41	0.23	0.10	0.03	0.01	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1164 CFS-HRS= 102.91 ACRE-FT= 8.50

SUBROUTINE REACH CROSS SECTION 58
LENGTH= 640.00 INPUT COEFFICIENT= 0.8700 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 11.377 AVERAGE ROUTING COEFF= 0.8700 NUMBER OF ROUTINGS= 0.14

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS

12.46	80.002	(NULL)
14.55	5.430	(NULL)
14.98	5.107	(NULL)
15.90	3.049	(NULL)
16.49	2.974	(NULL)
17.28	2.913	(NULL)
18.87	1.150	(NULL)
21.48	0.485	(NULL)
22.48	0.486	(NULL)
23.96	0.493	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.14

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.10	0.12	0.13	0.14	0.15	0.18	0.20	0.22
10.00	DISCHG	0.24	0.56	0.77	0.81	0.84	0.90	1.04	1.33	1.65	1.89
11.00	DISCHG	2.02	2.62	3.33	3.75	3.99	4.21	7.24	16.02	27.66	44.58
12.00	DISCHG	60.40	69.69	74.21	76.56	77.96	78.79	72.61	54.83	36.04	23.23
13.00	DISCHG	16.18	12.55	10.68	9.84	9.48	9.27	8.89	8.04	7.03	6.18
14.00	DISCHG	5.58	5.22	5.13	5.19	5.28	5.35	5.36	5.25	5.08	5.00
15.00	DISCHG	5.05	4.95	4.44	3.79	3.29	2.99	2.87	2.91	3.03	3.09
16.00	DISCHG	3.03	2.93	2.87	2.90	2.95	2.97	2.94	2.86	2.80	2.77
17.00	DISCHG	2.76	2.78	2.87	2.91	2.81	2.60	2.31	2.07	1.95	1.91
18.00	DISCHG	1.89	1.82	1.61	1.35	1.14	0.96	0.87	0.94	1.05	1.13
19.00	DISCHG	0.78	0.51	0.44	0.41	0.40	0.39	0.39	0.39	0.39	0.39
20.00	DISCHG	0.39	0.40	0.44	0.46	0.48	0.48	0.47	0.44	0.41	0.40
21.00	DISCHG	0.39	0.41	0.44	0.47	0.48	0.49	0.47	0.44	0.41	0.40
22.00	DISCHG	0.39	0.41	0.44	0.47	0.48	0.49	0.47	0.44	0.41	0.40
23.00	DISCHG	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.44	0.47	0.48
24.00	DISCHG	0.49	0.42	0.25	0.12	0.04	0.02	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1163 CFS-HRS= 102.90 ACRE-FT= 8.50

SUBROUTINE RUNOFF CROSS SECTION 3
AREA= 0.04 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.43

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	31.703	(RUNOFF)
14.55	1.603	(RUNOFF)
16.56	0.559	(RUNOFF)
17.96	0.577	(RUNOFF)
19.06	0.563	(RUNOFF)
20.56	0.564	(RUNOFF)
21.56	0.567	(RUNOFF)
22.56	0.568	(RUNOFF)
23.99	0.563	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.05
11.00	DISCHG	0.08	0.12	0.18	0.25	0.33	0.41	1.07	3.20	7.03	11.77
12.00	DISCHG	16.40	20.49	23.98	26.94	29.40	31.23	31.12	26.61	19.54	12.98
13.00	DISCHG	8.91	6.49	4.91	3.88	3.19	2.77	2.50	2.22	1.95	1.75
14.00	DISCHG	1.63	1.57	1.55	1.56	1.57	1.58	1.58	1.57	1.54	1.52
15.00	DISCHG	1.50	1.44	1.25	1.00	0.78	0.64	0.57	0.52	0.49	0.48
16.00	DISCHG	0.47	0.47	0.49	0.52	0.54	0.56	0.56	0.54	0.52	0.50
17.00	DISCHG	0.48	0.48	0.50	0.52	0.54	0.56	0.57	0.57	0.57	0.58
18.00	DISCHG	0.58	0.57	0.55	0.52	0.50	0.48	0.48	0.50	0.52	0.55
19.00	DISCHG	0.56	0.56	0.55	0.52	0.50	0.48	0.48	0.47	0.47	0.47
20.00	DISCHG	0.47	0.47	0.49	0.52	0.55	0.56	0.56	0.55	0.52	0.50
21.00	DISCHG	0.49	0.48	0.50	0.53	0.55	0.56	0.57	0.55	0.52	0.50
22.00	DISCHG	0.49	0.49	0.50	0.53	0.55	0.56	0.57	0.55	0.53	0.50
23.00	DISCHG	0.49	0.48	0.48	0.47	0.47	0.47	0.48	0.50	0.53	0.55
24.00	DISCHG	0.56	0.54	0.44	0.30	0.18	0.10	0.06	0.03	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3335 CFS-HRS= 36.98 ACRE-FT= 3.06

SUBROUTINE ADDHYD CROSS SECTION 59
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.48	111.187	(NULL)
14.55	7.033	(NULL)
14.96	6.635	(NULL)
15.89	3.523	(NULL)
16.50	3.529	(NULL)
17.30	3.431	(NULL)
18.87	1.690	(NULL)
21.52	1.049	(NULL)
22.52	1.051	(NULL)
23.97	1.055	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.19

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.10	0.12	0.13	0.14	0.15	0.18	0.20	0.22
10.00	DISCHG	0.24	0.56	0.77	0.81	0.84	0.90	1.04	1.34	1.68	1.94
11.00	DISCHG	2.10	2.74	3.50	4.00	4.32	4.61	8.31	19.22	34.69	56.35
12.00	DISCHG	76.80	90.18	98.19	103.51	107.36	110.02	103.74	81.44	55.58	36.21
13.00	DISCHG	25.09	19.04	15.59	13.72	12.67	12.04	11.38	10.27	8.98	7.93
14.00	DISCHG	7.20	6.79	6.68	6.75	6.86	6.94	6.94	6.81	6.63	6.52
15.00	DISCHG	6.55	6.39	5.70	4.79	4.07	3.64	3.44	3.43	3.52	3.57

16.00	DISCHG	3.50	3.40	3.36	3.41	3.49	3.53	3.49	3.40	3.32	3.26
17.00	DISCHG	3.24	3.26	3.36	3.43	3.36	3.16	2.87	2.64	2.53	2.48
18.00	DISCHG	2.46	2.39	2.16	1.88	1.64	1.44	1.36	1.43	1.57	1.67
19.00	DISCHG	1.34	1.07	0.99	0.93	0.90	0.88	0.87	0.86	0.86	0.86
20.00	DISCHG	0.86	0.88	0.93	0.99	1.02	1.05	1.04	0.99	0.94	0.90
21.00	DISCHG	0.88	0.89	0.94	0.99	1.03	1.05	1.04	0.99	0.94	0.90
22.00	DISCHG	0.88	0.89	0.94	0.99	1.03	1.05	1.04	0.99	0.94	0.90
23.00	DISCHG	0.88	0.87	0.87	0.86	0.86	0.86	0.88	0.94	0.99	1.03
24.00	DISCHG	1.05	0.96	0.70	0.42	0.22	0.12	0.06	0.03	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1665 CFS-HRS= 139.88 ACRE-FT= 11.56

SUBROUTINE REACH CROSS SECTION 60
LENGTH= 640.00 INPUT COEFFICIENT= 0.8500 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 9.633 AVERAGE ROUTING COEFF= 0.8500 NUMBER OF ROUTINGS= 0.16

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.49	110.657	(NULL)
14.56	7.027	(NULL)
14.95	6.633	(NULL)
15.90	3.516	(NULL)
16.52	3.523	(NULL)
17.31	3.421	(NULL)
18.88	1.667	(NULL)
21.54	1.048	(NULL)
22.53	1.049	(NULL)
23.97	1.049	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.19

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.09	0.12	0.13	0.14	0.15	0.17	0.19	0.21
10.00	DISCHG	0.23	0.51	0.74	0.80	0.84	0.89	1.02	1.30	1.63	1.90
11.00	DISCHG	2.08	2.64	3.38	3.92	4.27	4.57	7.73	17.50	32.26	52.95
12.00	DISCHG	73.59	88.08	96.93	102.67	106.76	109.60	104.72	84.94	59.64	39.25
13.00	DISCHG	26.83	19.99	16.14	14.01	12.83	12.14	11.48	10.44	9.18	8.09
14.00	DISCHG	7.32	6.86	6.70	6.74	6.84	6.93	6.94	6.83	6.66	6.54
15.00	DISCHG	6.55	6.42	5.81	4.94	4.19	3.71	3.47	3.43	3.51	3.56
16.00	DISCHG	3.51	3.42	3.37	3.41	3.48	3.52	3.50	3.42	3.33	3.27
17.00	DISCHG	3.24	3.26	3.35	3.42	3.37	3.19	2.92	2.68	2.55	2.49
18.00	DISCHG	2.47	2.40	2.19	1.92	1.67	1.47	1.37	1.42	1.55	1.66
19.00	DISCHG	1.39	1.11	1.00	0.94	0.90	0.88	0.87	0.86	0.86	0.86
20.00	DISCHG	0.86	0.87	0.92	0.98	1.02	1.04	1.04	1.00	0.94	0.91
21.00	DISCHG	0.88	0.89	0.93	0.98	1.02	1.05	1.04	1.00	0.95	0.91
22.00	DISCHG	0.89	0.89	0.93	0.98	1.02	1.05	1.04	1.00	0.95	0.91
23.00	DISCHG	0.89	0.87	0.87	0.87	0.86	0.86	0.88	0.93	0.98	1.03
24.00	DISCHG	1.05	0.98	0.74	0.46	0.25	0.14	0.07	0.04	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1665 CFS-HRS= 139.88 ACRE-FT= 11.56

SUBROUTINE RUNOFF CROSS SECTION 4
AREA= 0.02 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.33

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.50	19.450	(RUNOFF)
14.53	0.935	(RUNOFF)
16.52	0.330	(RUNOFF)
17.95	0.337	(RUNOFF)
19.02	0.333	(RUNOFF)
20.52	0.333	(RUNOFF)
21.52	0.335	(RUNOFF)
22.52	0.335	(RUNOFF)
23.96	0.337	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.06	0.09	0.13	0.18	0.23	0.30	0.84	2.87	5.90	8.95
12.00	DISCHG	11.59	13.79	15.59	17.07	18.29	19.28	18.23	13.32	7.97	4.79
13.00	DISCHG	3.35	2.56	2.03	1.67	1.47	1.38	1.29	1.15	1.01	0.93
14.00	DISCHG	0.90	0.88	0.89	0.91	0.92	0.92	0.92	0.90	0.89	0.88
15.00	DISCHG	0.87	0.81	0.64	0.47	0.36	0.31	0.29	0.28	0.27	0.27
16.00	DISCHG	0.27	0.27	0.29	0.31	0.32	0.33	0.33	0.31	0.29	0.28
17.00	DISCHG	0.27	0.28	0.30	0.31	0.33	0.33	0.33	0.34	0.34	0.34
18.00	DISCHG	0.34	0.33	0.31	0.29	0.28	0.27	0.28	0.30	0.32	0.33
19.00	DISCHG	0.33	0.33	0.31	0.29	0.28	0.28	0.27	0.27	0.27	0.27
20.00	DISCHG	0.27	0.28	0.30	0.32	0.33	0.33	0.33	0.31	0.29	0.28
21.00	DISCHG	0.28	0.28	0.30	0.32	0.33	0.33	0.33	0.31	0.29	0.28
22.00	DISCHG	0.28	0.28	0.30	0.32	0.33	0.33	0.33	0.31	0.29	0.28
23.00	DISCHG	0.28	0.28	0.27	0.27	0.27	0.27	0.28	0.30	0.32	0.33
24.00	DISCHG	0.33	0.31	0.21	0.11	0.05	0.03	0.01	0.01	0.0	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3335 CFS-HRS= 21.52 ACRE-FT= 1.78

SUBROUTINE ADDHYD CROSS SECTION 61
INPUT HYDROGRAPHS= 7,6 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.49	130.097	(NULL)
14.56	7.961	(NULL)
15.90	3.782	(NULL)
16.52	3.853	(NULL)
17.32	3.737	(NULL)
18.88	1.992	(NULL)

20.53	1.377	(NULL)
21.53	1.381	(NULL)
22.53	1.384	(NULL)
23.97	1.386	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.21

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.09	0.12	0.13	0.14	0.15	0.17	0.19	0.21
10.00	DISCHG	0.23	0.51	0.74	0.80	0.84	0.89	1.02	1.31	1.65	1.94
11.00	DISCHG	2.14	2.73	3.51	4.10	4.50	4.86	8.57	20.37	38.16	61.90
12.00	DISCHG	85.18	101.87	112.52	119.74	125.05	128.88	122.95	98.27	67.61	44.04
13.00	DISCHG	30.18	22.55	18.17	15.68	14.30	13.51	12.78	11.60	10.20	9.03
14.00	DISCHG	8.21	7.74	7.59	7.65	7.76	7.85	7.36	7.74	7.54	7.42
15.00	DISCHG	7.42	7.23	6.44	5.40	4.55	4.02	3.76	3.71	3.78	3.83
16.00	DISCHG	3.78	3.69	3.66	3.72	3.80	3.85	3.83	3.73	3.62	3.55
17.00	DISCHG	3.52	3.53	3.64	3.73	3.69	3.52	3.25	3.01	2.88	2.83
18.00	DISCHG	2.80	2.73	2.50	2.21	1.95	1.75	1.65	1.72	1.87	1.99
19.00	DISCHG	1.72	1.44	1.31	1.23	1.18	1.16	1.14	1.13	1.13	1.13
20.00	DISCHG	1.13	1.15	1.22	1.29	1.35	1.38	1.37	1.31	1.24	1.19
21.00	DISCHG	1.16	1.17	1.23	1.30	1.35	1.38	1.37	1.31	1.24	1.19
22.00	DISCHG	1.16	1.17	1.23	1.30	1.35	1.38	1.37	1.31	1.24	1.19
23.00	DISCHG	1.16	1.15	1.14	1.14	1.14	1.14	1.16	1.23	1.30	1.36
24.00	DISCHG	1.38	1.28	0.95	0.58	0.31	0.16	0.08	0.04	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1863 CFS-HRS= 161.39 ACRE-FT= 13.34

SUBROUTINE REACH CROSS SECTION 62
LENGTH= 1300.00 INPUT COEFFICIENT= 0.8600 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 10.443 AVERAGE ROUTING COEFF= 0.8600 NUMBER OF ROUTINGS= 0.30

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.51	128.908	(NULL)
14.58	7.948	(NULL)
15.92	3.769	(NULL)
16.55	3.844	(NULL)
17.35	3.723	(NULL)
18.90	1.949	(NULL)
20.56	1.374	(NULL)
21.56	1.379	(NULL)
22.55	1.381	(NULL)
23.99	1.374	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.21

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.08	0.11	0.13	0.14	0.15	0.17	0.19	0.21
10.00	DISCHG	0.23	0.42	0.67	0.78	0.83	0.88	0.98	1.22	1.55	1.85
11.00	DISCHG	2.08	2.55	3.27	3.92	4.37	4.75	7.45	16.80	32.77	54.70
12.00	DISCHG	78.11	96.79	109.27	117.54	123.43	127.71	124.73	105.73	76.91	51.22
13.00	DISCHG	34.41	24.88	19.50	16.44	14.72	13.76	13.00	11.95	10.62	9.38
14.00	DISCHG	8.46	7.88	7.64	7.63	7.73	7.82	7.86	7.78	7.60	7.45
15.00	DISCHG	7.42	7.28	6.68	5.72	4.81	4.18	3.84	3.72	3.76	3.81
16.00	DISCHG	3.79	3.72	3.67	3.70	3.78	3.84	3.83	3.76	3.65	3.57
17.00	DISCHG	3.53	3.53	3.61	3.71	3.71	3.57	3.33	3.09	2.92	2.84
18.00	DISCHG	2.81	2.75	2.57	2.30	2.03	1.81	1.68	1.70	1.82	1.95
19.00	DISCHG	1.80	1.53	1.35	1.26	1.20	1.16	1.15	1.14	1.13	1.13
20.00	DISCHG	1.13	1.15	1.20	1.27	1.33	1.37	1.37	1.33	1.26	1.20
21.00	DISCHG	1.17	1.17	1.21	1.28	1.34	1.37	1.37	1.33	1.26	1.21
22.00	DISCHG	1.17	1.17	1.21	1.28	1.34	1.37	1.38	1.33	1.26	1.21
23.00	DISCHG	1.17	1.15	1.14	1.14	1.14	1.14	1.15	1.21	1.28	1.34
24.00	DISCHG	1.37	1.31	1.05	0.69	0.39	0.21	0.11	0.06	0.03	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1863 CFS-HRS= 161.39 ACRE-FT= 13.34

SUBROUTINE REACH CROSS SECTION 64
LENGTH= 850.00 INPUT COEFFICIENT= 0.8500 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 9.633 AVERAGE ROUTING COEFF= 0.8500 NUMBER OF ROUTINGS= 0.21

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.82	292.057	(NULL)

HYDROGRAPH, TZERO= 9.50 DELTA T= 0.10 DRAINAGE AREA= 0.37

TIME											
9.50	DISCHG	0.94	1.07	1.23	1.40	1.58	1.78	2.00	2.22	2.45	2.68
10.50	DISCHG	2.90	3.14	3.40	3.72	4.11	4.58	5.11	5.70	6.32	6.97
11.50	DISCHG	7.65	8.40	9.43	11.27	16.80	33.16	69.17	121.34	179.14	221.05
12.50	DISCHG	253.21	274.07	285.42	289.21	287.20	281.07	272.36	262.31	250.43	238.13
13.50	DISCHG	226.11	214.59	203.66	193.27	180.67	166.90	153.73	141.52	130.32	120.12
14.50	DISCHG	110.90	102.59	95.14	88.42	82.32	76.79	71.79	67.25	63.08	59.17
15.50	DISCHG	55.46	52.07	49.07	46.34	43.86	41.60	39.52	37.60	35.81	34.14
16.50	DISCHG	32.59	31.16	29.86	28.67	27.57	26.58	25.88	25.29	24.77	24.31
17.50	DISCHG	23.91	23.55	23.19	22.83	22.47	22.11	21.77	21.42	21.02	20.56
18.50	DISCHG	4.28	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 2.8992 CFS-HRS= 692.30 ACRE-FT= 57.21

SUBROUTINE ADDHYD CROSS SECTION 65
INPUT HYDROGRAPHS= 2,4 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	306.970	(NULL)
12.85	332.285	(NULL)
13.32	289.532	(NULL)
13.82	231.932	(NULL)
14.32	168.597	(NULL)

14.83	127.408	(NULL)
15.34	102.631	(NULL)
15.84	86.358	(NULL)
16.35	75.497	(NULL)
16.85	68.621	(NULL)

HYDROGRAPH, TZERO= 9.50 DELTA T= 0.10 DRAINAGE AREA= 1.11

TIME											
9.50	DISCHG	0.94	1.07	1.23	1.40	1.58	1.78	2.00	2.22	2.45	2.68
10.50	DISCHG	2.90	3.14	3.40	3.72	4.11	4.58	5.11	5.70	6.32	6.97
11.50	DISCHG	7.65	8.40	9.43	11.37	52.80	69.16	105.17	121.34	215.14	257.05
12.50	DISCHG	289.21	310.07	285.42	325.21	323.20	317.07	308.36	262.31	286.43	274.13
13.50	DISCHG	262.11	250.59	203.66	229.27	216.67	202.90	189.73	141.52	166.32	156.12
14.50	DISCHG	146.90	138.59	95.14	124.42	118.32	112.79	107.79	67.25	99.08	95.17
15.50	DISCHG	91.46	88.07	49.07	82.34	79.86	77.60	75.52	37.60	71.81	70.14
16.50	DISCHG	68.59	67.16	29.86	64.67	63.57	62.58	61.88	25.29	60.77	60.31
17.50	DISCHG	59.91	59.55	23.19	58.83	58.47	58.11	57.77	21.42	57.02	56.56
18.50	DISCHG	40.28	36.00	0.0	36.00	36.00	36.00	36.00	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2620 CFS-HRS= 904.04 ACRE-FT= 74.71

SUBROUTINE REACH CROSS SECTION 66
LENGTH= 600.00 INPUT COEFFICIENT= 0.8400 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 8.925 AVERAGE ROUTING COEFF= 0.8400 NUMBER OF ROUTINGS= 0.16

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	303.777	(NULL)
12.90	323.470	(NULL)
13.32	285.627	(NULL)
13.82	227.804	(NULL)
14.32	164.561	(NULL)
14.85	123.045	(NULL)
15.38	96.947	(NULL)
15.91	81.180	(NULL)
16.42	70.527	(NULL)
16.93	64.020	(NULL)

HYDROGRAPH, TZERO= 9.50 DELTA T= 0.10 DRAINAGE AREA= 1.11

TIME											
9.50	DISCHG	0.94	1.05	1.20	1.37	1.55	1.75	1.97	2.19	2.42	2.65
10.50	DISCHG	2.87	3.10	3.36	3.67	4.05	4.51	5.03	5.61	6.22	6.87
11.50	DISCHG	7.54	8.28	9.27	11.07	46.29	66.59	99.52	118.80	200.41	250.46
12.50	DISCHG	284.16	306.79	289.29	318.96	323.51	318.03	309.73	269.54	282.64	276.06
13.50	DISCHG	264.00	252.40	211.03	225.25	218.65	205.07	191.80	149.10	162.42	157.72
14.50	DISCHG	148.35	139.90	101.96	119.82	119.28	113.66	108.58	73.62	94.08	95.78
15.50	DISCHG	92.04	88.61	55.20	77.12	80.25	77.95	75.84	43.55	66.44	70.40
16.50	DISCHG	68.83	67.39	35.72	59.20	63.74	62.74	61.99	31.04	55.20	60.38
17.50	DISCHG	59.97	59.60	28.90	53.23	58.52	58.17	57.82	27.13	51.43	56.63
18.50	DISCHG	42.84	36.67	5.65	30.35	36.00	36.00	36.00	5.65	0.0	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2616 CFS-HRS= 903.79 ACRE-FT= 74.69

SUBROUTINE RUNOFF CROSS SECTION 5
AREA= 0.04 INPUT RUNOFF CURVE= 88.0 TIME OF CONCENTRATION= 0.37

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS

12.51	31.632	(RUNOFF)
14.54	1.527	(RUNOFF)
16.54	0.536	(RUNOFF)
17.95	0.550	(RUNOFF)
19.04	0.539	(RUNOFF)
20.54	0.541	(RUNOFF)
21.53	0.543	(RUNOFF)
22.53	0.543	(RUNOFF)
23.97	0.542	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.01	0.02	0.03	0.05	0.08	0.11	0.15
11.00	DISCHG	0.18	0.23	0.31	0.39	0.48	0.61	1.45	4.50	9.22	14.25
12.00	DISCHG	18.66	22.32	25.32	27.77	29.75	31.34	30.18	23.85	15.56	9.68
13.00	DISCHG	6.56	4.90	3.79	3.06	2.61	2.37	2.19	1.95	1.73	1.57
14.00	DISCHG	1.49	1.46	1.46	1.48	1.50	1.51	1.51	1.48	1.46	1.44
15.00	DISCHG	1.42	1.34	1.11	0.85	0.65	0.55	0.49	0.47	0.45	0.44
16.00	DISCHG	0.44	0.45	0.47	0.50	0.52	0.53	0.53	0.51	0.48	0.46
17.00	DISCHG	0.45	0.45	0.48	0.51	0.53	0.54	0.54	0.55	0.55	0.55
18.00	DISCHG	0.55	0.54	0.52	0.49	0.46	0.45	0.46	0.48	0.51	0.53
19.00	DISCHG	0.54	0.54	0.51	0.49	0.46	0.45	0.45	0.44	0.44	0.44
20.00	DISCHG	0.44	0.45	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
21.00	DISCHG	0.45	0.46	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
22.00	DISCHG	0.46	0.46	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
23.00	DISCHG	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.48	0.51	0.53
24.00	DISCHG	0.54	0.51	0.38	0.23	0.12	0.06	0.03	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4046 CFS-HRS= 36.12 ACRE-FT= 2.98

SUBROUTINE ADDHYD CROSS SECTION 67
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	336.753	(NULL)
12.84	333.350	(NULL)
13.31	282.893	(NULL)
13.82	224.810	(NULL)
14.32	162.574	(NULL)
14.85	121.858	(NULL)
15.38	97.660	(NULL)
15.91	79.703	(NULL)
16.42	71.053	(NULL)
16.93	64.476	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.15

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	1.05	1.20	1.37	1.55
10.00	DISCHG	1.75	1.97	2.19	2.42	2.66	2.90	3.15	3.44	3.78	4.20
11.00	DISCHG	4.69	5.26	5.91	6.61	7.35	8.15	9.73	13.77	20.28	60.53
12.00	DISCHG	85.25	121.82	144.11	228.14	280.19	315.48	336.97	313.15	334.51	333.19
13.00	DISCHG	324.60	314.64	273.35	285.69	278.67	266.37	254.59	213.00	226.97	220.32
14.00	DISCHG	206.57	193.27	150.58	163.90	159.22	149.86	141.41	103.46	121.27	120.72
15.00	DISCHG	115.09	109.93	74.75	94.92	96.43	92.59	89.10	55.68	77.56	80.69
16.00	DISCHG	78.39	76.29	44.04	66.93	70.92	69.37	67.92	36.25	59.67	64.20
17.00	DISCHG	63.19	62.45	31.53	55.69	60.91	60.51	60.15	29.46	53.76	59.07
18.00	DISCHG	58.72	58.37	27.66	51.90	57.09	43.30	37.13	6.15	30.84	36.52
19.00	DISCHG	36.54	36.54	6.19	0.49	0.46	0.45	0.45	0.44	0.44	0.44
20.00	DISCHG	0.44	0.45	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
21.00	DISCHG	0.45	0.46	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
22.00	DISCHG	0.46	0.46	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
23.00	DISCHG	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.48	0.51	0.53
24.00	DISCHG	0.54	0.51	0.38	0.23	0.12	0.06	0.03	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2685 CFS-HRS= 941.34 ACRE-FT= 77.79

SUBROUTINE REACH CROSS SECTION 62
LENGTH= 1280.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.19

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	333.013	(NULL)
12.88	336.879	(NULL)
13.29	280.501	(NULL)
13.80	221.964	(NULL)
14.32	159.686	(NULL)
14.89	122.202	(NULL)
15.41	97.306	(NULL)
15.93	79.544	(NULL)
16.44	70.936	(NULL)
16.95	63.464	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.15

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.85	1.17	1.34	1.52
10.00	DISCHG	1.71	1.93	2.15	2.38	2.62	2.86	3.10	3.38	3.72	4.12
11.00	DISCHG	4.60	5.15	5.79	6.48	7.21	8.00	9.44	13.01	19.06	52.95
12.00	DISCHG	80.59	114.94	139.91	212.32	270.39	308.84	332.92	317.63	330.49	333.44
13.00	DISCHG	326.21	316.51	281.12	283.37	279.99	268.69	256.81	220.83	224.34	221.49
14.00	DISCHG	209.14	195.77	158.62	161.39	160.11	151.63	143.00	110.61	117.92	120.82

15.00	DISCHG	116.15	110.90	81.38	91.12	96.15	93.32	89.76	61.97	73.44	80.10
16.00	DISCHG	73.83	76.69	50.12	62.62	70.17	69.66	68.19	42.21	55.26	63.34
17.00	DISCHG	63.38	62.59	37.35	51.14	59.92	60.59	60.21	35.24	49.19	58.07
18.00	DISCHG	58.78	58.43	33.44	47.34	56.11	45.90	38.29	11.99	26.19	35.45
19.00	DISCHG	36.53	36.54	11.90	1.56	0.47	0.46	0.45	0.45	0.44	0.44
20.00	DISCHG	0.44	0.45	0.47	0.50	0.52	0.54	0.54	0.52	0.49	0.47
21.00	DISCHG	0.46	0.46	0.48	0.50	0.53	0.54	0.54	0.52	0.49	0.47
22.00	DISCHG	0.46	0.46	0.48	0.51	0.53	0.54	0.54	0.52	0.49	0.47
23.00	DISCHG	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.48	0.50	0.53
24.00	DISCHG	0.54	0.51	0.40	0.26	0.14	0.07	0.04	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2681 CFS-HRS= 941.06 ACRE-FT= 77.77

SUBROUTINE RUNOFF CROSS SECTION 6
AREA= 0.07 INPUT RUNOFF CURVE= 88.0 TIME OF CONCENTRATION= 0.40

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	51.658	(RUNOFF)
14.54	2.537	(RUNOFF)
16.55	0.887	(RUNOFF)
17.95	0.913	(RUNOFF)
19.05	0.893	(RUNOFF)
20.55	0.896	(RUNOFF)
21.55	0.898	(RUNOFF)
22.55	0.900	(RUNOFF)
23.98	0.900	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.01	0.03	0.05	0.08	0.12	0.17	0.23
11.00	DISCHG	0.29	0.37	0.48	0.62	0.77	0.98	2.25	6.60	13.75	21.91
12.00	DISCHG	29.38	35.57	40.81	45.05	48.56	51.13	49.95	41.29	28.77	18.42
13.00	DISCHG	12.58	9.14	7.04	5.57	4.68	4.15	3.78	3.37	2.97	2.69
14.00	DISCHG	2.53	2.46	2.44	2.47	2.49	2.51	2.50	2.47	2.43	2.40
15.00	DISCHG	2.37	2.25	1.92	1.50	1.16	0.96	0.86	0.80	0.77	0.75
16.00	DISCHG	0.74	0.75	0.78	0.82	0.86	0.88	0.88	0.85	0.81	0.78
17.00	DISCHG	0.75	0.76	0.79	0.83	0.87	0.89	0.90	0.91	0.91	0.91
18.00	DISCHG	0.91	0.90	0.86	0.82	0.78	0.76	0.76	0.79	0.83	0.87
19.00	DISCHG	0.89	0.89	0.86	0.82	0.78	0.76	0.75	0.74	0.74	0.74
20.00	DISCHG	0.74	0.75	0.78	0.83	0.87	0.89	0.89	0.86	0.82	0.78
21.00	DISCHG	0.76	0.76	0.79	0.84	0.87	0.89	0.89	0.86	0.82	0.78
22.00	DISCHG	0.76	0.76	0.80	0.84	0.88	0.90	0.90	0.87	0.82	0.78
23.00	DISCHG	0.76	0.75	0.75	0.74	0.74	0.74	0.75	0.79	0.84	0.88
24.00	DISCHG	0.90	0.85	0.67	0.43	0.24	0.13	0.07	0.04	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4041 CFS-HRS= 60.03 ACRE-FT= 4.96

SUBROUTINE ADDHYD CROSS SECTION 68
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	382.647	(NULL)
12.75	356.542	(NULL)
13.26	286.296	(NULL)
13.80	224.895	(NULL)
14.32	162.130	(NULL)
14.89	124.632	(NULL)
15.41	98.450	(NULL)
15.93	80.278	(NULL)
16.44	71.809	(NULL)
16.95	64.225	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.85	1.17	1.34	1.52
10.00	DISCHG	1.71	1.93	2.15	2.39	2.65	2.90	3.18	3.50	3.89	4.35
11.00	DISCHG	4.89	5.52	6.27	7.11	7.98	8.98	11.69	19.61	32.81	74.86
12.00	DISCHG	109.97	150.51	180.73	257.37	318.95	359.97	382.87	358.92	359.25	351.86
13.00	DISCHG	338.79	325.66	288.17	288.93	284.66	272.83	260.59	224.21	227.31	224.18
14.00	DISCHG	211.67	198.23	161.06	163.86	162.60	154.13	145.50	113.08	120.35	123.22
15.00	DISCHG	118.52	113.15	83.30	92.62	97.31	94.28	90.62	62.77	74.21	80.85
16.00	DISCHG	79.56	77.43	50.89	63.44	71.03	70.54	69.08	43.06	56.07	64.12
17.00	DISCHG	64.13	63.34	38.14	51.97	60.79	61.47	61.11	36.14	50.10	58.98
18.00	DISCHG	59.69	59.33	34.31	48.16	56.90	46.66	39.05	12.77	27.02	36.32
19.00	DISCHG	37.43	37.43	12.76	2.38	1.25	1.21	1.20	1.19	1.18	1.18
20.00	DISCHG	1.18	1.20	1.26	1.33	1.39	1.43	1.43	1.38	1.31	1.25
21.00	DISCHG	1.22	1.22	1.27	1.34	1.40	1.43	1.43	1.38	1.31	1.25
22.00	DISCHG	1.22	1.22	1.27	1.34	1.40	1.44	1.44	1.39	1.32	1.26
23.00	DISCHG	1.22	1.21	1.20	1.19	1.19	1.19	1.21	1.27	1.34	1.40
24.00	DISCHG	1.44	1.36	1.08	0.69	0.38	0.21	0.11	0.06	0.03	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2756 CFS-HRS= 1001.09 ACRE-FT= 82.73

SUBROUTINE ADDHYD CROSS SECTION 68
INPUT HYDROGRAPHS= 5,1 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.58	508.261	(NULL)
13.78	235.547	(NULL)
14.32	169.692	(NULL)
14.89	132.184	(NULL)
15.40	103.272	(NULL)
15.93	84.047	(NULL)
16.44	75.613	(NULL)

16.95	68.675
17.50	65.045
18.01	62.511

(NULL)
(NULL)
(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.43

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.06	0.08	0.11	0.13	0.14	1.00	1.34	1.53	1.73
10.00	DISCHG	1.94	2.35	2.81	3.18	3.47	3.78	4.16	4.72	5.44	6.21
11.00	DISCHG	6.97	8.07	9.54	11.03	12.35	13.73	19.13	36.41	65.57	129.56
12.00	DISCHG	188.08	247.30	290.00	374.91	442.38	487.68	507.60	464.65	436.17	403.07
13.00	DISCHG	373.20	350.54	307.67	305.37	299.39	286.59	273.59	236.16	237.93	233.56
14.00	DISCHG	220.13	206.11	168.70	171.49	170.33	161.96	153.36	120.86	127.95	130.67
15.00	DISCHG	125.93	120.44	89.98	98.34	102.12	98.46	94.46	66.49	77.96	84.66
16.00	DISCHG	83.36	81.15	54.57	67.14	74.80	74.38	72.91	46.82	59.72	67.69
17.00	DISCHG	67.66	66.87	41.75	55.68	64.49	65.04	64.45	39.23	53.02	61.82
18.00	DISCHG	62.50	62.08	36.88	50.46	58.93	48.47	40.73	14.47	28.85	38.27
19.00	DISCHG	39.23	38.95	14.11	3.63	2.45	2.38	2.34	2.32	2.31	2.31
20.00	DISCHG	2.31	2.34	2.45	2.60	2.72	2.80	2.80	2.71	2.57	2.45
21.00	DISCHG	2.39	2.39	2.48	2.62	2.74	2.81	2.81	2.71	2.57	2.46
22.00	DISCHG	2.39	2.39	2.49	2.63	2.74	2.81	2.81	2.72	2.58	2.46
23.00	DISCHG	2.40	2.36	2.34	2.33	2.32	2.32	2.36	2.47	2.62	2.74
24.00	DISCHG	2.81	2.67	2.13	1.38	0.77	0.41	0.22	0.11	0.06	0.03
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2624 CFS-HRS= 1162.48 ACRE-FT= 96.07

SUBROUTINE REACH CROSS SECTION 88
LENGTH= 1300.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.19

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	503.585	(NULL)
14.90	131.594	(NULL)
15.42	102.649	(NULL)
15.96	84.919	(NULL)
16.50	74.461	(NULL)
17.02	67.707	(NULL)
17.53	65.092	(NULL)
18.04	62.583	(NULL)
18.41	57.360	(NULL)
19.05	39.350	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.43

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01

6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.05	0.08	0.10	0.12	0.13	0.83	1.27	1.49	1.69
10.00	DISCHG	1.90	2.27	2.73	3.11	3.42	3.72	4.09	4.62	5.30	6.06
11.00	DISCHG	6.82	7.86	9.26	10.74	12.10	13.47	18.10	33.11	60.00	117.32
12.00	DISCHG	176.88	235.97	281.83	358.67	429.48	479.02	503.79	472.86	441.62	409.40
13.00	DISCHG	378.92	354.87	315.87	305.81	300.53	289.04	276.08	243.32	237.59	234.40
14.00	DISCHG	222.70	208.79	175.86	170.96	170.55	163.56	155.01	127.08	126.60	130.15
15.00	DISCHG	126.84	121.49	95.81	96.74	101.39	99.16	95.22	71.84	75.77	83.38
16.00	DISCHG	83.61	81.57	59.65	64.74	73.34	74.46	73.19	51.81	57.25	66.17
17.00	DISCHG	67.66	67.02	46.56	53.01	62.81	64.94	64.56	44.05	50.38	60.14
18.00	DISCHG	62.37	62.16	41.70	47.86	57.31	50.47	42.21	19.49	26.10	36.47
19.00	DISCHG	39.04	39.00	18.86	5.64	2.67	2.39	2.35	2.33	2.31	2.31
20.00	DISCHG	2.31	2.34	2.43	2.57	2.70	2.78	2.80	2.73	2.60	2.48
21.00	DISCHG	2.40	2.39	2.46	2.59	2.72	2.79	2.81	2.73	2.60	2.48
22.00	DISCHG	2.41	2.39	2.47	2.60	2.72	2.80	2.81	2.74	2.61	2.49
23.00	DISCHG	2.41	2.37	2.34	2.33	2.33	2.32	2.35	2.45	2.59	2.72
24.00	DISCHG	2.80	2.70	2.23	1.52	0.88	0.48	0.25	0.13	0.07	0.03
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2622 CFS-HRS= 1162.31 ACRE-FT= 96.05

SUBROUTINE RUNOFF CROSS SECTION 171
AREA= 0.04 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.40

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	33.691	(RUNOFF)
14.55	1.679	(RUNOFF)
16.55	0.588	(RUNOFF)
17.95	0.605	(RUNOFF)
19.05	0.592	(RUNOFF)
20.55	0.594	(RUNOFF)
21.55	0.596	(RUNOFF)
22.55	0.598	(RUNOFF)
23.98	0.598	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.06
11.00	DISCHG	0.09	0.14	0.20	0.28	0.36	0.48	1.22	3.81	8.19	13.37
12.00	DISCHG	18.27	22.45	26.04	28.99	31.47	33.32	32.68	27.07	18.89	12.10
13.00	DISCHG	8.28	6.02	4.64	3.67	3.09	2.74	2.50	2.23	1.96	1.78
14.00	DISCHG	1.67	1.62	1.62	1.63	1.65	1.66	1.66	1.64	1.61	1.59
15.00	DISCHG	1.57	1.49	1.27	0.99	0.77	0.64	0.57	0.53	0.51	0.50
16.00	DISCHG	0.49	0.49	0.52	0.55	0.57	0.58	0.59	0.57	0.54	0.51
17.00	DISCHG	0.50	0.50	0.52	0.55	0.57	0.59	0.60	0.60	0.60	0.60
18.00	DISCHG	0.60	0.60	0.57	0.54	0.52	0.50	0.50	0.52	0.55	0.58
19.00	DISCHG	0.59	0.59	0.57	0.54	0.52	0.50	0.50	0.49	0.49	0.49

20.00	DISCHG	0.49	0.50	0.52	0.55	0.58	0.59	0.59	0.57	0.54	0.52
21.00	DISCHG	0.51	0.51	0.53	0.56	0.58	0.59	0.59	0.57	0.54	0.52
22.00	DISCHG	0.51	0.51	0.53	0.56	0.58	0.60	0.59	0.58	0.55	0.52
23.00	DISCHG	0.51	0.50	0.50	0.49	0.49	0.49	0.50	0.52	0.56	0.58
24.00	DISCHG	0.60	0.56	0.45	0.29	0.16	0.09	0.05	0.03	0.01	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 38.72 ACRE-FT= 3.20

SUBROUTINE REACH CROSS SECTION 86
LENGTH= 800.00 INPUT COEFFICIENT= 0.7500 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 5.100 AVERAGE ROUTING COEFF= 0.7500 NUMBER OF ROUTINGS= 0.33

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	33.238	(NULL)
14.57	1.678	(NULL)
16.58	0.585	(NULL)
18.02	0.604	(NULL)
19.08	0.590	(NULL)
20.58	0.592	(NULL)
21.58	0.594	(NULL)
22.58	0.595	(NULL)
24.00	0.591	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.08	0.12	0.18	0.25	0.33	0.44	0.96	0.01	0.03	0.05
12.00	DISCHG	16.48	20.91	24.72	27.90	30.56	32.63	32.88	2.89	6.61	11.49
13.00	DISCHG	9.72	6.87	5.16	4.03	3.31	2.87	2.59	29.05	21.84	14.60
14.00	DISCHG	1.71	1.64	1.62	1.63	1.64	1.66	1.66	2.33	2.06	1.85
15.00	DISCHG	1.58	1.52	1.35	1.09	0.85	0.69	0.59	1.65	1.62	1.60
16.00	DISCHG	0.49	0.49	0.51	0.54	0.56	0.58	0.59	0.54	0.51	0.50
17.00	DISCHG	0.51	0.50	0.51	0.54	0.57	0.58	0.59	0.57	0.55	0.52
18.00	DISCHG	0.60	0.60	0.58	0.55	0.53	0.51	0.50	0.60	0.60	0.60
19.00	DISCHG	0.59	0.59	0.58	0.55	0.53	0.51	0.50	0.52	0.54	0.57
20.00	DISCHG	0.49	0.49	0.51	0.54	0.57	0.59	0.59	0.49	0.49	0.49
21.00	DISCHG	0.51	0.51	0.52	0.55	0.57	0.59	0.59	0.58	0.55	0.53
22.00	DISCHG	0.51	0.51	0.52	0.55	0.57	0.59	0.59	0.58	0.55	0.53
23.00	DISCHG	0.51	0.50	0.50	0.49	0.49	0.49	0.50	0.58	0.56	0.53
24.00	DISCHG	0.59	0.58	0.49	0.34	0.21	0.11	0.06	0.52	0.55	0.57
25.00	DISCHG	0.0							0.03	0.02	0.01

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3335 CFS-HRS= 38.73 ACRE-FT= 3.20

SUBROUTINE RUNOFF CROSS SECTION 172
AREA= 0.04 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.38

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	26.777	(RUNOFF)
14.54	1.318	(RUNOFF)
16.54	0.463	(RUNOFF)
17.95	0.475	(RUNOFF)
19.04	0.466	(RUNOFF)
20.54	0.468	(RUNOFF)
21.54	0.469	(RUNOFF)
22.54	0.470	(RUNOFF)
23.97	0.469	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.05
11.00	DISCHG	0.08	0.11	0.16	0.23	0.29	0.40	1.00	3.25	6.92	11.08
12.00	DISCHG	14.89	18.15	20.89	23.16	25.03	26.51	25.71	20.78	13.90	8.58
13.00	DISCHG	5.93	4.36	3.39	2.71	2.30	2.08	1.91	1.71	1.51	1.37
14.00	DISCHG	1.30	1.27	1.26	1.28	1.30	1.30	1.30	1.28	1.26	1.24
15.00	DISCHG	1.23	1.16	0.98	0.75	0.58	0.48	0.43	0.41	0.39	0.39
16.00	DISCHG	0.38	0.39	0.41	0.43	0.45	0.46	0.46	0.44	0.42	0.40
17.00	DISCHG	0.39	0.39	0.41	0.44	0.45	0.46	0.47	0.47	0.47	0.47
18.00	DISCHG	0.47	0.47	0.45	0.42	0.40	0.39	0.39	0.41	0.44	0.46
19.00	DISCHG	0.46	0.46	0.45	0.42	0.40	0.39	0.39	0.39	0.38	0.38
20.00	DISCHG	0.38	0.39	0.41	0.44	0.46	0.47	0.46	0.45	0.42	0.40
21.00	DISCHG	0.40	0.40	0.42	0.44	0.46	0.47	0.47	0.45	0.42	0.41
22.00	DISCHG	0.40	0.40	0.42	0.44	0.46	0.47	0.47	0.45	0.42	0.41
23.00	DISCHG	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.44	0.46
24.00	DISCHG	0.47	0.44	0.34	0.21	0.11	0.06	0.03	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 30.38 ACRE-FT= 2.51

SUBROUTINE ADDHYD CROSS SECTION 87
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	59.957	(NULL)
14.55	2.996	(NULL)
16.56	1.048	(NULL)
17.96	1.080	(NULL)
19.06	1.056	(NULL)
20.56	1.059	(NULL)
21.56	1.063	(NULL)
22.56	1.065	(NULL)
23.99	1.059	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.08

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.05	0.10
11.00	DISCHG	0.16	0.23	0.34	0.48	0.63	0.84	1.96	6.14	13.53	22.57
12.00	DISCHG	31.37	39.07	45.61	51.06	55.58	59.15	58.59	49.83	35.74	23.18
13.00	DISCHG	15.65	11.23	8.55	6.75	5.61	4.95	4.50	4.03	3.57	3.22
14.00	DISCHG	3.01	2.91	2.89	2.91	2.94	2.96	2.96	2.93	2.88	2.84
15.00	DISCHG	2.81	2.63	2.33	1.84	1.43	1.17	1.03	0.95	0.91	0.89
16.00	DISCHG	0.87	0.88	0.91	0.97	1.01	1.04	1.05	1.01	0.97	0.92
17.00	DISCHG	0.90	0.89	0.92	0.97	1.02	1.05	1.06	1.07	1.08	1.08
18.00	DISCHG	1.08	1.07	1.03	0.98	0.93	0.90	0.90	0.93	0.98	1.02
19.00	DISCHG	1.05	1.05	1.02	0.97	0.93	0.90	0.89	0.88	0.87	0.87
20.00	DISCHG	0.87	0.88	0.92	0.98	1.02	1.05	1.06	1.03	0.98	0.93
21.00	DISCHG	0.91	0.90	0.93	0.99	1.03	1.06	1.06	1.03	0.98	0.93
22.00	DISCHG	0.91	0.91	0.94	0.99	1.03	1.06	1.06	1.03	0.98	0.94
23.00	DISCHG	0.91	0.89	0.89	0.88	0.88	0.88	0.89	0.93	0.99	1.03
24.00	DISCHG	1.06	1.02	0.82	0.55	0.32	0.17	0.09	0.05	0.03	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3334 CFS-HRS= 69.11 ACRE-FT= 5.71

SUBROUTINE REACH CROSS SECTION 88
LENGTH= 890.00 INPUT COEFFICIENT= 0.7850 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.207 AVERAGE ROUTING COEFF= 0.7850 NUMBER OF ROUTINGS= 0.31

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	59.193	(NULL)
14.58	2.993	(NULL)
16.59	1.044	(NULL)
17.97	1.079	(NULL)
19.09	1.052	(NULL)
20.59	1.055	(NULL)
21.59	1.059	(NULL)
22.59	1.061	(NULL)
24.01	1.050	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.08

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.04	0.09
11.00	DISCHG	0.14	0.21	0.30	0.43	0.58	0.77	1.59	4.76	11.07	19.55
12.00	DISCHG	28.42	36.48	43.40	49.22	54.06	57.94	58.75	52.71	40.43	27.41

13.00	DISCHG	18.22	12.74	9.46	7.36	6.00	5.17	4.65	4.19	3.73	3.34
14.00	DISCHG	3.08	2.94	2.89	2.90	2.93	2.95	2.96	2.94	2.90	2.85
15.00	DISCHG	2.82	2.73	2.45	2.00	1.57	1.26	1.08	0.98	0.92	0.89
16.00	DISCHG	0.88	0.88	0.90	0.95	1.00	1.03	1.04	1.02	0.98	0.94
17.00	DISCHG	0.90	0.89	0.91	0.96	1.00	1.04	1.06	1.07	1.07	1.08
18.00	DISCHG	1.08	1.07	1.04	0.99	0.94	0.91	0.90	0.92	0.96	1.01
19.00	DISCHG	1.04	1.05	1.03	0.99	0.94	0.91	0.89	0.88	0.88	0.87
20.00	DISCHG	0.87	0.88	0.91	0.96	1.01	1.04	1.05	1.04	0.99	0.95
21.00	DISCHG	0.91	0.90	0.92	0.97	1.01	1.05	1.06	1.04	1.00	0.95
22.00	DISCHG	0.92	0.91	0.93	0.97	1.02	1.05	1.06	1.04	1.00	0.95
23.00	DISCHG	0.92	0.90	0.89	0.88	0.88	0.88	0.89	0.92	0.97	1.02
24.00	DISCHG	1.05	1.03	0.89	0.64	0.40	0.22	0.12	0.07	0.04	0.02
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3334 CFS-HRS= 69.11 ACRE-FT= 5.71

SUBROUTINE RUNOFF CROSS SECTION 173
AREA= 0.04 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.38

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	33.890	(RUNOFF)
14.54	1.669	(RUNOFF)
16.54	0.586	(RUNOFF)
17.95	0.602	(RUNOFF)
19.04	0.590	(RUNOFF)
20.54	0.592	(RUNOFF)
21.54	0.594	(RUNOFF)
22.54	0.595	(RUNOFF)
23.97	0.593	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.04	0.07
11.00	DISCHG	0.10	0.14	0.21	0.29	0.37	0.51	1.27	4.12	8.75	14.03
12.00	DISCHG	18.85	22.98	26.44	29.31	31.68	33.56	32.54	26.29	17.60	10.86
13.00	DISCHG	7.51	5.52	4.28	3.43	2.92	2.63	2.42	2.16	1.91	1.74
14.00	DISCHG	1.64	1.60	1.60	1.62	1.64	1.65	1.65	1.62	1.60	1.57
15.00	DISCHG	1.56	1.47	1.24	0.94	0.73	0.61	0.55	0.51	0.50	0.49
16.00	DISCHG	0.48	0.49	0.51	0.55	0.57	0.58	0.58	0.56	0.53	0.51
17.00	DISCHG	0.49	0.50	0.52	0.55	0.57	0.59	0.59	0.60	0.60	0.60
18.00	DISCHG	0.60	0.59	0.57	0.53	0.51	0.50	0.50	0.52	0.55	0.58
19.00	DISCHG	0.59	0.59	0.56	0.53	0.51	0.50	0.49	0.49	0.49	0.48
20.00	DISCHG	0.48	0.49	0.52	0.55	0.58	0.59	0.59	0.57	0.54	0.51
21.00	DISCHG	0.50	0.50	0.53	0.56	0.58	0.59	0.59	0.57	0.54	0.51
22.00	DISCHG	0.50	0.50	0.53	0.56	0.58	0.59	0.59	0.57	0.54	0.51
23.00	DISCHG	0.50	0.50	0.49	0.49	0.49	0.49	0.50	0.52	0.56	0.58
24.00	DISCHG	0.59	0.56	0.43	0.26	0.14	0.07	0.04	0.02	0.01	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 38.45 ACRE-FT= 3.18

SUBROUTINE ADDHYD CROSS SECTION 89
INPUT HYDROGRAPHS= 7,6 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	92.977	(NULL)
14.56	4.660	(NULL)
16.57	1.628	(NULL)
17.96	1.680	(NULL)
19.07	1.641	(NULL)
20.57	1.646	(NULL)
21.57	1.652	(NULL)
22.57	1.655	(NULL)
23.99	1.642	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.12

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.08	0.15
11.00	DISCHG	0.24	0.35	0.51	0.72	0.95	1.27	2.86	8.88	19.82	33.58
12.00	DISCHG	47.27	59.45	69.84	78.53	85.74	91.50	91.29	79.00	58.03	38.27
13.00	DISCHG	25.73	18.26	13.74	10.79	8.91	7.80	7.07	6.35	5.63	5.07
14.00	DISCHG	4.72	4.54	4.49	4.52	4.57	4.60	4.61	4.56	4.49	4.43
15.00	DISCHG	4.38	4.20	3.68	2.95	2.30	1.87	1.62	1.49	1.42	1.38
16.00	DISCHG	1.36	1.37	1.42	1.50	1.57	1.62	1.63	1.58	1.51	1.44
17.00	DISCHG	1.40	1.39	1.43	1.51	1.58	1.62	1.65	1.66	1.67	1.68
18.00	DISCHG	1.68	1.66	1.61	1.53	1.45	1.41	1.40	1.44	1.52	1.59
19.00	DISCHG	1.63	1.64	1.60	1.52	1.45	1.41	1.38	1.37	1.36	1.36
20.00	DISCHG	1.36	1.37	1.43	1.51	1.59	1.63	1.64	1.60	1.53	1.46
21.00	DISCHG	1.42	1.41	1.45	1.52	1.59	1.64	1.65	1.61	1.53	1.46
22.00	DISCHG	1.42	1.41	1.45	1.53	1.60	1.64	1.65	1.61	1.54	1.47
23.00	DISCHG	1.42	1.39	1.38	1.37	1.37	1.37	1.39	1.44	1.52	1.60
24.00	DISCHG	1.64	1.59	1.31	0.90	0.54	0.30	0.16	0.09	0.05	0.02
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3334 CFS-HRS= 107.57 ACRE-FT= 8.89

SUBROUTINE ADDHYD CROSS SECTION 89
INPUT HYDROGRAPHS= 5,1 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	595.320	(NULL)
14.90	136.072	(NULL)
15.41	104.902	(NULL)
15.96	86.304	(NULL)
16.50	76.075	(NULL)

17.02	69.102	(NULL)
17.54	66.728	(NULL)
18.04	64.258	(NULL)
18.41	58.811	(NULL)
19.05	40.989	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.55

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.05	0.08	0.10	0.12	0.13	0.83	1.27	1.49	1.69
10.00	DISCHG	1.90	2.27	2.73	3.11	3.42	3.72	4.09	4.64	5.38	6.21
11.00	DISCHG	7.06	8.21	9.77	11.46	13.05	14.74	20.96	41.98	79.82	150.90
12.00	DISCHG	224.15	295.42	351.67	437.20	515.21	570.52	595.08	551.87	499.64	447.68
13.00	DISCHG	404.64	373.13	329.61	316.60	309.45	296.84	283.15	249.67	243.23	239.47
14.00	DISCHG	227.42	213.34	180.35	175.48	175.12	168.16	159.61	131.64	131.09	134.58
15.00	DISCHG	131.22	125.69	99.49	99.68	103.69	101.02	96.85	73.33	77.19	84.76
16.00	DISCHG	84.97	82.94	61.07	66.23	74.91	76.07	74.82	53.39	58.77	67.61
17.00	DISCHG	69.06	68.41	47.99	54.52	64.39	66.56	66.21	45.72	52.05	61.81
18.00	DISCHG	64.05	63.83	43.31	49.39	58.76	51.88	43.61	20.93	27.61	38.05
19.00	DISCHG	40.67	40.64	20.46	7.16	4.13	3.80	3.73	3.70	3.68	3.67
20.00	DISCHG	3.66	3.71	3.86	4.09	4.29	4.42	4.44	4.33	4.12	3.93
21.00	DISCHG	3.81	3.79	3.91	4.12	4.31	4.43	4.46	4.34	4.13	3.94
22.00	DISCHG	3.82	3.80	3.92	4.13	4.32	4.44	4.46	4.35	4.14	3.95
23.00	DISCHG	3.83	3.76	3.72	3.71	3.70	3.69	3.74	3.89	4.12	4.32
24.00	DISCHG	4.44	4.29	3.54	2.43	1.42	0.78	0.42	0.22	0.12	0.05
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2679 CFS-HRS= 1269.87 ACRE-FT= 104.94

SUBROUTINE REACH CROSS SECTION 90
LENGTH= 1130.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.17

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	590.704	(NULL)
14.91	135.504	(NULL)
15.42	104.289	(NULL)
16.00	86.083	(NULL)
16.52	75.974	(NULL)
17.04	69.059	(NULL)
17.55	68.387	(NULL)
18.05	65.940	(NULL)
18.42	57.412	(NULL)
19.05	42.602	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.55

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.05	0.07	0.10	0.12	0.13	0.72	1.20	1.46	1.66
10.00	DISCHG	1.86	2.21	2.65	3.04	3.36	3.67	4.03	4.55	5.26	6.08
11.00	DISCHG	6.92	8.02	9.51	11.18	12.78	14.46	19.93	38.49	73.53	139.08
12.00	DISCHG	211.97	283.58	342.32	422.98	502.24	561.33	591.00	559.05	508.32	456.31
13.00	DISCHG	411.79	378.37	336.84	318.76	310.63	298.93	285.42	255.23	244.30	240.09
14.00	DISCHG	229.42	215.68	185.83	176.29	175.18	169.31	161.03	136.29	131.18	134.00
15.00	DISCHG	131.78	126.61	103.84	99.65	103.02	101.47	97.54	77.24	76.55	83.50
16.00	DISCHG	84.94	83.28	64.70	65.38	73.47	75.38	75.03	56.96	57.87	66.14
17.00	DISCHG	68.32	68.52	51.38	53.44	62.75	66.20	66.27	49.12	51.00	60.19
18.00	DISCHG	63.63	63.87	46.72	48.38	57.21	53.02	44.98	24.70	26.50	36.32
19.00	DISCHG	40.24	40.65	23.81	9.37	4.63	3.85	3.74	3.70	3.68	3.67
20.00	DISCHG	3.66	3.70	3.84	4.05	4.25	4.39	4.44	4.35	4.16	3.97
21.00	DISCHG	3.83	3.80	3.89	4.08	4.28	4.41	4.45	4.36	4.17	3.98
22.00	DISCHG	3.84	3.81	3.90	4.09	4.29	4.42	4.46	4.37	4.18	3.98
23.00	DISCHG	3.85	3.77	3.73	3.71	3.70	3.69	3.73	3.87	4.08	4.29
24.00	DISCHG	4.42	4.31	3.67	2.61	1.59	0.88	0.48	0.25	0.13	0.06
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2678 CFS-HRS= 1269.78 ACRE-FT= 104.93

SUBROUTINE RUNOFF CROSS SECTION 18
AREA= 0.14 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.48

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	103.991	(RUNOFF)
14.55	5.372	(RUNOFF)
16.59	1.855	(RUNOFF)
17.97	1.930	(RUNOFF)
19.08	1.876	(RUNOFF)
20.58	1.877	(RUNOFF)
21.58	1.884	(RUNOFF)
22.58	1.888	(RUNOFF)
24.00	1.862	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.14

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.08	0.15
11.00	DISCHG	0.25	0.37	0.54	0.76	1.00	1.38	2.99	8.88	19.93	34.22
12.00	DISCHG	49.35	63.33	75.44	85.87	94.73	101.97	103.12	92.36	72.16	51.23
13.00	DISCHG	34.99	25.74	19.59	15.25	12.27	10.37	9.13	8.07	7.07	6.24
14.00	DISCHG	5.68	5.39	5.28	5.26	5.28	5.31	5.31	5.27	5.20	5.13
15.00	DISCHG	5.06	4.85	4.36	3.63	2.91	2.38	2.05	1.85	1.72	1.65
16.00	DISCHG	1.61	1.60	1.64	1.71	1.78	1.84	1.85	1.83	1.76	1.69
17.00	DISCHG	1.64	1.62	1.65	1.72	1.79	1.85	1.89	1.91	1.92	1.93

18.00	DISCHG	1.93	1.92	1.87	1.78	1.71	1.65	1.63	1.66	1.73	1.80
19.00	DISCHG	1.86	1.88	1.84	1.77	1.70	1.64	1.61	1.59	1.58	1.57
20.00	DISCHG	1.57	1.58	1.64	1.72	1.80	1.86	1.88	1.84	1.78	1.70
21.00	DISCHG	1.65	1.64	1.67	1.74	1.81	1.87	1.88	1.85	1.73	1.71
22.00	DISCHG	1.66	1.64	1.67	1.74	1.82	1.87	1.89	1.86	1.79	1.71
23.00	DISCHG	1.66	1.62	1.60	1.59	1.58	1.58	1.60	1.65	1.73	1.81
24.00	DISCHG	1.86	1.81	1.57	1.16	0.77	0.46	0.28	0.17	0.10	0.06
25.00	DISCHG	0.04	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3336 CFS-HRS= 123.99 ACRE-FT= 10.25

SUBROUTINE ADDHYD CROSS SECTION 91
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	693.954	(NULL)
14.90	140.686	(NULL)
15.41	107.157	(NULL)
16.00	87.717	(NULL)
16.52	77.818	(NULL)
17.04	70.684	(NULL)
17.55	70.257	(NULL)
18.05	67.868	(NULL)
18.42	59.106	(NULL)
19.05	44.476	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.70

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.05	0.07	0.10	0.12	0.13	0.72	1.20	1.46	1.66
10.00	DISCHG	1.86	2.21	2.65	3.04	3.36	3.67	4.03	4.58	5.34	6.23
11.00	DISCHG	7.17	8.39	10.05	11.94	13.79	15.84	22.91	47.37	93.46	173.31
12.00	DISCHG	261.32	346.91	417.76	508.85	596.98	663.30	694.12	651.41	580.48	507.54
13.00	DISCHG	446.78	404.10	356.44	334.01	322.90	309.30	294.56	263.30	251.37	246.33
14.00	DISCHG	235.09	221.07	191.12	181.56	180.46	174.62	166.34	141.56	136.38	139.13
15.00	DISCHG	136.83	131.46	108.20	103.28	105.93	103.84	99.59	79.09	78.27	85.16
16.00	DISCHG	86.55	84.88	66.34	67.09	75.25	77.72	76.88	58.78	59.63	67.83
17.00	DISCHG	70.46	70.14	53.03	55.16	64.54	68.05	68.15	51.03	52.92	62.12
18.00	DISCHG	65.61	65.78	48.58	50.16	58.91	54.67	46.61	26.36	28.23	38.12
19.00	DISCHG	42.10	42.52	29.65	11.14	6.33	5.50	5.35	5.29	5.26	5.24
20.00	DISCHG	5.23	5.28	5.47	5.77	6.05	6.25	6.31	6.19	5.93	5.67
21.00	DISCHG	5.48	5.43	5.56	5.83	6.09	6.28	6.34	6.21	5.95	5.68
22.00	DISCHG	5.50	5.45	5.58	5.84	6.11	6.29	6.35	6.22	5.96	5.70
23.00	DISCHG	5.51	5.40	5.33	5.30	5.28	5.28	5.33	5.52	5.81	6.10
24.00	DISCHG	6.28	6.12	5.23	3.78	2.36	1.35	0.75	0.42	0.24	0.13
25.00	DISCHG	0.06	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2734 CFS-HRS= 1393.77 ACRE-FT= 115.18

SUBROUTINE REACH CROSS SECTION 92

LENGTH= 460.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.07

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	691.708	(NULL)
14.90	140.500	(NULL)
15.40	106.977	(NULL)
16.00	87.622	(NULL)
16.53	77.731	(NULL)
17.05	70.613	(NULL)
17.55	70.021	(NULL)
18.05	67.629	(NULL)
18.42	58.577	(NULL)
19.05	44.219	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.70

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
9.00	DISCHG	0.04	0.05	0.07	0.10	0.12	0.13	0.68	1.17	1.44	1.64
10.00	DISCHG	1.85	2.18	2.62	3.02	3.34	3.65	4.01	4.54	5.29	6.17
11.00	DISCHG	7.11	3.31	9.94	11.81	13.66	15.70	22.44	45.71	90.34	167.90
12.00	DISCHG	255.37	341.12	412.97	502.69	591.01	658.81	692.03	654.30	585.28	512.48
13.00	DISCHG	450.89	406.99	359.66	335.52	323.65	310.22	295.55	265.42	252.18	246.68
14.00	DISCHG	235.86	222.02	193.14	182.20	180.54	175.02	166.90	143.24	136.73	138.94
15.00	DISCHG	136.99	131.82	109.78	103.61	105.75	103.98	99.88	80.48	78.33	84.69
16.00	DISCHG	86.45	84.99	67.60	67.04	74.70	77.55	76.94	60.01	59.57	67.27
17.00	DISCHG	70.28	70.16	54.19	55.01	63.91	67.81	68.15	52.19	52.79	61.50
18.00	DISCHG	65.37	65.77	49.75	50.06	58.32	54.95	47.16	27.73	28.11	37.45
19.00	DISCHG	41.83	42.49	26.79	12.12	6.65	5.55	5.36	5.30	5.26	5.24
20.00	DISCHG	5.23	5.28	5.46	5.75	6.03	6.24	6.31	6.20	5.95	5.69
21.00	DISCHG	5.50	5.44	5.55	5.81	6.07	6.27	6.33	6.22	5.97	5.70
22.00	DISCHG	5.51	5.45	5.57	5.82	6.09	6.28	6.34	6.23	5.98	5.72
23.00	DISCHG	5.52	5.40	5.34	5.30	5.28	5.28	5.32	5.50	5.79	6.08
24.00	DISCHG	6.27	6.13	5.29	3.87	2.45	1.42	0.79	0.45	0.25	0.13
25.00	DISCHG	0.06	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2734 CFS-HRS= 1393.74 ACRE-FT= 115.18

SUBROUTINE RUNOFF CROSS SECTION 19
AREA= 0.02 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.33

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.50	12.402	(RUNOFF)
14.53	0.596	(RUNOFF)
16.52	0.210	(RUNOFF)
18.00	0.214	(RUNOFF)
19.02	0.212	(RUNOFF)
20.52	0.213	(RUNOFF)

21.52	0.213	(RUNOFF)
22.52	0.214	(RUNOFF)
23.96	0.215	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.03
11.00	DISCHG	0.04	0.06	0.08	0.11	0.14	0.19	0.53	1.83	3.76	5.71
12.00	DISCHG	7.39	8.79	9.94	10.88	11.66	12.29	11.62	8.50	5.08	3.05
13.00	DISCHG	2.13	1.63	1.29	1.06	0.94	0.88	0.82	0.74	0.65	0.60
14.00	DISCHG	0.57	0.56	0.57	0.58	0.59	0.59	0.59	0.58	0.57	0.56
15.00	DISCHG	0.55	0.52	0.41	0.30	0.23	0.20	0.18	0.18	0.17	0.17
16.00	DISCHG	0.17	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.18	0.18
17.00	DISCHG	0.17	0.18	0.19	0.20	0.21	0.21	0.21	0.21	0.21	0.21
18.00	DISCHG	0.21	0.21	0.20	0.19	0.18	0.18	0.18	0.19	0.20	0.21
19.00	DISCHG	0.21	0.21	0.20	0.19	0.18	0.18	0.17	0.17	0.17	0.17
20.00	DISCHG	0.17	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.18
21.00	DISCHG	0.18	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.18
22.00	DISCHG	0.18	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.18
23.00	DISCHG	0.18	0.18	0.17	0.17	0.17	0.17	0.18	0.19	0.20	0.21
24.00	DISCHG	0.21	0.20	0.13	0.07	0.03	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3335 CFS-HRS= 13.72 ACRE-FT= 1.13

SUBROUTINE ADDHYD CROSS SECTION 93
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	703.383	(NULL)
14.90	141.065	(NULL)
15.40	107.208	(NULL)
16.00	87.796	(NULL)
16.53	77.941	(NULL)
17.05	70.788	(NULL)
17.55	70.233	(NULL)
18.05	67.843	(NULL)
18.42	58.754	(NULL)
19.05	44.431	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.71

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
7.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04

9.00	DISCHG	0.04	0.05	0.07	0.10	0.12	0.13	0.68	1.17	1.44	1.64
10.00	DISCHG	1.85	2.18	2.62	3.02	3.34	3.65	4.01	4.55	5.30	6.20
11.00	DISCHG	7.15	[illegible]	[illegible]	11.92	13.81	15.89	22.97	47.54	94.11	173.61
12.00	DISCHG	262.76	[illegible]	[illegible]	[illegible]	602.86	[illegible]	703.65	662.79	590.36	515.53
13.00	DISCHG	453.03	408.72	[illegible]	[illegible]	324.58	[illegible]	[illegible]	[illegible]	252.82	247.37
14.00	DISCHG	236.43	[illegible]	[illegible]	182.78	181.12	175.61	167.49	143.81	137.30	139.50
15.00	DISCHG	137.54	132.34	110.19	103.91	105.98	104.18	100.06	80.65	78.50	84.86
16.00	DISCHG	86.62	85.17	67.78	67.24	74.90	77.76	77.14	60.20	59.76	67.45
17.00	DISCHG	70.45	70.34	54.38	55.22	64.11	68.03	68.36	52.40	53.01	61.71
18.00	DISCHG	65.59	65.98	49.95	50.24	58.50	55.13	47.33	27.92	28.31	37.66
19.00	DISCHG	42.04	42.70	26.99	12.31	6.83	5.73	5.54	5.47	5.43	5.41
20.00	DISCHG	5.40	5.46	5.65	5.95	6.24	6.45	6.52	6.40	6.14	5.87
21.00	DISCHG	5.67	5.62	5.74	6.01	6.28	6.48	6.54	6.42	6.15	5.88
22.00	DISCHG	5.69	5.63	5.76	6.02	6.30	6.49	6.56	6.43	6.17	5.90
23.00	DISCHG	5.70	5.58	5.51	5.48	5.46	5.45	5.50	5.69	5.99	6.29
24.00	DISCHG	6.48	6.33	5.43	3.95	2.49	1.43	0.80	0.45	0.25	0.13
25.00	DISCHG	0.06	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2739 CFS-HRS= 1407.46 ACRE-FT= 116.31

SUBROUTINE REACH CROSS SECTION 94
LENGTH= 990.00 INPUT COEFFICIENT= 0.9000 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 15.300 AVERAGE ROUTING COEFF= 0.9000 NUMBER OF ROUTINGS= 0.16

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	698.265	(NULL)
14.89	140.727	(NULL)
15.39	106.891	(NULL)
16.02	87.592	(NULL)
16.55	77.733	(NULL)
17.05	71.091	(NULL)
17.56	69.658	(NULL)
18.05	[illegible]	(NULL)
18.43	[illegible]	(NULL)
19.06	43.809	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.71

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
7.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8.00	DISCHG	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
9.00	DISCHG	0.04	0.05	0.07	0.09	0.12	0.13	0.59	0.04	0.04	0.04
10.00	DISCHG	1.82	2.13	2.55	2.95	3.29	3.60	3.95	1.09	1.40	1.61
11.00	DISCHG	6.99	8.17	9.75	11.62	13.50	15.55	21.82	4.46	5.18	6.05
12.00	DISCHG	248.34	335.81	411.10	498.90	588.26	660.03	698.39	43.56	86.57	160.75
13.00	DISCHG	463.14	415.81	368.67	340.53	326.53	313.28	298.76	669.40	602.08	527.64
14.00	DISCHG	238.18	224.82	198.38	184.55	181.39	176.50	168.80	271.04	254.98	248.17
15.00	DISCHG	137.86	133.18	113.77	104.93	105.65	104.48	100.73	147.64	138.35	139.14
16.00	DISCHG	86.34	85.40	70.60	67.32	73.66	77.30	77.24	83.79	78.85	83.83
17.00	DISCHG	69.97	70.36	56.96	55.08	62.67	67.39	68.31	62.94	59.83	66.21
18.00	DISCHG	64.96	65.92	52.54	50.19	57.16	55.67	48.60	54.98	52.91	60.30
19.00	DISCHG	41.33	42.59	29.53	14.69	7.72	5.91	5.57	31.06	28.25	36.15
									5.48	5.44	5.42

20.00	DISCHG	5.41	5.45	5.62	5.90	6.20	6.42	6.51	6.42	6.18	5.91
21.00	DISCHG	5.70	5.62	5.72	5.97	6.24	6.45	6.53	6.44	6.20	5.93
22.00	DISCHG	5.72	5.64	5.74	5.98	6.25	6.46	6.55	6.45	6.21	5.94
23.00	DISCHG	5.73	5.60	5.52	5.48	5.46	5.45	5.49	5.66	5.95	6.24
24.00	DISCHG	6.45	6.35	5.57	4.19	2.72	1.60	0.90	0.50	0.28	0.15
25.00	DISCHG	0.08	0.03	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2739 CFS-HRS= 1407.40 ACRE-FT= 116.31

SUBROUTINE RUNOFF CROSS SECTION 7
AREA= 0.02 INPUT RUNOFF CURVE= 91.0 TIME OF CONCENTRATION= 0.30

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.48	22.317	(RUNOFF)
14.50	1.010	(RUNOFF)
16.49	0.356	(RUNOFF)
17.95	0.362	(RUNOFF)
18.99	0.357	(RUNOFF)
20.49	0.358	(RUNOFF)
21.49	0.359	(RUNOFF)
22.49	0.359	(RUNOFF)
23.96	0.362	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.01	0.02	0.03	0.04	0.06	0.07	0.09	0.10
10.00	DISCHG	0.12	0.13	0.14	0.15	0.16	0.17	0.19	0.24	0.29	0.32
11.00	DISCHG	0.35	0.40	0.50	0.59	0.66	0.77	2.01	5.71	10.13	13.60
12.00	DISCHG	16.15	18.04	19.47	20.56	21.41	22.06	20.27	13.50	7.45	4.53
13.00	DISCHG	3.20	2.52	2.02	1.69	1.53	1.46	1.38	1.21	1.06	0.99
14.00	DISCHG	0.96	0.95	0.97	0.99	0.99	1.00	0.99	0.97	0.95	0.94
15.00	DISCHG	0.93	0.85	0.65	0.46	0.36	0.32	0.30	0.29	0.29	0.29
16.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.35	0.33	0.31	0.30
17.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.36	0.36	0.36	0.36
18.00	DISCHG	0.36	0.35	0.33	0.31	0.30	0.29	0.30	0.32	0.34	0.35
19.00	DISCHG	0.36	0.35	0.33	0.31	0.30	0.29	0.29	0.29	0.29	0.29
20.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.35	0.33	0.31	0.30
21.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.35	0.33	0.31	0.30
22.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.35	0.33	0.31	0.30
23.00	DISCHG	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.32	0.35	0.36
24.00	DISCHG	0.36	0.32	0.20	0.10	0.04	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.6350 CFS-HRS= 25.88 ACRE-FT= 2.14

SUBROUTINE REACH CROSS SECTION 70
LENGTH= 1280.00 INPUT COEFFICIENT= 0.7900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.395 AVERAGE ROUTING COEFF= 0.7900 NUMBER OF ROUTINGS= 0.44

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.50	21.928	(NULL)
14.55	1.009	(NULL)
16.54	0.355	(NULL)
18.02	0.361	(NULL)
19.04	0.356	(NULL)
20.54	0.357	(NULL)
21.55	0.358	(NULL)
22.54	0.358	(NULL)
23.97	0.358	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.01	0.01	0.03	0.04	0.05	0.07	0.08	0.09
10.00	DISCHG	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.21	0.26	0.30
11.00	DISCHG	0.34	0.38	0.45	0.54	0.63	0.72	1.43	3.94	7.95	11.85
12.00	DISCHG	14.85	17.08	18.74	20.00	20.98	21.73	21.09	16.73	10.48	6.07
13.00	DISCHG	3.92	2.88	2.27	1.86	1.61	1.50	1.42	1.29	1.14	1.03
14.00	DISCHG	0.97	0.95	0.96	0.98	0.99	1.00	1.00	0.98	0.96	0.95
15.00	DISCHG	0.94	0.89	0.75	0.55	0.41	0.35	0.31	0.30	0.29	0.29
16.00	DISCHG	0.29	0.29	0.31	0.33	0.35	0.35	0.35	0.34	0.32	0.30
17.00	DISCHG	0.29	0.30	0.31	0.33	0.35	0.35	0.36	0.36	0.36	0.36
18.00	DISCHG	0.36	0.36	0.34	0.32	0.30	0.30	0.30	0.31	0.33	0.35
19.00	DISCHG	0.35	0.35	0.34	0.32	0.30	0.30	0.29	0.29	0.29	0.29
20.00	DISCHG	0.29	0.29	0.31	0.33	0.35	0.36	0.35	0.34	0.32	0.30
21.00	DISCHG	0.30	0.30	0.31	0.33	0.35	0.36	0.36	0.34	0.32	0.30
22.00	DISCHG	0.30	0.30	0.31	0.33	0.35	0.36	0.36	0.34	0.32	0.31
23.00	DISCHG	0.30	0.29	0.29	0.29	0.29	0.29	0.30	0.31	0.33	0.35
24.00	DISCHG	0.36	0.34	0.26	0.15	0.07	0.03	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.6354 CFS-HRS= 25.89 ACRE-FT= 2.14

SUBROUTINE RUNOFF CROSS SECTION 8
AREA= 0.02 INPUT RUNOFF CURVE= 92.0 TIME OF CONCENTRATION= 0.28

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.46	16.347	(RUNOFF)
14.49	0.730	(RUNOFF)
16.48	0.257	(RUNOFF)
17.95	0.261	(RUNOFF)
18.98	0.258	(RUNOFF)
20.48	0.259	(RUNOFF)
21.48	0.259	(RUNOFF)
22.48	0.259	(RUNOFF)
23.96	0.263	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.10	0.11	0.12
10.00	DISCHG	0.13	0.14	0.14	0.15	0.15	0.16	0.18	0.23	0.27	0.30
11.00	DISCHG	0.32	0.36	0.44	0.52	0.57	0.66	1.78	5.01	8.43	10.85
12.00	DISCHG	12.53	13.73	14.60	15.27	15.78	16.07	14.26	9.14	4.89	2.96
13.00	DISCHG	2.13	1.71	1.38	1.17	1.08	1.05	0.99	0.86	0.75	0.70
14.00	DISCHG	0.69	0.68	0.70	0.71	0.72	0.72	0.72	0.70	0.68	0.68
15.00	DISCHG	0.67	0.61	0.44	0.31	0.25	0.23	0.21	0.21	0.21	0.21
16.00	DISCHG	0.21	0.22	0.23	0.25	0.25	0.26	0.25	0.23	0.22	0.21
17.00	DISCHG	0.21	0.22	0.23	0.25	0.25	0.26	0.26	0.26	0.26	0.26
18.00	DISCHG	0.26	0.25	0.23	0.22	0.21	0.21	0.22	0.23	0.25	0.26
19.00	DISCHG	0.26	0.25	0.23	0.22	0.21	0.21	0.21	0.21	0.21	0.21
20.00	DISCHG	0.21	0.22	0.23	0.25	0.26	0.26	0.25	0.23	0.22	0.21
21.00	DISCHG	0.21	0.22	0.23	0.25	0.26	0.26	0.25	0.24	0.22	0.21
22.00	DISCHG	0.21	0.22	0.24	0.25	0.26	0.26	0.25	0.24	0.22	0.21
23.00	DISCHG	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.24	0.25	0.26
24.00	DISCHG	0.26	0.23	0.13	0.06	0.02	0.01	0.0			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.7175 CFS-HRS= 19.22 ACRE-FT= 1.59

SUBROUTINE ADDHYD CROSS SECTION 71
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.48	38.208	(NULL)
14.51	1.737	(NULL)
16.51	0.611	(NULL)
17.95	0.622	(NULL)
19.01	0.613	(NULL)
20.51	0.615	(NULL)
21.51	0.616	(NULL)
22.51	0.616	(NULL)
23.96	0.620	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.04	0.06	0.09	0.11	0.13	0.16	0.19	0.21
10.00	DISCHG	0.24	0.26	0.28	0.29	0.31	0.32	0.36	0.44	0.53	0.60
11.00	DISCHG	0.65	0.74	0.89	1.07	1.20	1.38	3.21	8.94	16.38	22.69
12.00	DISCHG	27.39	30.81	33.35	35.27	36.76	37.80	35.35	25.87	15.37	9.03
13.00	DISCHG	6.05	4.59	3.65	3.03	2.69	2.54	2.40	2.15	1.89	1.73
14.00	DISCHG	1.66	1.64	1.66	1.69	1.71	1.72	1.71	1.68	1.65	1.62
15.00	DISCHG	1.61	1.50	1.19	0.87	0.67	0.57	0.53	0.51	0.50	0.50

16.00	DISCHG	0.50	0.51	0.54	0.58	0.60	0.61	0.60	0.57	0.54	0.51
17.00	DISCHG	0.51	0.51	0.54	0.58	0.60	0.61	0.62	0.62	0.62	0.62
18.00	DISCHG	0.62	0.61	0.57	0.54	0.52	0.51	0.51	0.55	0.58	0.60
19.00	DISCHG	0.61	0.61	0.57	0.54	0.52	0.51	0.50	0.50	0.50	0.50
20.00	DISCHG	0.50	0.51	0.54	0.58	0.60	0.61	0.61	0.58	0.54	0.52
21.00	DISCHG	0.51	0.52	0.55	0.58	0.61	0.62	0.61	0.58	0.54	0.52
22.00	DISCHG	0.51	0.52	0.55	0.58	0.61	0.62	0.61	0.58	0.54	0.52
23.00	DISCHG	0.51	0.50	0.50	0.50	0.50	0.50	0.51	0.55	0.58	0.61
24.00	DISCHG	0.62	0.56	0.39	0.21	0.10	0.04	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.6694 CFS-HRS= 45.11 ACRE-FT= 3.73

SUBROUTINE REACH CROSS SECTION 72
LENGTH= 260.00 INPUT COEFFICIENT= 0.7900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.395 AVERAGE ROUTING COEFF= 0.7900 NUMBER OF ROUTINGS= 0.09

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.48	38.088	(NULL)
14.53	1.738	(NULL)
16.52	0.610	(NULL)
17.95	0.622	(NULL)
19.02	0.613	(NULL)
20.52	0.614	(NULL)
21.53	0.616	(NULL)
22.52	0.615	(NULL)
23.97	0.618	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.04

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.04	0.06	0.09	0.11	0.13	0.16	0.19	0.21
10.00	DISCHG	0.24	0.26	0.27	0.29	0.30	0.32	0.36	0.43	0.52	0.59
11.00	DISCHG	0.65	0.73	0.88	1.05	1.19	1.36	3.05	8.43	15.72	22.13
12.00	DISCHG	26.97	30.50	33.12	35.10	36.62	37.71	35.57	26.72	16.30	9.60
13.00	DISCHG	6.31	4.72	3.74	3.08	2.72	2.56	2.42	2.17	1.91	1.75
14.00	DISCHG	1.67	1.64	1.66	1.69	1.71	1.72	1.71	1.68	1.65	1.63
15.00	DISCHG	1.61	1.51	1.22	0.89	0.68	0.58	0.53	0.51	0.50	0.50
16.00	DISCHG	0.50	0.51	0.54	0.58	0.60	0.61	0.60	0.57	0.54	0.52
17.00	DISCHG	0.51	0.51	0.54	0.58	0.60	0.61	0.62	0.62	0.62	0.62
18.00	DISCHG	0.62	0.61	0.58	0.54	0.52	0.51	0.51	0.54	0.58	0.60
19.00	DISCHG	0.61	0.61	0.58	0.54	0.52	0.51	0.50	0.50	0.50	0.50
20.00	DISCHG	0.50	0.51	0.54	0.58	0.60	0.61	0.61	0.58	0.54	0.52
21.00	DISCHG	0.51	0.51	0.54	0.58	0.60	0.61	0.61	0.58	0.54	0.52
22.00	DISCHG	0.51	0.52	0.55	0.58	0.60	0.62	0.61	0.58	0.54	0.52
23.00	DISCHG	0.51	0.50	0.50	0.50	0.50	0.50	0.51	0.54	0.58	0.61
24.00	DISCHG	0.62	0.57	0.41	0.22	0.11	0.05	0.02	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.6694 CFS-HRS= 45.11 ACRE-FT= 3.73

SUBROUTINE RUNOFF CROSS SECTION 9
AREA= 0.03 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.50

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.57	18.664	(RUNOFF)
14.55	0.974	(RUNOFF)
16.58	0.335	(RUNOFF)
18.01	0.350	(RUNOFF)
19.09	0.338	(RUNOFF)
20.58	0.339	(RUNOFF)
21.59	0.341	(RUNOFF)
22.58	0.341	(RUNOFF)
24.01	0.338	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.03
11.00	DISCHG	0.04	0.06	0.09	0.13	0.18	0.24	0.56	1.54	3.39	5.86
12.00	DISCHG	8.56	11.08	13.30	15.23	16.87	18.19	18.58	16.88	13.49	9.84
13.00	DISCHG	6.90	4.99	3.77	2.94	2.37	1.99	1.72	1.51	1.32	1.17
14.00	DISCHG	1.06	0.99	0.96	0.96	0.96	0.96	0.96	0.96	0.94	0.93
15.00	DISCHG	0.92	0.89	0.80	0.68	0.54	0.44	0.38	0.34	0.32	0.30
16.00	DISCHG	0.29	0.29	0.30	0.31	0.32	0.33	0.33	0.33	0.32	0.31
17.00	DISCHG	0.30	0.29	0.30	0.31	0.32	0.33	0.34	0.34	0.35	0.35
18.00	DISCHG	0.35	0.35	0.34	0.32	0.31	0.30	0.30	0.30	0.31	0.32
19.00	DISCHG	0.33	0.34	0.33	0.32	0.31	0.30	0.29	0.29	0.29	0.28
20.00	DISCHG	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.33	0.32	0.31
21.00	DISCHG	0.30	0.30	0.30	0.31	0.33	0.34	0.34	0.34	0.32	0.31
22.00	DISCHG	0.30	0.30	0.30	0.31	0.33	0.34	0.34	0.34	0.32	0.31
23.00	DISCHG	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.30	0.31	0.33
24.00	DISCHG	0.34	0.33	0.29	0.22	0.15	0.09	0.06	0.03	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3353 CFS-HRS= 22.49 ACRE-FT= 1.86

SUBROUTINE ADDHYD CROSS SECTION 73
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.51	56.409	(NULL)
14.54	2.711	(NULL)
16.54	0.945	(NULL)
17.96	0.972	(NULL)
19.05	0.950	(NULL)
20.55	0.952	(NULL)
21.55	0.956	(NULL)
22.54	0.956	(NULL)

23.98 0.955 (NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.04	0.06	0.09	0.11	0.13	0.16	0.19	0.21
10.00	DISCHG	0.24	0.26	0.27	0.29	0.30	0.32	0.36	0.44	0.54	0.62
11.00	DISCHG	0.69	0.79	0.97	1.18	1.36	1.61	3.61	9.98	19.11	27.99
12.00	DISCHG	35.52	41.58	46.42	50.33	53.49	55.89	54.14	43.60	29.79	19.44
13.00	DISCHG	13.21	9.72	7.50	6.02	5.09	4.54	4.14	3.68	3.24	2.92
14.00	DISCHG	2.72	2.63	2.62	2.64	2.67	2.68	2.67	2.64	2.59	2.56
15.00	DISCHG	2.53	2.40	2.02	1.57	1.23	1.02	0.91	0.85	0.82	0.80
16.00	DISCHG	0.79	0.80	0.84	0.88	0.92	0.94	0.94	0.91	0.86	0.82
17.00	DISCHG	0.80	0.81	0.84	0.89	0.92	0.95	0.96	0.96	0.97	0.97
18.00	DISCHG	0.97	0.96	0.92	0.87	0.83	0.81	0.81	0.84	0.89	0.93
19.00	DISCHG	0.95	0.95	0.91	0.86	0.83	0.81	0.79	0.79	0.79	0.78
20.00	DISCHG	0.78	0.80	0.84	0.89	0.93	0.95	0.95	0.91	0.87	0.83
21.00	DISCHG	0.81	0.81	0.85	0.89	0.93	0.95	0.95	0.92	0.87	0.83
22.00	DISCHG	0.81	0.81	0.85	0.90	0.93	0.95	0.95	0.92	0.87	0.83
23.00	DISCHG	0.81	0.80	0.79	0.79	0.79	0.79	0.80	0.84	0.89	0.93
24.00	DISCHG	0.95	0.90	0.69	0.44	0.25	0.14	0.07	0.03	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.5411 CFS-HRS= 67.60 ACRE-FT= 5.59

SUBROUTINE REACH CROSS SECTION 77
LENGTH= 1050.00 INPUT COEFFICIENT= 0.7900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.395 AVERAGE ROUTING COEFF= 0.7900 NUMBER OF ROUTINGS= 0.36

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	55.723	(NULL)
14.56	2.708	(NULL)
16.57	0.941	(NULL)
17.97	0.971	(NULL)
19.07	0.947	(NULL)
20.58	0.948	(NULL)
21.58	0.952	(NULL)
22.57	0.952	(NULL)
24.00	0.945	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01

9.00	DISCHG	0.01	0.02	0.03	0.05	0.08	0.10	0.12	0.15	0.17	0.20
10.00	DISCHG	0.23	0.25	0.27	0.28	0.30	0.32	0.34	0.41	0.50	0.59
11.00	DISCHG	0.66	0.75	0.90	1.10	1.29	1.51	2.84	7.52	15.54	24.48
12.00	DISCHG	32.53	39.17	44.49	48.77	52.23	54.94	54.78	47.64	35.19	23.57
13.00	DISCHG	15.73	11.13	8.39	6.62	5.47	4.76	4.30	3.86	3.41	3.04
14.00	DISCHG	2.80	2.67	2.63	2.63	2.66	2.67	2.68	2.65	2.61	2.57
15.00	DISCHG	2.54	2.45	2.17	1.75	1.36	1.11	0.96	0.88	0.83	0.81
16.00	DISCHG	0.79	0.80	0.82	0.87	0.91	0.93	0.94	0.92	0.88	0.84
17.00	DISCHG	0.81	0.81	0.83	0.87	0.91	0.94	0.95	0.96	0.97	0.97
18.00	DISCHG	0.97	0.96	0.93	0.89	0.84	0.82	0.81	0.83	0.87	0.91
19.00	DISCHG	0.94	0.95	0.92	0.88	0.84	0.82	0.80	0.79	0.79	0.78
20.00	DISCHG	0.78	0.79	0.82	0.87	0.91	0.94	0.95	0.93	0.88	0.84
21.00	DISCHG	0.82	0.81	0.83	0.88	0.92	0.94	0.95	0.93	0.89	0.85
22.00	DISCHG	0.82	0.81	0.83	0.88	0.92	0.94	0.95	0.93	0.89	0.85
23.00	DISCHG	0.82	0.80	0.80	0.79	0.79	0.79	0.80	0.83	0.87	0.92
24.00	DISCHG	0.94	0.92	0.77	0.54	0.33	0.18	0.10	0.05	0.03	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.5412 CFS-HRS= 67.60 ACRE-FT= 5.59

SUBROUTINE RUNOFF CROSS SECTION 11
AREA= 0.06 INPUT RUNOFF CURVE= 90.0 TIME OF CONCENTRATION= 0.43

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	46.109	(RUNOFF)
14.55	2.227	(RUNOFF)
16.56	0.774	(RUNOFF)
17.96	0.798	(RUNOFF)
19.06	0.778	(RUNOFF)
20.56	0.779	(RUNOFF)
21.56	0.782	(RUNOFF)
22.56	0.782	(RUNOFF)
23.99	0.774	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.06

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.05	0.08
10.00	DISCHG	0.11	0.14	0.16	0.19	0.21	0.23	0.27	0.32	0.39	0.47
11.00	DISCHG	0.54	0.62	0.74	0.90	1.06	1.20	2.51	6.56	13.28	20.80
12.00	DISCHG	27.50	32.96	37.32	40.87	43.68	45.62	44.90	38.12	27.88	18.46
13.00	DISCHG	12.63	9.17	6.92	5.45	4.47	3.88	3.48	3.10	2.72	2.43
14.00	DISCHG	2.26	2.18	2.16	2.17	2.19	2.20	2.20	2.18	2.14	2.11
15.00	DISCHG	2.08	1.99	1.74	1.39	1.09	0.89	0.79	0.72	0.69	0.66
16.00	DISCHG	0.65	0.66	0.68	0.72	0.75	0.77	0.77	0.75	0.72	0.69
17.00	DISCHG	0.67	0.66	0.69	0.72	0.75	0.77	0.78	0.79	0.79	0.80
18.00	DISCHG	0.80	0.79	0.76	0.72	0.69	0.67	0.67	0.69	0.72	0.75
19.00	DISCHG	0.77	0.78	0.76	0.72	0.69	0.67	0.66	0.65	0.65	0.64
20.00	DISCHG	0.64	0.65	0.68	0.72	0.75	0.77	0.78	0.76	0.72	0.69
21.00	DISCHG	0.67	0.67	0.69	0.73	0.76	0.78	0.78	0.76	0.72	0.69
22.00	DISCHG	0.67	0.67	0.69	0.73	0.76	0.78	0.78	0.76	0.72	0.69

23.00	DISCHG	0.67	0.66	0.65	0.65	0.65	0.65	0.66	0.68	0.72	0.76
24.00	DISCHG	0.77	0.74	0.61	0.42	0.25	0.14	0.03	0.05	0.03	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.5545 CFS-HRS= 55.65 ACRE-FT= 4.60

SUBROUTINE REACH CROSS SECTION 75
LENGTH= 480.00 INPUT COEFFICIENT= 0.7800 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.027 AVERAGE ROUTING COEFF= 0.7800 NUMBER OF ROUTINGS= 0.17

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	45.878	(NULL)
14.56	2.226	(NULL)
16.58	0.772	(NULL)
17.96	0.798	(NULL)
19.07	0.777	(NULL)
20.58	0.777	(NULL)
21.58	0.780	(NULL)
22.57	0.780	(NULL)
24.00	0.771	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.06

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.05	0.08
10.00	DISCHG	0.10	0.13	0.16	0.18	0.20	0.23	0.26	0.31	0.38	0.46
11.00	DISCHG	0.53	0.61	0.72	0.87	1.03	1.18	2.29	5.85	12.11	19.49
12.00	DISCHG	26.34	32.01	36.56	40.25	43.19	45.28	45.03	39.30	29.66	20.10
13.00	DISCHG	13.65	9.77	7.31	5.70	4.64	3.98	3.55	3.16	2.78	2.48
14.00	DISCHG	2.29	2.20	2.17	2.17	2.18	2.20	2.20	2.18	2.15	2.12
15.00	DISCHG	2.09	2.01	1.78	1.45	1.14	0.93	0.80	0.73	0.69	0.67
16.00	DISCHG	0.65	0.65	0.67	0.71	0.74	0.77	0.77	0.75	0.72	0.69
17.00	DISCHG	0.67	0.66	0.68	0.71	0.75	0.77	0.78	0.79	0.79	0.80
18.00	DISCHG	0.80	0.79	0.77	0.73	0.70	0.67	0.67	0.68	0.72	0.75
19.00	DISCHG	0.77	0.78	0.76	0.73	0.69	0.67	0.66	0.65	0.65	0.65
20.00	DISCHG	0.64	0.65	0.68	0.71	0.75	0.77	0.78	0.76	0.73	0.70
21.00	DISCHG	0.67	0.67	0.69	0.72	0.75	0.77	0.78	0.76	0.73	0.70
22.00	DISCHG	0.68	0.67	0.69	0.72	0.75	0.77	0.78	0.76	0.73	0.70
23.00	DISCHG	0.68	0.66	0.66	0.65	0.65	0.65	0.66	0.68	0.72	0.75
24.00	DISCHG	0.77	0.75	0.63	0.45	0.28	0.16	0.09	0.05	0.03	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.5546 CFS-HRS= 55.65 ACRE-FT= 4.60

SUBROUTINE RUNOFF CROSS SECTION 12
AREA= 0.03 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.38

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	19.785	(RUNOFF)
14.54	0.974	(RUNOFF)
16.54	0.342	(RUNOFF)
18.00	0.351	(RUNOFF)
19.04	0.344	(RUNOFF)
20.54	0.346	(RUNOFF)
21.54	0.347	(RUNOFF)
22.54	0.348	(RUNOFF)
23.97	0.346	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.04
11.00	DISCHG	0.06	0.08	0.12	0.17	0.22	0.30	0.74	2.40	5.11	8.19
12.00	DISCHG	11.01	13.41	15.43	17.11	18.49	19.59	19.00	15.35	10.27	6.34
13.00	DISCHG	4.38	3.22	2.50	2.00	1.70	1.53	1.41	1.26	1.11	1.01
14.00	DISCHG	0.96	0.94	0.93	0.95	0.96	0.96	0.96	0.95	0.93	0.92
15.00	DISCHG	0.91	0.86	0.72	0.55	0.43	0.36	0.32	0.30	0.29	0.28
16.00	DISCHG	0.28	0.29	0.30	0.32	0.33	0.34	0.34	0.33	0.31	0.30
17.00	DISCHG	0.29	0.29	0.30	0.32	0.34	0.34	0.35	0.35	0.35	0.35
18.00	DISCHG	0.35	0.35	0.33	0.31	0.30	0.29	0.29	0.30	0.32	0.34
19.00	DISCHG	0.34	0.34	0.33	0.31	0.30	0.29	0.29	0.28	0.28	0.28
20.00	DISCHG	0.28	0.29	0.30	0.32	0.34	0.34	0.34	0.33	0.31	0.30
21.00	DISCHG	0.29	0.29	0.31	0.32	0.34	0.35	0.34	0.33	0.31	0.30
22.00	DISCHG	0.29	0.29	0.31	0.33	0.34	0.35	0.35	0.33	0.31	0.30
23.00	DISCHG	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.31	0.33	0.34
24.00	DISCHG	0.35	0.33	0.25	0.15	0.08	0.04	0.02	0.01	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 22.45 ACRE-FT= 1.86

SUBROUTINE ADDHYD CROSS SECTION 76
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.53	65.634	(NULL)
14.55	3.200	(NULL)
16.56	1.114	(NULL)
17.96	1.149	(NULL)
19.06	1.121	(NULL)
20.56	1.122	(NULL)
21.56	1.127	(NULL)
22.56	1.128	(NULL)
23.99	1.117	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.08

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.05	0.08
10.00	DISCHG	0.10	0.13	0.16	0.18	0.20	0.23	0.26	0.32	0.40	0.49
11.00	DISCHG	0.58	0.69	0.34	1.04	1.25	1.47	3.03	8.26	17.22	27.68
12.00	DISCHG	37.34	45.42	52.00	57.36	61.68	64.87	64.03	54.65	39.94	26.44
13.00	DISCHG	18.03	13.00	9.81	7.71	6.34	5.51	4.96	4.42	3.90	3.49
14.00	DISCHG	3.25	3.13	3.10	3.11	3.14	3.16	3.16	3.13	3.08	3.04
15.00	DISCHG	3.00	2.87	2.51	2.00	1.57	1.28	1.13	1.03	0.98	0.95
16.00	DISCHG	0.94	0.94	0.98	1.03	1.08	1.11	1.11	1.08	1.03	0.99
17.00	DISCHG	0.96	0.95	0.98	1.04	1.08	1.11	1.13	1.14	1.14	1.15
18.00	DISCHG	1.15	1.14	1.10	1.04	0.99	0.96	0.96	0.99	1.04	1.09
19.00	DISCHG	1.11	1.12	1.09	1.04	0.99	0.96	0.95	0.94	0.93	0.93
20.00	DISCHG	0.93	0.94	0.98	1.03	1.08	1.12	1.12	1.09	1.04	0.99
21.00	DISCHG	0.97	0.96	0.99	1.04	1.09	1.12	1.12	1.09	1.04	1.00
22.00	DISCHG	0.97	0.96	1.00	1.05	1.09	1.12	1.13	1.10	1.04	1.00
23.00	DISCHG	0.97	0.95	0.94	0.94	0.93	0.93	0.95	0.99	1.04	1.09
24.00	DISCHG	1.12	1.07	0.88	0.61	0.36	0.21	0.12	0.06	0.04	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4838 CFS-HRS= 78.10 ACRE-FT= 6.45

SUBROUTINE REACH CROSS SECTION 77
LENGTH= 740.00 INPUT COEFFICIENT= 0.8100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 7.247 AVERAGE ROUTING COEFF= 0.8100 NUMBER OF ROUTINGS= 0.23

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	65.042	(NULL)
14.57	3.198	(NULL)
16.58	1.111	(NULL)
17.97	1.148	(NULL)
19.08	1.118	(NULL)
20.58	1.119	(NULL)
21.58	1.124	(NULL)
22.58	1.125	(NULL)
24.00	1.110	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.08

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.05	0.07
10.00	DISCHG	0.10	0.12	0.15	0.18	0.20	0.22	0.25	0.31	0.38	0.47
11.00	DISCHG	0.56	0.66	0.31	1.00	1.20	1.42	2.66	7.03	15.12	25.23
12.00	DISCHG	35.07	43.52	50.45	56.10	60.67	64.12	64.22	56.84	43.38	29.61
13.00	DISCHG	20.01	14.18	10.56	8.20	6.66	5.71	5.09	4.55	4.02	3.59
14.00	DISCHG	3.31	3.16	3.11	3.11	3.14	3.16	3.16	3.14	3.09	3.05

15.00	DISCHG	3.01	2.90	2.59	2.12	1.67	1.35	1.16	1.05	0.99	0.96
16.00	DISCHG	0.94	0.94	0.97	1.02	1.06	1.10	1.11	1.09	1.04	1.00
17.00	DISCHG	0.97	0.96	0.98	1.02	1.07	1.10	1.12	1.14	1.14	1.15
18.00	DISCHG	1.15	1.14	1.11	1.06	1.01	0.97	0.96	0.98	1.03	1.07
19.00	DISCHG	1.11	1.12	1.10	1.05	1.00	0.97	0.95	0.94	0.93	0.93
20.00	DISCHG	0.93	0.94	0.97	1.02	1.07	1.11	1.12	1.10	1.05	1.01
21.00	DISCHG	0.97	0.96	0.99	1.03	1.08	1.11	1.12	1.10	1.05	1.01
22.00	DISCHG	0.98	0.97	0.99	1.03	1.08	1.11	1.12	1.10	1.06	1.01
23.00	DISCHG	0.98	0.96	0.95	0.94	0.94	0.93	0.94	0.98	1.03	1.08
24.00	DISCHG	1.11	1.08	0.93	0.67	0.42	0.24	0.14	0.08	0.04	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4839 CFS-HRS= 78.11 ACRE-FT= 6.45

SUBROUTINE RUNOFF CROSS SECTION 13
AREA= 0.02 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.38

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	13.862	(RUNOFF)
14.54	0.683	(RUNOFF)
16.54	0.240	(RUNOFF)
18.00	0.246	(RUNOFF)
19.04	0.241	(RUNOFF)
20.54	0.242	(RUNOFF)
21.54	0.243	(RUNOFF)
22.54	0.243	(RUNOFF)
23.97	0.243	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.03
11.00	DISCHG	0.04	0.06	0.08	0.12	0.15	0.21	0.52	1.68	3.58	5.74
12.00	DISCHG	7.71	9.40	10.81	11.99	12.96	13.73	13.31	10.76	7.20	4.44
13.00	DISCHG	3.07	2.26	1.75	1.40	1.19	1.08	0.99	0.88	0.78	0.71
14.00	DISCHG	0.67	0.66	0.65	0.66	0.67	0.67	0.67	0.66	0.65	0.64
15.00	DISCHG	0.64	0.60	0.51	0.39	0.30	0.25	0.22	0.21	0.20	0.20
16.00	DISCHG	0.20	0.20	0.21	0.22	0.23	0.24	0.24	0.23	0.22	0.21
17.00	DISCHG	0.20	0.20	0.21	0.23	0.24	0.24	0.24	0.24	0.25	0.25
18.00	DISCHG	0.25	0.24	0.23	0.22	0.21	0.20	0.20	0.21	0.23	0.24
19.00	DISCHG	0.24	0.24	0.23	0.22	0.21	0.20	0.20	0.20	0.20	0.20
20.00	DISCHG	0.20	0.20	0.21	0.23	0.24	0.24	0.24	0.23	0.22	0.21
21.00	DISCHG	0.20	0.21	0.21	0.23	0.24	0.24	0.24	0.23	0.22	0.21
22.00	DISCHG	0.21	0.21	0.22	0.23	0.24	0.24	0.24	0.23	0.22	0.21
23.00	DISCHG	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.23	0.24
24.00	DISCHG	0.24	0.23	0.17	0.11	0.06	0.03	0.02	0.01	0.0	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 15.73 ACRE-FT= 1.30

SUBROUTINE ADDHYD CROSS SECTION 78
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	78.982	(NULL)
14.56	3.880	(NULL)
16.58	1.350	(NULL)
17.96	1.394	(NULL)
19.07	1.359	(NULL)
20.57	1.361	(NULL)
21.57	1.366	(NULL)
22.57	1.368	(NULL)
24.00	1.352	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.10

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.05	0.07
10.00	DISCHG	0.10	0.12	0.15	0.18	0.20	0.22	0.25	0.31	0.40	0.50
11.00	DISCHG	0.60	0.72	0.89	1.11	1.35	1.63	3.18	8.72	18.70	30.97
12.00	DISCHG	42.79	52.92	61.27	68.09	73.63	77.85	77.53	67.60	50.58	34.05
13.00	DISCHG	23.08	16.44	12.31	9.61	7.86	6.78	6.08	5.43	4.80	4.30
14.00	DISCHG	3.98	3.82	3.76	3.77	3.81	3.83	3.83	3.80	3.74	3.69
15.00	DISCHG	3.64	3.50	3.10	2.51	1.97	1.60	1.39	1.26	1.20	1.16
16.00	DISCHG	1.14	1.14	1.18	1.24	1.30	1.34	1.35	1.32	1.26	1.20
17.00	DISCHG	1.17	1.16	1.19	1.25	1.31	1.34	1.37	1.38	1.39	1.39
18.00	DISCHG	1.39	1.38	1.34	1.27	1.21	1.17	1.16	1.19	1.25	1.31
19.00	DISCHG	1.35	1.36	1.33	1.27	1.21	1.17	1.15	1.14	1.13	1.13
20.00	DISCHG	1.13	1.14	1.18	1.25	1.31	1.35	1.36	1.33	1.27	1.21
21.00	DISCHG	1.18	1.17	1.20	1.26	1.32	1.35	1.36	1.33	1.27	1.22
22.00	DISCHG	1.18	1.17	1.20	1.26	1.32	1.36	1.37	1.33	1.28	1.22
23.00	DISCHG	1.18	1.16	1.15	1.14	1.14	1.13	1.15	1.19	1.26	1.32
24.00	DISCHG	1.35	1.31	1.10	0.78	0.48	0.27	0.15	0.09	0.04	0.02
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4563 CFS-HRS= 93.84 ACRE-FT= 7.75

SUBROUTINE ADDHYD CROSS SECTION 78
INPUT HYDROGRAPHS= 5,2 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	134.705	(NULL)
14.56	6.588	(NULL)
16.58	2.290	(NULL)
17.96	2.365	(NULL)
19.07	2.305	(NULL)
20.58	2.309	(NULL)
21.57	2.318	(NULL)
22.57	2.320	(NULL)

24.00 2.297 (NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.17

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.03	0.05	0.08	0.10	0.13	0.17	0.22	0.27
10.00	DISCHG	0.32	0.37	0.42	0.46	0.50	0.54	0.60	0.72	0.90	1.09
11.00	DISCHG	1.26	1.47	1.79	2.21	2.65	3.14	6.02	16.24	34.24	55.45
12.00	DISCHG	75.32	92.09	105.76	116.87	125.86	132.79	132.31	115.24	85.77	57.62
13.00	DISCHG	38.81	27.57	20.71	16.22	13.32	11.55	10.38	9.30	8.22	7.34
14.00	DISCHG	6.78	6.49	6.39	6.41	6.46	6.51	6.51	6.45	6.35	6.26
15.00	DISCHG	6.19	5.95	5.26	4.25	3.33	2.70	2.34	2.14	2.03	1.97
16.00	DISCHG	1.93	1.94	2.00	2.10	2.20	2.27	2.29	2.24	2.14	2.04
17.00	DISCHG	1.98	1.96	2.02	2.12	2.22	2.28	2.32	2.34	2.35	2.36
18.00	DISCHG	2.36	2.34	2.27	2.16	2.06	1.99	1.97	2.02	2.13	2.22
19.00	DISCHG	2.29	2.30	2.25	2.15	2.05	1.99	1.95	1.93	1.92	1.91
20.00	DISCHG	1.91	1.93	2.00	2.12	2.22	2.29	2.31	2.25	2.15	2.06
21.00	DISCHG	1.99	1.98	2.03	2.14	2.23	2.30	2.32	2.26	2.16	2.06
22.00	DISCHG	2.00	1.98	2.04	2.14	2.24	2.30	2.32	2.26	2.16	2.07
23.00	DISCHG	2.00	1.96	1.94	1.93	1.92	1.92	1.94	2.02	2.13	2.23
24.00	DISCHG	2.30	2.23	1.87	1.32	0.81	0.46	0.25	0.14	0.07	0.04
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4907 CFS-HRS= 161.44 ACRE-FT= 13.34

SUBROUTINE REACH CROSS SECTION 79
LENGTH= 680.00 INPUT COEFFICIENT= 0.8900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 13.755 AVERAGE ROUTING COEFF= 0.8900 NUMBER OF ROUTINGS= 0.12

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	133.960	(NULL)
14.57	6.586	(NULL)
16.59	2.287	(NULL)
17.97	2.364	(NULL)
19.08	2.302	(NULL)
20.59	2.305	(NULL)
21.58	2.314	(NULL)
22.58	2.316	(NULL)
24.01	2.290	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.17

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01

9.00	DISCHG	0.01	0.02	0.03	0.05	0.07	0.10	0.13	0.17	0.21	0.26
10.00	DISCHG	0.32	0.37	0.41	0.45	0.49	0.53	0.59	0.70	0.87	1.06
11.00	DISCHG	1.24	1.45	1.75	2.16	2.59	3.08	5.67	14.99	32.04	52.86
12.00	DISCHG	72.89	90.04	104.09	115.51	124.76	131.94	132.37	117.33	89.37	61.06
13.00	DISCHG	41.11	28.94	21.55	16.77	13.68	11.77	10.53	9.43	8.35	7.45
14.00	DISCHG	6.85	6.52	6.40	6.41	6.46	6.50	6.51	6.46	6.37	6.27
15.00	DISCHG	6.19	5.98	5.35	4.38	3.44	2.78	2.39	2.17	2.04	1.98
16.00	DISCHG	1.94	1.94	1.99	2.09	2.19	2.26	2.29	2.24	2.15	2.05
17.00	DISCHG	1.99	1.97	2.01	2.11	2.20	2.27	2.31	2.34	2.35	2.36
18.00	DISCHG	2.36	2.35	2.28	2.17	2.07	2.00	1.97	2.02	2.11	2.21
19.00	DISCHG	2.28	2.30	2.26	2.16	2.07	2.00	1.96	1.93	1.92	1.91
20.00	DISCHG	1.91	1.93	1.99	2.10	2.21	2.28	2.30	2.26	2.17	2.07
21.00	DISCHG	2.00	1.98	2.03	2.12	2.22	2.29	2.31	2.27	2.17	2.07
22.00	DISCHG	2.01	1.99	2.03	2.13	2.22	2.29	2.32	2.27	2.18	2.08
23.00	DISCHG	2.01	1.97	1.94	1.93	1.92	1.92	1.94	2.01	2.12	2.22
24.00	DISCHG	2.29	2.24	1.92	1.39	0.87	0.50	0.28	0.15	0.08	0.04
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4907 CFS-HRS= 161.44 ACRE-FT= 13.34

SUBROUTINE RUNOFF CROSS SECTION 14
AREA= 0.03 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.35

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.51	20.726	(RUNOFF)
14.53	1.010	(RUNOFF)
16.53	0.356	(RUNOFF)
17.96	0.364	(RUNOFF)
19.03	0.358	(RUNOFF)
20.53	0.359	(RUNOFF)
21.53	0.361	(RUNOFF)
22.53	0.362	(RUNOFF)
23.97	0.364	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.06	0.09	0.13	0.19	0.24	0.31	0.89	0.01	0.02	0.04
12.00	DISCHG	12.09	14.50	16.52	18.18	19.53	20.54	19.79	2.78	5.93	9.19
13.00	DISCHG	4.00	3.00	2.34	1.91	1.65	1.52	1.42	15.02	9.53	5.77
14.00	DISCHG	0.98	0.96	0.97	0.98	0.99	1.00	1.00	1.27	1.12	1.02
15.00	DISCHG	0.94	0.89	0.72	0.53	0.41	0.35	0.32	0.98	0.96	0.95
16.00	DISCHG	0.29	0.30	0.31	0.34	0.35	0.36	0.35	0.30	0.30	0.29
17.00	DISCHG	0.30	0.30	0.32	0.34	0.35	0.36	0.36	0.34	0.32	0.30
18.00	DISCHG	0.36	0.36	0.34	0.32	0.30	0.30	0.30	0.36	0.36	0.36
19.00	DISCHG	0.36	0.35	0.34	0.32	0.31	0.30	0.30	0.32	0.34	0.35
20.00	DISCHG	0.29	0.30	0.32	0.34	0.35	0.36	0.36	0.29	0.29	0.29
21.00	DISCHG	0.30	0.30	0.32	0.34	0.35	0.36	0.36	0.34	0.32	0.31
22.00	DISCHG	0.30	0.30	0.32	0.34	0.35	0.36	0.36	0.34	0.32	0.31

23.00	DISCHG	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.32	0.34	0.36
24.00	DISCHG	0.36	0.33	0.24	0.13	0.07	0.03	0.02	0.01	0.0	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 23.26 ACRE-FT= 1.92

SUBROUTINE ADDHYD CROSS SECTION 80
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	154.781	(NULL)
14.56	7.595	(NULL)
16.58	2.641	(NULL)
17.97	2.729	(NULL)
19.07	2.658	(NULL)
20.58	2.663	(NULL)
21.58	2.674	(NULL)
22.57	2.676	(NULL)
24.00	2.652	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.19

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.03	0.05	0.07	0.10	0.13	0.17	0.21	0.26
10.00	DISCHG	0.32	0.37	0.41	0.45	0.49	0.53	0.59	0.71	0.90	1.11
11.00	DISCHG	1.31	1.54	1.89	2.35	2.83	3.39	6.56	17.77	37.97	62.05
12.00	DISCHG	84.98	104.55	120.60	133.69	144.30	152.48	152.16	132.35	98.90	66.83
13.00	DISCHG	45.11	31.94	23.89	18.68	15.33	13.29	11.95	10.70	9.46	8.47
14.00	DISCHG	7.83	7.48	7.37	7.39	7.45	7.50	7.51	7.44	7.33	7.22
15.00	DISCHG	7.14	6.86	6.06	4.90	3.85	3.13	2.71	2.47	2.34	2.27
16.00	DISCHG	2.23	2.23	2.31	2.43	2.54	2.62	2.64	2.58	2.46	2.36
17.00	DISCHG	2.28	2.27	2.33	2.44	2.55	2.63	2.67	2.70	2.71	2.72
18.00	DISCHG	2.73	2.70	2.62	2.49	2.37	2.30	2.27	2.34	2.45	2.56
19.00	DISCHG	2.64	2.66	2.59	2.48	2.37	2.30	2.25	2.23	2.21	2.21
20.00	DISCHG	2.20	2.23	2.31	2.44	2.56	2.64	2.66	2.60	2.49	2.38
21.00	DISCHG	2.30	2.28	2.35	2.46	2.57	2.65	2.67	2.61	2.49	2.38
22.00	DISCHG	2.31	2.29	2.35	2.47	2.58	2.65	2.67	2.61	2.50	2.39
23.00	DISCHG	2.31	2.27	2.24	2.23	2.22	2.22	2.24	2.33	2.46	2.58
24.00	DISCHG	2.65	2.57	2.16	1.52	0.94	0.53	0.29	0.16	0.08	0.04
25.00	DISCHG	0.02	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4689 CFS-HRS= 184.70 ACRE-FT= 15.26

SUBROUTINE REACH CROSS SECTION 81
LENGTH= 660.00 INPUT COEFFICIENT= 0.8800 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 12.467 AVERAGE ROUTING COEFF= 0.8800 NUMBER OF ROUTINGS= 0.13

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS

12.55	153.929	(NULL)
14.57	7.591	(NULL)
16.59	2.637	(NULL)
17.97	2.728	(NULL)
19.08	2.654	(NULL)
20.59	2.658	(NULL)
21.59	2.669	(NULL)
22.58	2.672	(NULL)
24.01	2.643	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.19

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.01	0.02	0.03	0.05	0.07	0.09	0.12	0.16	0.21	0.26
10.00	DISCHG	0.31	0.36	0.41	0.45	0.49	0.53	0.58	0.70	0.88	1.08
11.00	DISCHG	1.28	1.51	1.84	2.29	2.77	3.32	6.15	16.32	35.36	58.93
12.00	DISCHG	82.01	102.01	118.53	132.00	142.92	151.42	152.20	134.91	103.23	70.98
13.00	DISCHG	47.92	33.64	24.93	19.35	15.76	13.55	12.12	10.86	9.62	8.60
14.00	DISCHG	7.91	7.53	7.38	7.39	7.44	7.49	7.51	7.45	7.34	7.24
15.00	DISCHG	7.15	6.90	6.17	5.05	3.99	3.22	2.76	2.50	2.36	2.28
16.00	DISCHG	2.23	2.23	2.30	2.41	2.53	2.61	2.64	2.59	2.48	2.37
17.00	DISCHG	2.29	2.27	2.32	2.43	2.54	2.62	2.67	2.70	2.71	2.72
18.00	DISCHG	2.73	2.71	2.63	2.51	2.39	2.31	2.28	2.33	2.44	2.55
19.00	DISCHG	2.63	2.65	2.60	2.50	2.39	2.31	2.26	2.23	2.21	2.21
20.00	DISCHG	2.20	2.22	2.30	2.42	2.54	2.63	2.66	2.61	2.50	2.39
21.00	DISCHG	2.31	2.29	2.34	2.45	2.56	2.64	2.67	2.62	2.51	2.40
22.00	DISCHG	2.32	2.29	2.34	2.45	2.56	2.64	2.67	2.62	2.51	2.40
23.00	DISCHG	2.32	2.27	2.24	2.23	2.22	2.22	2.24	2.32	2.44	2.56
24.00	DISCHG	2.64	2.58	2.21	1.60	1.01	0.59	0.33	0.18	0.09	0.05
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4689 CFS-HRS= 184.70 ACRE-FT= 15.26

SUBROUTINE RUNOFF CROSS SECTION 15
AREA= 0.03 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.35

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.51	23.126	(RUNOFF)
14.53	1.127	(RUNOFF)
16.53	0.398	(RUNOFF)
17.96	0.407	(RUNOFF)
19.03	0.400	(RUNOFF)
20.53	0.401	(RUNOFF)
21.53	0.403	(RUNOFF)
22.53	0.404	(RUNOFF)
23.97	0.406	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.07	0.10	0.15	0.21	0.26	0.35	0.99	3.10	6.61	10.26
12.00	DISCHG	13.49	16.18	18.43	20.29	21.80	22.92	22.08	16.76	10.63	6.44
13.00	DISCHG	4.46	3.34	2.61	2.13	1.85	1.70	1.58	1.42	1.25	1.14
14.00	DISCHG	1.09	1.07	1.08	1.10	1.11	1.11	1.11	1.09	1.07	1.06
15.00	DISCHG	1.05	0.99	0.80	0.59	0.46	0.39	0.36	0.34	0.33	0.33
16.00	DISCHG	0.32	0.33	0.35	0.37	0.39	0.40	0.39	0.38	0.35	0.34
17.00	DISCHG	0.33	0.33	0.35	0.38	0.39	0.40	0.40	0.40	0.40	0.41
18.00	DISCHG	0.41	0.40	0.38	0.35	0.34	0.33	0.34	0.36	0.38	0.39
19.00	DISCHG	0.40	0.40	0.38	0.36	0.34	0.33	0.33	0.33	0.33	0.33
20.00	DISCHG	0.33	0.33	0.35	0.38	0.39	0.40	0.40	0.38	0.36	0.34
21.00	DISCHG	0.33	0.34	0.36	0.38	0.39	0.40	0.40	0.38	0.36	0.34
22.00	DISCHG	0.34	0.34	0.36	0.38	0.40	0.40	0.40	0.38	0.36	0.34
23.00	DISCHG	0.34	0.33	0.33	0.33	0.33	0.33	0.34	0.36	0.38	0.40
24.00	DISCHG	0.40	0.37	0.27	0.15	0.08	0.04	0.02	0.01	0.0	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 25.95 ACRE-FT= 2.14

SUBROUTINE ADDHYD CROSS SECTION 82
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	177.111	(NULL)
14.55	8.717	(NULL)
16.58	3.033	(NULL)
17.97	3.134	(NULL)
19.07	3.052	(NULL)
20.58	3.057	(NULL)
21.58	3.070	(NULL)
22.57	3.074	(NULL)
24.00	3.047	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.01	0.02	0.03	0.05	0.07	0.09	0.12	0.16	0.21	0.26
10.00	DISCHG	0.31	0.36	0.41	0.45	0.49	0.53	0.58	0.71	0.90	1.13
11.00	DISCHG	1.35	1.61	1.99	2.50	3.03	3.67	7.14	19.43	41.97	69.19
12.00	DISCHG	95.51	118.20	136.95	152.28	164.72	174.34	174.28	151.67	113.86	77.41
13.00	DISCHG	52.38	36.99	27.54	21.48	17.61	15.26	13.71	12.28	10.87	9.74
14.00	DISCHG	9.00	8.59	8.46	8.48	8.55	8.61	8.62	8.54	8.42	8.30
15.00	DISCHG	8.20	7.89	6.97	5.64	4.45	3.61	3.12	2.84	2.69	2.60
16.00	DISCHG	2.56	2.56	2.65	2.79	2.92	3.01	3.03	2.96	2.83	2.71
17.00	DISCHG	2.63	2.60	2.67	2.80	2.93	3.02	3.07	3.10	3.12	3.13

18.00	DISCHG	3.13	3.11	3.01	2.86	2.73	2.64	2.61	2.68	2.81	2.94
19.00	DISCHG	3.03	3.05	2.98	2.85	2.73	2.64	2.59	2.56	2.54	2.53
20.00	DISCHG	2.53	2.56	2.66	2.80	2.94	3.03	3.05	2.99	2.86	2.73
21.00	DISCHG	2.65	2.62	2.70	2.83	2.95	3.04	3.07	3.00	2.87	2.74
22.00	DISCHG	2.65	2.63	2.70	2.83	2.96	3.05	3.07	3.00	2.87	2.75
23.00	DISCHG	2.66	2.60	2.58	2.56	2.55	2.55	2.58	2.67	2.82	2.96
24.00	DISCHG	3.05	2.96	2.48	1.75	1.09	0.62	0.34	0.19	0.09	0.05
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4507 CFS-HRS= 210.65 ACRE-FT= 17.41

SUBROUTINE REACH CROSS SECTION 83
LENGTH= 600.00 INPUT COEFFICIENT= 0.8400 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 8.925 AVERAGE ROUTING COEFF= 0.8400 NUMBER OF ROUTINGS= 0.16

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	176.002	(NULL)
14.57	8.713	(NULL)
16.59	3.027	(NULL)
17.97	3.133	(NULL)
19.09	3.046	(NULL)
20.59	3.051	(NULL)
21.59	3.064	(NULL)
22.59	3.068	(NULL)
24.01	3.034	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.03	0.04	0.07	0.09	0.12	0.16	0.20	0.25
10.00	DISCHG	0.30	0.35	0.40	0.44	0.48	0.52	0.57	0.69	0.87	1.09
11.00	DISCHG	1.32	1.57	1.93	2.42	2.95	3.57	6.60	17.50	38.43	64.91
12.00	DISCHG	91.37	114.63	134.01	149.87	162.77	172.83	174.29	155.22	119.80	83.14
13.00	DISCHG	56.31	39.41	29.02	22.44	18.22	15.63	13.95	12.50	11.09	9.92
14.00	DISCHG	9.12	8.66	8.48	8.48	8.54	8.60	8.61	8.56	8.44	8.31
15.00	DISCHG	8.22	7.94	7.11	5.85	4.63	3.75	3.20	2.88	2.71	2.62
16.00	DISCHG	2.57	2.56	2.63	2.76	2.89	2.99	3.03	2.97	2.85	2.73
17.00	DISCHG	2.64	2.61	2.66	2.78	2.91	3.00	3.06	3.10	3.11	3.13
18.00	DISCHG	3.13	3.11	3.02	2.89	2.75	2.65	2.62	2.67	2.79	2.92
19.00	DISCHG	3.01	3.05	2.99	2.87	2.75	2.65	2.59	2.56	2.54	2.53
20.00	DISCHG	2.53	2.55	2.64	2.78	2.92	3.02	3.05	3.00	2.88	2.75
21.00	DISCHG	2.66	2.63	2.69	2.81	2.94	3.03	3.06	3.01	2.89	2.76
22.00	DISCHG	2.67	2.64	2.69	2.81	2.94	3.03	3.07	3.01	2.89	2.76
23.00	DISCHG	2.67	2.61	2.58	2.56	2.55	2.55	2.57	2.66	2.80	2.94
24.00	DISCHG	3.03	2.97	2.56	1.87	1.19	0.70	0.39	0.21	0.10	0.05
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4508 CFS-HRS= 210.66 ACRE-FT= 17.41

SUBROUTINE RUNOFF CROSS SECTION 16
AREA= 0.01 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.32

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.49	7.675	(RUNOFF)
14.52	0.368	(RUNOFF)
16.52	0.130	(RUNOFF)
18.00	0.132	(RUNOFF)
19.02	0.131	(RUNOFF)
20.52	0.131	(RUNOFF)
21.52	0.132	(RUNOFF)
22.52	0.132	(RUNOFF)
23.96	0.133	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.01

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.03	0.04	0.05	0.07	0.09	0.12	0.36	1.18	0.01	0.02
12.00	DISCHG	4.64	5.50	6.20	6.77	7.24	7.61	7.13	5.11	2.41	3.62
13.00	DISCHG	1.26	0.98	0.78	0.64	0.57	0.54	0.51	0.45	3.00	1.81
14.00	DISCHG	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.39	0.36
15.00	DISCHG	0.34	0.32	0.25	0.18	0.14	0.12	0.11	0.11	0.35	0.34
16.00	DISCHG	0.11	0.11	0.12	0.12	0.13	0.13	0.13	0.12	0.11	0.11
17.00	DISCHG	0.11	0.11	0.12	0.12	0.13	0.13	0.13	0.13	0.11	0.11
18.00	DISCHG	0.13	0.13	0.12	0.11	0.11	0.11	0.11	0.12	0.13	0.13
19.00	DISCHG	0.13	0.13	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.13
20.00	DISCHG	0.11	0.11	0.12	0.13	0.13	0.13	0.13	0.12	0.11	0.11
21.00	DISCHG	0.11	0.11	0.12	0.13	0.13	0.13	0.13	0.12	0.11	0.11
22.00	DISCHG	0.11	0.11	0.12	0.13	0.13	0.13	0.13	0.12	0.12	0.11
23.00	DISCHG	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.11
24.00	DISCHG	0.13	0.12	0.08	0.04	0.02	0.01	0.0		0.13	0.13

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3335 CFS-HRS= 8.47 ACRE-FT= 0.70

SUBROUTINE ADDHYD CROSS SECTION 84
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	183.513	(NULL)
14.57	9.080	(NULL)
16.59	3.155	(NULL)
17.97	3.265	(NULL)
19.08	3.176	(NULL)
20.59	3.181	(NULL)
21.58	3.195	(NULL)
22.58	3.199	(NULL)
24.01	3.165	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.23

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.03	0.04	0.07	0.09	0.12	0.16	0.20	0.25
10.00	DISCHG	0.30	0.35	0.40	0.44	0.48	0.52	0.57	0.69	0.88	1.11
11.00	DISCHG	1.34	1.61	1.98	2.49	3.04	3.68	6.96	18.68	40.84	68.53
12.00	DISCHG	96.01	120.13	140.20	156.64	170.01	180.43	181.41	160.33	122.80	84.95
13.00	DISCHG	57.57	40.38	29.80	22.08	18.79	16.16	14.46	12.95	11.49	10.23
14.00	DISCHG	9.47	9.01	8.83	8.84	8.90	8.96	8.98	8.91	8.78	8.66
15.00	DISCHG	8.56	8.25	7.36	6.03	4.77	3.87	3.31	2.99	2.82	2.72
16.00	DISCHG	2.67	2.67	2.75	2.89	3.02	3.12	3.15	3.09	2.97	2.84
17.00	DISCHG	2.75	2.72	2.78	2.91	3.04	3.13	3.19	3.23	3.25	3.26
18.00	DISCHG	3.26	3.24	3.15	3.00	2.86	2.76	2.73	2.79	2.92	3.05
19.00	DISCHG	3.14	3.17	3.11	2.99	2.86	2.76	2.70	2.67	2.65	2.64
20.00	DISCHG	2.64	2.66	2.76	2.90	3.05	3.15	3.18	3.12	2.99	2.86
21.00	DISCHG	2.77	2.74	2.80	2.93	3.06	3.16	3.19	3.13	3.00	2.87
22.00	DISCHG	2.78	2.75	2.81	2.94	3.07	3.17	3.20	3.13	3.01	2.88
23.00	DISCHG	2.78	2.72	2.69	2.67	2.66	2.66	2.68	2.76	2.92	3.07
24.00	DISCHG	3.16	3.09	2.64	1.91	1.21	0.71	0.39	0.21	0.10	0.05
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4459 CFS-HRS= 219.13 ACRE-FT= 18.11

SUBROUTINE REACH CROSS SECTION 94
LENGTH= 640.00 INPUT COEFFICIENT= 0.8500 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 9.633 AVERAGE ROUTING COEFF= 0.8500 NUMBER OF ROUTINGS= 0.16

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	182.529	(NULL)
14.58	9.075	(NULL)
16.60	3.149	(NULL)
17.98	3.264	(NULL)
19.10	3.170	(NULL)
20.60	3.175	(NULL)
21.60	3.188	(NULL)
22.60	3.193	(NULL)
24.02	3.152	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.23

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01
9.00	DISCHG	0.01	0.02	0.02	0.04	0.06	0.09	0.11	0.15	0.19	0.24
10.00	DISCHG	0.29	0.34	0.39	0.43	0.47	0.51	0.56	0.67	0.85	1.07

11.00	DISCHG	1.31	1.56	1.93	2.41	2.95	3.58	6.45	16.84	37.36	64.18
12.00	DISCHG	91.70	116.34	137.05	154.06	167.91	178.79	181.26	163.64	128.69	90.89
13.00	DISCHG	61.87	43.08	31.46	24.13	19.46	16.57	14.72	13.19	11.72	10.47
14.00	DISCHG	9.60	9.08	8.86	8.84	8.89	8.95	8.97	8.92	8.80	8.68
15.00	DISCHG	8.57	8.30	7.50	6.24	4.97	4.01	3.40	3.04	2.35	2.74
16.00	DISCHG	2.58	2.67	2.74	2.87	3.00	3.11	3.15	3.10	2.99	2.86
17.00	DISCHG	2.76	2.72	2.77	2.89	3.02	3.12	3.18	3.22	3.24	3.26
18.00	DISCHG	3.26	3.24	3.16	3.02	2.88	2.78	2.73	2.78	2.90	3.03
19.00	DISCHG	3.13	3.17	3.12	3.01	2.88	2.78	2.71	2.67	2.65	2.64
20.00	DISCHG	2.64	2.66	2.74	2.88	3.02	3.13	3.17	3.13	3.01	2.88
21.00	DISCHG	2.78	2.74	2.79	2.91	3.04	3.15	3.19	3.14	3.02	2.89
22.00	DISCHG	2.79	2.75	2.80	2.92	3.05	3.15	3.19	3.14	3.03	2.90
23.00	DISCHG	2.80	2.73	2.69	2.67	2.66	2.66	2.68	2.76	2.90	3.04
24.00	DISCHG	3.15	3.10	2.71	2.02	1.32	0.79	0.44	0.24	0.12	0.06
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4459 CFS-HRS= 219.13 ACRE-FT= 18.11

SUBROUTINE RUNOFF CROSS SECTION 20
AREA= 0.02 INPUT RUNOFF CURVE= 95.0 TIME OF CONCENTRATION= 0.17

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.45	17.092	(RUNOFF)
14.45	0.716	(RUNOFF)
16.45	0.255	(RUNOFF)
17.95	0.255	(RUNOFF)
18.95	0.255	(RUNOFF)
20.45	0.255	(RUNOFF)
21.45	0.255	(RUNOFF)
22.45	0.255	(RUNOFF)
23.95	0.264	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
6.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04
7.00	DISCHG	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06
8.00	DISCHG	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.07
9.00	DISCHG	0.07	0.12	0.18	0.21	0.22	0.23	0.25	0.27	0.28	0.29
10.00	DISCHG	0.30	0.30	0.30	0.30	0.31	0.31	0.38	0.48	0.51	0.53
11.00	DISCHG	0.55	0.67	0.82	0.88	0.91	1.01	4.75	10.47	13.00	14.24
12.00	DISCHG	14.97	15.45	15.79	16.04	16.23	16.36	11.07	4.05	2.12	1.65
13.00	DISCHG	1.53	1.33	1.09	1.03	1.01	1.01	0.88	0.71	0.67	0.66
14.00	DISCHG	0.66	0.67	0.70	0.70	0.71	0.71	0.69	0.67	0.66	0.66
15.00	DISCHG	0.65	0.49	0.28	0.22	0.21	0.20	0.20	0.20	0.20	0.20
16.00	DISCHG	0.20	0.22	0.24	0.25	0.25	0.25	0.23	0.21	0.20	0.20
17.00	DISCHG	0.20	0.22	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25
18.00	DISCHG	0.25	0.23	0.21	0.20	0.20	0.20	0.22	0.24	0.25	0.25
19.00	DISCHG	0.25	0.23	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20
20.00	DISCHG	0.20	0.22	0.24	0.25	0.25	0.25	0.24	0.21	0.20	0.20
21.00	DISCHG	0.20	0.22	0.24	0.25	0.25	0.25	0.24	0.21	0.20	0.20
22.00	DISCHG	0.20	0.22	0.24	0.25	0.25	0.25	0.24	0.21	0.21	0.20
23.00	DISCHG	0.20	0.20	0.20	0.20	0.20	0.20	0.22	0.24	0.25	0.25
24.00	DISCHG	0.25	0.16	0.04	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.9886 CFS-HRS= 20.65 ACRE-FT= 1.71

SUBROUTINE ADDHYD CROSS SECTION 95
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.53	197.517	(NULL)
14.56	9.778	(NULL)
16.58	3.386	(NULL)
17.96	3.518	(NULL)
19.07	3.407	(NULL)
20.58	3.412	(NULL)
21.58	3.426	(NULL)
22.57	3.431	(NULL)
23.99	3.402	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.25

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
6.00	DISCHG	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04
7.00	DISCHG	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06
8.00	DISCHG	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.07	0.08	0.08
9.00	DISCHG	0.09	0.13	0.21	0.25	0.28	0.32	0.36	0.42	0.47	0.53
10.00	DISCHG	0.59	0.64	0.69	0.73	0.78	0.83	0.95	1.15	1.37	1.61
11.00	DISCHG	1.85	2.23	2.74	3.29	3.87	4.59	11.20	27.31	50.36	78.42
12.00	DISCHG	106.67	131.79	152.84	170.10	184.14	195.15	192.33	167.69	130.81	92.54
13.00	DISCHG	63.39	44.41	32.55	25.16	20.47	17.58	15.60	13.90	12.39	11.13
14.00	DISCHG	10.25	9.75	9.56	9.54	9.60	9.66	9.66	9.59	9.46	9.34
15.00	DISCHG	9.23	8.79	7.78	6.46	5.18	4.21	3.60	3.24	3.05	2.94
16.00	DISCHG	2.88	2.89	2.98	3.12	3.25	3.36	3.38	3.31	3.19	3.06
17.00	DISCHG	2.96	2.94	3.01	3.14	3.27	3.37	3.44	3.48	3.50	3.51
18.00	DISCHG	3.52	3.48	3.37	3.23	3.09	2.98	2.95	3.02	3.15	3.28
19.00	DISCHG	3.38	3.40	3.33	3.21	3.08	2.98	2.91	2.88	2.86	2.85
20.00	DISCHG	2.84	2.88	2.99	3.13	3.28	3.38	3.41	3.34	3.22	3.09
21.00	DISCHG	2.99	2.96	3.04	3.16	3.30	3.40	3.42	3.35	3.23	3.09
22.00	DISCHG	2.99	2.97	3.04	3.17	3.30	3.40	3.43	3.36	3.23	3.10
23.00	DISCHG	3.00	2.93	2.90	2.88	2.86	2.86	2.90	3.01	3.15	3.30
24.00	DISCHG	3.40	3.26	2.75	2.03	1.32	0.79	0.44	0.24	0.12	0.06
25.00	DISCHG	0.03	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.4807 CFS-HRS= 239.78 ACRE-FT= 19.82

SUBROUTINE ADDHYD CROSS SECTION 95
INPUT HYDROGRAPHS= 5,1 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	890.666	(NULL)
14.88	150.186	(NULL)
16.02	90.511	(NULL)
16.55	81.113	(NULL)
17.05	74.831	(NULL)

17.56	73.070	(NULL)
18.06	70.766	(NULL)
18.43	60.654	(NULL)
19.06	47.216	(NULL)
22.59	9.975	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.96

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03
6.00	DISCHG	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.06
7.00	DISCHG	0.07	0.07	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.11	0.12	0.12
9.00	DISCHG	0.13	0.18	0.28	0.34	0.40	0.45	0.95	1.50	1.87	2.14
10.00	DISCHG	2.41	2.77	3.24	3.69	4.07	4.43	4.90	5.61	6.55	7.66
11.00	DISCHG	8.85	10.40	12.50	14.91	17.37	20.14	33.02	70.88	136.93	239.17
12.00	DISCHG	355.01	467.60	563.94	669.00	772.40	855.18	890.71	837.10	732.89	620.17
13.00	DISCHG	526.53	460.22	401.22	365.69	347.01	330.86	314.36	284.94	267.36	259.30
14.00	DISCHG	248.43	234.57	207.94	194.09	190.99	186.16	178.47	157.23	147.81	148.48
15.00	DISCHG	147.09	141.98	121.55	111.38	110.83	108.69	104.33	87.04	81.90	86.77
16.00	DISCHG	89.22	88.30	73.58	70.44	76.92	80.66	80.63	66.26	63.02	69.27
17.00	DISCHG	72.93	73.30	59.98	58.22	65.95	70.76	71.74	58.46	56.40	63.81
18.00	DISCHG	68.48	69.40	55.91	53.42	60.25	58.65	51.55	34.09	31.39	39.43
19.00	DISCHG	44.71	46.00	32.87	17.90	10.80	8.88	8.48	8.36	8.29	8.26
20.00	DISCHG	8.25	8.33	8.60	9.03	9.47	9.80	9.92	9.76	9.40	9.00
21.00	DISCHG	8.69	8.59	8.76	9.13	9.54	9.85	9.96	9.79	9.42	9.02
22.00	DISCHG	8.71	8.61	8.78	9.15	9.56	9.87	9.97	9.81	9.44	9.04
23.00	DISCHG	8.73	8.53	8.42	8.36	8.32	8.31	8.39	8.67	9.10	9.54
24.00	DISCHG	9.85	9.62	8.33	6.22	4.05	2.39	1.34	0.74	0.40	0.21
25.00	DISCHG	0.11	0.03	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3003 CFS-HRS= 1647.19 ACRE-FT= 136.12

SUBROUTINE REACH CROSS SECTION 96
LENGTH= 1320.00 INPUT COEFFICIENT= 0.9200 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 19.550 AVERAGE ROUTING COEFF= 0.9200 NUMBER OF ROUTINGS= 0.17

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	884.254	(NULL)
16.04	90.247	(NULL)
16.55	81.902	(NULL)
17.06	74.291	(NULL)
17.56	72.420	(NULL)
18.06	70.123	(NULL)
18.45	59.671	(NULL)
19.07	46.521	(NULL)
21.60	9.938	(NULL)
22.60	9.955	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 1.96

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.02	0.03	0.03
6.00	DISCHG	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.06
7.00	DISCHG	0.07	0.07	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.12	0.12
9.00	DISCHG	0.13	0.18	0.26	0.33	0.39	0.44	0.86	1.41	1.80	2.09
10.00	DISCHG	2.36	2.71	3.16	3.61	4.00	4.37	4.82	5.49	6.39	7.47
11.00	DISCHG	8.64	10.13	12.13	14.49	16.94	19.66	30.80	64.34	125.53	221.53
12.00	DISCHG	335.02	448.17	547.31	650.87	754.56	840.90	884.58	846.35	750.88	639.63
13.00	DISCHG	542.69	471.66	411.40	371.82	350.23	333.65	317.21	290.02	270.40	260.69
14.00	DISCHG	250.31	236.96	212.54	196.48	191.52	186.99	179.79	160.89	149.44	148.36
15.00	DISCHG	147.33	142.86	125.08	113.14	110.92	109.06	105.08	90.02	82.79	85.93
16.00	DISCHG	88.30	88.46	76.12	70.98	75.80	80.01	80.63	68.74	63.58	68.19
17.00	DISCHG	72.30	73.24	62.27	58.52	64.61	69.93	71.57	60.75	56.76	62.53
18.00	DISCHG	67.67	69.24	58.24	53.85	59.07	58.93	52.77	37.10	31.86	38.04
19.00	DISCHG	43.80	45.78	35.13	20.48	12.02	9.22	8.55	8.38	8.31	8.27
20.00	DISCHG	8.25	8.31	8.56	8.96	9.40	9.75	9.90	9.79	9.46	9.07
21.00	DISCHG	8.74	8.61	8.73	9.07	9.47	9.79	9.94	9.82	9.49	9.09
22.00	DISCHG	8.77	8.63	8.75	9.09	9.49	9.81	9.95	9.84	9.51	9.11
23.00	DISCHG	8.78	8.57	8.44	8.37	8.33	8.31	8.38	8.62	9.03	9.46
24.00	DISCHG	9.80	9.66	8.55	6.58	4.42	2.68	1.52	0.85	0.46	0.25
25.00	DISCHG	0.13	0.04	0.02	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3003 CFS-HRS= 1647.15 ACRE-FT= 136.12

SUBROUTINE RUNOFF CROSS SECTION 21
AREA= 0.13 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.48

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.57	76.112	(RUNOFF)
14.56	4.200	(RUNOFF)
16.59	1.457	(RUNOFF)
17.97	1.520	(RUNOFF)
19.08	1.479	(RUNOFF)
20.58	1.482	(RUNOFF)
21.58	1.489	(RUNOFF)
22.58	1.494	(RUNOFF)
24.00	1.476	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.03	0.52	3.07	8.89	17.69
12.00	DISCHG	28.22	39.07	49.23	58.43	66.62	73.61	75.86	68.75	54.08	38.57
13.00	DISCHG	26.44	19.54	14.95	11.68	9.44	8.01	7.08	6.27	5.50	4.86
14.00	DISCHG	4.43	4.21	4.12	4.11	4.13	4.15	4.15	4.12	4.07	4.01
15.00	DISCHG	3.96	3.80	3.42	2.84	2.28	1.86	1.61	1.45	1.35	1.30
16.00	DISCHG	1.27	1.26	1.29	1.34	1.40	1.44	1.46	1.43	1.38	1.33
17.00	DISCHG	1.29	1.27	1.30	1.35	1.41	1.46	1.48	1.50	1.51	1.52

18.00	DISCHG	1.52	1.51	1.47	1.41	1.34	1.30	1.28	1.31	1.36	1.42
19.00	DISCHG	1.47	1.48	1.45	1.40	1.34	1.29	1.27	1.25	1.24	1.24
20.00	DISCHG	1.24	1.25	1.29	1.36	1.42	1.47	1.48	1.46	1.40	1.34
21.00	DISCHG	1.30	1.29	1.32	1.38	1.43	1.48	1.49	1.46	1.41	1.35
22.00	DISCHG	1.31	1.30	1.33	1.38	1.44	1.48	1.49	1.47	1.41	1.36
23.00	DISCHG	1.31	1.29	1.27	1.26	1.26	1.25	1.27	1.31	1.37	1.44
24.00	DISCHG	1.48	1.44	1.24	0.92	0.61	0.37	0.22	0.14	0.08	0.05
25.00	DISCHG	0.03	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0765 CFS-HRS= 87.82 ACRE-FT= 7.26

SUBROUTINE ADDHYD CROSS SECTION 97
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.60	960.006	(NULL)
16.04	91.524	(NULL)
16.56	83.357	(NULL)
17.06	75.565	(NULL)
17.56	73.894	(NULL)
18.06	71.639	(NULL)
18.45	60.990	(NULL)
19.07	48.000	(NULL)
21.60	11.426	(NULL)
22.60	11.449	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.09

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.02	0.03	0.03
6.00	DISCHG	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.06
7.00	DISCHG	0.07	0.07	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.12	0.12
9.00	DISCHG	0.13	0.18	0.26	0.33	0.39	0.44	0.86	1.41	1.80	2.09
10.00	DISCHG	2.36	2.71	3.16	3.61	4.00	4.37	4.82	5.49	6.39	7.47
11.00	DISCHG	8.64	10.13	12.13	14.49	16.94	19.69	31.31	67.42	134.43	239.21
12.00	DISCHG	363.24	487.24	596.54	709.31	821.17	914.51	960.44	915.10	804.96	678.19
13.00	DISCHG	569.13	491.20	426.35	383.50	359.67	341.66	324.29	296.29	275.90	265.55
14.00	DISCHG	254.73	241.17	216.66	200.59	195.65	191.14	183.94	165.02	153.51	152.38
15.00	DISCHG	151.29	146.66	128.50	115.98	113.20	110.92	106.69	91.47	84.14	87.23
16.00	DISCHG	90.06	89.71	77.41	72.32	77.20	81.45	82.09	70.17	64.96	69.51
17.00	DISCHG	73.58	74.51	63.57	59.88	66.02	71.39	73.06	62.25	58.27	64.05
18.00	DISCHG	69.19	70.75	59.71	55.26	60.41	60.23	54.06	38.41	33.22	39.46
19.00	DISCHG	45.27	47.26	36.58	21.88	13.36	10.51	9.82	9.63	9.55	9.51
20.00	DISCHG	9.49	9.56	9.85	10.32	10.82	11.21	11.38	11.24	10.86	10.41
21.00	DISCHG	10.05	9.90	10.05	10.44	10.90	11.27	11.43	11.28	10.89	10.44
22.00	DISCHG	10.08	9.93	10.08	10.47	10.92	11.29	11.45	11.31	10.92	10.47
23.00	DISCHG	10.10	9.85	9.71	9.63	9.59	9.57	9.65	9.93	10.40	10.90
24.00	DISCHG	11.27	11.10	9.79	7.51	5.03	3.04	1.74	0.98	0.54	0.30
25.00	DISCHG	0.16	0.06	0.03	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2868 CFS-HRS= 1734.97 ACRE-FT= 143.38

SUBROUTINE REACH CROSS SECTION 98

LENGTH= 1320.00 INPUT COEFFICIENT= 0.9200 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 19.550 AVERAGE ROUTING COEFF= 0.9200 NUMBER OF ROUTINGS= 0.17

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	953.113	(NULL)
16.05	90.217	(NULL)
16.56	82.798	(NULL)
17.06	75.014	(NULL)
17.57	73.229	(NULL)
18.07	70.985	(NULL)
18.46	60.670	(NULL)
19.07	47.295	(NULL)
21.62	11.404	(NULL)
22.62	11.426	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.09

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.02	0.03	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.13	0.17	0.25	0.32	0.38	0.43	0.79	1.31	1.74	2.04
10.00	DISCHG	2.31	2.65	3.08	3.53	3.94	4.30	4.74	5.37	6.23	7.28
11.00	DISCHG	8.44	9.87	11.79	14.08	16.52	19.22	29.31	61.19	122.86	221.13
12.00	DISCHG	341.83	465.84	577.68	689.84	801.87	898.40	952.51	922.92	823.97	700.07
13.00	DISCHG	587.95	504.65	437.54	390.90	363.79	344.77	327.29	301.12	279.42	267.34
14.00	DISCHG	256.60	243.51	220.89	203.36	196.50	191.92	185.19	168.28	155.49	152.57
15.00	DISCHG	151.48	147.46	131.63	118.14	113.68	111.31	107.42	94.10	85.40	86.70
16.00	DISCHG	89.57	89.77	79.53	73.20	76.36	80.72	81.98	72.23	65.86	68.73
17.00	DISCHG	72.88	74.35	65.46	60.51	64.96	70.46	72.77	64.12	58.96	63.05
18.00	DISCHG	68.30	70.48	61.61	56.02	59.52	60.26	55.12	41.11	34.12	38.39
19.00	DISCHG	44.27	46.91	38.43	24.41	14.83	11.00	9.94	9.66	9.56	9.51
20.00	DISCHG	9.49	9.55	9.80	10.24	10.73	11.15	11.35	11.27	10.93	10.49
21.00	DISCHG	10.11	9.93	10.03	10.38	10.82	11.21	11.40	11.31	10.96	10.52
22.00	DISCHG	10.14	9.96	10.05	10.40	10.85	11.23	11.42	11.33	10.99	10.54
23.00	DISCHG	10.16	9.89	9.73	9.64	9.59	9.57	9.63	9.83	10.32	10.81
24.00	DISCHG	11.21	11.13	10.02	7.90	5.46	3.39	1.97	1.11	0.62	0.34
25.00	DISCHG	0.18	0.08	0.03	0.02	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2867 CFS-HRS= 1734.94 ACRE-FT= 143.38

SUBROUTINE RUNOFF CROSS SECTION 22

AREA= 0.13 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.48

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.57	75.835	(RUNOFF)
14.56	4.185	(RUNOFF)
16.59	1.452	(RUNOFF)
17.97	1.514	(RUNOFF)
19.08	1.474	(RUNOFF)
20.58	1.477	(RUNOFF)

21.58	1.484	(RUNOFF)
22.58	1.489	(RUNOFF)
24.00	1.471	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.03	0.51	3.06	8.86	17.62
12.00	DISCHG	28.12	38.93	49.05	58.22	66.38	73.34	75.59	68.50	53.89	38.43
13.00	DISCHG	26.34	19.46	14.89	11.64	9.41	7.98	7.05	6.24	5.48	4.84
14.00	DISCHG	4.41	4.19	4.11	4.10	4.11	4.14	4.14	4.11	4.05	4.00
15.00	DISCHG	3.95	3.79	3.41	2.83	2.27	1.86	1.60	1.44	1.35	1.29
16.00	DISCHG	1.26	1.25	1.28	1.34	1.40	1.44	1.45	1.43	1.38	1.32
17.00	DISCHG	1.28	1.27	1.29	1.35	1.41	1.45	1.48	1.49	1.50	1.51
18.00	DISCHG	1.51	1.50	1.46	1.40	1.34	1.29	1.28	1.30	1.36	1.42
19.00	DISCHG	1.46	1.47	1.45	1.39	1.33	1.29	1.26	1.25	1.24	1.23
20.00	DISCHG	1.23	1.24	1.29	1.35	1.42	1.46	1.48	1.45	1.40	1.34
21.00	DISCHG	1.30	1.29	1.32	1.37	1.43	1.47	1.48	1.46	1.40	1.35
22.00	DISCHG	1.31	1.29	1.32	1.38	1.43	1.48	1.49	1.46	1.41	1.35
23.00	DISCHG	1.31	1.28	1.27	1.26	1.25	1.25	1.26	1.30	1.37	1.43
24.00	DISCHG	1.47	1.43	1.24	0.92	0.61	0.37	0.22	0.13	0.08	0.05
25.00	DISCHG	0.03	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0765 CFS-HRS= 87.50 ACRE-FT= 7.23

SUBROUTINE ADDHYD CROSS SECTION 99
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	1028.255	(NULL)
16.05	91.460	(NULL)
16.56	84.249	(NULL)
17.06	76.282	(NULL)
17.57	74.700	(NULL)
18.07	72.495	(NULL)
18.46	61.977	(NULL)
19.07	48.768	(NULL)
21.61	12.885	(NULL)
22.61	12.914	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.02	0.03	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.09

8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.13	0.17	0.25	0.32	0.38	0.43	0.79	1.31	1.74	2.04
10.00	DISCHG	2.31	2.65	3.08	3.53	3.94	4.30	4.74	5.37	6.23	7.28
11.00	DISCHG	8.44	9.87	11.79	14.08	16.52	19.25	29.82	64.25	131.73	238.75
12.00	DISCHG	369.95	504.77	626.72	748.07	868.24	971.75	1028.10	991.42	877.85	738.49
13.00	DISCHG	614.30	524.11	452.43	402.54	373.20	352.75	334.34	307.36	284.90	272.18
14.00	DISCHG	261.01	247.70	225.00	207.46	200.62	196.05	189.32	172.39	159.55	156.57
15.00	DISCHG	155.42	151.25	135.04	120.98	115.95	113.17	109.02	95.54	86.75	87.99
16.00	DISCHG	90.84	91.03	80.81	74.54	77.75	82.16	83.43	73.66	67.24	70.05
17.00	DISCHG	74.16	75.62	66.75	61.86	66.37	71.91	74.25	65.61	60.46	64.56
18.00	DISCHG	69.82	71.98	63.08	57.42	60.86	61.55	56.40	42.41	35.48	39.80
19.00	DISCHG	45.73	48.38	39.87	25.81	16.17	12.29	11.20	10.91	10.80	10.75
20.00	DISCHG	10.72	10.79	11.09	11.59	12.15	12.61	12.83	12.72	12.33	11.83
21.00	DISCHG	11.41	11.21	11.34	11.75	12.25	12.68	12.88	12.76	12.37	11.87
22.00	DISCHG	11.45	11.25	11.37	11.78	12.28	12.71	12.91	12.79	12.40	11.90
23.00	DISCHG	11.47	11.18	11.00	10.90	10.84	10.82	10.89	11.18	11.68	12.25
24.00	DISCHG	12.68	12.56	11.26	8.82	6.06	3.75	2.19	1.25	0.70	0.39
25.00	DISCHG	0.21	0.09	0.04	0.02	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2748 CFS-HRS= 1822.44 ACRE-FT= 150.61

SUBROUTINE REACH CROSS SECTION 100
LENGTH= 1280.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.19

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.63	1020.418	(NULL)
16.06	91.031	(NULL)
16.57	83.636	(NULL)
17.07	75.690	(NULL)
17.58	73.981	(NULL)
18.08	71.791	(NULL)
18.47	61.613	(NULL)
19.08	48.011	(NULL)
21.63	12.859	(NULL)
22.63	12.887	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.13	0.16	0.23	0.31	0.37	0.42	0.72	1.22	1.66	1.99
10.00	DISCHG	2.26	2.59	3.00	3.45	3.86	4.24	4.66	5.25	6.07	7.08
11.00	DISCHG	8.22	9.60	11.43	13.65	16.06	18.73	27.83	57.76	119.02	218.59
12.00	DISCHG	345.24	479.38	603.76	725.21	845.61	952.25	1017.49	998.33	899.24	764.74
13.00	DISCHG	637.68	541.09	465.93	411.93	378.72	356.60	337.81	312.44	289.13	274.58
14.00	DISCHG	263.11	250.21	229.27	210.76	201.91	196.91	190.59	175.58	161.97	157.13
15.00	DISCHG	155.64	152.04	138.09	123.62	116.90	113.70	109.80	98.08	88.41	87.76
16.00	DISCHG	90.30	90.99	82.74	75.72	77.15	81.33	83.19	75.50	68.44	69.52
17.00	DISCHG	73.39	75.34	68.42	62.78	65.52	70.87	73.81	67.24	61.43	63.79
18.00	DISCHG	68.83	71.57	64.75	58.49	60.21	61.42	57.37	45.05	36.78	38.99

19.00	DISCHG	44.61	47.88	41.48	28.45	17.98	13.02	11.41	10.97	10.82	10.76
20.00	DISCHG	10.73	10.78	11.03	11.49	12.04	12.52	12.79	12.74	12.40	11.92
21.00	DISCHG	11.49	11.25	11.32	11.67	12.16	12.60	12.84	12.79	12.44	11.96
22.00	DISCHG	11.52	11.29	11.35	11.70	12.18	12.63	12.87	12.82	12.47	11.99
23.00	DISCHG	11.55	11.23	11.03	10.92	10.95	10.82	10.88	11.13	11.59	12.14
24.00	DISCHG	12.60	12.58	11.50	9.28	6.58	4.19	2.48	1.42	0.80	0.45
25.00	DISCHG	0.24	0.12	0.05	0.03	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2748 CFS-HRS= 1822.41 ACRE-FT= 150.60

SUBROUTINE RUNOFF CROSS SECTION 23
AREA= 0.13 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.50

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.58	75.038	(RUNOFF)
14.55	4.187	(RUNOFF)
16.60	1.447	(RUNOFF)
17.98	1.514	(RUNOFF)
19.10	1.468	(RUNOFF)
20.60	1.471	(RUNOFF)
21.59	1.484	(RUNOFF)
22.59	1.485	(RUNOFF)
24.01	1.475	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.04	0.63	2.97	8.24	16.47
12.00	DISCHG	26.65	37.34	47.48	56.73	65.00	71.95	74.97	68.97	55.50	40.69
13.00	DISCHG	28.63	20.80	15.78	12.38	10.02	8.43	7.34	6.46	5.66	5.01
14.00	DISCHG	4.54	4.26	4.14	4.11	4.12	4.14	4.14	4.11	4.06	4.01
15.00	DISCHG	3.97	3.83	3.47	2.91	2.35	1.91	1.63	1.48	1.37	1.31
16.00	DISCHG	1.27	1.26	1.28	1.33	1.39	1.43	1.45	1.43	1.38	1.33
17.00	DISCHG	1.29	1.27	1.30	1.34	1.40	1.44	1.47	1.49	1.50	1.51
18.00	DISCHG	1.51	1.50	1.47	1.41	1.35	1.30	1.28	1.30	1.35	1.41
19.00	DISCHG	1.45	1.47	1.45	1.40	1.34	1.30	1.27	1.25	1.24	1.24
20.00	DISCHG	1.23	1.25	1.28	1.34	1.41	1.45	1.47	1.45	1.40	1.35
21.00	DISCHG	1.30	1.29	1.31	1.36	1.42	1.47	1.48	1.46	1.41	1.35
22.00	DISCHG	1.31	1.30	1.32	1.37	1.43	1.47	1.48	1.46	1.42	1.36
23.00	DISCHG	1.32	1.29	1.27	1.26	1.25	1.25	1.26	1.30	1.36	1.42
24.00	DISCHG	1.47	1.44	1.26	0.96	0.64	0.40	0.24	0.15	0.09	0.06
25.00	DISCHG	0.04	0.02	0.01	0.01	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0778 CFS-HRS= 87.60 ACRE-FT= 7.24

SUBROUTINE ADDHYD CROSS SECTION 101
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.62	1094.674	(NULL)
16.06	92.282	(NULL)
16.57	85.082	(NULL)
17.07	76.964	(NULL)
17.58	75.449	(NULL)
18.08	73.299	(NULL)
18.47	62.922	(NULL)
19.08	49.478	(NULL)
21.63	14.341	(NULL)
22.63	14.370	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.34

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.13	0.16	0.23	0.31	0.37	0.42	0.72	1.22	1.66	1.99
10.00	DISCHG	2.25	2.59	3.00	3.45	3.86	4.24	4.66	5.25	6.07	7.08
11.00	DISCHG	8.22	9.60	11.43	13.65	16.06	18.78	28.46	60.73	127.25	235.07
12.00	DISCHG	371.89	516.72	651.23	781.94	910.61	1024.20	1092.46	1067.30	954.74	805.43
13.00	DISCHG	666.32	561.89	481.71	424.31	388.74	365.03	345.15	318.90	294.79	279.59
14.00	DISCHG	267.65	254.46	233.41	214.87	206.03	201.05	194.73	179.69	166.03	161.14
15.00	DISCHG	159.60	155.87	141.56	126.54	119.25	115.61	111.43	99.55	89.78	89.07
16.00	DISCHG	91.57	92.25	84.02	77.05	78.54	82.76	84.64	76.93	69.83	70.85
17.00	DISCHG	74.67	76.62	69.72	64.13	66.92	72.31	75.28	68.73	62.93	65.30
18.00	DISCHG	70.34	73.08	66.22	59.90	61.56	62.72	58.65	46.35	38.14	40.40
19.00	DISCHG	46.06	49.35	42.92	29.85	19.32	14.32	12.68	12.22	12.07	12.00
20.00	DISCHG	11.96	12.03	12.31	12.84	13.45	13.97	14.26	14.19	13.80	13.27
21.00	DISCHG	12.79	12.54	12.63	13.04	13.58	14.07	14.33	14.25	13.85	13.31
22.00	DISCHG	12.84	12.58	12.67	13.07	13.61	14.09	14.36	14.28	13.89	13.35
23.00	DISCHG	12.86	12.52	12.30	12.18	12.11	12.07	12.14	12.43	12.95	13.56
24.00	DISCHG	14.07	14.02	12.76	10.24	7.23	4.58	2.72	1.58	0.90	0.51
25.00	DISCHG	0.28	0.14	0.07	0.03	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2642 CFS-HRS= 1910.01 ACRE-FT= 157.84

SUBROUTINE REACH CROSS SECTION 102
LENGTH= 1280.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.19

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.64	1086.588	(NULL)
16.06	91.872	(NULL)
16.58	84.480	(NULL)
17.08	76.394	(NULL)
17.59	74.749	(NULL)
18.09	72.616	(NULL)
18.48	62.597	(NULL)
19.09	48.743	(NULL)

21.64	14.311	(NULL)
22.65	14.341	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.34

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.22	0.29	0.36	0.41	0.66	1.12	1.57	1.92
10.00	DISCHG	2.21	2.53	2.92	3.36	3.78	4.16	4.58	5.14	5.92	6.89
11.00	DISCHG	8.01	9.34	11.08	13.23	15.61	18.27	26.64	54.65	114.73	214.77
12.00	DISCHG	346.13	489.44	625.90	757.33	886.38	1002.81	1079.60	1072.04	975.94	833.54
13.00	DISCHG	692.52	581.56	496.81	435.12	395.44	369.50	348.89	323.84	299.33	282.45
14.00	DISCHG	269.90	256.95	237.38	218.36	207.69	201.99	195.92	182.52	168.60	162.06
15.00	DISCHG	159.89	156.57	144.25	129.37	120.62	116.29	112.22	101.79	91.62	89.20
16.00	DISCHG	91.10	92.12	85.57	78.37	78.26	81.96	84.28	78.38	71.16	70.66
17.00	DISCHG	73.95	76.25	71.02	65.18	66.39	71.30	74.72	69.96	64.02	64.85
18.00	DISCHG	69.39	72.56	67.51	61.09	61.25	62.50	59.42	48.67	39.68	39.97
19.00	DISCHG	44.99	48.73	44.13	32.31	21.31	15.26	12.99	12.31	12.10	12.01
20.00	DISCHG	11.97	12.01	12.26	12.74	13.33	13.88	14.20	14.20	13.87	13.37
21.00	DISCHG	12.88	12.59	12.61	12.96	13.48	13.97	14.28	14.26	13.93	13.42
22.00	DISCHG	12.93	12.63	12.65	12.99	13.51	14.00	14.31	14.29	13.96	13.45
23.00	DISCHG	12.96	12.58	12.34	12.20	12.12	12.08	12.13	12.37	12.85	13.45
24.00	DISCHG	13.98	14.03	13.00	10.71	7.79	5.08	3.07	1.79	1.03	0.58
25.00	DISCHG	0.32	0.16	0.08	0.04	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2642 CFS-HRS= 1909.99 ACRE-FT= 157.84

SUBROUTINE RUNOFF CROSS SECTION 24
AREA= 0.07 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.45

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	44.317	(RUNOFF)
14.56	2.405	(RUNOFF)
16.57	0.839	(RUNOFF)
17.96	0.871	(RUNOFF)
19.07	0.848	(RUNOFF)
20.58	0.853	(RUNOFF)
21.57	0.858	(RUNOFF)
22.57	0.861	(RUNOFF)
23.99	0.855	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.41	2.03	5.59	11.12
12.00	DISCHG	17.44	23.73	29.55	34.73	39.30	43.25	43.94	38.80	29.30	20.12
13.00	DISCHG	13.82	10.10	7.69	6.08	4.98	4.29	3.84	3.42	3.00	2.67
14.00	DISCHG	2.47	2.37	2.34	2.34	2.36	2.38	2.38	2.36	2.32	2.29
15.00	DISCHG	2.26	2.17	1.92	1.56	1.24	1.01	0.88	0.80	0.76	0.73
16.00	DISCHG	0.72	0.72	0.74	0.77	0.81	0.83	0.84	0.82	0.78	0.75
17.00	DISCHG	0.73	0.73	0.74	0.78	0.81	0.84	0.85	0.86	0.87	0.87
18.00	DISCHG	0.87	0.86	0.84	0.80	0.76	0.74	0.73	0.75	0.79	0.82
19.00	DISCHG	0.84	0.85	0.83	0.79	0.76	0.74	0.72	0.72	0.71	0.71
20.00	DISCHG	0.71	0.72	0.74	0.78	0.82	0.85	0.85	0.83	0.80	0.76
21.00	DISCHG	0.74	0.74	0.76	0.79	0.83	0.85	0.86	0.84	0.80	0.77
22.00	DISCHG	0.74	0.74	0.76	0.80	0.83	0.85	0.86	0.84	0.80	0.77
23.00	DISCHG	0.75	0.73	0.72	0.72	0.72	0.72	0.72	0.75	0.79	0.83
24.00	DISCHG	0.85	0.82	0.69	0.49	0.30	0.18	0.10	0.06	0.04	0.02
25.00	DISCHG	0.01	0.01	0.0							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0764 CFS-HRS= 50.25 ACRE-FT= 4.15

SUBROUTINE REACH CROSS SECTION 104
LENGTH= 1300.00 INPUT COEFFICIENT= 0.7600 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 5.383 AVERAGE ROUTING COEFF= 0.7600 NUMBER OF ROUTINGS= 0.51

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.61	43.321	(NULL)
14.61	2.401	(NULL)
16.63	0.835	(NULL)
18.03	0.870	(NULL)
19.12	0.844	(NULL)
20.63	0.848	(NULL)
21.63	0.853	(NULL)
22.63	0.856	(NULL)
24.05	0.848	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.19	1.11	3.52	7.84
12.00	DISCHG	13.60	19.86	25.94	31.50	36.44	40.78	43.32	41.60	34.86	25.77
13.00	DISCHG	17.87	12.56	9.26	7.13	5.69	4.74	4.13	3.68	3.26	2.88
14.00	DISCHG	2.60	2.44	2.36	2.34	2.35	2.37	2.37	2.37	2.34	2.31
15.00	DISCHG	2.28	2.22	2.06	1.78	1.44	1.15	0.96	0.85	0.79	0.75
16.00	DISCHG	0.72	0.72	0.72	0.75	0.79	0.82	0.83	0.83	0.81	0.77
17.00	DISCHG	0.74	0.73	0.73	0.76	0.79	0.82	0.84	0.86	0.86	0.87
18.00	DISCHG	0.87	0.87	0.85	0.82	0.78	0.75	0.74	0.74	0.77	0.80
19.00	DISCHG	0.83	0.84	0.84	0.81	0.78	0.75	0.73	0.72	0.71	0.71
20.00	DISCHG	0.71	0.71	0.73	0.76	0.80	0.83	0.85	0.84	0.82	0.78
21.00	DISCHG	0.76	0.74	0.75	0.77	0.81	0.84	0.85	0.85	0.82	0.79

22.00	DISCHG	0.76	0.74	0.75	0.77	0.81	0.84	0.86	0.85	0.82	0.79
23.00	DISCHG	0.76	0.74	0.73	0.72	0.72	0.72	0.72	0.74	0.77	0.81
24.00	DISCHG	0.84	0.84	0.76	0.61	0.42	0.26	0.15	0.09	0.05	0.03
25.00	DISCHG	0.02	0.01	0.0							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0762 CFS-HRS= 50.24 ACRE-FT= 4.15

SUBROUTINE RUNOFF CROSS SECTION 124
AREA= 0.06 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.45

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	37.523	(RUNOFF)
14.56	2.036	(RUNOFF)
16.57	0.711	(RUNOFF)
17.96	0.737	(RUNOFF)
19.07	0.718	(RUNOFF)
20.58	0.722	(RUNOFF)
21.57	0.726	(RUNOFF)
22.57	0.729	(RUNOFF)
23.99	0.724	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.06

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.35	1.72	4.73	9.41
12.00	DISCHG	14.76	20.09	25.02	29.40	33.28	36.62	37.20	32.85	24.81	17.04
13.00	DISCHG	11.70	8.55	6.51	5.15	4.22	3.63	3.25	2.90	2.54	2.26
14.00	DISCHG	2.09	2.01	1.98	1.98	2.00	2.01	2.01	2.00	1.97	1.94
15.00	DISCHG	1.91	1.83	1.63	1.32	1.05	0.85	0.74	0.68	0.64	0.62
16.00	DISCHG	0.61	0.61	0.62	0.66	0.68	0.71	0.71	0.69	0.66	0.64
17.00	DISCHG	0.62	0.61	0.63	0.66	0.69	0.71	0.72	0.73	0.73	0.74
18.00	DISCHG	0.74	0.73	0.71	0.67	0.64	0.62	0.62	0.64	0.67	0.70
19.00	DISCHG	0.71	0.72	0.70	0.67	0.64	0.62	0.61	0.61	0.60	0.60
20.00	DISCHG	0.60	0.61	0.63	0.66	0.69	0.72	0.72	0.70	0.68	0.65
21.00	DISCHG	0.63	0.62	0.64	0.67	0.70	0.72	0.73	0.71	0.68	0.65
22.00	DISCHG	0.63	0.63	0.64	0.67	0.70	0.72	0.73	0.71	0.68	0.65
23.00	DISCHG	0.63	0.62	0.61	0.61	0.61	0.61	0.61	0.64	0.67	0.70
24.00	DISCHG	0.72	0.70	0.58	0.41	0.26	0.15	0.09	0.05	0.03	0.02
25.00	DISCHG	0.01	0.01	0.0							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0764 CFS-HRS= 42.55 ACRE-FT= 3.52

SUBROUTINE ADDHYD CROSS SECTION 105
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS

12.58	80.582	(NULL)
14.58	4.436	(NULL)
16.60	1.544	(NULL)
17.97	1.607	(NULL)
19.10	1.561	(NULL)
20.60	1.568	(NULL)
21.60	1.577	(NULL)
22.60	1.583	(NULL)
24.01	1.564	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.54	2.83	8.25	17.25
12.00	DISCHG	28.36	39.95	50.95	60.90	69.72	77.40	80.52	74.46	59.67	42.81
13.00	DISCHG	29.57	21.11	15.77	12.27	9.91	8.38	7.39	6.58	5.80	5.13
14.00	DISCHG	4.69	4.45	4.34	4.33	4.35	4.38	4.39	4.36	4.31	4.25
15.00	DISCHG	4.19	4.05	3.69	3.10	2.48	2.00	1.71	1.53	1.43	1.36
16.00	DISCHG	1.33	1.32	1.35	1.41	1.47	1.52	1.54	1.52	1.47	1.41
17.00	DISCHG	1.36	1.34	1.37	1.42	1.48	1.53	1.57	1.58	1.60	1.60
18.00	DISCHG	1.61	1.60	1.56	1.49	1.43	1.38	1.35	1.38	1.43	1.49
19.00	DISCHG	1.54	1.56	1.54	1.49	1.42	1.37	1.34	1.33	1.32	1.31
20.00	DISCHG	1.31	1.32	1.36	1.42	1.49	1.55	1.57	1.55	1.49	1.43
21.00	DISCHG	1.38	1.37	1.39	1.44	1.51	1.56	1.58	1.56	1.50	1.44
22.00	DISCHG	1.39	1.37	1.39	1.45	1.51	1.56	1.58	1.56	1.51	1.44
23.00	DISCHG	1.39	1.36	1.34	1.33	1.33	1.32	1.33	1.37	1.44	1.51
24.00	DISCHG	1.56	1.53	1.35	1.02	0.68	0.41	0.24	0.14	0.08	0.05
25.00	DISCHG	0.03	0.02	0.0							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 92.79 ACRE-FT= 7.67

SUBROUTINE REACH CROSS SECTION 106
LENGTH= 2600.00 INPUT COEFFICIENT= 0.7900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.395 AVERAGE ROUTING COEFF= 0.7900 NUMBER OF ROUTINGS= 0.89

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.69	78.441	(NULL)
14.68	4.334	(NULL)
16.71	1.537	(NULL)
18.07	1.605	(NULL)
19.21	1.554	(NULL)
20.71	1.561	(NULL)
21.71	1.570	(NULL)
22.71	1.576	(NULL)
24.11	1.550	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.13

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.65	2.90	8.05
12.00	DISCHG	16.53	27.19	38.55	49.53	59.57	68.51	76.03	79.16	74.03	60.85
13.00	DISCHG	44.98	31.68	22.60	16.73	12.89	10.33	8.65	7.55	6.69	5.91
14.00	DISCHG	5.24	4.77	4.50	4.37	4.34	4.35	4.37	4.38	4.36	4.31
15.00	DISCHG	4.26	4.19	4.05	3.70	3.16	2.57	2.08	1.76	1.56	1.45
16.00	DISCHG	1.38	1.34	1.33	1.35	1.40	1.46	1.51	1.54	1.52	1.47
17.00	DISCHG	1.42	1.37	1.35	1.37	1.42	1.48	1.53	1.56	1.58	1.59
18.00	DISCHG	1.60	1.60	1.59	1.56	1.50	1.44	1.38	1.36	1.38	1.43
19.00	DISCHG	1.49	1.53	1.55	1.54	1.49	1.43	1.38	1.35	1.33	1.32
20.00	DISCHG	1.31	1.31	1.32	1.36	1.42	1.48	1.54	1.56	1.55	1.50
21.00	DISCHG	1.44	1.39	1.37	1.39	1.44	1.50	1.55	1.57	1.55	1.50
22.00	DISCHG	1.44	1.40	1.38	1.39	1.44	1.50	1.55	1.58	1.56	1.51
23.00	DISCHG	1.45	1.40	1.37	1.35	1.33	1.33	1.33	1.34	1.37	1.43
24.00	DISCHG	1.50	1.55	1.52	1.35	1.05	0.72	0.45	0.27	0.16	0.09
25.00	DISCHG	0.05	0.03	0.0							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0761 CFS-HRS= 92.78 ACRE-FT= 7.67

SUBROUTINE RUNOFF CROSS SECTION 25
AREA= 0.09 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.48

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.57	52.502	(RUNOFF)
14.56	2.897	(RUNOFF)
16.59	1.005	(RUNOFF)
17.97	1.048	(RUNOFF)
19.08	1.020	(RUNOFF)
20.58	1.022	(RUNOFF)
21.58	1.027	(RUNOFF)
22.58	1.031	(RUNOFF)
24.00	1.018	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.09

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.36	2.12	6.14	12.20
12.00	DISCHG	19.47	26.95	33.96	40.31	45.95	50.78	52.33	47.42	37.31	26.60
13.00	DISCHG	18.24	13.48	10.31	8.06	6.51	5.53	4.88	4.32	3.79	3.35
14.00	DISCHG	3.05	2.90	2.84	2.84	2.85	2.86	2.86	2.84	2.81	2.77

15.00	DISCHG	2.73	2.62	2.36	1.96	1.57	1.29	1.11	1.00	0.93	0.89
16.00	DISCHG	0.87	0.87	0.89	0.93	0.97	1.00	1.01	0.99	0.95	0.91
17.00	DISCHG	0.89	0.88	0.90	0.93	0.97	1.00	1.02	1.03	1.04	1.05
18.00	DISCHG	1.05	1.04	1.01	0.97	0.93	0.89	0.88	0.90	0.94	0.98
19.00	DISCHG	1.01	1.02	1.00	0.96	0.92	0.89	0.88	0.87	0.86	0.85
20.00	DISCHG	0.85	0.86	0.89	0.94	0.98	1.01	1.02	1.00	0.97	0.93
21.00	DISCHG	0.90	0.89	0.91	0.95	0.99	1.02	1.03	1.01	0.97	0.93
22.00	DISCHG	0.90	0.90	0.91	0.95	0.99	1.02	1.03	1.01	0.98	0.94
23.00	DISCHG	0.91	0.89	0.88	0.87	0.87	0.86	0.87	0.90	0.95	0.99
24.00	DISCHG	1.02	0.99	0.86	0.64	0.42	0.25	0.15	0.09	0.06	0.03
25.00	DISCHG	0.02	0.01	0.01	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0765 CFS-HRS= 60.58 ACRE-FT= 5.01

SUBROUTINE ADDHYD CROSS SECTION 107
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.63	128.946	(NULL)
14.62	7.317	(NULL)
16.66	2.530	(NULL)
18.04	2.652	(NULL)
19.15	2.562	(NULL)
20.66	2.569	(NULL)
21.66	2.584	(NULL)
22.66	2.594	(NULL)
24.06	2.554	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.42	2.77	9.04	20.25
12.00	DISCHG	35.99	54.14	72.51	89.84	105.52	119.29	128.35	126.58	111.34	87.45
13.00	DISCHG	63.22	45.16	32.91	24.79	19.40	15.86	13.53	11.87	10.48	9.26
14.00	DISCHG	8.29	7.67	7.34	7.20	7.18	7.21	7.24	7.23	7.17	7.08
15.00	DISCHG	6.99	6.82	6.40	5.67	4.73	3.85	3.19	2.76	2.50	2.34
16.00	DISCHG	2.25	2.21	2.22	2.28	2.37	2.46	2.52	2.53	2.47	2.39
17.00	DISCHG	2.30	2.25	2.25	2.30	2.39	2.48	2.55	2.59	2.62	2.64
18.00	DISCHG	2.65	2.65	2.61	2.53	2.43	2.33	2.27	2.26	2.32	2.41
19.00	DISCHG	2.50	2.55	2.56	2.50	2.41	2.32	2.26	2.21	2.19	2.17
20.00	DISCHG	2.16	2.17	2.21	2.29	2.40	2.50	2.56	2.57	2.51	2.43
21.00	DISCHG	2.34	2.28	2.28	2.34	2.43	2.52	2.57	2.58	2.53	2.44
22.00	DISCHG	2.35	2.29	2.29	2.35	2.44	2.53	2.58	2.59	2.53	2.45
23.00	DISCHG	2.36	2.29	2.24	2.22	2.20	2.19	2.20	2.24	2.32	2.43
24.00	DISCHG	2.52	2.54	2.38	1.99	1.47	0.98	0.60	0.36	0.22	0.13
25.00	DISCHG	0.08	0.04	0.01	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 153.36 ACRE-FT= 12.67

SUBROUTINE REACH CROSS SECTION 108
LENGTH= 670.00 INPUT COEFFICIENT= 0.8200 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 7.744 AVERAGE ROUTING COEFF= 0.8200 NUMBER OF ROUTINGS= 0.20

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.65	127.130	(NULL)
14.64	7.155	(NULL)
16.68	2.526	(NULL)
18.05	2.651	(NULL)
19.17	2.557	(NULL)
20.68	2.565	(NULL)
21.68	2.580	(NULL)
22.68	2.589	(NULL)
24.07	2.543	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.22

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.34	2.30	7.80	18.03
12.00	DISCHG	32.87	50.53	68.86	86.39	102.40	116.55	126.55	126.93	114.36	92.20
13.00	DISCHG	68.04	48.75	35.34	26.40	20.48	16.56	14.00	12.20	10.76	9.50
14.00	DISCHG	8.48	7.79	7.41	7.23	7.19	7.21	7.23	7.23	7.18	7.10
15.00	DISCHG	7.01	6.85	6.49	5.81	4.92	4.03	3.32	2.85	2.55	2.37
16.00	DISCHG	2.27	2.22	2.21	2.26	2.35	2.44	2.51	2.52	2.48	2.41
17.00	DISCHG	2.32	2.26	2.25	2.29	2.37	2.46	2.54	2.59	2.62	2.64
18.00	DISCHG	2.65	2.65	2.62	2.54	2.45	2.35	2.28	2.27	2.31	2.39
19.00	DISCHG	2.43	2.54	2.56	2.51	2.43	2.34	2.27	2.22	2.19	2.18
20.00	DISCHG	2.17	2.17	2.20	2.28	2.38	2.48	2.55	2.56	2.52	2.44
21.00	DISCHG	2.36	2.29	2.28	2.33	2.41	2.50	2.56	2.58	2.54	2.45
22.00	DISCHG	2.37	2.30	2.29	2.34	2.42	2.51	2.57	2.59	2.55	2.46
23.00	DISCHG	2.37	2.30	2.25	2.22	2.20	2.19	2.20	2.23	2.30	2.40
24.00	DISCHG	2.50	2.54	2.41	2.07	1.57	1.07	0.68	0.41	0.25	0.15
25.00	DISCHG	0.09	0.05	0.01	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0762 CFS-HRS= 153.35 ACRE-FT= 12.67

SUBROUTINE RUNOFF CROSS SECTION 26
AREA= 0.03 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.40

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.55	20.523	(RUNOFF)
14.55	1.086	(RUNOFF)
16.55	0.382	(RUNOFF)
18.01	0.393	(RUNOFF)
19.05	0.386	(RUNOFF)

20.55	0.388	(RUNOFF)
21.55	0.390	(RUNOFF)
22.55	0.391	(RUNOFF)
23.98	0.392	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.21	1.14	3.10	5.91
12.00	DISCHG	8.93	11.79	14.38	16.64	18.61	20.17	20.12	16.83	11.80	7.60
13.00	DISCHG	5.22	3.82	2.95	2.35	1.98	1.76	1.61	1.44	1.27	1.15
14.00	DISCHG	1.08	1.05	1.04	1.05	1.07	1.07	1.07	1.06	1.04	1.03
15.00	DISCHG	1.02	0.97	0.83	0.64	0.50	0.41	0.37	0.34	0.33	0.32
16.00	DISCHG	0.32	0.32	0.34	0.35	0.37	0.38	0.38	0.37	0.35	0.33
17.00	DISCHG	0.33	0.33	0.34	0.36	0.37	0.38	0.39	0.39	0.39	0.39
18.00	DISCHG	0.39	0.39	0.37	0.35	0.34	0.33	0.33	0.34	0.36	0.38
19.00	DISCHG	0.39	0.38	0.37	0.35	0.34	0.33	0.32	0.32	0.32	0.32
20.00	DISCHG	0.32	0.32	0.34	0.36	0.38	0.39	0.39	0.37	0.35	0.34
21.00	DISCHG	0.33	0.33	0.34	0.36	0.38	0.39	0.39	0.37	0.36	0.34
22.00	DISCHG	0.33	0.33	0.35	0.36	0.38	0.39	0.39	0.38	0.36	0.34
23.00	DISCHG	0.33	0.33	0.33	0.32	0.32	0.32	0.33	0.34	0.36	0.38
24.00	DISCHG	0.39	0.37	0.29	0.19	0.10	0.06	0.03	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0761 CFS-HRS= 22.68 ACRE-FT= 1.87

SUBROUTINE ADDHYD CROSS SECTION 109
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.63	147.119	(NULL)
14.61	8.397	(NULL)
16.66	2.898	(NULL)
18.02	3.041	(NULL)
19.15	2.935	(NULL)
20.66	2.943	(NULL)
21.65	2.960	(NULL)
22.65	2.971	(NULL)
24.06	2.926	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.25

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.03	0.54	3.45	10.90	23.94
12.00	DISCHG	41.80	62.32	83.24	103.03	121.01	136.72	146.67	143.76	126.16	99.79
13.00	DISCHG	73.25	52.57	38.30	28.75	22.45	18.32	15.60	13.64	12.03	10.65
14.00	DISCHG	9.56	8.84	8.45	8.29	8.25	8.28	8.30	8.29	8.22	8.13
15.00	DISCHG	8.02	7.82	7.31	6.46	5.42	4.44	3.69	3.19	2.88	2.69
16.00	DISCHG	2.59	2.54	2.55	2.62	2.72	2.82	2.89	2.89	2.83	2.74
17.00	DISCHG	2.64	2.58	2.59	2.65	2.75	2.84	2.92	2.98	3.01	3.03
18.00	DISCHG	3.04	3.04	2.99	2.90	2.78	2.68	2.61	2.61	2.67	2.77
19.00	DISCHG	2.86	2.93	2.93	2.86	2.77	2.67	2.59	2.54	2.51	2.49
20.00	DISCHG	2.48	2.49	2.54	2.64	2.75	2.86	2.93	2.94	2.88	2.78
21.00	DISCHG	2.69	2.63	2.63	2.69	2.79	2.89	2.95	2.95	2.89	2.79
22.00	DISCHG	2.70	2.64	2.64	2.70	2.80	2.90	2.96	2.96	2.90	2.80
23.00	DISCHG	2.71	2.63	2.58	2.54	2.53	2.52	2.53	2.57	2.67	2.79
24.00	DISCHG	2.89	2.91	2.70	2.25	1.68	1.13	0.71	0.43	0.26	0.15
25.00	DISCHG	0.09	0.05	0.01	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 176.04 ACRE-FT= 14.55

SUBROUTINE REACH CROSS SECTION 110
LENGTH= 640.00 INPUT COEFFICIENT= 0.7800 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.027 AVERAGE ROUTING COEFF= 0.7800 NUMBER OF ROUTINGS= 0.23

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.65	144.741	(NULL)
14.63	8.392	(NULL)
16.68	2.892	(NULL)
18.05	3.042	(NULL)
19.17	2.929	(NULL)
20.68	2.937	(NULL)
21.68	2.954	(NULL)
22.68	2.965	(NULL)
24.07	2.911	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.25

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.42	2.76	9.14	20.85
12.00	DISCHG	37.56	57.45	78.27	98.33	116.74	132.99	144.30	144.43	130.32	106.04
13.00	DISCHG	79.56	57.49	41.70	31.03	23.96	19.31	16.25	14.11	12.41	10.98
14.00	DISCHG	9.82	9.01	8.54	8.23	8.26	8.27	8.30	8.29	8.24	8.15
15.00	DISCHG	8.05	7.87	7.43	6.66	5.66	4.67	3.87	3.31	2.95	2.74
16.00	DISCHG	2.61	2.55	2.55	2.60	2.70	2.80	2.87	2.89	2.85	2.76
17.00	DISCHG	2.67	2.60	2.59	2.63	2.72	2.82	2.90	2.96	3.00	3.02
18.00	DISCHG	3.04	3.04	3.00	2.92	2.81	2.70	2.63	2.61	2.65	2.74
19.00	DISCHG	2.84	2.91	2.93	2.88	2.79	2.69	2.61	2.56	2.52	2.50
20.00	DISCHG	2.49	2.49	2.53	2.61	2.73	2.84	2.92	2.94	2.89	2.80

21.00	DISCHG	2.71	2.64	2.63	2.68	2.77	2.86	2.94	2.95	2.91	2.82
22.00	DISCHG	2.72	2.65	2.64	2.69	2.78	2.87	2.95	2.96	2.92	2.83
23.00	DISCHG	2.73	2.65	2.59	2.55	2.53	2.52	2.52	2.56	2.65	2.76
24.00	DISCHG	2.87	2.90	2.75	2.36	1.81	1.26	0.81	0.50	0.30	0.17
25.00	DISCHG	0.10	0.06	0.02	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 176.04 ACRE-FT= 14.55

SUBROUTINE RUNOFF CROSS SECTION 27
AREA= 0.03 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.42

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	20.368	(RUNOFF)
14.55	1.086	(RUNOFF)
16.56	0.381	(RUNOFF)
18.00	0.394	(RUNOFF)
19.05	0.385	(RUNOFF)
20.56	0.387	(RUNOFF)
21.56	0.389	(RUNOFF)
22.56	0.390	(RUNOFF)
23.98	0.388	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.18	1.05	2.87	5.53
12.00	DISCHG	8.49	11.36	13.95	16.26	18.27	19.85	20.11	17.12	12.45	8.26
13.00	DISCHG	5.65	4.12	3.16	2.51	2.08	1.83	1.65	1.48	1.30	1.17
14.00	DISCHG	1.09	1.06	1.05	1.06	1.07	1.07	1.07	1.06	1.05	1.03
15.00	DISCHG	1.02	0.97	0.84	0.67	0.52	0.43	0.38	0.35	0.33	0.32
16.00	DISCHG	0.32	0.32	0.33	0.35	0.37	0.38	0.38	0.37	0.35	0.34
17.00	DISCHG	0.33	0.33	0.34	0.36	0.37	0.38	0.39	0.39	0.39	0.39
18.00	DISCHG	0.39	0.39	0.38	0.36	0.34	0.33	0.33	0.34	0.36	0.37
19.00	DISCHG	0.38	0.38	0.37	0.36	0.34	0.33	0.32	0.32	0.32	0.32
20.00	DISCHG	0.32	0.32	0.34	0.36	0.37	0.38	0.39	0.37	0.36	0.34
21.00	DISCHG	0.33	0.33	0.34	0.36	0.38	0.39	0.39	0.38	0.36	0.34
22.00	DISCHG	0.33	0.33	0.34	0.36	0.38	0.39	0.39	0.38	0.36	0.34
23.00	DISCHG	0.33	0.33	0.33	0.32	0.32	0.32	0.33	0.34	0.36	0.38
24.00	DISCHG	0.39	0.37	0.30	0.20	0.12	0.07	0.04	0.02	0.01	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0766 CFS-HRS= 22.69 ACRE-FT= 1.88

SUBROUTINE ADDHYD CROSS SECTION 111
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.63	165.030	(NULL)
14.61	9.475	(NULL)
16.66	3.265	(NULL)
18.02	3.433	(NULL)
19.16	3.307	(NULL)
20.66	3.315	(NULL)
21.66	3.335	(NULL)
22.66	3.347	(NULL)
24.06	3.293	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.29

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.03	0.61	3.81	12.00	26.38
12.00	DISCHG	46.05	68.81	92.22	114.59	135.00	152.84	164.40	161.55	142.77	114.30
13.00	DISCHG	85.21	61.61	44.86	33.53	26.03	21.14	17.90	15.58	13.71	12.14
14.00	DISCHG	10.91	10.07	9.59	9.38	9.33	9.35	9.37	9.35	9.28	9.18
15.00	DISCHG	9.07	8.84	8.28	7.33	6.18	5.10	4.25	3.66	3.29	3.06
16.00	DISCHG	2.93	2.87	2.88	2.95	3.07	3.18	3.25	3.26	3.20	3.10
17.00	DISCHG	2.99	2.93	2.92	2.99	3.09	3.20	3.29	3.35	3.39	3.42
18.00	DISCHG	3.43	3.43	3.37	3.28	3.15	3.03	2.95	2.95	3.01	3.12
19.00	DISCHG	3.22	3.30	3.30	3.23	3.13	3.02	2.94	2.88	2.84	2.82
20.00	DISCHG	2.31	2.81	2.87	2.97	3.10	3.22	3.30	3.31	3.25	3.15
21.00	DISCHG	3.04	2.97	2.97	3.04	3.14	3.25	3.32	3.33	3.26	3.16
22.00	DISCHG	3.05	2.98	2.98	3.05	3.15	3.26	3.34	3.34	3.28	3.17
23.00	DISCHG	3.06	2.98	2.91	2.88	2.85	2.84	2.85	2.90	3.01	3.14
24.00	DISCHG	3.25	3.27	3.05	2.56	1.93	1.33	0.85	0.52	0.31	0.18
25.00	DISCHG	0.10	0.06	0.02	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 198.73 ACRE-FT= 16.42

SUBROUTINE REACH CROSS SECTION 102
LENGTH= 1240.00 INPUT COEFFICIENT= 0.7900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 6.395 AVERAGE ROUTING COEFF= 0.7900 NUMBER OF ROUTINGS= 0.43

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.68	161.414	(NULL)
14.65	9.261	(NULL)
16.71	3.254	(NULL)
18.06	3.431	(NULL)
19.20	3.296	(NULL)
20.71	3.305	(NULL)
21.70	3.325	(NULL)
22.70	3.337	(NULL)
24.09	3.262	(NULL)

TIME HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.29

0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.34	2.34	8.20	19.64
12.00	DISCHG	36.75	57.97	81.01	103.83	125.16	144.21	158.70	162.55	151.37	127.70
13.00	DISCHG	99.14	73.06	53.07	39.11	29.73	23.55	19.50	16.72	14.62	12.90
14.00	DISCHG	11.51	10.49	9.83	9.49	9.36	9.34	9.36	9.36	9.32	9.23
15.00	DISCHG	9.12	8.95	8.54	7.77	6.73	5.62	4.66	3.95	3.47	3.17
16.00	DISCHG	3.00	2.90	2.88	2.92	3.01	3.12	3.21	3.25	3.23	3.15
17.00	DISCHG	3.04	2.96	2.93	2.96	3.05	3.15	3.25	3.32	3.37	3.41
18.00	DISCHG	3.43	3.43	3.40	3.32	3.21	3.09	2.99	2.95	2.98	3.07
19.00	DISCHG	3.17	3.26	3.30	3.26	3.18	3.07	2.98	2.91	2.86	2.83
20.00	DISCHG	2.81	2.81	2.84	2.92	3.04	3.16	3.26	3.30	3.28	3.19
21.00	DISCHG	3.09	3.01	2.97	3.01	3.09	3.20	3.29	3.32	3.29	3.21
22.00	DISCHG	3.11	3.02	2.98	3.02	3.10	3.21	3.30	3.34	3.31	3.22
23.00	DISCHG	3.12	3.02	2.94	2.90	2.87	2.85	2.85	2.88	2.96	3.08
24.00	DISCHG	3.20	3.26	3.15	2.79	2.23	1.62	1.08	0.68	0.41	0.24
25.00	DISCHG	0.14	0.08	0.04	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 198.73 ACRE-FT= 16.42

SUBROUTINE RUNOFF CROSS SECTION 28
AREA= 0.06 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.43

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	35.466	(RUNOFF)
14.55	1.907	(RUNOFF)
16.56	0.668	(RUNOFF)
17.96	0.691	(RUNOFF)
19.06	0.675	(RUNOFF)
20.56	0.678	(RUNOFF)
21.56	0.682	(RUNOFF)
22.56	0.683	(RUNOFF)
23.99	0.679	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.06

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.34	1.74	4.81	9.42
12.00	DISCHG	14.55	19.56	24.13	28.22	31.77	34.57	35.08	30.31	22.39	14.93
13.00	DISCHG	10.29	7.53	5.73	4.55	3.75	3.27	2.95	2.63	2.31	2.07

14.00	DISCHG	1.93	1.86	1.84	1.85	1.87	1.88	1.88	1.87	1.84	1.81
15.00	DISCHG	1.79	1.71	1.50	1.20	0.93	0.77	0.68	0.62	0.59	0.57
16.00	DISCHG	0.56	0.56	0.59	0.62	0.65	0.66	0.67	0.65	0.62	0.59
17.00	DISCHG	0.58	0.57	0.59	0.62	0.65	0.67	0.68	0.68	0.69	0.69
18.00	DISCHG	0.69	0.68	0.66	0.63	0.60	0.58	0.58	0.60	0.63	0.65
19.00	DISCHG	0.67	0.67	0.66	0.63	0.60	0.58	0.57	0.57	0.56	0.56
20.00	DISCHG	0.56	0.57	0.59	0.63	0.65	0.67	0.68	0.66	0.63	0.60
21.00	DISCHG	0.58	0.58	0.60	0.63	0.66	0.68	0.68	0.66	0.63	0.60
22.00	DISCHG	0.59	0.59	0.60	0.63	0.66	0.66	0.68	0.66	0.63	0.61
23.00	DISCHG	0.59	0.58	0.57	0.57	0.57	0.57	0.57	0.60	0.63	0.66
24.00	DISCHG	0.68	0.65	0.53	0.37	0.22	0.13	0.07	0.04	0.02	0.01
25.00	DISCHG	0.01	0.0								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 39.83 ACRE-FT= 3.29

SUBROUTINE ADDHYD CROSS SECTION 112
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.64	195.315	(NULL)
14.61	11.368	(NULL)
16.68	3.904	(NULL)
18.04	4.120	(NULL)
19.17	3.955	(NULL)
20.68	3.965	(NULL)
21.67	3.989	(NULL)
22.67	4.004	(NULL)
24.06	3.929	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.34

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.02	0.69	4.08	13.01	29.06
12.00	DISCHG	51.30	77.53	105.14	132.05	156.92	178.79	193.77	192.86	173.76	142.63
13.00	DISCHG	109.42	80.60	58.80	43.66	33.48	26.83	22.45	19.35	16.93	14.97
14.00	DISCHG	13.44	12.35	11.68	11.34	11.23	11.22	11.24	11.23	11.15	11.04
15.00	DISCHG	10.91	10.66	10.03	8.97	7.66	6.39	5.34	4.57	4.06	3.75
16.00	DISCHG	3.56	3.47	3.46	3.54	3.66	3.79	3.88	3.90	3.85	3.74
17.00	DISCHG	3.62	3.53	3.52	3.58	3.70	3.82	3.93	4.01	4.06	4.10
18.00	DISCHG	4.12	4.11	4.06	3.95	3.81	3.67	3.57	3.55	3.61	3.72
19.00	DISCHG	3.84	3.93	3.95	3.89	3.78	3.66	3.55	3.47	3.42	3.39
20.00	DISCHG	3.37	3.38	3.44	3.55	3.69	3.84	3.94	3.96	3.91	3.80
21.00	DISCHG	3.67	3.59	3.57	3.64	3.75	3.88	3.97	3.99	3.92	3.81
22.00	DISCHG	3.69	3.60	3.59	3.65	3.77	3.89	3.98	4.00	3.94	3.83
23.00	DISCHG	3.70	3.60	3.52	3.47	3.43	3.42	3.42	3.48	3.59	3.74
24.00	DISCHG	3.88	3.91	3.68	3.16	2.45	1.74	1.15	0.72	0.44	0.26
25.00	DISCHG	0.15	0.08	0.04	0.0						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 238.56 ACRE-FT= 19.71

SUBROUTINE ADDHYD CROSS SECTION 112
INPUT HYDROGRAPHS= 5,1 OUTPUT HYDROGRAPH= 7

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.64	1281.896	(NULL)
16.06	95.335	(NULL)
16.58	88.346	(NULL)
17.08	79.938	(NULL)
17.59	78.668	(NULL)
18.09	76.731	(NULL)
18.48	66.294	(NULL)
19.10	52.675	(NULL)
21.65	18.298	(NULL)
22.65	18.343	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.68

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.22	0.29	0.36	0.41	0.66	1.12	1.57	1.92
10.00	DISCHG	2.21	2.53	2.92	3.36	3.78	4.16	4.58	5.14	5.92	6.89
11.00	DISCHG	8.01	9.34	11.08	13.23	15.61	18.28	27.32	58.73	127.74	243.83
12.00	DISCHG	397.42	566.97	731.04	889.38	1043.30	1181.60	1273.38	1264.90	1149.69	976.17
13.00	DISCHG	801.94	662.15	555.61	478.78	428.92	396.32	371.34	343.20	316.26	297.42
14.00	DISCHG	283.34	269.30	249.05	229.71	218.92	213.21	207.16	193.75	179.75	173.10
15.00	DISCHG	170.81	167.23	154.29	138.34	128.29	122.68	117.56	106.36	95.68	92.95
16.00	DISCHG	94.66	95.59	89.03	81.90	81.92	85.75	88.16	82.28	75.01	74.39
17.00	DISCHG	77.57	79.78	74.54	68.76	70.09	75.12	78.65	73.97	68.08	68.95
18.00	DISCHG	73.51	76.67	71.57	65.04	65.05	66.17	62.99	52.21	43.29	43.69
19.00	DISCHG	48.84	52.67	48.09	36.20	25.08	18.92	16.54	15.78	15.52	15.40
20.00	DISCHG	15.34	15.39	15.70	16.29	17.03	17.71	18.14	18.16	17.78	17.17
21.00	DISCHG	16.56	16.18	16.19	16.60	17.23	17.85	18.25	18.25	17.85	17.23
22.00	DISCHG	16.62	16.23	16.24	16.64	17.28	17.89	18.29	18.30	17.90	17.28
23.00	DISCHG	16.66	16.18	15.86	15.67	15.55	15.50	15.55	15.85	16.45	17.19
24.00	DISCHG	17.85	17.94	16.68	13.87	10.24	6.83	4.23	2.51	1.46	0.84
25.00	DISCHG	0.47	0.24	0.12	0.04	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2401 CFS-HRS= 2148.56 ACRE-FT= 177.56

SUBROUTINE REACH CROSS SECTION 113
LENGTH= 1340.00 INPUT COEFFICIENT= 0.9200 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 19.550 AVERAGE ROUTING COEFF= 0.9200 NUMBER OF ROUTINGS= 0.18

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.66	1263.125	(NULL)
16.07	95.000	(NULL)
16.59	87.797	(NULL)

17.09	79.444	(NULL)
17.60	78.034	(NULL)
18.10	76.121	(NULL)
18.48	66.059	(NULL)
19.11	52.012	(NULL)
21.67	18.269	(NULL)
22.67	13.314	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.68

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.21	0.28	0.34	0.40	0.62	1.04	1.49	1.86
10.00	DISCHG	2.16	2.47	2.85	3.28	3.71	4.10	4.51	5.04	5.78	6.72
11.00	DISCHG	7.81	9.11	10.78	12.86	15.19	17.81	25.74	53.23	115.65	223.49
12.00	DISCHG	370.52	537.27	702.29	861.64	1016.33	1157.37	1257.30	1266.38	1169.87	1006.57
13.00	DISCHG	832.46	686.64	574.28	492.24	437.66	402.03	375.72	348.13	320.98	300.72
14.00	DISCHG	285.81	271.76	252.60	233.10	220.81	214.21	208.22	196.10	182.21	174.27
15.00	DISCHG	171.21	167.85	156.55	141.13	130.05	123.66	118.46	108.32	97.55	93.43
16.00	DISCHG	94.36	95.43	90.18	83.15	81.91	85.08	87.74	83.31	76.28	74.50
17.00	DISCHG	77.02	79.40	75.45	69.77	69.86	74.24	78.03	74.79	69.11	68.80
18.00	DISCHG	72.71	76.12	72.46	66.18	65.05	65.97	63.54	54.10	44.36	43.62
19.00	DISCHG	47.94	52.00	48.89	38.28	27.03	20.00	16.95	15.91	15.56	15.42
20.00	DISCHG	15.35	15.38	15.64	16.18	16.90	17.59	18.07	18.16	17.85	17.27
21.00	DISCHG	16.66	16.24	16.18	16.53	17.12	17.74	18.18	18.25	17.92	17.34
22.00	DISCHG	16.73	16.30	16.24	16.57	17.16	17.79	18.22	18.29	17.97	17.39
23.00	DISCHG	16.77	16.26	15.92	15.70	15.57	15.51	15.54	15.80	16.34	17.06
24.00	DISCHG	17.74	17.93	16.90	14.36	10.88	7.42	4.68	2.81	1.65	0.95
25.00	DISCHG	0.53	0.28	0.14	0.05	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2401 CFS-HRS= 2148.55 ACRE-FT= 177.56

SUBROUTINE RUNOFF CROSS SECTION 29
AREA= 0.02 INPUT RUNOFF CURVE= 85.0 TIME OF CONCENTRATION= 0.40

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.54	15.686	(RUNOFF)
14.55	0.806	(RUNOFF)
16.55	0.283	(RUNOFF)
18.01	0.291	(RUNOFF)
19.05	0.285	(RUNOFF)
20.55	0.286	(RUNOFF)
21.55	0.288	(RUNOFF)
22.55	0.288	(RUNOFF)
23.98	0.289	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.01	0.02	0.05	0.09	0.35	1.31	3.09	5.38
12.00	DISCHG	7.68	9.74	11.57	13.12	14.45	15.47	15.30	12.74	8.91	5.72
13.00	DISCHG	3.92	2.86	2.21	1.75	1.47	1.31	1.20	1.07	0.94	0.85
14.00	DISCHG	0.80	0.78	0.77	0.78	0.79	0.80	0.80	0.79	0.77	0.76
15.00	DISCHG	0.75	0.72	0.61	0.48	0.37	0.31	0.27	0.25	0.24	0.24
16.00	DISCHG	0.24	0.24	0.25	0.26	0.27	0.28	0.28	0.27	0.26	0.25
17.00	DISCHG	0.24	0.24	0.25	0.26	0.28	0.28	0.29	0.29	0.29	0.29
18.00	DISCHG	0.29	0.29	0.28	0.26	0.25	0.24	0.24	0.25	0.27	0.28
19.00	DISCHG	0.28	0.28	0.27	0.26	0.25	0.24	0.24	0.24	0.24	0.24
20.00	DISCHG	0.24	0.24	0.25	0.27	0.28	0.29	0.29	0.28	0.26	0.25
21.00	DISCHG	0.24	0.24	0.25	0.27	0.28	0.29	0.29	0.28	0.26	0.25
22.00	DISCHG	0.24	0.24	0.25	0.27	0.28	0.29	0.29	0.28	0.26	0.25
23.00	DISCHG	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.25	0.27	0.28
24.00	DISCHG	0.29	0.27	0.22	0.14	0.08	0.04	0.02	0.01	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.1997 CFS-HRS= 17.66 ACRE-FT= 1.46

SUBROUTINE ADDHYD CROSS SECTION 114
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.66	1276.990	(NULL)
16.07	95.234	(NULL)
16.59	88.079	(NULL)
17.09	79.685	(NULL)
17.60	78.321	(NULL)
18.10	76.408	(NULL)
18.48	66.302	(NULL)
19.11	52.295	(NULL)
21.67	18.550	(NULL)
22.67	18.595	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.71

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.21	0.28	0.34	0.40	0.62	1.04	1.49	1.86
10.00	DISCHG	2.16	2.47	2.85	3.28	3.71	4.10	4.51	5.04	5.78	6.72
11.00	DISCHG	7.81	9.11	10.79	12.88	15.24	17.90	26.09	54.54	118.74	228.87
12.00	DISCHG	378.19	547.01	713.86	874.76	1030.78	1172.84	1272.60	1279.12	1178.78	1012.29
13.00	DISCHG	836.38	689.50	576.49	493.99	439.13	403.34	376.91	349.19	321.92	301.57
14.00	DISCHG	286.61	272.53	253.37	233.83	221.60	215.01	209.02	196.89	182.98	175.03
15.00	DISCHG	171.96	168.57	157.17	141.61	130.42	123.97	118.73	108.58	97.80	93.65
16.00	DISCHG	94.59	95.66	90.43	83.41	82.19	85.36	88.02	83.58	76.54	74.75
17.00	DISCHG	77.26	79.64	75.71	70.04	70.13	74.52	78.32	75.08	69.40	69.09
18.00	DISCHG	73.00	76.41	72.74	66.44	65.30	66.22	63.79	54.35	45.12	43.90

19.00	DISCHG	48.22	52.28	49.16	38.54	27.28	20.24	17.19	16.15	15.80	15.65
20.00	DISCHG	15.58	15.62	15.89	16.45	17.18	17.88	18.35	18.44	18.11	17.52
21.00	DISCHG	16.91	16.49	16.44	16.79	17.40	18.03	18.46	18.53	18.18	17.59
22.00	DISCHG	16.97	16.55	16.49	16.84	17.45	18.07	18.51	18.57	18.23	17.64
23.00	DISCHG	17.01	16.51	16.16	15.94	15.81	15.74	15.78	16.05	16.61	17.34
24.00	DISCHG	18.02	18.20	17.12	14.50	10.95	7.47	4.71	2.83	1.65	0.95
25.00	DISCHG	0.53	0.28	0.14	0.05	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2398 CFS-HRS= 2166.21 ACRE-FT= 179.02

SUBROUTINE REACH CROSS SECTION 115
LENGTH= 260.00 INPUT COEFFICIENT= 0.8900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 13.755 AVERAGE ROUTING COEFF= 0.8900 NUMBER OF ROUTINGS= 0.05

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.66	1274.780	(NULL)
16.07	95.155	(NULL)
16.59	87.936	(NULL)
17.09	79.558	(NULL)
17.61	78.154	(NULL)
18.10	76.248	(NULL)
18.48	66.259	(NULL)
19.11	52.121	(NULL)
21.67	18.541	(NULL)
22.67	18.587	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.71

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.20	0.27	0.34	0.40	0.61	1.02	1.47	1.85
10.00	DISCHG	2.15	2.46	2.83	3.26	3.69	4.08	4.49	5.02	5.75	6.68
11.00	DISCHG	7.76	9.05	10.71	12.78	15.13	17.78	25.71	53.21	115.74	223.72
12.00	DISCHG	371.21	539.12	706.07	867.24	1023.49	1166.20	1267.93	1278.81	1183.47	1020.07
13.00	DISCHG	844.60	696.37	581.77	497.84	441.69	405.02	378.15	350.49	323.20	302.52
14.00	DISCHG	287.31	273.19	254.27	234.79	222.18	215.32	209.30	197.45	183.63	175.40
15.00	DISCHG	172.11	168.73	157.70	142.34	130.94	124.27	118.98	109.05	98.30	93.86
16.00	DISCHG	94.55	95.61	90.67	83.74	82.25	85.21	87.90	83.79	76.87	74.83
17.00	DISCHG	77.14	79.53	75.89	70.30	70.13	74.31	78.14	75.23	69.67	69.10
18.00	DISCHG	72.82	76.25	72.91	66.74	65.35	66.17	63.90	54.79	45.55	43.96
19.00	DISCHG	48.02	52.09	49.31	39.04	27.81	20.57	17.33	16.20	15.82	15.66
20.00	DISCHG	15.59	15.62	15.88	16.42	17.14	17.84	18.33	18.43	18.12	17.55
21.00	DISCHG	16.94	16.51	16.44	16.78	17.37	18.00	18.44	18.52	18.20	17.62
22.00	DISCHG	17.00	16.57	16.49	16.83	17.42	18.04	18.49	18.57	18.25	17.67
23.00	DISCHG	17.04	16.53	16.17	15.95	15.82	15.75	15.78	16.04	16.58	17.30
24.00	DISCHG	17.99	18.19	17.17	14.62	11.12	7.63	4.84	2.91	1.71	0.98
25.00	DISCHG	0.55	0.30	0.15	0.06	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2398 CFS-HRS= 2166.21 ACRE-FT= 179.02

SUBROUTINE RUNOFF CROSS SECTION 30
AREA= 0.01 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.33

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.50	8.753	(RUNOFF)
14.53	0.421	(RUNOFF)
16.52	0.148	(RUNOFF)
18.00	0.151	(RUNOFF)
19.02	0.150	(RUNOFF)
20.52	0.150	(RUNOFF)
21.52	0.151	(RUNOFF)
22.52	0.151	(RUNOFF)
23.96	0.152	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.01

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02
11.00	DISCHG	0.03	0.04	0.06	0.08	0.10	0.13	0.38	1.29	2.66	4.03
12.00	DISCHG	5.22	6.21	7.02	7.68	8.23	8.68	8.20	6.00	3.59	2.16
13.00	DISCHG	1.51	1.15	0.91	0.75	0.66	0.62	0.58	0.52	0.46	0.42
14.00	DISCHG	0.40	0.40	0.40	0.41	0.41	0.42	0.41	0.41	0.40	0.39
15.00	DISCHG	0.39	0.37	0.29	0.21	0.16	0.14	0.13	0.13	0.12	0.12
16.00	DISCHG	0.12	0.12	0.13	0.14	0.15	0.15	0.15	0.14	0.13	0.13
17.00	DISCHG	0.12	0.13	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15
18.00	DISCHG	0.15	0.15	0.14	0.13	0.13	0.12	0.13	0.13	0.14	0.15
19.00	DISCHG	0.15	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12
20.00	DISCHG	0.12	0.13	0.13	0.14	0.15	0.15	0.15	0.14	0.13	0.13
21.00	DISCHG	0.12	0.13	0.13	0.14	0.15	0.15	0.15	0.14	0.13	0.13
22.00	DISCHG	0.12	0.13	0.13	0.14	0.15	0.15	0.15	0.14	0.13	0.13
23.00	DISCHG	0.13	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.15
24.00	DISCHG	0.15	0.14	0.09	0.05	0.02	0.01	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3334 CFS-HRS= 9.68 ACRE-FT= 0.80

SUBROUTINE ADDHYD CROSS SECTION 116
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.66	1281.647	(NULL)
16.07	95.277	(NULL)
16.59	88.083	(NULL)
17.09	79.683	(NULL)
17.61	78.304	(NULL)
18.10	76.396	(NULL)
18.48	66.383	(NULL)
19.11	52.268	(NULL)
21.67	18.684	(NULL)

22.67 18.730 (NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.72

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.02	0.02	0.03
6.00	DISCHG	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11	0.12
9.00	DISCHG	0.12	0.15	0.20	0.27	0.34	0.40	0.61	1.02	1.47	1.85
10.00	DISCHG	2.15	2.46	2.83	3.26	3.69	4.08	4.49	5.02	5.76	6.70
11.00	DISCHG	7.79	9.09	10.77	12.86	15.23	17.91	26.08	54.50	118.39	227.75
12.00	DISCHG	376.43	545.33	713.08	874.92	1031.72	1174.88	1276.14	1284.81	1187.06	1022.23
13.00	DISCHG	846.11	697.52	582.68	498.59	442.36	405.64	378.73	351.01	323.65	302.94
14.00	DISCHG	287.71	273.59	254.67	235.20	222.59	215.73	209.71	197.86	184.03	175.30
15.00	DISCHG	172.50	169.09	157.99	142.54	131.10	124.41	119.11	109.18	98.42	93.98
16.00	DISCHG	94.67	95.74	90.80	83.88	82.39	85.36	88.05	83.93	77.00	74.96
17.00	DISCHG	77.26	79.65	76.02	70.45	70.28	74.46	78.29	75.38	69.82	69.25
18.00	DISCHG	72.97	76.40	73.05	66.87	65.48	66.30	64.03	54.93	45.70	44.10
19.00	DISCHG	48.17	52.24	49.45	39.17	27.93	20.69	17.46	16.32	15.94	15.78
20.00	DISCHG	15.71	15.75	16.01	16.57	17.29	17.99	18.48	18.57	18.26	17.68
21.00	DISCHG	17.06	16.63	16.58	16.92	17.52	18.15	18.59	18.66	18.33	17.74
22.00	DISCHG	17.12	16.69	16.63	16.97	17.57	18.19	18.64	18.71	18.38	17.79
23.00	DISCHG	17.17	16.65	16.30	16.07	15.94	15.87	15.91	16.18	16.73	17.45
24.00	DISCHG	18.14	18.33	17.26	14.67	11.14	7.64	4.84	2.91	1.71	0.98
25.00	DISCHG	0.55	0.30	0.15	0.06	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2402 CFS-HRS= 2175.89 ACRE-FT= 179.82

SUBROUTINE REACH CROSS SECTION 117
LENGTH= 1030.00 INPUT COEFFICIENT= 0.9200 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 19.550 AVERAGE ROUTING COEFF= 0.9200 NUMBER OF ROUTINGS= 0.13

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.67	1275.781	(NULL)
16.07	95.064	(NULL)
16.60	87.689	(NULL)
17.10	79.334	(NULL)
17.62	77.848	(NULL)
18.11	75.957	(NULL)
18.47	66.281	(NULL)
19.12	51.792	(NULL)
21.68	18.661	(NULL)
22.68	18.707	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.72

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.03
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08

8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.14	0.20	0.27	0.33	0.39	0.58	0.97	1.41	1.80
10.00	DISCHG	2.11	2.41	2.78	3.21	3.63	4.03	4.43	4.95	5.66	6.57
11.00	DISCHG	7.64	8.91	10.54	12.58	14.91	17.55	24.98	50.68	109.79	213.02
12.00	DISCHG	356.41	522.59	690.49	853.13	1010.61	1155.60	1262.50	1283.64	1200.22	1044.42
13.00	DISCHG	869.82	717.53	598.14	509.91	449.93	410.58	382.35	354.74	327.33	305.73
14.00	DISCHG	289.76	275.49	257.22	237.82	224.29	216.65	210.52	199.46	185.89	176.91
15.00	DISCHG	172.94	169.55	159.48	144.62	132.64	125.31	119.82	110.51	99.37	94.58
16.00	DISCHG	94.58	95.59	91.47	84.81	82.59	84.96	87.68	84.43	77.93	75.23
17.00	DISCHG	76.95	79.33	76.51	71.20	70.30	73.90	77.77	75.77	70.57	69.33
18.00	DISCHG	72.47	75.93	72.50	67.70	65.67	66.19	64.33	56.15	46.94	44.32
19.00	DISCHG	47.62	51.69	49.82	40.56	29.45	21.67	17.69	16.47	15.99	15.80
20.00	DISCHG	15.72	15.74	15.98	16.49	17.19	17.90	18.41	18.56	18.30	17.76
21.00	DISCHG	17.14	16.69	16.58	16.87	17.44	18.06	18.53	18.65	18.38	17.82
22.00	DISCHG	17.21	16.75	16.64	16.92	17.49	18.11	18.58	18.70	18.42	17.87
23.00	DISCHG	17.25	16.72	16.34	16.10	15.96	15.88	15.90	16.14	16.65	17.36
24.00	DISCHG	18.05	18.30	17.41	15.02	11.62	8.11	5.22	3.17	1.87	1.08
25.00	DISCHG	0.61	0.33	0.17	0.07	0.0					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2402 CFS-HRS= 2175.89 ACRE-FT= 179.82

SUBROUTINE RUNOFF CROSS SECTION 31
AREA= 0.24 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.58

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.59	164.381	(RUNOFF)
16.63	3.096	(RUNOFF)
18.01	3.237	(RUNOFF)
19.13	3.119	(RUNOFF)
20.64	3.111	(RUNOFF)
21.63	3.130	(RUNOFF)
22.63	3.136	(RUNOFF)
24.02	3.052	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.24

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.04	0.10	0.19
11.00	DISCHG	0.33	0.50	0.74	1.05	1.42	2.08	4.50	11.28	24.56	43.70
12.00	DISCHG	66.14	89.07	110.37	129.27	145.75	158.87	164.42	156.94	135.50	107.36
13.00	DISCHG	80.49	59.38	45.01	35.09	27.94	22.87	19.27	16.58	14.36	12.53
14.00	DISCHG	11.11	10.12	9.50	9.16	9.02	9.00	8.98	8.93	8.83	8.72
15.00	DISCHG	8.60	8.35	7.77	6.81	5.72	4.74	4.00	3.52	3.21	3.00
16.00	DISCHG	2.86	2.79	2.79	2.86	2.95	3.04	3.09	3.08	3.00	2.90
17.00	DISCHG	2.81	2.76	2.77	2.85	2.95	3.05	3.12	3.17	3.20	3.22
18.00	DISCHG	3.24	3.23	3.18	3.07	2.95	2.85	2.79	2.80	2.87	2.97
19.00	DISCHG	3.06	3.12	3.10	3.03	2.93	2.83	2.76	2.71	2.68	2.66
20.00	DISCHG	2.65	2.67	2.72	2.82	2.94	3.04	3.11	3.10	3.03	2.93
21.00	DISCHG	2.85	2.80	2.81	2.88	2.98	3.07	3.13	3.12	3.04	2.95
22.00	DISCHG	2.86	2.81	2.82	2.89	2.99	3.08	3.13	3.12	3.05	2.95

23.00	DISCHG	2.86	2.79	2.74	2.71	2.69	2.68	2.69	2.75	2.85	2.96
24.00	DISCHG	3.05	3.01	2.76	2.29	1.72	1.20	0.79	0.52	0.35	0.23
25.00	DISCHG	0.15	0.10	0.06	0.04	0.03	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3337 CFS-HRS= 208.73 ACRE-FT= 17.25

SUBROUTINE ADDHYD CROSS SECTION 118
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.66	1435.352	(NULL)
16.07	97.849	(NULL)
16.60	90.781	(NULL)
17.10	82.092	(NULL)
17.62	80.981	(NULL)
18.11	79.182	(NULL)
18.47	69.157	(NULL)
19.12	54.911	(NULL)
21.67	21.785	(NULL)
22.67	21.836	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.96

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.03
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.14	0.20	0.27	0.33	0.39	0.58	0.97	1.41	1.80
10.00	DISCHG	2.11	2.41	2.78	3.21	3.63	4.03	4.44	4.98	5.75	6.76
11.00	DISCHG	7.97	9.41	11.28	13.63	16.33	19.64	29.48	61.96	134.35	256.73
12.00	DISCHG	422.55	611.66	800.86	982.40	1156.36	1314.47	1426.92	1440.59	1335.72	1151.77
13.00	DISCHG	950.31	776.90	643.15	545.00	477.87	433.45	401.62	371.32	341.69	318.26
14.00	DISCHG	300.87	285.61	266.72	246.99	233.31	225.65	219.50	208.38	194.72	185.63
15.00	DISCHG	181.54	177.90	167.25	151.43	138.36	130.06	123.82	114.04	103.08	97.58
16.00	DISCHG	97.44	98.38	94.26	87.67	85.54	88.00	90.78	87.56	80.94	78.13
17.00	DISCHG	79.76	82.09	79.28	74.05	73.25	76.95	80.90	78.94	73.77	72.55
18.00	DISCHG	75.70	79.16	76.68	70.77	68.62	69.04	67.12	58.95	49.81	47.29
19.00	DISCHG	50.68	54.81	52.93	43.58	32.37	24.50	20.65	19.19	18.67	18.47
20.00	DISCHG	18.37	18.41	18.70	19.31	20.13	20.94	21.52	21.66	21.33	20.69
21.00	DISCHG	19.99	19.49	19.39	19.76	20.42	21.14	21.66	21.77	21.42	20.77
22.00	DISCHG	20.06	19.56	19.46	19.81	20.47	21.19	21.71	21.82	21.48	20.83
23.00	DISCHG	20.11	19.51	19.08	18.81	18.64	18.56	18.60	18.89	19.50	20.32
24.00	DISCHG	21.10	21.32	20.17	17.31	13.34	9.31	6.01	3.70	2.22	1.31
25.00	DISCHG	0.76	0.43	0.23	0.11	0.03	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2478 CFS-HRS= 2384.62 ACRE-FT= 197.06

SUBROUTINE REACH CROSS SECTION 119
LENGTH= 1400.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.21

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.68	1426.099	(NULL)
16.07	97.598	(NULL)
16.61	90.219	(NULL)
17.11	81.614	(NULL)
17.63	80.352	(NULL)
18.12	78.572	(NULL)
19.14	54.257	(NULL)
20.70	21.630	(NULL)
21.69	21.747	(NULL)
22.69	21.799	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 2.96

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.03
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.14	0.19	0.25	0.32	0.38	0.54	0.89	1.32	1.72
10.00	DISCHG	2.04	2.35	2.71	3.12	3.54	3.95	4.36	4.87	5.60	6.55
11.00	DISCHG	7.72	9.12	10.90	13.15	15.77	18.95	27.45	55.27	119.44	231.51
12.00	DISCHG	388.38	572.69	761.87	944.99	1120.51	1281.89	1403.74	1437.77	1357.32	1189.68
13.00	DISCHG	991.82	812.64	670.72	565.23	491.70	442.60	408.18	377.56	347.80	323.09
14.00	DISCHG	304.46	288.75	270.61	251.05	236.13	227.23	220.77	210.67	197.54	187.50
15.00	DISCHG	182.39	178.65	169.44	154.69	141.06	131.77	125.11	116.05	105.34	98.71
16.00	DISCHG	97.47	98.19	95.11	89.03	85.98	87.50	90.21	88.23	82.30	78.71
17.00	DISCHG	79.43	81.61	79.86	75.12	73.42	76.19	80.08	79.34	74.84	72.80
18.00	DISCHG	75.06	73.45	77.19	71.99	69.06	68.95	67.51	60.63	51.69	47.81
19.00	DISCHG	49.98	53.96	53.31	45.51	34.68	26.12	21.45	19.49	18.78	18.51
20.00	DISCHG	18.39	18.40	18.64	19.19	19.96	20.78	21.40	21.63	21.40	20.82
21.00	DISCHG	20.13	19.59	19.41	19.68	20.28	20.99	21.55	21.75	21.49	20.90
22.00	DISCHG	20.21	19.66	19.48	19.74	20.34	21.04	21.60	21.80	21.55	20.96
23.00	DISCHG	20.26	19.63	19.17	18.87	18.68	18.58	18.59	18.83	19.37	20.15
24.00	DISCHG	20.94	21.27	20.41	17.90	14.16	10.14	6.69	4.17	2.52	1.49
25.00	DISCHG	0.87	0.50	0.27	0.14	0.04	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2478 CFS-HRS= 2384.61 ACRE-FT= 197.06

SUBROUTINE RUNOFF CROSS SECTION 32
AREA= 0.06 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.35

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.51	45.170	(RUNOFF)
14.52	2.200	(RUNOFF)
16.52	0.776	(RUNOFF)
17.96	0.794	(RUNOFF)
19.02	0.780	(RUNOFF)
20.52	0.782	(RUNOFF)
21.52	0.785	(RUNOFF)
22.52	0.788	(RUNOFF)
23.97	0.793	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.06

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.05	0.09
11.00	DISCHG	0.14	0.20	0.29	0.40	0.52	0.68	1.94	6.06	12.92	20.04
12.00	DISCHG	26.35	31.61	35.99	39.63	42.57	44.76	43.13	32.74	20.76	12.57
13.00	DISCHG	8.72	6.33	5.10	4.16	3.61	3.32	3.10	2.77	2.43	2.23
14.00	DISCHG	2.13	2.09	2.11	2.14	2.16	2.18	2.17	2.14	2.10	2.07
15.00	DISCHG	2.06	1.93	1.56	1.15	0.89	0.76	0.70	0.66	0.65	0.64
16.00	DISCHG	0.63	0.65	0.69	0.73	0.76	0.78	0.77	0.73	0.69	0.66
17.00	DISCHG	0.65	0.65	0.69	0.73	0.76	0.78	0.78	0.79	0.79	0.79
18.00	DISCHG	0.79	0.78	0.74	0.69	0.66	0.65	0.66	0.69	0.74	0.77
19.00	DISCHG	0.78	0.77	0.74	0.69	0.67	0.65	0.64	0.64	0.64	0.64
20.00	DISCHG	0.64	0.65	0.69	0.74	0.77	0.78	0.78	0.74	0.70	0.67
21.00	DISCHG	0.65	0.66	0.70	0.74	0.77	0.78	0.78	0.74	0.70	0.67
22.00	DISCHG	0.66	0.66	0.70	0.74	0.77	0.79	0.78	0.74	0.70	0.67
23.00	DISCHG	0.66	0.65	0.65	0.64	0.64	0.64	0.66	0.70	0.74	0.77
24.00	DISCHG	0.79	0.73	0.53	0.29	0.15	0.07	0.04	0.02	0.01	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 50.69 ACRE-FT= 4.19

SUBROUTINE ADDHYD CROSS SECTION 120
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.67	1461.283	(NULL)
16.07	98.233	(NULL)
16.61	90.987	(NULL)
17.11	82.269	(NULL)
17.63	81.139	(NULL)
18.12	79.345	(NULL)
19.14	55.020	(NULL)
20.69	22.372	(NULL)
21.68	22.494	(NULL)
22.68	22.547	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.02	0.03
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.14	0.19	0.25	0.32	0.38	0.54	0.89	1.32	1.72
10.00	DISCHG	2.04	2.35	2.71	3.12	3.54	3.95	4.36	4.90	5.65	6.65
11.00	DISCHG	7.86	9.31	11.19	13.55	16.29	19.63	29.39	61.33	132.35	251.55
12.00	DISCHG	414.73	604.30	797.87	984.62	1163.08	1326.65	1446.87	1470.50	1378.08	1202.25
13.00	DISCHG	1000.54	819.17	675.82	569.39	495.31	445.93	411.27	380.33	350.23	325.32
14.00	DISCHG	306.58	290.84	272.72	253.19	238.29	229.41	222.94	212.81	199.63	189.57

15.00	DISCHG	184.44	180.58	171.01	155.84	141.95	132.53	125.80	116.72	105.99	99.35
16.00	DISCHG	98.10	98.84	95.79	89.76	86.74	83.27	90.97	88.96	82.99	79.37
17.00	DISCHG	80.08	82.26	80.55	75.86	74.18	76.96	80.87	80.13	75.63	73.60
18.00	DISCHG	75.85	79.23	77.93	72.68	69.73	69.60	68.17	61.33	52.43	48.57
19.00	DISCHG	50.76	54.73	54.05	46.20	35.35	26.77	22.09	20.13	19.42	19.15
20.00	DISCHG	19.03	19.05	19.33	19.92	20.73	21.56	22.18	22.37	22.09	21.49
21.00	DISCHG	20.79	20.25	20.11	20.42	21.06	21.78	22.33	22.49	22.19	21.57
22.00	DISCHG	20.87	20.32	20.18	20.48	21.11	21.83	22.38	22.54	22.25	21.63
23.00	DISCHG	20.92	20.28	19.82	19.51	19.32	19.22	19.25	19.53	20.12	20.92
24.00	DISCHG	21.73	22.00	20.93	18.19	14.31	10.22	6.73	4.19	2.53	1.49
25.00	DISCHG	0.87	0.50	0.27	0.14	0.04	0.02	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2495 CFS-HRS= 2435.30 ACRE-FT= 201.25

SUBROUTINE REACH CROSS SECTION 121
LENGTH= 1010.00 INPUT COEFFICIENT= 0.9100 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 17.189 AVERAGE ROUTING COEFF= 0.9100 NUMBER OF ROUTINGS= 0.15

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.68	1454.208	(NULL)
16.06	98.132	(NULL)
16.62	90.620	(NULL)
17.11	81.965	(NULL)
17.65	80.739	(NULL)
18.13	78.950	(NULL)
19.15	54.996	(NULL)
20.71	22.342	(NULL)
21.70	22.465	(NULL)
22.70	22.518	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.02

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.02	0.02
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.14	0.18	0.24	0.31	0.37	0.52	0.84	1.26	1.66
10.00	DISCHG	1.99	2.31	2.65	3.06	3.48	3.89	4.30	4.82	5.54	6.50
11.00	DISCHG	7.68	9.10	10.91	13.20	15.88	19.14	27.94	56.58	121.80	233.84
12.00	DISCHG	390.49	576.14	769.12	956.88	1136.57	1302.35	1429.01	1466.99	1391.81	1228.37
13.00	DISCHG	1030.50	846.11	697.11	585.20	506.31	453.26	416.42	384.92	354.70	329.02
14.00	DISCHG	309.37	293.18	275.41	256.09	240.51	230.73	223.90	214.32	201.59	191.06
15.00	DISCHG	185.20	181.15	172.43	158.09	144.01	133.93	126.80	118.06	107.58	100.34
16.00	DISCHG	98.29	98.73	96.25	90.65	87.19	88.04	90.57	89.26	83.88	79.91
17.00	DISCHG	79.97	81.94	80.80	76.56	74.43	76.55	80.29	80.24	76.30	73.90
18.00	DISCHG	75.51	78.73	78.12	73.46	70.17	69.62	68.38	62.34	53.75	49.15
19.00	DISCHG	50.44	54.14	54.15	47.37	36.96	28.05	22.79	20.42	19.52	19.19
20.00	DISCHG	19.05	19.05	19.29	19.84	20.61	21.44	22.08	22.34	22.13	21.58
21.00	DISCHG	20.89	20.33	20.13	20.38	20.96	21.67	22.25	22.46	22.23	21.66
22.00	DISCHG	20.97	20.41	20.20	20.44	21.02	21.72	22.30	22.52	22.29	21.72
23.00	DISCHG	21.02	20.38	19.89	19.56	19.35	19.23	19.24	19.48	20.03	20.81
24.00	DISCHG	21.61	21.96	21.09	18.60	14.88	10.82	7.25	4.57	2.78	1.65
25.00	DISCHG	0.97	0.55	0.31	0.16	0.06	0.02	0.01	0.0		

18.13	79.621	(NULL)
19.15	55.269	(NULL)
20.70	22.991	(NULL)
21.69	23.117	(NULL)
22.69	23.173	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.01	0.01	0.02	0.02
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.06
8.00	DISCHG	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.07	0.08	0.08
9.00	DISCHG	0.12	0.14	0.18	0.24	0.31	0.37	0.52	0.09	0.10	0.11
10.00	DISCHG	1.99	2.31	2.65	3.06	3.48	3.89	4.30	0.84	1.26	1.66
11.00	DISCHG	7.79	9.25	11.14	13.51	16.29	19.69	29.33	4.83	5.58	6.57
12.00	DISCHG	411.24	601.63	798.68	989.79	1172.30	1340.18	1466.11	60.91	131.10	249.03
13.00	DISCHG	1039.90	852.94	702.38	589.37	509.82	456.37	419.26	1497.73	1413.25	1242.11
14.00	DISCHG	311.26	295.02	277.24	257.95	242.38	232.61	225.78	387.46	356.93	331.03
15.00	DISCHG	186.99	182.85	173.88	159.22	144.88	134.65	127.44	216.18	203.42	192.87
16.00	DISCHG	98.85	99.29	96.83	91.27	87.84	88.71	91.24	118.66	108.16	100.90
17.00	DISCHG	80.54	82.51	81.40	77.18	75.08	77.22	80.97	89.90	84.49	80.49
18.00	DISCHG	76.20	79.41	78.77	74.08	70.76	70.19	68.96	80.92	76.98	74.58
19.00	DISCHG	51.11	54.81	54.80	47.98	37.55	28.62	23.35	62.94	54.38	49.80
20.00	DISCHG	19.60	19.61	19.88	20.46	21.27	22.11	22.76	20.98	20.08	19.74
21.00	DISCHG	21.47	20.90	20.73	21.01	21.62	22.34	22.92	22.99	22.75	22.17
22.00	DISCHG	21.55	20.98	20.80	21.07	21.68	22.40	22.98	23.12	22.85	22.26
23.00	DISCHG	21.60	20.95	20.45	20.12	19.91	19.79	19.81	23.17	22.91	22.31
24.00	DISCHG	22.29	22.60	21.60	18.93	15.06	10.92	7.30	20.08	20.66	21.47
25.00	DISCHG	0.97	0.55	0.31	0.16	0.06	0.02	0.01	4.60	2.79	1.66

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2509 CFS-HRS= 2479.27 ACRE-FT= 204.89

SUBROUTINE REACH CROSS SECTION 123
LENGTH= 1250.00 INPUT COEFFICIENT= 0.8900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 13.755 AVERAGE ROUTING COEFF= 0.8900 NUMBER OF ROUTINGS= 0.22

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.70	1476.051	(NULL)
16.63	90.803	(NULL)
17.13	82.142	(NULL)
17.57	81.096	(NULL)
18.16	79.307	(NULL)
19.16	55.208	(NULL)
20.72	22.948	(NULL)
21.71	23.076	(NULL)
22.71	23.132	(NULL)
24.09	22.539	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.07

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2495 CFS-HRS= 2435.31 ACRE-FT= 201.25

SUBROUTINE RUNOFF CROSS SECTION 33
AREA= 0.05 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= 0.40

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.52	38.251	(RUNOFF)
14.55	1.907	(RUNOFF)
16.55	0.667	(RUNOFF)
17.95	0.687	(RUNOFF)
19.05	0.673	(RUNOFF)
20.55	0.675	(RUNOFF)
21.55	0.677	(RUNOFF)
22.55	0.678	(RUNOFF)
23.98	0.679	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.05

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.04	0.07
11.00	DISCHG	0.11	0.16	0.23	0.32	0.41	0.55	1.39	4.32	9.30	15.18
12.00	DISCHG	20.74	25.49	29.56	32.92	35.73	37.83	37.10	30.74	21.44	13.74
13.00	DISCHG	9.40	6.84	5.27	4.17	3.51	3.11	2.84	2.53	2.23	2.02
14.00	DISCHG	1.90	1.84	1.84	1.85	1.87	1.88	1.88	1.86	1.83	1.80
15.00	DISCHG	1.78	1.69	1.45	1.13	0.87	0.72	0.64	0.60	0.58	0.56
16.00	DISCHG	0.56	0.56	0.59	0.62	0.65	0.66	0.66	0.64	0.61	0.58
17.00	DISCHG	0.57	0.57	0.59	0.62	0.65	0.67	0.68	0.68	0.68	0.69
18.00	DISCHG	0.69	0.68	0.65	0.62	0.59	0.57	0.57	0.59	0.63	0.65
19.00	DISCHG	0.67	0.67	0.65	0.61	0.59	0.57	0.56	0.56	0.56	0.55
20.00	DISCHG	0.55	0.56	0.59	0.63	0.66	0.67	0.67	0.65	0.62	0.59
21.00	DISCHG	0.57	0.58	0.60	0.63	0.66	0.67	0.67	0.65	0.62	0.59
22.00	DISCHG	0.58	0.58	0.60	0.63	0.66	0.68	0.68	0.65	0.62	0.59
23.00	DISCHG	0.58	0.57	0.56	0.56	0.56	0.56	0.57	0.60	0.63	0.66
24.00	DISCHG	0.68	0.64	0.51	0.33	0.18	0.10	0.05	0.03	0.02	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.3333 CFS-HRS= 43.96 ACRE-FT= 3.63

SUBROUTINE ADDHYD CROSS SECTION 122
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.68	1486.143	(NULL)
16.07	98.684	(NULL)
16.62	91.283	(NULL)
17.11	82.535	(NULL)
17.65	81.418	(NULL)

4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.02	0.02
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.13	0.17	0.23	0.29	0.36	0.48	0.76	1.16	1.57
10.00	DISCHG	1.92	2.24	2.58	2.97	3.39	3.79	4.21	4.71	5.41	6.35
11.00	DISCHG	7.51	8.92	10.71	12.98	15.66	18.92	27.16	53.79	115.29	222.46
12.00	DISCHG	374.69	558.73	754.27	946.72	1131.17	1302.35	1437.73	1490.59	1432.27	1290.66
13.00	DISCHG	1085.46	895.08	736.32	614.84	527.75	468.42	427.62	394.62	363.81	336.87
14.00	DISCHG	315.72	298.68	281.25	262.29	245.89	234.81	227.32	218.34	206.29	195.25
15.00	DISCHG	188.31	183.78	175.90	162.52	148.12	136.96	129.07	120.64	110.52	102.53
16.00	DISCHG	99.31	99.19	97.38	92.53	88.61	88.51	90.67	90.20	85.71	81.39
17.00	DISCHG	80.53	82.06	81.65	78.13	75.55	76.74	80.12	80.93	77.87	75.12
18.00	DISCHG	75.84	78.68	78.91	75.13	71.50	70.32	69.23	64.29	56.31	50.83
19.00	DISCHG	50.82	53.98	54.80	49.52	39.90	30.63	24.54	21.51	20.28	19.82
20.00	DISCHG	19.64	19.61	19.82	20.33	21.09	21.92	22.61	22.94	22.80	22.30
21.00	DISCHG	21.62	21.03	20.77	20.95	21.48	22.18	22.79	23.07	22.91	22.39
22.00	DISCHG	21.71	21.11	20.84	21.01	21.54	22.24	22.85	23.13	22.97	22.45
23.00	DISCHG	21.76	21.09	20.56	20.19	19.96	19.82	19.81	20.02	20.53	21.28
24.00	DISCHG	22.10	22.53	21.82	19.53	15.93	11.86	8.12	5.21	3.20	1.91
25.00	DISCHG	1.12	0.65	0.36	0.19	0.08	0.03	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2509 CFS-HRS= 2479.28 ACRE-FT= 204.89

SUBROUTINE RUNOFF CROSS SECTION 34
AREA= 0.03 INPUT RUNOFF CURVE= 83.0 TIME OF CONCENTRATION= 0.45

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.56	18.857	(RUNOFF)
14.56	1.023	(RUNOFF)
16.57	0.357	(RUNOFF)
18.00	0.370	(RUNOFF)
19.07	0.361	(RUNOFF)
20.58	0.363	(RUNOFF)
21.57	0.365	(RUNOFF)
22.57	0.366	(RUNOFF)
23.99	0.364	(RUNOFF)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 0.03

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.01	0.18	0.87	2.38	4.73
12.00	DISCHG	7.42	10.10	12.57	14.78	16.72	18.40	18.70	16.51	12.47	8.56
13.00	DISCHG	5.88	4.30	3.27	2.59	2.12	1.82	1.63	1.45	1.28	1.13
14.00	DISCHG	1.05	1.01	0.99	1.00	1.00	1.01	1.01	1.00	0.99	0.97
15.00	DISCHG	0.96	0.92	0.82	0.66	0.53	0.43	0.37	0.34	0.32	0.31
16.00	DISCHG	0.30	0.30	0.31	0.33	0.34	0.35	0.36	0.35	0.33	0.32
17.00	DISCHG	0.31	0.31	0.32	0.33	0.35	0.36	0.36	0.37	0.37	0.37

18.00	DISCHG	0.37	0.37	0.36	0.34	0.32	0.31	0.31	0.32	0.33	0.35
19.00	DISCHG	0.36	0.36	0.35	0.34	0.32	0.31	0.31	0.30	0.30	0.30
20.00	DISCHG	0.30	0.30	0.32	0.33	0.35	0.36	0.36	0.35	0.34	0.32
21.00	DISCHG	0.32	0.31	0.32	0.34	0.35	0.36	0.36	0.36	0.34	0.33
22.00	DISCHG	0.32	0.31	0.32	0.34	0.35	0.36	0.37	0.36	0.34	0.33
23.00	DISCHG	0.32	0.31	0.31	0.31	0.31	0.30	0.31	0.32	0.34	0.35
24.00	DISCHG	0.36	0.35	0.29	0.21	0.13	0.08	0.04	0.03	0.02	0.01
25.00	DISCHG	0.0									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.0763 CFS-HRS= 21.38 ACRE-FT= 1.77

SUBROUTINE ADDHYD CROSS SECTION 124
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 5

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.69	1492.523	(NULL)
16.63	91.159	(NULL)
17.13	82.453	(NULL)
17.67	81.461	(NULL)
18.16	79.668	(NULL)
19.16	55.564	(NULL)
20.72	23.300	(NULL)
21.71	23.431	(NULL)
22.71	23.487	(NULL)
24.09	22.892	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.10

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.02	0.02
6.00	DISCHG	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08
8.00	DISCHG	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.11
9.00	DISCHG	0.12	0.13	0.17	0.23	0.29	0.36	0.48	0.76	1.16	1.57
10.00	DISCHG	1.92	2.24	2.58	2.97	3.39	3.79	4.21	4.71	5.41	6.35
11.00	DISCHG	7.51	8.92	10.71	12.98	15.66	18.93	27.33	54.66	117.66	227.19
12.00	DISCHG	382.11	568.83	766.85	961.50	1147.89	1320.75	1456.42	1507.10	1444.74	1289.22
13.00	DISCHG	1091.34	899.37	739.59	617.43	529.87	470.24	429.26	396.08	365.09	338.00
14.00	DISCHG	316.77	299.69	282.25	263.29	246.89	235.82	228.33	219.34	207.28	196.22
15.00	DISCHG	189.27	184.70	176.71	163.19	148.64	137.38	129.44	120.98	110.84	102.84
16.00	DISCHG	99.61	99.49	97.70	92.86	88.96	88.87	91.02	90.55	86.04	81.71
17.00	DISCHG	80.84	82.37	81.96	78.46	75.90	77.09	80.48	81.30	78.24	75.49
18.00	DISCHG	76.21	79.05	79.27	75.47	71.83	70.63	69.54	64.61	56.64	51.18
19.00	DISCHG	51.17	54.34	55.15	49.86	40.22	30.95	24.85	21.82	20.59	20.12
20.00	DISCHG	19.94	19.91	20.14	20.67	21.43	22.28	22.97	23.29	23.14	22.62
21.00	DISCHG	21.94	21.34	21.09	21.28	21.83	22.54	23.16	23.43	23.25	22.72
22.00	DISCHG	22.02	21.42	21.16	21.35	21.90	22.60	23.21	23.48	23.31	22.78
23.00	DISCHG	22.08	21.40	20.87	20.50	20.26	20.13	20.11	20.34	20.87	21.64
24.00	DISCHG	22.47	22.88	22.12	19.74	16.06	11.93	8.16	5.23	3.22	1.92
25.00	DISCHG	1.12	0.65	0.36	0.19	0.08	0.03	0.01	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2492 CFS-HRS= 2500.67 ACRE-FT= 206.65

SUBROUTINE REACH CROSS SECTION 125

LENGTH= 2000.00 INPUT COEFFICIENT= 0.8900 INPUT ROUTINGS= 0.0

AVERAGE WATER VELOCITY= 13.755 AVERAGE ROUTING COEFF= 0.8900 NUMBER OF ROUTINGS= 0.36

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.73	1478.120	(NULL)
16.66	90.948	(NULL)
17.16	82.310	(NULL)
17.70	80.992	(NULL)
18.19	79.229	(NULL)
19.19	54.899	(NULL)
20.76	23.237	(NULL)
21.75	23.373	(NULL)
22.75	23.429	(NULL)
24.11	22.734	(NULL)

HYDROGRAPH, TZERO= 0.0 DELTA T= 0.10 DRAINAGE AREA= 3.10

TIME											
0.0	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	DISCHG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.02	0.02
6.00	DISCHG	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05
7.00	DISCHG	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08
8.00	DISCHG	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.10	0.11
9.00	DISCHG	0.11	0.13	0.16	0.21	0.27	0.33	0.44	0.66	1.02	1.42
10.00	DISCHG	1.79	2.12	2.45	2.82	3.23	3.64	4.06	4.53	5.15	6.00
11.00	DISCHG	7.08	8.40	10.06	12.15	14.68	17.73	24.26	44.67	94.61	187.07
12.00	DISCHG	325.30	500.29	694.10	886.95	1079.36	1257.18	1406.45	1488.22	1467.33	1346.11
13.00	DISCHG	1163.94	969.94	798.41	662.44	562.15	492.24	444.38	408.30	376.48	347.97
14.00	DISCHG	324.59	305.98	288.66	270.25	252.93	239.91	231.10	222.64	211.70	200.29
15.00	DISCHG	191.84	186.39	179.64	168.14	153.98	141.53	132.37	124.09	114.57	105.79
16.00	DISCHG	100.81	99.55	98.35	94.63	90.39	88.91	90.24	90.72	87.68	83.30
17.00	DISCHG	81.17	81.82	82.11	79.74	76.85	76.67	79.24	80.99	79.35	76.50
18.00	DISCHG	75.96	78.01	79.18	76.86	73.17	71.08	69.95	66.41	59.56	53.20
19.00	DISCHG	51.19	53.18	54.85	51.79	43.75	34.36	27.10	22.94	21.04	20.29
20.00	DISCHG	20.00	19.92	20.06	20.47	21.15	21.97	22.72	23.17	23.20	22.81
21.00	DISCHG	22.19	21.56	21.18	21.21	21.63	22.28	22.93	23.33	23.32	22.91
22.00	DISCHG	22.28	21.64	21.26	21.28	21.70	22.34	22.99	23.38	23.37	22.97
23.00	DISCHG	22.33	21.65	21.07	20.64	20.35	20.18	20.12	20.26	20.68	21.36
24.00	DISCHG	22.16	22.73	22.39	20.61	17.41	13.45	9.55	6.31	3.96	2.40
25.00	DISCHG	1.42	0.82	0.47	0.25	0.12	0.05	0.02	0.0		

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 1.2492 CFS-HRS= 2500.67 ACRE-FT= 206.66

ENDCMP

SUMMARY TABLE 1

ALT	STORM	ID	DA SQ-MI.	RAIN TABLE	AMC	DELTA-T HRS.	TZERO HRS.	PRECIP IN.	PRECIP DURATION	PEAK-Q CFS	PEAK-TIME	PEAK-ELEV	RUNOFF IN.	CSM
1	1	53	0.09	1	2	0.10	0.0	0.0	0.0	19.80	12.46	0.0	0.46	220.03
1	1	53	0.11	1	2	0.10	0.0	0.0	0.0	49.32	12.45	0.0	0.95	448.34
1	1	54	0.11	1	2	0.10	0.0	0.0	0.0	49.10	12.45	0.0	0.95	446.39
1	1	1	0.02	1	2	0.10	0.0	2.53	24.00	20.56	12.47	0.0	1.55	894.04
1	1	55	0.13	1	2	0.10	0.0	2.53	24.00	70.55	12.46	0.0	1.05	530.45
1	1	56	0.13	1	2	0.10	0.0	2.53	24.00	69.96	12.46	0.0	1.05	526.04
1	1	2	0.01	1	2	0.10	0.0	2.53	24.00	10.30	12.45	0.0	1.99	1046.36
1	1	57	0.14	1	2	0.10	0.0	2.53	24.00	80.25	12.46	0.0	1.12	561.81
1	1	58	0.14	1	2	0.10	0.0	2.53	24.00	80.00	12.46	0.0	1.12	560.08
1	1	3	0.04	1	2	0.10	0.0	2.53	24.00	31.70	12.54	0.0	1.33	737.79
1	1	59	0.19	1	2	0.10	0.0	2.53	24.00	111.19	12.48	0.0	1.17	598.39
1	1	60	0.19	1	2	0.10	0.0	2.53	24.00	110.66	12.49	0.0	1.17	595.54
1	1	4	0.02	1	2	0.10	0.0	2.53	24.00	19.45	12.50	0.0	1.33	778.01
1	1	61	0.21	1	2	0.10	0.0	2.53	24.00	130.10	12.49	0.0	1.19	617.13
1	1	62	0.21	1	2	0.10	0.0	2.53	24.00	128.91	12.51	0.0	1.19	611.49
1	1	64	0.37	1	2	0.10	0.0	2.53	24.00	292.06	12.82	0.0	2.90	789.34
1	1	65	1.11	1	2	0.10	0.0	2.53	24.00	332.28	12.85	0.0	1.26	299.36
1	1	66	1.11	1	2	0.10	0.0	2.53	24.00	323.47	12.90	0.0	1.26	291.41
1	1	5	0.04	1	2	0.10	0.0	2.53	24.00	31.63	12.51	0.0	1.40	793.91
1	1	67	1.15	1	2	0.10	0.0	2.53	24.00	336.75	12.60	0.0	1.27	292.87
1	1	62	1.15	1	2	0.10	0.0	2.53	24.00	336.88	12.88	0.0	1.27	292.98
1	1	6	0.07	1	2	0.10	0.0	2.53	24.00	51.66	12.52	0.0	1.40	779.74
1	1	68	1.22	1	2	0.10	0.0	2.53	24.00	382.65	12.60	0.0	1.28	314.65
1	1	68	1.43	1	2	0.10	0.0	2.53	24.00	508.26	12.58	0.0	1.26	356.20
1	1	88	1.43	1	2	0.10	0.0	2.53	24.00	503.58	12.59	0.0	1.26	352.92
1	1	171	0.04	1	2	0.10	0.0	2.53	24.00	33.69	12.52	0.0	1.33	748.70
1	1	86	0.04	1	2	0.10	0.0	2.53	24.00	33.24	12.56	0.0	1.33	738.61
1	1	172	0.04	1	2	0.10	0.0	2.53	24.00	26.78	12.52	0.0	1.33	758.33
1	1	87	0.08	1	2	0.10	0.0	2.53	24.00	59.96	12.54	0.0	1.33	746.56
1	1	88	0.08	1	2	0.10	0.0	2.53	24.00	59.19	12.56	0.0	1.33	737.05
1	1	173	0.04	1	2	0.10	0.0	2.53	24.00	33.89	12.52	0.0	1.33	758.33
1	1	89	0.12	1	2	0.10	0.0	2.53	24.00	92.98	12.55	0.0	1.33	743.81
1	1	89	1.55	1	2	0.10	0.0	2.53	24.00	595.32	12.59	0.0	1.27	383.61
1	1	90	1.55	1	2	0.10	0.0	2.53	24.00	590.70	12.60	0.0	1.27	380.63
1	1	18	0.14	1	2	0.10	0.0	2.53	24.00	103.99	12.56	0.0	1.33	721.86
1	1	91	1.70	1	2	0.10	0.0	2.53	24.00	693.95	12.59	0.0	1.27	409.18
1	1	92	1.70	1	2	0.10	0.0	2.53	24.00	691.71	12.60	0.0	1.27	407.86
1	1	19	0.02	1	2	0.10	0.0	2.53	24.00	12.40	12.50	0.0	1.33	778.01
1	1	93	1.71	1	2	0.10	0.0	2.53	24.00	703.38	12.59	0.0	1.27	410.88
1	1	94	1.71	1	2	0.10	0.0	2.53	24.00	698.26	12.61	0.0	1.27	407.89
1	1	7	0.02	1	2	0.10	0.0	2.53	24.00	22.32	12.48	0.0	1.63	909.80
1	1	70	0.02	1	2	0.10	0.0	2.53	24.00	21.93	12.50	0.0	1.64	893.93
1	1	8	0.02	1	2	0.10	0.0	2.53	24.00	16.35	12.46	0.0	1.72	942.73
1	1	71	0.04	1	2	0.10	0.0	2.53	24.00	38.21	12.48	0.0	1.67	912.53
1	1	72	0.04	1	2	0.10	0.0	2.53	24.00	38.09	12.48	0.0	1.67	909.67
1	1	9	0.03	1	2	0.10	0.0	2.53	24.00	18.66	12.57	0.0	1.34	715.29
1	1	73	0.07	1	2	0.10	0.0	2.53	24.00	56.41	12.51	0.0	1.54	830.00
1	1	77	0.07	1	2	0.10	0.0	2.53	24.00	55.72	12.54	0.0	1.54	819.91
1	1	11	0.06	1	2	0.10	0.0	2.53	24.00	46.11	12.52	0.0	1.55	831.23
1	1	75	0.06	1	2	0.10	0.0	2.53	24.00	45.88	12.54	0.0	1.55	827.08
1	1	12	0.03	1	2	0.10	0.0	2.53	24.00	19.78	12.52	0.0	1.33	758.33
1	1	76	0.08	1	2	0.10	0.0	2.53	24.00	65.63	12.53	0.0	1.48	804.74
1	1	77	0.08	1	2	0.10	0.0	2.53	24.00	65.04	12.55	0.0	1.48	797.47
1	1	13	0.02	1	2	0.10	0.0	2.53	24.00	13.86	12.52	0.0	1.33	758.34
1	1	78	0.10	1	2	0.10	0.0	2.53	24.00	78.98	12.54	0.0	1.46	791.08
1	1	78	0.17	1	2	0.10	0.0	2.53	24.00	134.70	12.54	0.0	1.49	802.75
1	1	79	0.17	1	2	0.10	0.0	2.53	24.00	133.96	12.55	0.0	1.49	798.32

1	1	14	0.03	1	2	0.10	0.0	2.53	24.00	20.73	12.51	0.0	1.33	766.76
1	1	80	0.19	1	2	0.10	0.0	2.53	24.00	154.78	12.55	0.0	1.47	794.43
1	1	81	0.19	1	2	0.10	0.0	2.53	24.00	153.93	12.55	0.0	1.47	790.06
1	1	15	0.03	1	2	0.10	0.0	2.53	24.00	23.13	12.51	0.0	1.33	766.76
1	1	82	0.22	1	2	0.10	0.0	2.53	24.00	177.11	12.55	0.0	1.45	787.18
1	1	83	0.22	1	2	0.10	0.0	2.53	24.00	176.00	12.56	0.0	1.45	782.26
1	1	16	0.01	1	2	0.10	0.0	2.53	24.00	7.68	12.49	0.0	1.33	780.01
1	1	84	0.23	1	2	0.10	0.0	2.53	24.00	183.51	12.55	0.0	1.45	781.46
1	1	94	0.23	1	2	0.10	0.0	2.53	24.00	182.53	12.56	0.0	1.45	777.27
1	1	20	0.02	1	2	0.10	0.0	2.53	24.00	17.09	12.45	0.0	1.99	1062.30
1	1	95	0.25	1	2	0.10	0.0	2.53	24.00	197.52	12.53	0.0	1.48	787.16
1	1	95	1.96	1	2	0.10	0.0	2.53	24.00	890.67	12.59	0.0	1.30	453.77
1	1	96	1.96	1	2	0.10	0.0	2.53	24.00	884.25	12.60	0.0	1.30	450.50
1	1	21	0.13	1	2	0.10	0.0	2.53	24.00	75.11	12.57	0.0	1.08	602.15
1	1	97	2.09	1	2	0.10	0.0	2.53	24.00	960.01	12.60	0.0	1.29	459.50
1	1	98	2.09	1	2	0.10	0.0	2.53	24.00	953.11	12.61	0.0	1.29	456.20
1	1	22	0.13	1	2	0.10	0.0	2.53	24.00	75.84	12.57	0.0	1.08	602.15
1	1	99	2.22	1	2	0.10	0.0	2.53	24.00	1028.26	12.61	0.0	1.27	464.19
1	1	100	2.22	1	2	0.10	0.0	2.53	24.00	1020.42	12.63	0.0	1.27	460.65
1	1	23	0.13	1	2	0.10	0.0	2.53	24.00	75.04	12.58	0.0	1.08	595.82
1	1	101	2.34	1	2	0.10	0.0	2.53	24.00	1094.67	12.62	0.0	1.26	467.59
1	1	102	2.34	1	2	0.10	0.0	2.53	24.00	1086.59	12.64	0.0	1.26	464.14
1	1	24	0.07	1	2	0.10	0.0	2.53	24.00	44.32	12.56	0.0	1.08	612.63
1	1	104	0.07	1	2	0.10	0.0	2.53	24.00	43.32	12.61	0.0	1.08	598.85
1	1	124	0.06	1	2	0.10	0.0	2.53	24.00	37.52	12.56	0.0	1.08	612.63
1	1	105	0.13	1	2	0.10	0.0	2.53	24.00	80.58	12.58	0.0	1.08	603.20
1	1	106	0.13	1	2	0.10	0.0	2.53	24.00	78.44	12.69	0.0	1.08	587.18
1	1	25	0.09	1	2	0.10	0.0	2.53	24.00	52.50	12.57	0.0	1.08	602.15
1	1	107	0.22	1	2	0.10	0.0	2.53	24.00	128.95	12.63	0.0	1.08	584.05
1	1	108	0.22	1	2	0.10	0.0	2.53	24.00	127.13	12.65	0.0	1.08	575.82
1	1	26	0.03	1	2	0.10	0.0	2.53	24.00	20.53	12.55	0.0	1.08	628.52
1	1	109	0.25	1	2	0.10	0.0	2.53	24.00	147.12	12.63	0.0	1.08	580.49
1	1	110	0.25	1	2	0.10	0.0	2.53	24.00	144.74	12.65	0.0	1.08	571.10
1	1	27	0.03	1	2	0.10	0.0	2.53	24.00	20.37	12.56	0.0	1.08	623.65
1	1	111	0.29	1	2	0.10	0.0	2.53	24.00	165.03	12.63	0.0	1.08	576.83
1	1	102	0.29	1	2	0.10	0.0	2.53	24.00	161.41	12.68	0.0	1.08	564.19
1	1	28	0.06	1	2	0.10	0.0	2.53	24.00	35.47	12.56	0.0	1.08	618.52
1	1	112	0.34	1	2	0.10	0.0	2.53	24.00	195.31	12.64	0.0	1.08	568.70
1	1	112	2.68	1	2	0.10	0.0	2.53	24.00	1281.90	12.64	0.0	1.24	477.51
1	1	113	2.68	1	2	0.10	0.0	2.53	24.00	1263.12	12.66	0.0	1.24	470.52
1	1	29	0.02	1	2	0.10	0.0	2.53	24.00	15.69	12.54	0.0	1.20	687.69
1	1	114	2.71	1	2	0.10	0.0	2.53	24.00	1276.99	12.66	0.0	1.24	471.68
1	1	115	2.71	1	2	0.10	0.0	2.53	24.00	1274.78	12.66	0.0	1.24	470.86
1	1	30	0.01	1	2	0.10	0.0	2.53	24.00	8.75	12.50	0.0	1.33	778.01
1	1	116	2.72	1	2	0.10	0.0	2.53	24.00	1281.65	12.66	0.0	1.24	471.44
1	1	117	2.72	1	2	0.10	0.0	2.53	24.00	1275.78	12.67	0.0	1.24	469.28
1	1	31	0.24	1	2	0.10	0.0	2.53	24.00	164.38	12.59	0.0	1.33	677.86
1	1	118	2.96	1	2	0.10	0.0	2.53	24.00	1435.35	12.66	0.0	1.25	484.74
1	1	119	2.96	1	2	0.10	0.0	2.53	24.00	1426.10	12.68	0.0	1.25	481.61
1	1	32	0.06	1	2	0.10	0.0	2.53	24.00	45.17	12.51	0.0	1.33	766.76
1	1	120	3.02	1	2	0.10	0.0	2.53	24.00	1461.28	12.67	0.0	1.25	483.87
1	1	121	3.02	1	2	0.10	0.0	2.53	24.00	1454.21	12.68	0.0	1.25	481.52
1	1	33	0.05	1	2	0.10	0.0	2.53	24.00	38.25	12.52	0.0	1.33	748.70
1	1	122	3.07	1	2	0.10	0.0	2.53	24.00	1486.14	12.68	0.0	1.25	483.91
1	1	123	3.07	1	2	0.10	0.0	2.53	24.00	1476.05	12.70	0.0	1.25	480.63
1	1	34	0.03	1	2	0.10	0.0	2.53	24.00	18.86	12.56	0.0	1.08	612.62
1	1	124	3.10	1	2	0.10	0.0	2.53	24.00	1492.52	12.69	0.0	1.25	481.17
1	1	125	3.10	1	2	0.10	0.0	2.53	24.00	1478.12	12.73	0.0	1.25	476.52

SUMMARY TABLE 3

	DISCHARGE,CFS									
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
XSEC/STRUC NO. 1 ALTERNATE 1	20.56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 2 ALTERNATE 1	10.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 3 ALTERNATE 1	31.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 4 ALTERNATE 1	19.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 5 ALTERNATE 1	31.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 6 ALTERNATE 1	51.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 7 ALTERNATE 1	22.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 8 ALTERNATE 1	16.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 9 ALTERNATE 1	18.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 11 ALTERNATE 1	46.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 12 ALTERNATE 1	19.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 13 ALTERNATE 1	13.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 14 ALTERNATE 1	20.73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 15 ALTERNATE 1	23.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 16 ALTERNATE 1	7.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 18 ALTERNATE 1	103.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 19 ALTERNATE 1	12.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 20 ALTERNATE 1	17.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 21										

ALTERNATE 1		76.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 22 ALTERNATE 1		75.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 23 ALTERNATE 1		75.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 24 ALTERNATE 1		44.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 25 ALTERNATE 1		52.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 26 ALTERNATE 1		20.53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 27 ALTERNATE 1		20.37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 28 ALTERNATE 1		35.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 29 ALTERNATE 1		15.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 30 ALTERNATE 1		8.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 31 ALTERNATE 1		164.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 32 ALTERNATE 1		45.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 33 ALTERNATE 1		38.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 34 ALTERNATE 1		18.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 53 ALTERNATE 1		49.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 54 ALTERNATE 1		49.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 55 ALTERNATE 1		70.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 56 ALTERNATE 1		69.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 57 ALTERNATE 1		80.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 58 ALTERNATE 1		80.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 59 ALTERNATE 1		111.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

XSEC/STRUC NO. 60 ALTERNATE 1	110.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 61 ALTERNATE 1	130.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 62 ALTERNATE 1	336.88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 64 ALTERNATE 1	292.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 65 ALTERNATE 1	332.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 66 ALTERNATE 1	323.47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 67 ALTERNATE 1	336.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 68 ALTERNATE 1	508.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 70 ALTERNATE 1	21.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 71 ALTERNATE 1	38.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 72 ALTERNATE 1	38.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 73 ALTERNATE 1	56.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 75 ALTERNATE 1	45.88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 76 ALTERNATE 1	65.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 77 ALTERNATE 1	65.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 78 ALTERNATE 1	134.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 79 ALTERNATE 1	133.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 80 ALTERNATE 1	154.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 81 ALTERNATE 1	153.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 82 ALTERNATE 1	177.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 83										

ALTERNATE	1	175.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 84 ALTERNATE	1	183.51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 86 ALTERNATE	1	33.24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 87 ALTERNATE	1	59.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 88 ALTERNATE	1	59.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 89 ALTERNATE	1	595.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 90 ALTERNATE	1	590.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 91 ALTERNATE	1	693.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 92 ALTERNATE	1	691.71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 93 ALTERNATE	1	703.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 94 ALTERNATE	1	182.53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 95 ALTERNATE	1	890.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 96 ALTERNATE	1	884.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 97 ALTERNATE	1	960.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 98 ALTERNATE	1	953.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO. 99 ALTERNATE	1	1028.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.100 ALTERNATE	1	1020.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.101 ALTERNATE	1	1094.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.102 ALTERNATE	1	161.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.104 ALTERNATE	1	43.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.105 ALTERNATE	1	80.58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

XSEC/STRUC NO.106 ALTERNATE 1	78.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.107 ALTERNATE 1	128.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.108 ALTERNATE 1	127.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.109 ALTERNATE 1	147.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.110 ALTERNATE 1	144.74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.111 ALTERNATE 1	165.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.112 ALTERNATE 1	1281.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.113 ALTERNATE 1	1263.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.114 ALTERNATE 1	1276.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.115 ALTERNATE 1	1274.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.116 ALTERNATE 1	1281.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.117 ALTERNATE 1	1275.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.118 ALTERNATE 1	1435.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.119 ALTERNATE 1	1426.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.120 ALTERNATE 1	1461.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.121 ALTERNATE 1	1454.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.122 ALTERNATE 1	1486.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.123 ALTERNATE 1	1476.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.124 ALTERNATE 1	1492.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.125 ALTERNATE 1	1478.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.171										

ALTERNATE	1	33.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.172 ALTERNATE	1	26.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XSEC/STRUC NO.173 ALTERNATE	1	33.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDJOB CARD ENCOUNTERED. END OF JOB.

HYDRAULICS

Sta. 222+50 to 256+95

Find d_c @ outlet w/ Q = 1493 d = 144"

d	A	V	$V^2/2g$	E
8.40	84.528	17.66	4.84	13.244
8.50	85.536	17.45	4.73	13.231
8.60	86.688	17.22	4.61	13.206
8.70	87.768	17.01	4.49	13.193
8.80	88.848	16.80	4.38	13.185
8.90	89.856	16.62	4.29	13.187
9.00	91.008	16.41	4.18	13.179
9.10	92.016	16.23	4.09	13.188
8.95	90.432	16.51	4.23	13.182
9.05	91.440	16.33	4.14	13.189
8.96	90.576	16.48	4.22	13.179
8.97	90.720	16.46	4.21	13.176
8.98	90.792	16.44	4.20	13.178
→ 8.99	90.864	16.43	4.19	13.172 ←

	H.G	E.G
	1265.50	1265.50
	8.99	13.17
	1274.49	1278.67
Sta. 222+50	1266.51	1266.51
	12.00	14.71
Sta. 232+59	1278.51	1281.22
24+36 × 0.0026	6.33	6.33
256+95	1284.84	1287.55

SPECIAL SECTION

Loss through enlargement

$\frac{d}{D} = \frac{7.5}{12} = 0.625$ $\qquad A = 144 \times 0.5165 = 74.38$

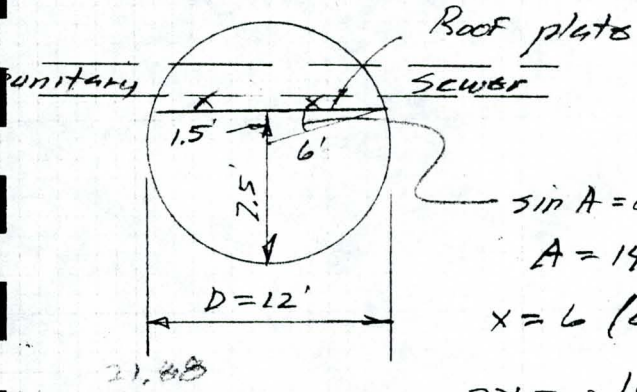
$V_1 = \frac{1494}{74.38} = 20.09$ $\qquad V_2 = 13.20$

$h_2 = \frac{(V_1 - V_2)^2}{2g} = \frac{(20.09 - 13.20)^2}{64.4} = 0.74'$

Loss through contraction $\qquad V_1 = 13.20 \quad V_2 = 20.09$

$h_3 = 0.7\left(\frac{V_2 - V_1}{2g}\right)^2 = \frac{0.7\,(20.09 - 13.20)^2}{64.4} = 0.52$

head Loss through 10' section of modified pipe



$\sin A = 0.250$

$A = 14^\circ 28' 39''$

$x = 6\,(\cos 14^\circ 28' 39'') = 5.81$

.96824589

$2x = 2(5.81) = 11.62$

208.955

5.646

$$\begin{array}{r} 180-00-00 \\ 28^\circ-57'-18'' \\ \hline 208^\circ-57'-18'' \end{array}$$

$$\text{Area} = \frac{208^\circ-57'-18''}{360-00-00} \times 113.10 + 1.5\left(\frac{11.62}{2}\right) = 74.361 \cong 74.38$$

11.62

$$W.P. = \frac{208.955}{360} \times 12 \times 3.1415926 + 2(5.81) = 33.50$$

$$R = \frac{74.361}{33.50} = 2.2197 \qquad C_1 = \frac{1.486}{0.012} \times 74.36 \times 2.2197^{2/3} = 20{,}440$$

$$S = \left(\frac{Q}{C_1}\right)^2 = \left(\frac{1493}{20{,}440}\right)^2 = 0.0053 \qquad h = 0.0053 \times 10 = 0.05$$

Total Loss = 0.52 + 0.74 + 0.05 = 1.31

	H.G.	E.G.
	1284.84	1287.55
	1.31	1.31
Sta. 257+05 →	1286.15	1288.86

	H.G.	E.G.
Sta 257+05 →	1286.15	1288.86
45 × 0.0026 =	.12	0.12
Sta 257+50 →	1286.27	1288.98

Transition Loss Sta. 257+50

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$$V_2 = \frac{1494}{113.1} = 13.20 \quad V_1 = \frac{1467}{113.1} = 12.97 \quad V_1^2/2g = 2.61$$

19720.8 19026.49

$$\Delta y(\bar{A}) = \frac{1494(13.20) - 1467(12.97)}{32.2} = 21.5$$

$$\Delta y = \frac{21.5}{113.1} = 0.19$$

Sta. 257+50 → 1286.46 (0.19) + 2.61 = 1289.07

144" Pipe

$$S_F = \left(\frac{1467}{29133}\right)^2 = 0.0025 \times 950 \rightarrow 2.40$$

Sta. 267+00 → 1288.86 + 2.61 = 1291.47

Transition Loss Sta. 267+00

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$$V_2 = \frac{1467}{113.1} = 12.97 \quad V_1 = \frac{1435}{113.1} = 12.68 \quad V_1^2/2g = 2.50$$

19026.59 18135.8

$$\Delta y(\bar{A}) = \frac{1467(12.97) - 1435(12.68)}{32.2} = 25.81$$

$$\Delta y = \frac{25.81}{113.1} = 0.23$$

Sta 267+00 → 1289.09 (0.23) + 2.50 = 1291.59

144" Pipe

$$S_F = \left(\frac{1435}{29133}\right)^2 = 0.00243 \times 1495 = 3.63$$

Sta. 281+95 → 1292.72 + 2.50 = 1295.22

DIETZGEN 100% Rag Tracing Vellum

TRANSITION LOSS Sta. 281+95 H.6. E6.

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = \frac{1435}{113.1} = 12.68$ $V_1 = \frac{1282}{95.030} = 13.49$ $V_1^2/2g = 2.83$

18195.8 17294.18

$$\Delta y(\bar{A}) = \frac{1435(12.68) + 1282(13.49)}{32.2} = 28.00$$

$$\bar{A} = \frac{113.1 + 95.03}{2} = 104.07$$

$$\Delta y = \frac{28.00}{104.07} = 0.27 \longrightarrow$$

1292.72 .27 1295.22

Sta. 281+95 $\longrightarrow$ = 1292.99 + 2.83 = 1295.82

132" Pipe

$$S_F = \left(\frac{1282}{23104}\right)^2 = 0.00308 \times 2605 = 8.15$$

Sta. 308+40 $\longrightarrow$ = 1301.14 + 2.83 = 1303.97

Transition Loss Sta. 308+40

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = \frac{1282}{95.03} = 13.49$ $V_1 = \frac{1095}{78.54} = 13.94$ $V_1^2/2g = 3.02$

17,294.18 15214.3

$$\Delta y(\bar{A}) = \frac{1282(13.49) - 1095(13.94)}{32.2} = 63.04$$

$$\bar{A} = \frac{95.03 + 78.54}{2} = 86.79$$

$$\Delta y = \frac{63.04}{86.79} = 0.73$$

1301.14 + 0.73 1303.97

Sta. 308+40 $\longrightarrow$ 1301.87 + 3.02 = 1304.89

120" Pipe

$$S_F = \left(\frac{1095}{17915}\right)^2 = 0.0037 \times 522 \quad 1.95$$

Sta 313+62 $\longrightarrow$ 1303.82 + 3.02 = 1306.84

(Becomes open channel Flow)

Sta. 319 + 58

Find d_c in 120" pipe w/ Q = 1095

d	A	V	$V^2/2g$	E
7.9	66.6	16.44	4.20	12.0975
8.0	67.4	16.25	4.098	12.098
7.8	65.7	16.67	4.313	12.113
7.95	67.0	16.34	4.148	12.0976
→ 7.93	66.9	16.37	4.160	12.0900 ←
7.92	66.8	16.39	4.172	12.0924
7.94	66.95	16.36	4.154	12.0938

Sta. 322 + 00

Find d_c in 120" pipe w/ Q = 1028

d	A	V	$V^2/2g$	E
7.8	65.7	15.65	3.802	11.602
7.85	66.15	15.54	3.75	11.600
7.90	66.6	15.44	3.70	11.599
7.95	67.0	15.34	3.656	11.606
7.70	64.9	15.84	3.896	11.596
7.60	64.0	16.06	4.006	11.606
7.75	65.3	15.74	3.848	11.598
7.65	64.45	15.95	3.9505	11.6005
7.72	65.1	15.79	3.8720	11.592
→ 7.73	65.2	15.77	3.8602	11.5902 ←
7.74	65.25	15.75	3.8542	11.594

Transition Loss Sta. 322+00

$Q_1 = 1028$
$d_1 = 10'$
$S_1 = 0.0050$
$D_{1n} = 6.82$
$A_{1n} = 57.10$

$Q_2 = 1095$
$d_2 = 10'$
$S_2 = 0.0050$
$d_{2c} = 7.93$
$A_{2c} = 66.90$
$d_{2n} = 7.15$

$$M_{2c} = \frac{Q_2^2}{A_{2c} g} = \frac{1095^2}{66.90\, g} = 556.60$$

$$M_{1n} + \tfrac{1}{2}(A_{1N} + A_{2c})(Z + D_{1N} - D_{2c})$$

574.77 6.82

$$\frac{1028^2}{57.10\, g} + \tfrac{1}{2}(57.10 + 66.90)(6.82 - 7.93) = 574.77 - 68.82 = 505.95$$

M_{2c} is more $(556.60 > 505.95)$

$\therefore$ A hydraulic jump occurs upstream of the junction

$D_2 = D_{2c}$ Determine D_1

$$\Sigma P = \Sigma M$$

$$\tfrac{1}{2}(A_1 + 66.9)(D_1 - 7.93) = \frac{1095^2}{66.9 \times 32.2} - \frac{(1028)^2}{A_1 \times 32.2}$$

$$\frac{A_1}{2} + 33.45(D_1 - 7.93) = 556.60 - \frac{32{,}819.38}{A_1}$$

Let $D_1 = 8.00$ $\therefore A_1 = 67.4$

$4.70 \neq 69.67$

$D_1 = 9.00$ $A_1 = 74.5$

$75.65 \neq 116.07$

$D_1 = 9.60$ $A_1 = 77.5$

61.4 $113.35 \neq 133.12$

$D_1 = 9.90$ $A_1 = 78.4$

$143.12 \neq 137.99$

Let $D_1 = 9.8$ $A_1 = 78.2$

$135.67 \neq 136.91$

Let $D_1 = 9.82$ $A_1 = 78.25$ ← OK

$137.17 \cong 137.18$

$$E = 7.93 + \left(\frac{1095}{66.90}\right)^2 \times \frac{1}{64.4} = 12.09$$

H.G.	E.G.
1297.82	1297.82
7.93	12.09
1305.75	1309.91

$$E = 9.82 + \left(\frac{1028}{78.25}\right)^2 \frac{1}{64.4} =$$

H.G.	E.G.
1297.82	1297.82
9.82	12.50
1307.64	1310.32

Sta. 334+85

$Q = 1028$ $d_c = 7.73$

$$E = 7.73 + \left(\frac{1028}{65.2}\right)^2 \frac{1}{64} = 11.59$$

H.G.	E.G.
1304.35	1304.35
7.73	11.59
1312.08	1315.94

Transition Loss Sta. 334+85

$Q_1 = 960$ cfs $Q_2 = 1028$

$d_1 = 9.5$ $d_2 = 10'$

$S_1 = 0.0010$ $S = 0.0050$

$D_{IN} = 9.5$ $D_2 = D_{2c} = 7.73$

$A_{2c} = 65.20$

$$\Sigma P = \Sigma M$$

$$\tfrac{1}{2}(A_1 + 65.2)(0.5 + D_1 - 7.73) = \frac{(1028)^2}{65.20\,g} - \frac{(960)^2}{A_1\,g}$$

$$\left(\frac{A}{2} + 32.6\right)(D_1 - 7.23) = 503.36 - \frac{28621.12}{A_1}$$

Let $D_1 = 8.00$ $A_1 = 63.71$

$49.64 \neq 54.12$

$D_1 = 8.10$ $A_1 = 64.44$

$56.39 \neq 59.21$

$D_1 = 8.15$ $A_1 = 64.71$

$59.76 \neq 61.06$

$D = 8.20$ $A_1 = 65.07$

$61.24 \neq 63.51$

$D = 8.30$ $A_1 = 65.70$

$70.03 \neq 67.73$

$D = 8.25$ $A_1 = 65.34$

$66.58 \neq 65.33$

$D = 8.24$ $A_1 = 65.30$

$65.90 \neq 65.06$

$D = 8.23$ $A_1 = 65.25$

$65.23 \neq 64.72$

$D = 8.22$ $A_1 = 65.16$

$64.53 \neq 64.12$

$D = 8.21$ $A_1 = 65.12$

$63.85 = 63.85$ OK

	H.G.	E.G.
	1304.85	1304.85
	8.21	11.59
Sta. 334+85 →	1313.06	1316.44
	1304.85	1304.85
	0.33	0.33
	1305.18	1305.18
	9.50	12.35
Sta 338+15 →	1314.68	1317.53

	H.G.	E.G.
Sta. 338+15 →	1314.68	1317.53
1005 × 0.0038	3.82	3.82
Sta. 348+20 →	1318.50	1321.35

Transition Loss Sta. 348+20

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$$V_2 = \frac{960}{70.882} = 13.54 \qquad V_1 = \frac{891}{70.882} = 12.57 \qquad \frac{V_1^2}{2g} = 2.45$$

$$\Delta y(\bar{A}) = \frac{960(13.54) - 891(12.57)}{32.2} = 55.85$$

$$\Delta y = \frac{55.81}{70.882} = 0.79 \qquad 0.79$$

Sta 348 + 20 → 1319.29 + 2.45 = 1321.74

1325 × 0.00325	4.31	= 4.31
Sta. 361+45 →	1323.60	1326.05

Transition Loss Sta. 361+45

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$$V_2 = \frac{891}{70.882} = 12.570 \qquad V_1 = \frac{694}{56.745} = 12.23 \qquad \frac{V_1^2}{2g} = 2.32$$

$$\Delta y(\bar{A}) = \frac{891(12.57) - 694(12.23)}{32.2} = 84.23$$

$$\Delta y = \frac{84.23 \times 2}{70.88 + 56.745} = 1.32 \qquad 1.32$$

Sta. 361+45 → 1324.92 + 2.32 = 1327.24

1555 × 0.00357 =	5.55	5.55
Sta. 377+00 →	1330.47	1332.79

Transition Loss Sta. 377+00

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = \frac{694}{56.745} = 12.23$ $\quad V_1 = \frac{595}{44.179} = 13.468$ $\quad \frac{V_1^2}{2g} = 2.81$

8487.02 $\quad$ 8013.46

$$\Delta y(\bar{A}) = \frac{694(12.23) - 595(13.468)}{32.2} = 14.10$$

1330.47 $\quad$ 1332.75

$$\Delta y = \frac{14.10 \times 2}{56.745 + 44.179} = 0.28$$

100.924 $\quad$ 0.28

Sta. 377+00 →	1330.75 +2.81 =	1333.56
90" Pipe 1085 × 0.0051	5.55	5.55
Sta. 387+85 →	1336.30	1339.11

Transition Loss Sta. 387+85

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = \frac{595}{44.179} = 13.468$ $\quad V_1 = \frac{508}{44.179} = 11.50$ $\quad \frac{V_1^2}{2g} = 2.05$

8013.46 $\quad$ 5842

$$\Delta y(\bar{A}) = \frac{595(13.468) - 508(11.50)}{32.2} = 67.44$$

1336.30

$$\Delta y = \frac{67.44 \times 2}{44.179 + 44.179} = 1.53$$

88.358 $\quad$ 1.53

Sta. 387+85 →	1337.83 +2.05 =	1339.88
90" Pipe 1325 × 0.0037	4.93	4.93
Sta. 401+10 →	1342.76	1344.81

DIETZGEN 100% Rag Tracing Vellum

Transition Loss Sta. 401+10

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = \frac{508}{44.179} = 11.50$ $\quad V_1 = \frac{337}{38.485} = 8.75$ $\quad V_1^2/2g = 1.19$

5842 $\quad$ 2948.75

$$\Delta y(\bar{A}) = \frac{508(11.50) + 337(8.75)}{32.2} = -89.85$$

H.G. $\quad$ E.G.

1342.76

$$\Delta y = \frac{89.85 \times 2}{44.179 + 38.485} = 2.17$$

2.17

Sta. 401+10 $\longrightarrow$ 1344.93 + 1.19 = 1346.12

$$S_F = \left(\frac{337}{6920}\right)^2 = 0.00237 \times 820$$

1.94

Sta 409+20 $\longrightarrow$ 1346.87 + 1.19 = 1348.06

Sta. 410+00

Find normal depth:

Let $d = 4.2'$ $\quad d/D = 4.2/7 = 0.6$

$A = 0.492 \times 49 = 24.11\ \square'$ $\quad R = 0.278 \times 7 = 1.946$

123.83 $\quad$ 1.586 $\quad$ 2/3 $\quad$ 0.0014 $\quad$ 0.5

$$Q = 24.11 \times \frac{1.486}{0.012} \times 1.946^{2/3} \times 0.0051 = 332 \cong 337 \text{ OK}$$

H.G $\quad$ E.G

$$V = \frac{337}{24.11} = 13.98$$

1344.45

$$V^2/2g = \frac{(13.98)^2}{64.4} =$$

4.20

Sta. 410+00 $\longrightarrow$ 1348.65 + 3.03 = 1351.68

Sta. 415+00

HW control for 84" Pipe = $H_F/D = 1.12$ (From Chart)

$H_F = 7(1.12) = 7.84$ $\quad$ H.G $\quad$ E.G

$$\frac{337}{7.84 \times 7} = 6.14$$

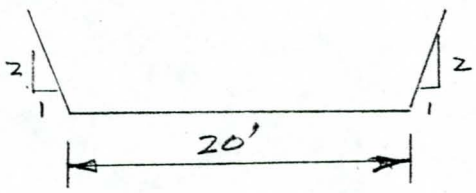
1347.00

7.84

$$V^2/2g = 6.14^2/64.4 =$$

1354.84 + 0.59 = 1355.93

Depth in existing approach channel



$S = 0.005\ ^{1}/_{FT}$

$Q = 337$ CFS

Let $d = 1.7$ $\qquad A = [20 + 1.7(0.5)]\,1.7 = 35.45$

$$R = \frac{35.45}{23.013} = 1.540$$

$$Q = 35.45 \times \frac{\overset{95.066}{1.486}}{0.015} \times \overset{1.332}{1.54^{2/3}} \times \overset{0.1767}{0.005^{1/2}} = 331 \cong 337 \text{ (OK)}$$

$$V = \frac{337}{35.45} = 9.50$$

$$V^2/2g = \frac{9.5^2}{64.4} = 1.40$$

H.G.	E.G.
1353.70	
1.70	

@ End Channel $\longrightarrow$ 1355.40 + 1.40 = 1356.40

LINE "A"

Sta. 0+00

Let $d = 66''$ $\quad V = \frac{165}{23.758} = 6.95 \quad \frac{V^2}{2g} = 0.75$

$H_L = 1.2 \times \frac{6.95^2}{64.4} = 0.90$

H.G.	E.G.
	1303.97
	0.90
	1304.12 + 0.75 = 1304.87

Use 66" Pipe

$S_F = \left(\frac{165}{3636}\right)^2 = 0.00206 \times 1325 = 2.73$

1306.85 + 0.75 = 1307.60

Sta. 13+25

$d_2 = 66'' \quad d_1 = 60'' \quad Q_2 = 147 \quad Q_1 = 165$

$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$

$V_2 = 6.95 \quad V_1 = \frac{147}{19.635} = 7.49 \quad \frac{V_1^2}{2g} = 0.87$

1146.75 1101.03

$\Delta y(\bar{A}) = \frac{165(6.95) - 147(7.49)}{32.2} = 1.42$

$\bar{A} = \frac{23.758 + 19.635}{2} = 21.70$

$\Delta y = \frac{1.42}{21.70} = 0.06$

H.G.	E.G
1306.85	
0.06	
1306.91 + 0.87 =	1307.78
1.79	
1308.70 + 0.87 =	1309.57

$S_F = \left(\frac{147}{2821}\right)^2 = 0.00272 \times 660$

Sta 19+85

$d_2 = 60'' \quad d_1 = 54'' \quad Q_2 = 147 \quad Q_1 = 129$

$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$

Sta. 19+85

$V_2 = 7.49 \qquad V_1 = \frac{129}{15.904} = 8.11 \qquad \frac{V_1^2}{2g} = 1.02$

$$\Delta y(\bar{A}) = \frac{\overset{1101.03}{147(7.49)} - \overset{1046.19}{129(8.11)}}{32.2} = 1.70$$

$$\bar{A} = \frac{19.635 + 15.904}{2} = 17.77$$

$$\Delta y = \frac{1.70}{17.77} = 0.10$$

H.G.		E.G.
1308.70		1309.57
0.10		
1308.80	+1.02 =	1309.82
$S_F = \left(\frac{129}{2131}\right)^2 = 0.00366 \times 660 =$ 2.41		
1311.21	+ 1.02 =	1312.23

Sta. 20+45

$d_2 = 54'' \qquad d_1 = 48'' \qquad Q_2 = 129 \qquad Q_1 = 81$

$V_2 = 8.11 \qquad V_1 = \frac{81}{12.566} = 6.45 \qquad \frac{V_1^2}{2g} = 0.65$

$$\Delta y(\bar{A}) = \frac{\overset{1046.19}{129(8.11)} - \overset{522.45}{81(6.45)}}{32.2} = 16.27$$

$$\bar{A} = \frac{15.904 + 12.566}{2} = 14.235$$

$$\Delta y = \frac{16.27}{14.235} = 1.14$$

$$H_L = 1.2 \times \frac{6.45^2}{64.4} = 0.78$$

H.G.		E.G.
1311.21		1312.23
1.92		
1313.13	+0.65	1313.78
$S_F = \left(\frac{81}{1556}\right)^2 = 0.0027 \times 1320 =$ 3.58		
1316.71	+ 0.65 =	1317.36

Sta. 39+65

$d_2 = 48''$ $\quad d_1 = 42''$ $\quad Q_2 = Q_1 = 81$

$V_2 = 6.45$ $\quad V_1 = \frac{81}{9.621} = 8.42$ $\quad \frac{V_1^2}{2g} = 1.10$

$$\Delta y(\bar{A}) = \frac{\overset{522.45}{81(6.45)} - \overset{682.02}{81(8.42)}}{32.2} = -4.96$$

$$\bar{A} = \frac{12.566 + 9.621}{2} = 11.09$$

$$\Delta y = \frac{-4.96}{11.09} = -0.45$$

H.G	E.G
1316.71	
−0.45	
1316.26	+ 1.10 = 1317.36

$$S_F = \left(\frac{81}{1090}\right)^2 = 0.00552 \times 1325 = 7.32$$

1323.59 + 1.10 = 1324.69

Sta. 52+90

$d_2 = 42''$ $\quad d_1 = 36''$ $\quad Q_2 = 81$ $\quad Q_1 = 44$

$V_2 = 8.42$ $\quad V_1 = \frac{44}{7.069} = 6.23$ $\quad \frac{V_1^2}{2g} = 0.60$

$$\Delta y(\bar{A}) = \frac{\overset{682.02}{81(8.42)} - \overset{274.12}{44(6.23)}}{32.2} = 12.67$$

$$\bar{A} = \frac{9.621 + 7.069}{2} = 8.345$$

$$\Delta y = \frac{12.67}{8.345} = 1.52$$

H.G.	E.G.
1323.59	1324.69
1.52	
1325.11	+ 0.60 = 1325.71

$$S_F = \left(\frac{44}{722}\right)^2 = 0.0037 \times 1325 = 4.92$$

1330.03 + 0.60 = 1330.63

LINE "B"

Sta. 0+00

Let $d = 60''$ $\quad V = \frac{184}{19.635} = 9.37 \quad \frac{V^2}{2g} = 1.36$

$H_L = 1.2 \times \frac{9.37^2}{64.4} = 1.64$

H.G.	E.G.
	1326.05
	1.64
1326.33 + 1.36 =	1327.69
=	2.77
1329.10 + 1.36 =	1330.46

$S_F = \left(\frac{184}{2821}\right)^2 = 0.00425 \times 650$

Sta. 6+50

$d_1 = d_2 = 60'' \quad Q_2 = 184 \text{ CFS} \quad Q_1 = 177 \text{ CFS}$

$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$

$V_2 = 9.37 \quad V_1 = \frac{177}{19.635} = 9.01 \quad \frac{V_1^2}{2g} = 1.26$

1724.08 1594.77

$\Delta y(\bar{A}) = \frac{184(9.37) - 177(9.01)}{32.2} = 4.02$

$\Delta y = \frac{4.02}{19.635} = 0.20$

H.G.	E.G.
1329.10	1330.46
.20	
1329.30 + 1.26 =	1330.56
	2.73
	1332.03 + 1.26 = 1333.29

$S_F = \left(\frac{177}{2821}\right)^2 = 0.003937 \times 695 =$

Sta. 13+45

$d_1 = d_2 = 60''$ $\quad Q_2 = 177$ CFS $\quad Q_1 = 155$ CFS

$$\Delta y(\bar{A}) = \frac{Q_2 V_2 - Q_1 V_1}{g}$$

$V_2 = 9.01$ $\quad V_1 = \frac{155}{19.635} = 7.89$ $\quad \frac{V_1^2}{2g} = 0.97$

1594.77 1222.95

$$\Delta y(\bar{A}) = \frac{177(9.01) - 155(7.89)}{32.2} = 11.55$$

$$\Delta y = \frac{11.55}{19.635} = 0.59$$

H.G.	E.G.
1332.03	1333.25
0.59	
1332.62 + 0.97 =	1333.59

$$S_F = \left(\frac{155}{2821}\right)^2 = 0.0030 \times 670 = 2.02$$

1334.64 + 0.97 = 1335.61

Sta. 20+15

$d_1 = d_2 = 60''$ $\quad Q_2 = 155$ CFS $\quad Q_1 = 135$ CFS

$V_2 = 7.89$ $\quad V_1 = \frac{135}{19.635} = 6.88$ $\quad \frac{V_1^2}{2g} = 0.73$

1222.95 9288

$$\Delta y(\bar{A}) = \frac{155(7.89) - 135(6.88)}{32.2} = 9.14$$

$$\Delta y = \frac{9.14}{19.635} = 0.47$$

H.G.	E.G.
1334.64	
0.47	
1335.11 + 0.73 =	1335.84

$$S_F = \left(\frac{135}{2821}\right)^2 = 0.0023 \times 670 = 1.53$$

1336.64 + 0.73 = 1337.37

Sta. 26+85

$d_2 = 60''$ $\quad d_1 = 42''$ $\quad Q_2 = 135$ $\quad Q_1 = 66$

$V_2 = 6.88$ $\quad V_1 = \frac{66}{9.621} = 6.86$ $\quad \frac{V_1^2}{2g} = 0.73$

$$\Delta y(\bar{A}) = \frac{\overset{928.8}{135(6.88)} - \overset{452.76}{66(6.86)}}{32.2} = 14.78$$

$$\Delta y = \frac{14.78}{32.2} = 0.46$$

H.G.	E.G.
1336.64	1337.37
+0.46	
1337.10 +0.73	1337.83

$$S_F = \left(\frac{66}{1090}\right)^2 = 0.0037 \times 720 = 2.64$$

$1339.74 + 0.73 = 1340.47$

Sta. 34+05

$d_2 = 42''$ $\quad d_1 = 36''$ $\quad Q_2 = 66$ $\quad Q_1 = 46$

$V_2 = 6.86$ $\quad V_1 = \frac{46}{7.069} = 6.51$ $\quad \frac{V_1^2}{2g} = 0.66$

$$\Delta y(\bar{A}) = \frac{\overset{452.76}{66(6.86)} - \overset{299.46}{46(6.51)}}{32.2} = 4.76$$

$$\Delta y = \frac{4.76}{32.2} = 0.15$$

H.G.	E.G.
1339.74	1340.47
+0.15	
1339.89 +0.66 =	1340.55

$$S_F = \left(\frac{46}{722}\right)^2 = 0.0041 \times 605 = 2.48$$

$1342.37 + 0.66 = 1343.03$

LINE "C"

Sta 0+00

Let $d = 42''$ $\quad V = \frac{56}{9.621} = 5.82 \quad \frac{V^2}{2g} = 0.53$

$H_L = 1.2 \times \frac{(5.82)^2}{64.4} = 0.63$

H.G.	E.G
	1337.37
	0.63
1337.47 + 0.53 =	1338.00

$S_F = \left(\frac{56}{1090}\right)^2 = 0.0026 \times 1100 = 2.90$

1340.37 + 0.53 = 1340.90

Sta. 11+00

$d_2 = 42'' \quad d_1 = 36'' \quad Q_2 = 56 \quad Q_1 = 38$

$V_2 = 5.82 \quad V_1 = \frac{38}{7.069} = 5.38 \quad \frac{V_1^2}{2g} = 0.45$

$\Delta y(\bar{A}) = \frac{\overset{325.92}{56(5.82)} - \overset{204.44}{38(5.38)}}{32.2} = 3.77$

$\Delta y = \frac{3.77 \times 2}{7.069 + 9.621} = 0.45$

H.G.	E.G
1340.37	1340.90
0.45	
1340.82 + 0.45 =	1341.27

$S_F = \left(\frac{38}{722}\right)^2 = 0.00277 \times 100 \quad 2.77$

1343.59 + 0.45 = 1344.04

Sta. 21+00

$d_2 = 36''$ $\quad d_1 = 24''$ $\quad Q_2 = 38$ $\quad Q_1 = 22$

$V_2 = 5.38$ $\quad V_1 = \frac{22}{3.142} = 7.00$ $\quad \frac{V^2}{2g} = 0.76$

$$\Delta y\,(\bar{A}) = \frac{\overset{204.44}{38\,(5.38)} - \overset{154}{22\,(7.00)}}{32.2} = 1.57$$

$$\Delta y = \frac{1.57 \times 2}{7.069 + 3.976} = 0.28$$

11.045

H.G.	E.G.
1343.59	1344.04
0.28	
1343.87 + 0.76 = 1344.63	

$$S_F = \left(\frac{22}{245}\right)^2 = 0.00806 \times 500 = 4.03$$

1347.90 + 0.76 = 1348.66

LINE "D"

Sta. 0+00

Let $d = 42''$ $\quad V = \frac{60}{9.621} = 6.24 \quad \frac{V^2}{2g} = 0.60$

$H_L = 1.2 \times \frac{(6.24)^2}{64.4} = 0.72$

H.G.	E.G.
	1139.11
	0.72
1139.23 + .60 =	1139.83

$S_F = \left(\frac{60}{1090}\right)^2 = 0.0030 \times 905 = 2.74$

1341.97 + .60 = 1342.57

Sta. 9+05

Let $d_2 = 42''$ $\quad d_1 = 36'' \quad Q_2 = 60 \quad Q_1 = 34$

$V_2 = 6.24 \quad V_1 = \frac{34}{7.069} = 4.81 \quad V_1/2g = 0.36$

$\Delta y (A) = \frac{\overset{374.4}{60(6.24)} - \overset{163.54}{34(4.81)}}{32.2} = 6.55$

$\Delta y = \frac{6.55 \times 2}{\underset{16.69}{7.069 + 9.621}} = 0.78$

H.G.	E.G.
1341.97	
.78	
1342.75 + 0.36 =	1343.11

$S_F = \left(\frac{34}{722}\right)^2 = 0.0022 \times 905$ $\quad$ 2.00

1344.75 + 0.36 = 1345.11

Sta. 17+10

LINE "E"

Sta. 0+00

$d = 54''$ $\quad V_1 = \frac{130}{15.904} = 8.17 \quad \frac{V^2}{2g} = 1.03$

$H_L = 1.2 \times \frac{6.62^2}{64.4} = 1.24$

H.G.	E.G.
	1344.81
	1.24
	1345.02 + 1.03 = 1346.05

$S_F = \left(\frac{130}{2131}\right)^2 = 0.0037 \times 1310 = 4.88$

1349.90 + 1.03 = 1350.93

Sta. 13+10

Let $d_1 = d_2 = 54''$ $\quad V_1 = \frac{111}{15.904} = 6.98 \quad \frac{V^2}{2g} = 0.76$

1062.1 774.78

$\Delta y(\bar{A}) = \frac{130(8.17) - 111(6.98)}{32.2} = 8.92$

$\Delta y = \frac{8.92}{15.904} = 0.56$

H.G	E.G.
1349.90	
+ 0.56	
1350.46 + 0.76 = 1351.22	

$S_F = \left(\frac{111}{2131}\right)^2 = 0.0027 \times 660 = 1.79$

1352.25 + 0.76 = 1353.01

Sta. 19+70

Let $d_1 = 48'$ $\quad V_1 = \frac{80}{12.566} = 6.37 \quad \frac{V^2}{2g} = 0.63$

774.78 509.6

$\Delta y(\bar{A}) = \frac{111(6.98) - 80(6.37)}{32.2} = 8.23$

$\Delta y = \frac{8.23}{12.566} = 0.65$

H.G.	E.G.
1352.25	1353.01
0.65	
1352.90 + 0.63 = 1353.53	

$SF = \left(\frac{80}{1556}\right)^2 = 0.0026 \times 665 = 1.72$

1354.62 + 0.63 = 1355.25

Sta. 26+35

Let $d_1 = 42''$ $d_2 = 48'$ $V_1 = \frac{71}{9.621} = 7.38$ $\frac{V_1^2}{2g} = 0.85$

$$\Delta y(\bar{A}) = \frac{\overset{509.6}{80(6.37)} - \overset{523.48}{71(7.38)}}{32.2} = -0.447$$

$$\Delta y = \frac{-0.447 \times 2}{9.621 + 12.566} = -0.04$$

22.187

H.G.	E.G.
1354.62	1355.25
−0.04	
1354.58 + 0.85 = 1355.43	

$$S_F = \left(\frac{71}{1090}\right)^2 = 0.0042 \times 1320 = 5.60$$

Sta. 39+55

1360.18 + 0.85 = 1361.03

Let $d_1 = 36''$ $d_2 = 42''$ $V_1 = \frac{49}{7.069} = 6.93$ $\frac{V_1^2}{2g} = 0.75$

$$\Delta y(\bar{A}) = \frac{\overset{523.48}{71(7.38)} - \overset{339.57}{49(6.93)}}{32.2} = 5.73$$

$$\Delta y = \frac{5.73 \times 2}{7.069 + 9.621} = 0.69$$

16.69

H.G.	E.G.
1360.18	
0.69	
1360.87 + 0.75 = 1361.62	

$$S_F = \left(\frac{49}{722}\right)^2 = 0.0046 \times 785 = 3.61$$

Sta. 47+40 → 1364.48 + 0.75 = 1365.23

Sta. 47+90

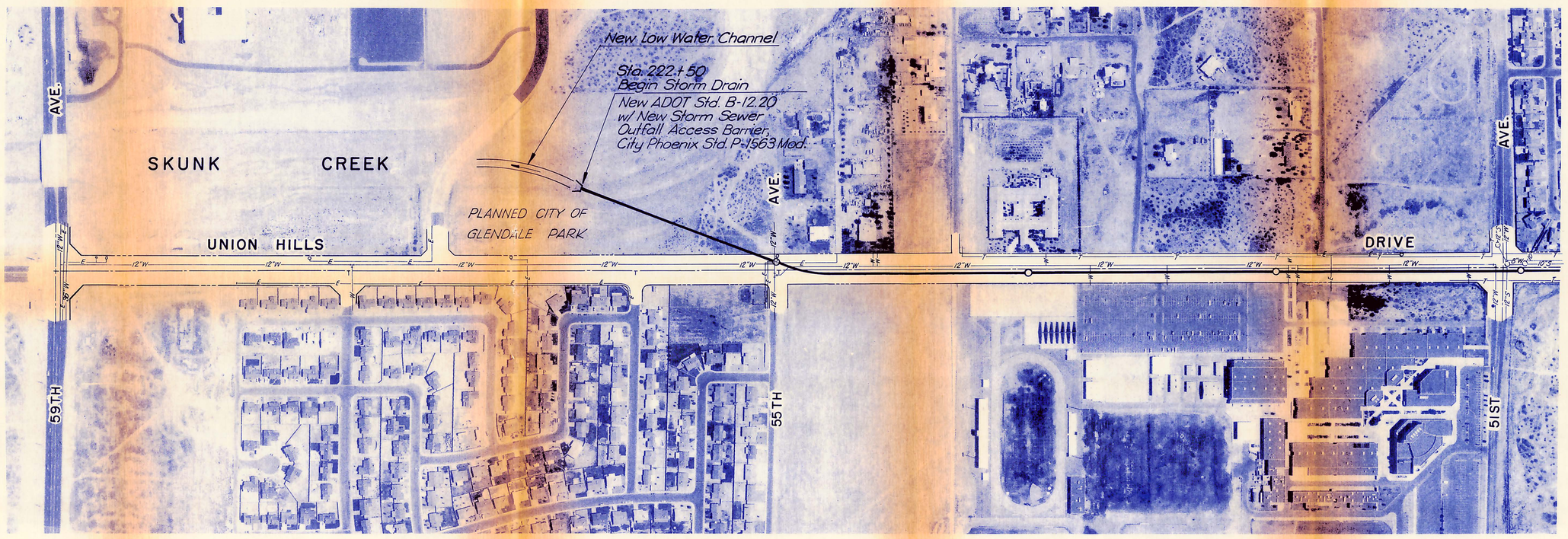
Use ADOT Std C-14.30 Helical w/36" Pipe

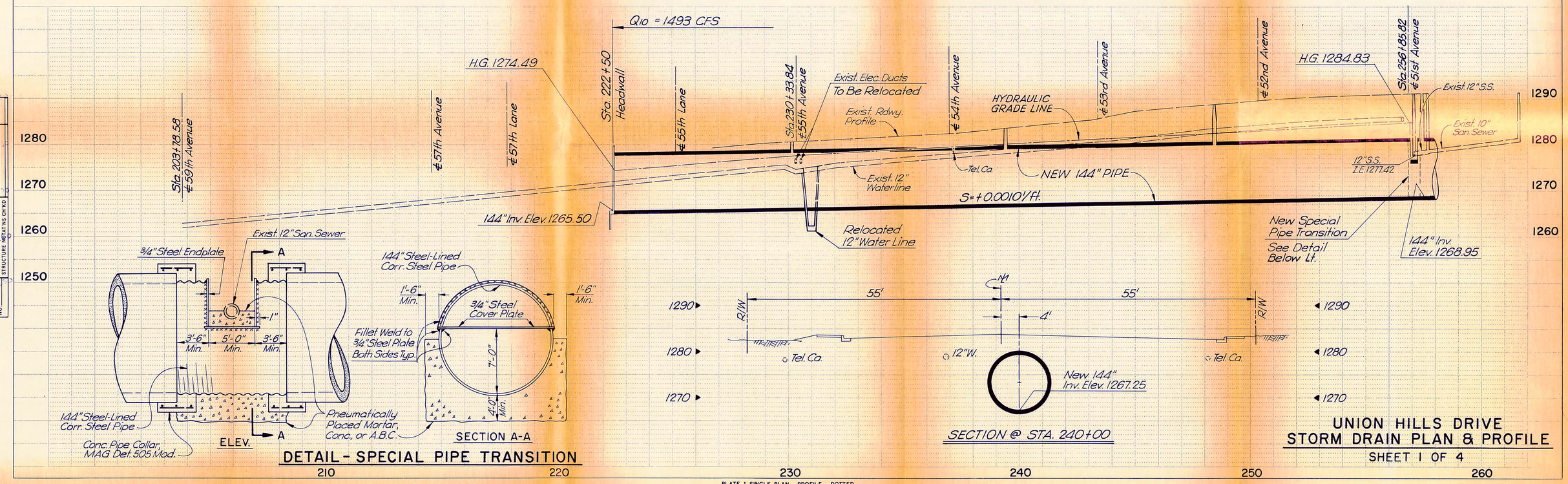
Page 13.75 of reference 8

H.G	E.G.
1366.00 (F.L)	
3.90	
1369.90 =	1369.90

$HW/D = 1.3$ $HW = 1.3 \times 3 =$

APPENDIX E

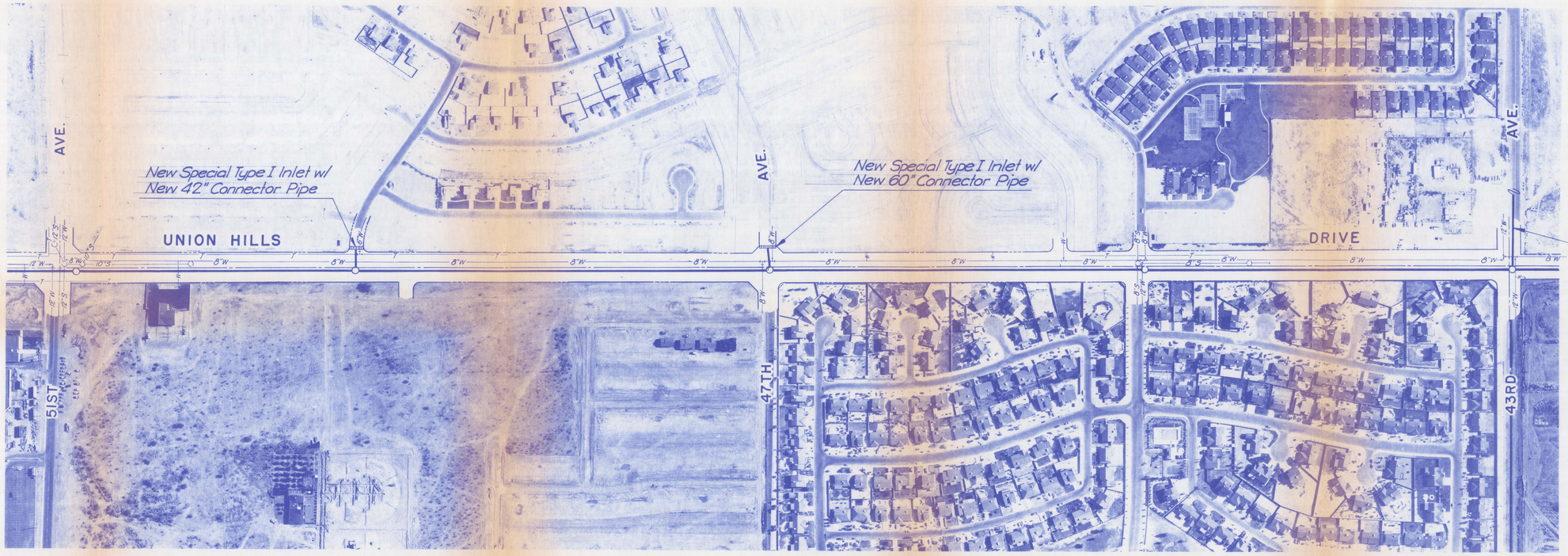


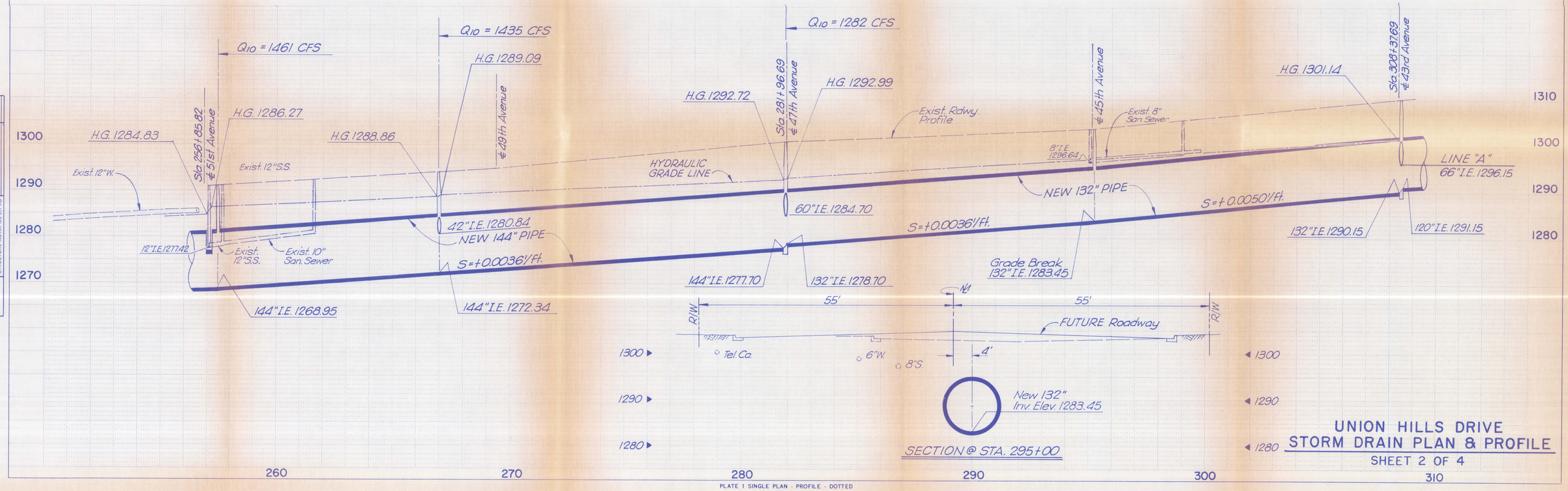


UNION HILLS DRIVE STORM DRAIN PLAN & PROFILE

SHEET 1 OF 4

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.





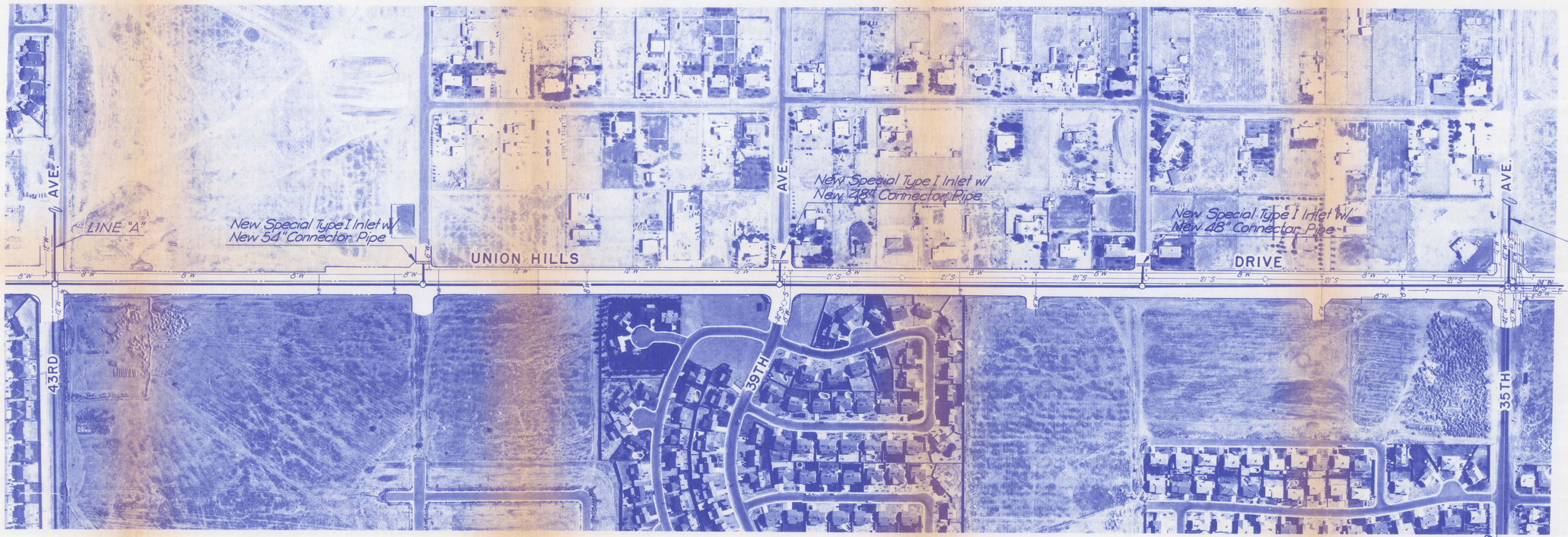
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

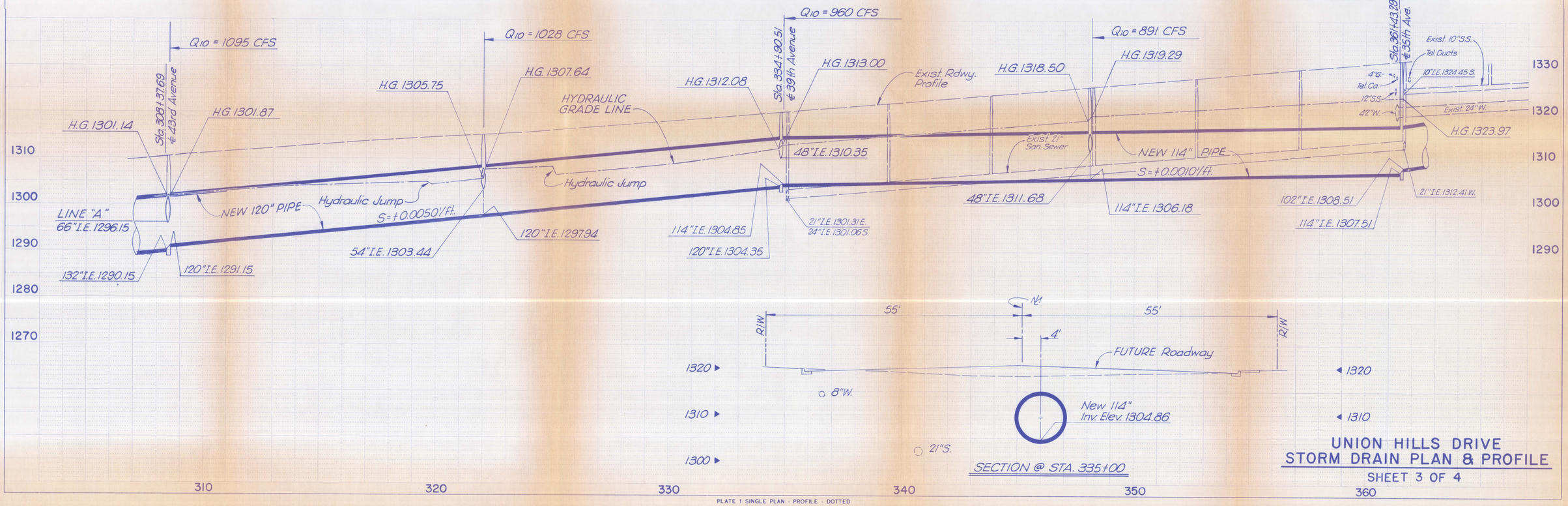
PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B. M. NOTED
STRUCTURE NOTAT'NS CH'K'D
BY
DATE

UNION HILLS DRIVE
STORM DRAIN PLAN & PROFILE

SHEET 2 OF 4

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.





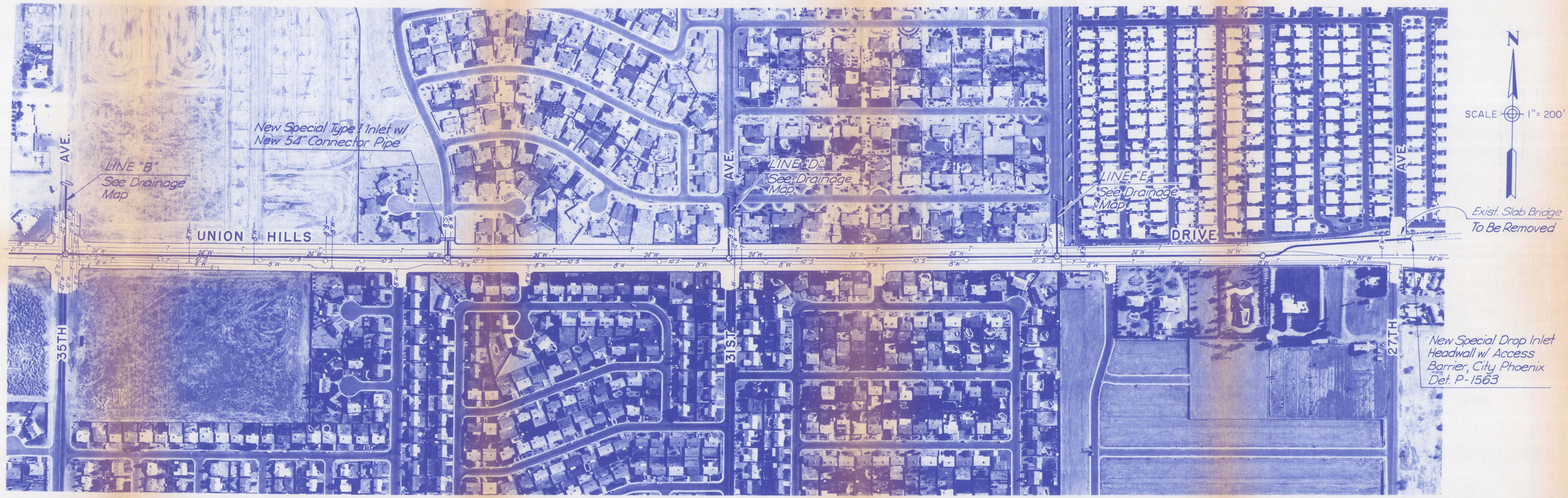
UNION HILLS DRIVE
STORM DRAIN PLAN & PROFILE

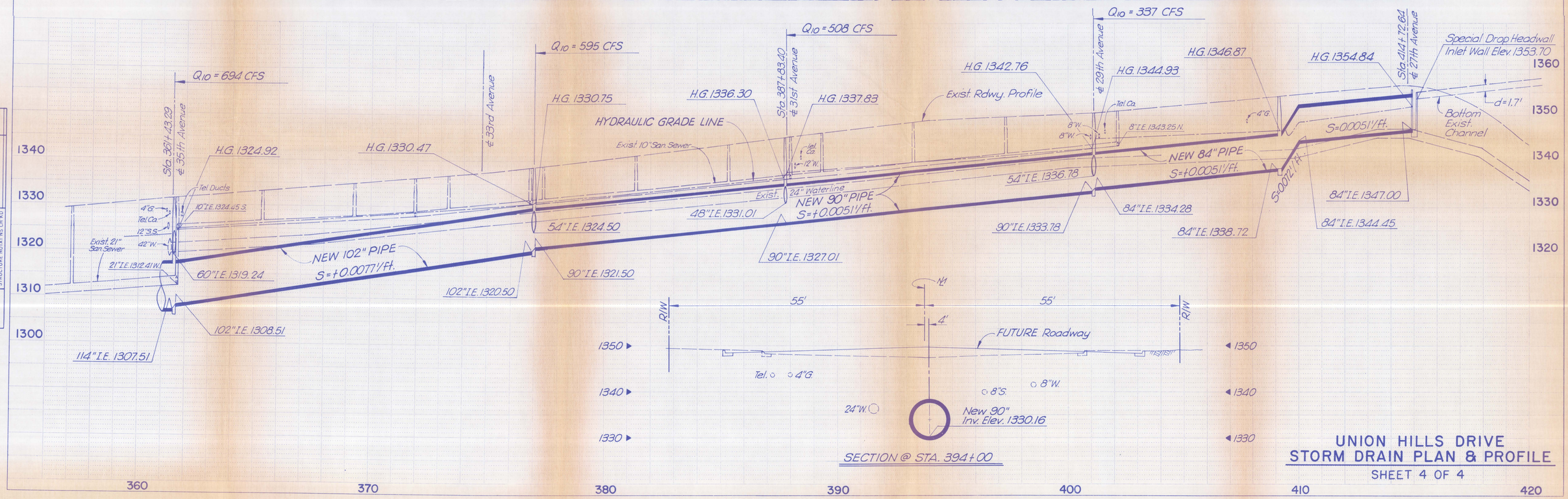
SHEET 3 OF 4

PLAN		
NOTE BOOK NO.	SURVEYED	
	PLOTTED	
	ALIGNMENT CHECKED	
	AT OF MAT CHECKED	
BY		DATE

PROFILE		
NOTE BOOK NO.	SURVEYED	
	PLOTTED	
	GRADES CHECKED	
	B.M. NOTED	
	STRUCTURE NOTAT'NS CH'KD	
BY		DATE

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.





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SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CH'KD
NOTE BOOK
NO.
BY
DATE

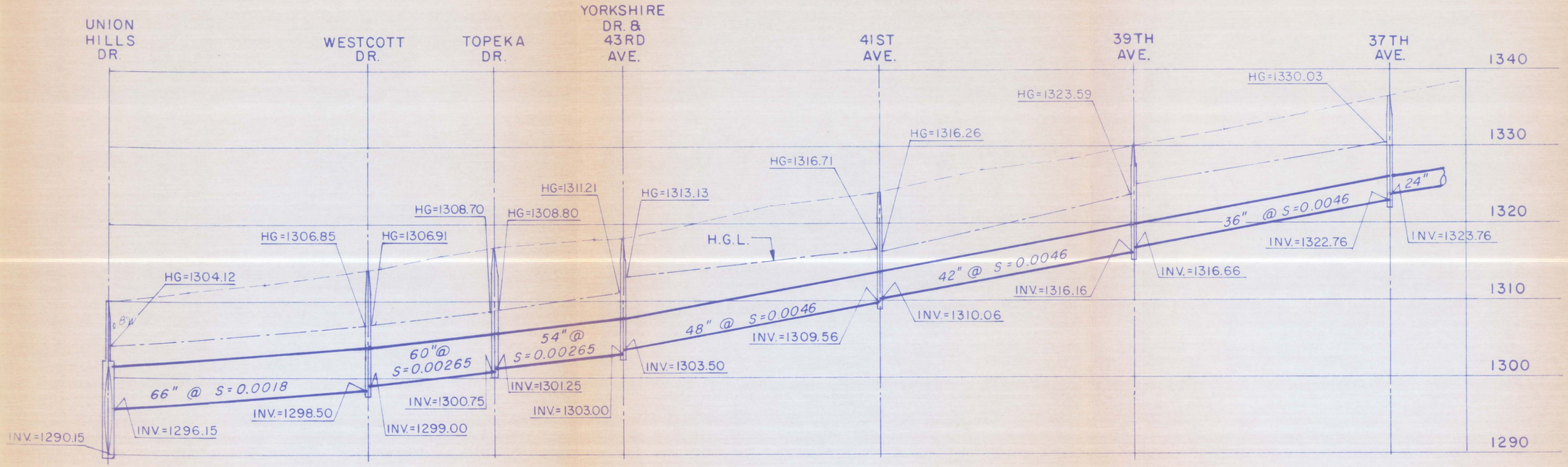
UNION HILLS DRIVE STORM DRAIN PLAN & PROFILE

SHEET 4 OF 4

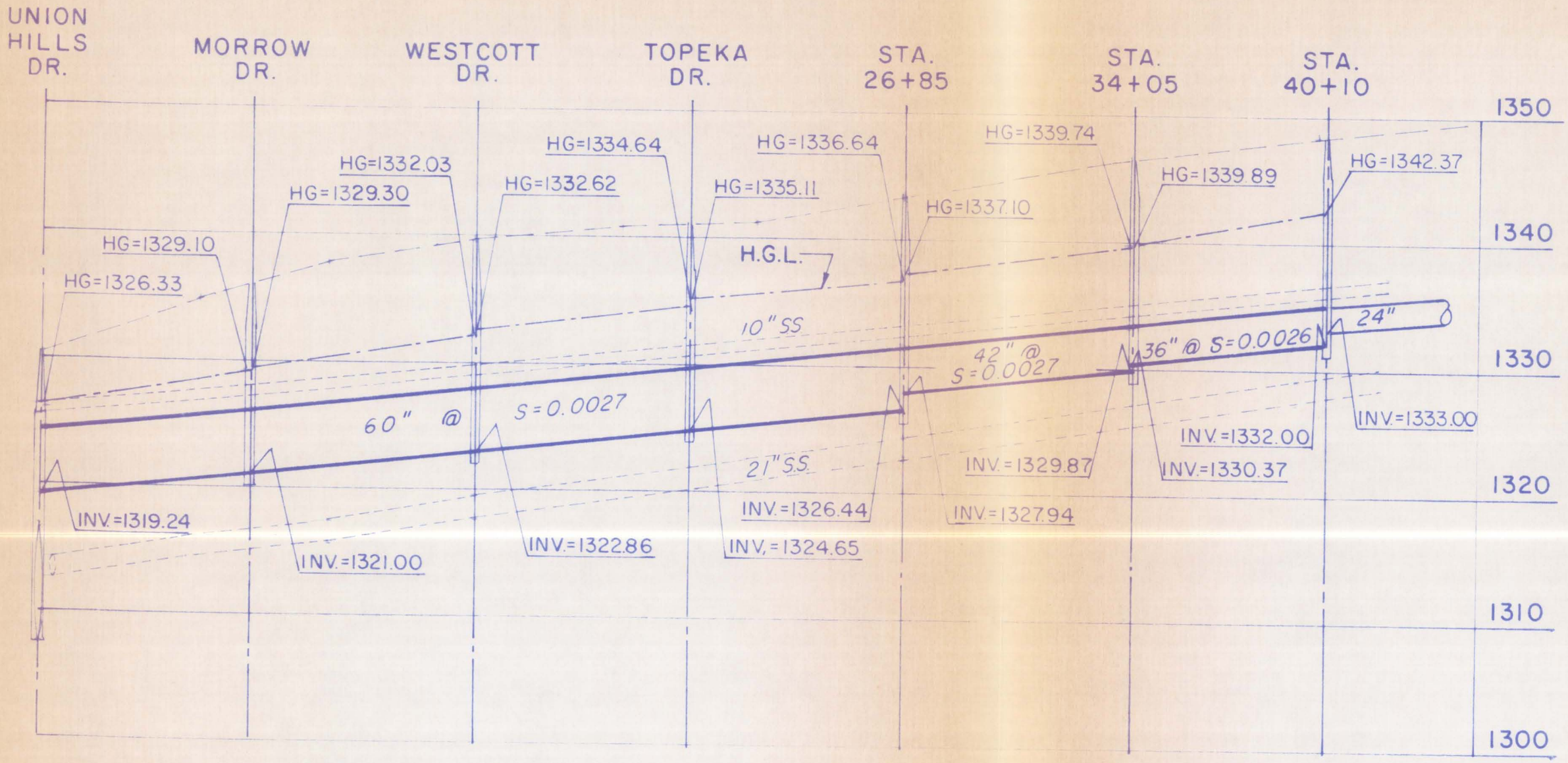
PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

APPENDIX F

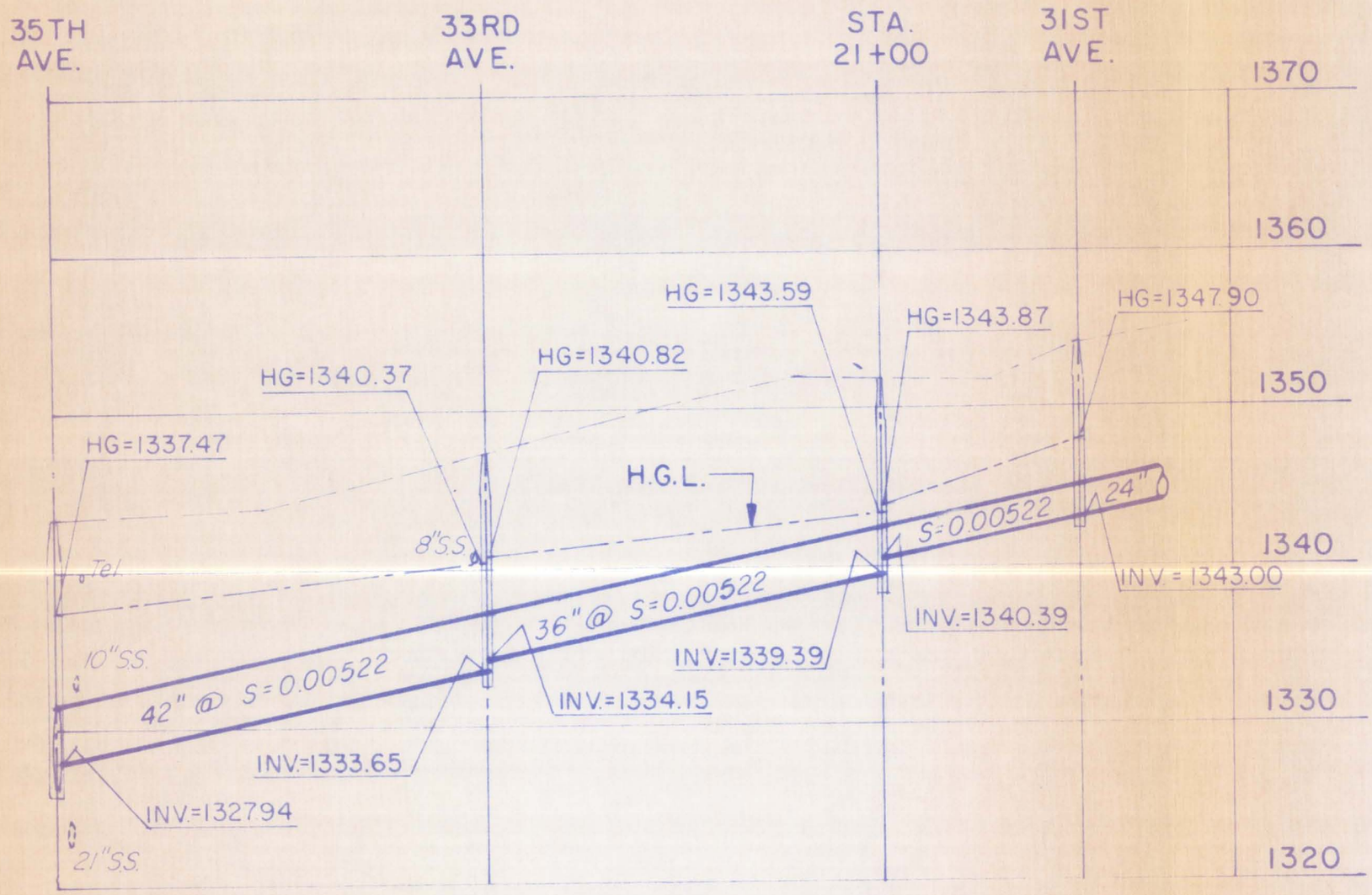
LINE "A"


UNION HILLS DR.
WESTCOTT DR.
TOPEKA DR.
YORKSHIRE DR. & 43RD AVE.
41ST AVE.
39TH AVE.
37TH AVE.
1340
1330
1320
1310
1300
1290
HG=1330.03
HG=1323.59
HG=1316.26
HG=1316.71
HG=1311.21
HG=1313.13
HG=1308.70
HG=1308.80
HG=1306.85
HG=1306.91
HG=1304.12
H.G.L.
24"
36" @ S=0.0046
42" @ S=0.0046
48" @ S=0.0046
54" @ S=0.00265
60" @ S=0.00265
66" @ S=0.0018
INV.=1322.76
INV.=1323.76
INV.=1316.66
INV.=1316.16
INV.=1310.06
INV.=1309.56
INV.=1303.50
INV.=1301.25
INV.=1303.00
INV.=1300.75
INV.=1299.00
INV.=1298.50
INV.=1296.15
INV.=1290.15

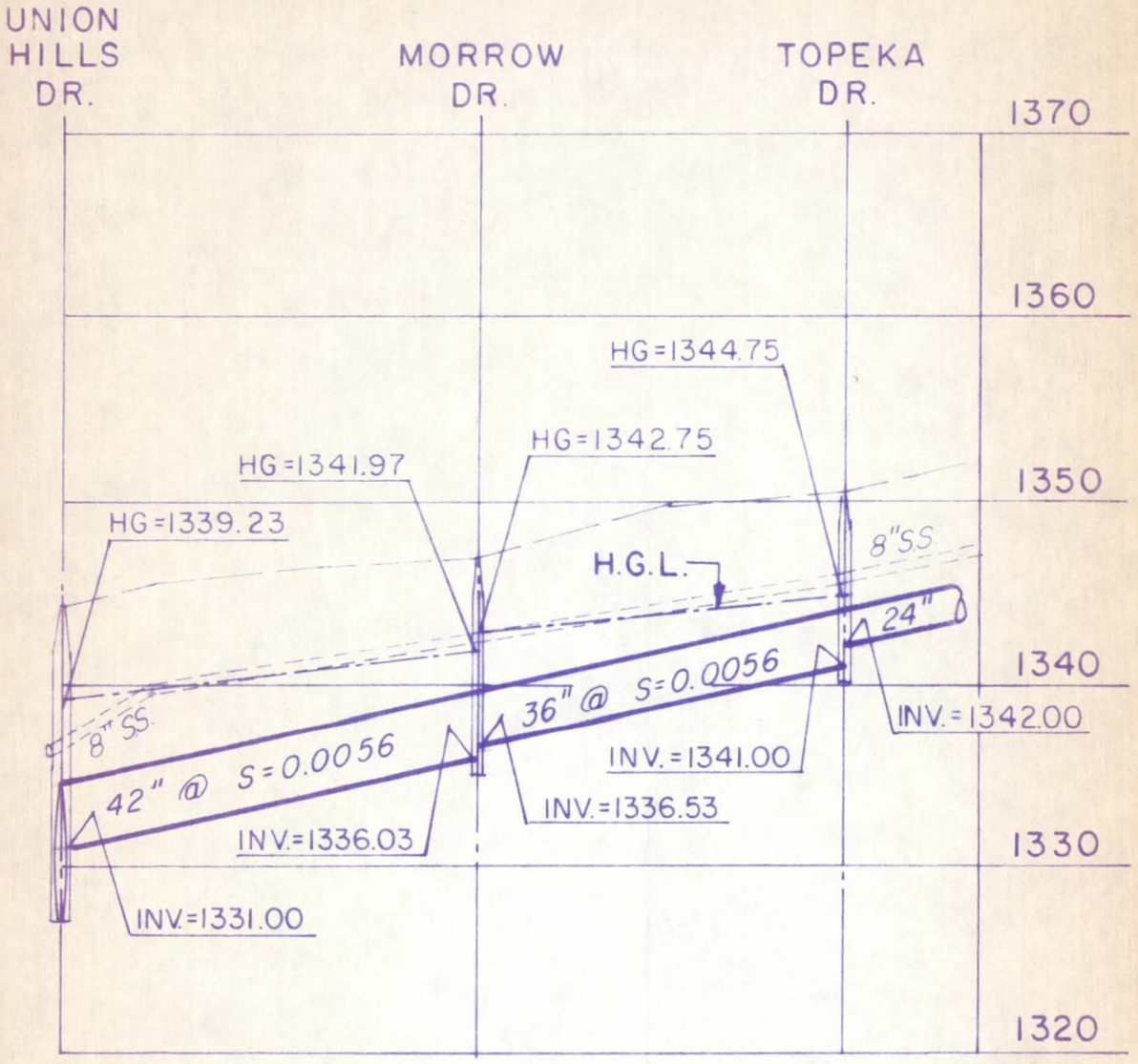
LINE "B"


UNION HILLS DR.
MORROW DR.
WESTCOTT DR.
TOPEKA DR.
STA. 26+85
STA. 34+05
STA. 40+10
1350
1340
1330
1320
1310
1300
HG=1329.10
HG=1326.33
HG=1329.30
HG=1332.03
HG=1332.62
HG=1334.64
HG=1335.11
HG=1336.64
HG=1337.10
HG=1339.74
HG=1339.89
HG=1342.37
H.G.L.
10" SS
24"
36" @ S=0.0026
42" @ S=0.0027
60" @ S=0.0027
21" S.S.
INV.=1319.24
INV.=1321.00
INV.=1322.86
INV.=1324.65
INV.=1326.44
INV.=1327.94
INV.=1329.87
INV.=1330.37
INV.=1332.00
INV.=1333.00

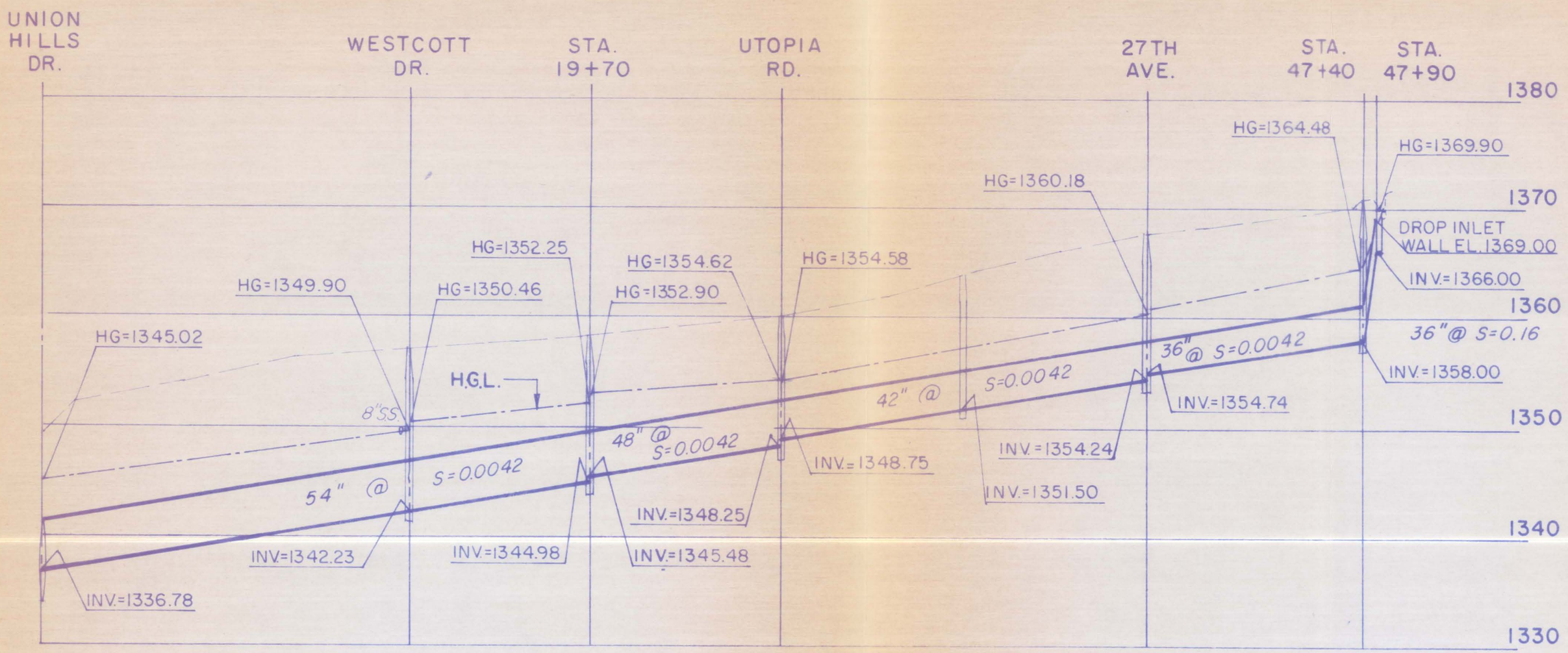
LINE "C"


35TH AVE.
33RD AVE.
STA. 21+00
31ST AVE.
1370
1360
1350
1340
1330
1320
HG=1343.59
HG=1343.87
HG=1347.90
HG=1340.82
HG=1340.37
HG=1337.47
H.G.L.
24"
S=0.00522
8"S.S.
Tel.
INV.=1343.00
36" @ S=0.00522
INV.=1340.39
10"S.S.
INV.=1339.39
42" @ S=0.00522
INV.=1334.15
INV.=1333.65
INV.=1327.94
21"S.S.

LINE "D"

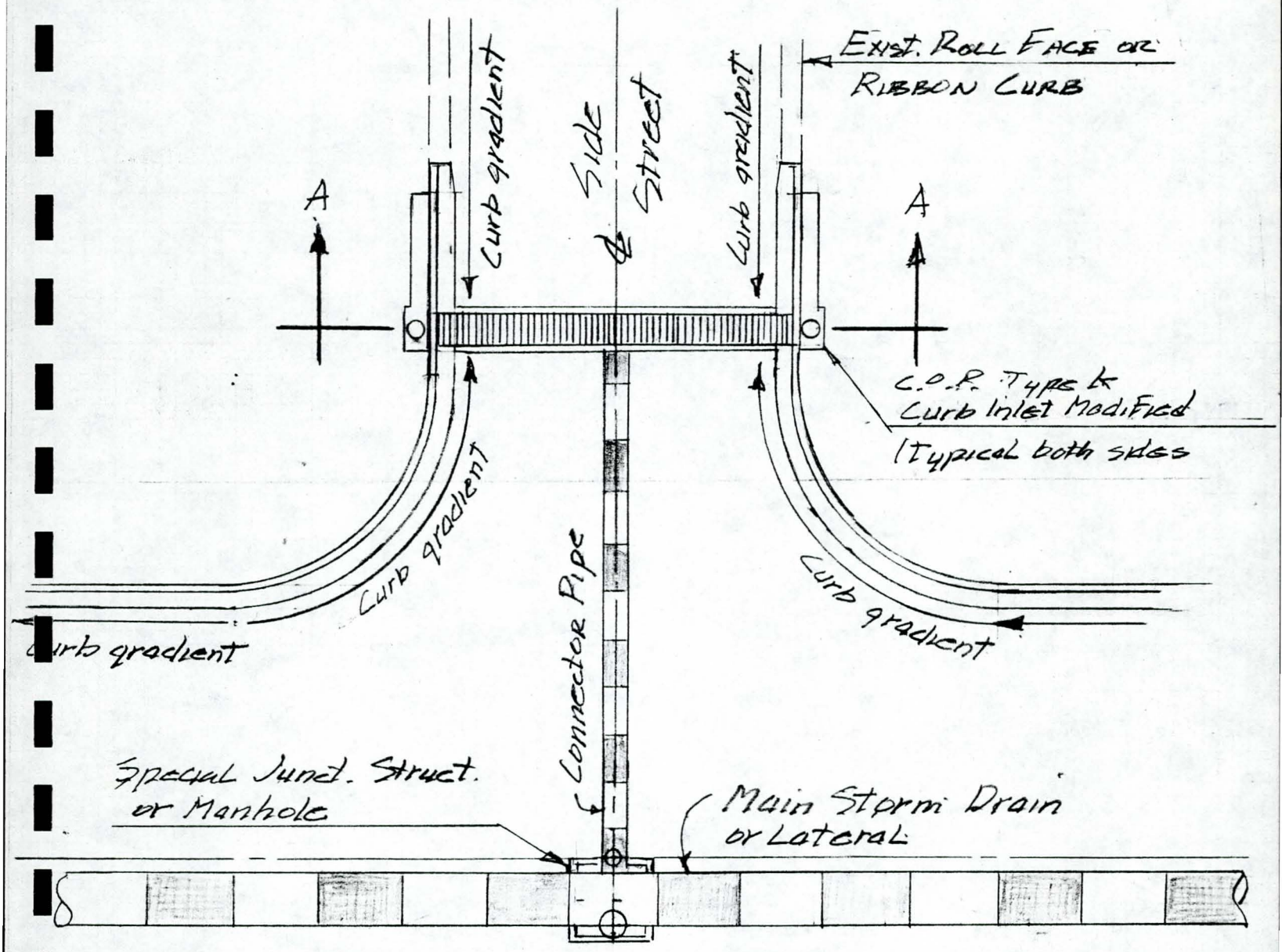

UNION HILLS DR.
MORROW DR.
TOPEKA DR.
1370
1360
1350
1340
1330
1320
HG=1344.75
HG=1342.75
HG=1341.97
HG=1339.23
H.G.L.
8"SS
24"
36" @ S=0.0056
42" @ S=0.0056
8" SS
INV.=1342.00
INV.=1341.00
INV.=1336.53
INV.=1336.03
INV.=1331.00

LINE "E"

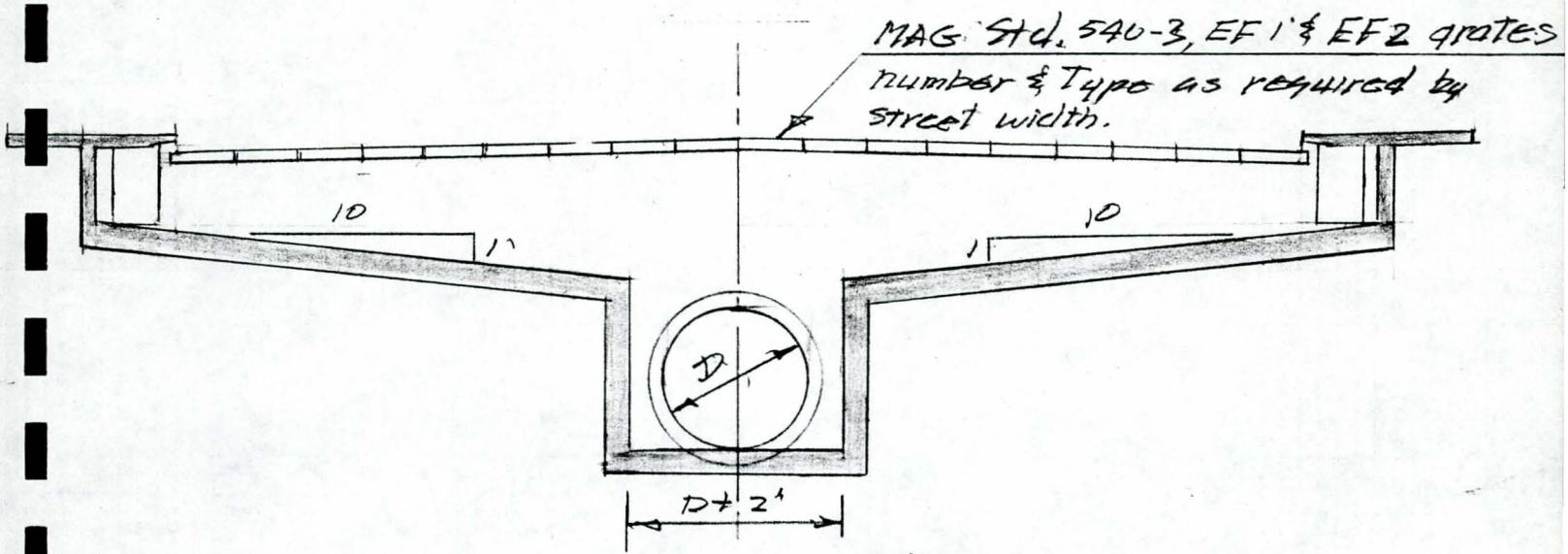

UNION HILLS DR.
WESTCOTT DR.
STA. 19+70
UTOPIA RD.
27TH AVE.
STA. 47+40
STA. 47+90
1380
1370
1360
1350
1340
1330
HG=1364.48
HG=1369.90
HG=1360.18
DROP INLET
WALL EL. 1369.00
INV.=1366.00
HG=1352.25
HG=1354.62
HG=1354.58
HG=1349.90
HG=1350.46
HG=1352.90
HG=1345.02
36"@ S=0.16
36" @ S=0.0042
H.G.L.
INV.=1358.00
42" @ S=0.0042
INV.=1354.74
8"S.S.
48" @ S=0.0042
INV.=1354.24
INV.=1348.75
54" @ S=0.0042
INV.=1351.50
INV.=1348.25
INV.=1342.23
INV.=1344.98
INV.=1345.48
INV.=1336.78

APPENDIX G

SPECIAL TYPE I INLET

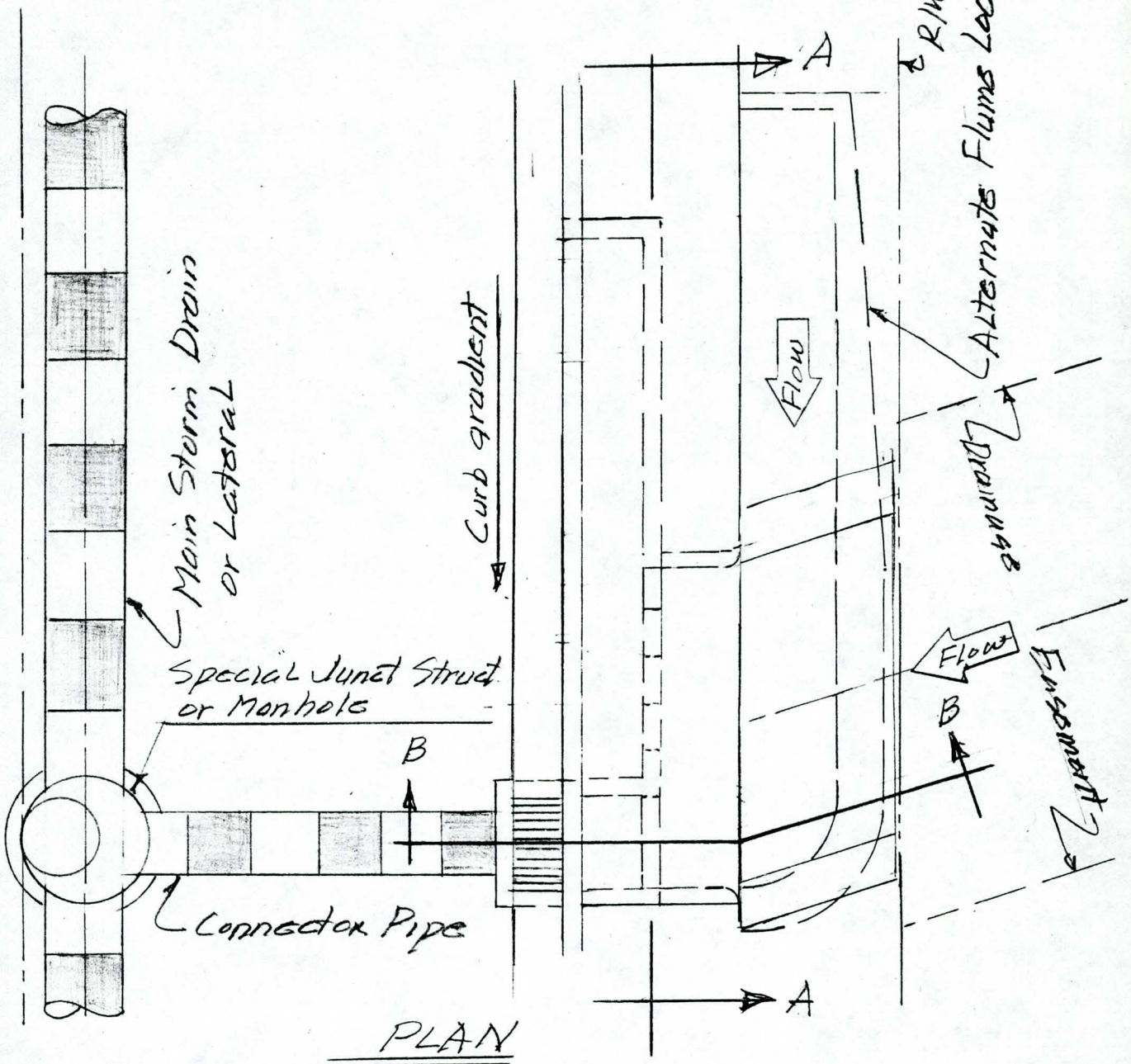


PLAN

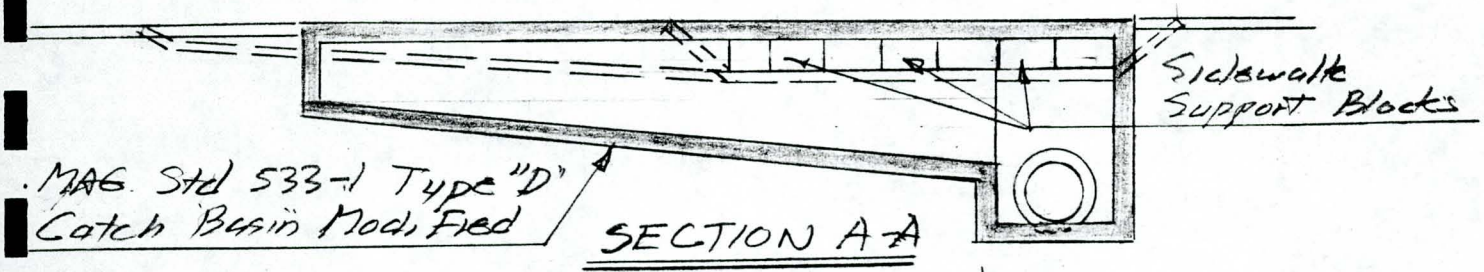


SECTION A-A

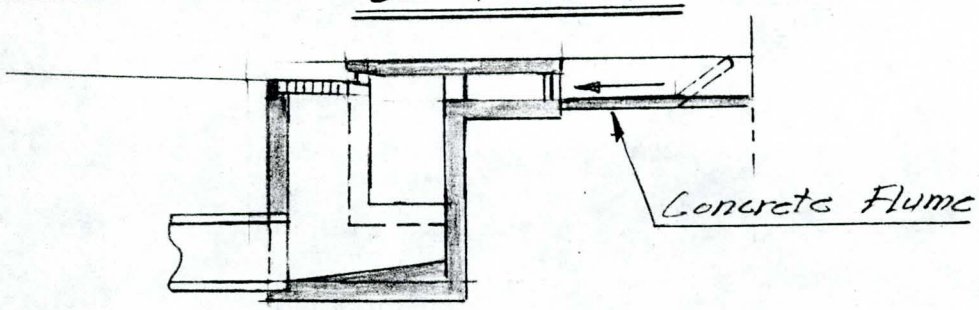
SPECIAL TYPE II INLET



PLAN



SECTION A-A



SECTION B-B

APPENDIX H

COSTS

Outlet to 51st Avenue (within City of Glendale)

144" diameter Pipe:	3460 L.F. @ 575	=	1,889,500
Outlet Headwall: Conc:	42.23 C.Y @ 800	=	33,784
Steel	2955 Lbs @ 1.00	=	2,955
Outfall Access barrier:	1 each @	=	25,000
Manholes:	4 each @ 2500	=	10,000
Special Transition section		=	30,000
	Total →		1,991,239

51st Avenue to 43rd Avenue (within City of Phoenix)

144" Diameter Pipe:	2480 L.F @ 575	=	1,426,000
132" Diameter Pipe:	2660 LF @ 500	=	1,330,000
Manholes:	4 each @ 2500	=	10,000
M.H. w/Special Tees:	4 each @ 4,000	=	16,000
	Total →		$2,782,000

43rd Avenue to 35th Avenue (within City of Phoenix)

120" Diameter Pipe:	2630 L.F @ 400	=	1,052,000
114" Diameter Pipe:	2670 L.F. @ 375	=	1,001,250
Manholes:	4 each @ 2500	=	10,000
M.H. w/Special Tees:	4 each @ 4,000	=	16,000
	Total →		$2,079,250

COSTS

35th Avenue to 27th Avenue (with City of Phoenix)

102" Diameter Pipe: 1650 L.F @ 325	=	536,250
90" Diameter Pipe: 2410 L.F @ 300	=	723,000
84" Diameter Pipe: 1350 L.F @ 280	=	389,200
Manholes: 4 each @ 2,500	=	7,500
M.H w/ Special Tees: 3 each @ 4,000	=	12,000
Special Headwall: Conc: 14.10 C.Y @ 800	=	11,280
Steel: 870 Lbs @ 1.00	=	870
Inlet Access Barrier: 1 each @	=	7,000
Total →		1,687,100

LINE "A" (within City of Phoenix)

66" Diameter Pipe: 1320 L.F @ 175	=	231,000
60" Diameter Pipe: 660 LF @ 170	=	112,200
54" Diameter Pipe: 660 L.F @ 135	=	89,100
48" Diameter Pipe: 660 L.F. @ 110	=	72,600
42" Diameter Pipe: 1320 L.F @ 100	=	132,000
36" Diameter Pipe: 1320 L.F @ 90	=	118,800
Manholes: 9 each @ 2500	=	22,500
Total →		$ 778,200

LINE "B" (within City of Phoenix)

60" Diameter Pipe: 2680 L.F @ 170	=	455,600
42" Diameter Pipe: 720 L.F @ 100	=	72,000
36" Diameter Pipe: 600 L.F. @ 90	=	54,000
Manholes: 6 each @ 2500	=	15,000
Total →		$ 596,600

COSTS

LINE "C" (within City of Phoenix)

42" Diameter Pipe:	1100 LF @	100	=	110,000
36" Diameter Pipe:	1000 LF @	90	=	90,000
24" Diameter Pipe:	500 LF @	60	=	30,000
Manholes:	3 each @ 2500		=	7,500
		Total →		$ 237,500

LINE "D" (within City of Phoenix)

42" Diameter Pipe:	900 LF @	100	=	90,000
36" Diameter Pipe:	800 LF @	90	=	72,000
Manholes:	2 each @ 2500		=	5,000
		Total →		$ 167,000

LINE "E" (within City of Phoenix)

54" Diameter Pipe:	1970 LF @	135	=	265,950
48" Diameter Pipe:	680 LF @	110	=	74,800
42" Diameter Pipe:	1320 LF @	100	=	132,000
36" Diameter Pipe:	830 LF @	90	=	74,700
Manholes:	5 each @ 2500		=	12,500
Inlet Headwall:	Conc: 1.87 C.Y. @	800	=	1,496
	Steel: 145 Lb. @	1.00	=	145
Inlet Access Barrier:	1 each @		=	1,500
		Total →		$ 563,091

Project Total = $ 10,881,980

APPENDIX I

NBS/LOWRY
ENGINEERS & PLANNERS

July 7, 1987

Mr. Rolf Erikson, P.E.
Erikson and Salmon
4022 East Broadway Road
Phoenix, Arizona 85040

Re: Skunk Creek HEC-2 Analysis

Dear Mr. Erikson:

We have evaluated the conditions created by the proposed additional discharge into Skunk Creek Wash. As per your letter, dated June 12, 1987, we modeled an additional flow of 1600 CFS in the vicinity east of the 57th Drive Crossing at Cross Section 4.81 in our HEC-2 Analysis. Enclosed are the HEC-2 printouts and a map showing representative cross sections. From our analysis, two conditions were noted:

1) The rise in the Calculated Water Surface Elevation, (CWSEL) from the bridge at 59th Avenue downstream to the extents of HNTB Channel Improvements, (Project No. A834043);

2) The effects of the 59th Avenue Bridge on a borderline pressure flow condition.

Earthen berms were constructed as part of a rechannelization project from 59th Avenue downstream approximately 3000 feet. If the ground surface elevation behind the berms is below the 100 year Calculated Water Surface Elevation, the berms are classified as levees and must be built to strict specifications. These berms were not built to levee requirements. Therefore, the ground surface elevation behind the berms must be at or above the 100 year Calculated Water Surface Elevation. The addition of 1600 CFS raises the 100 year Calculated Water Surface Elevation by approximately 0.7 feet, which increases the required amount of fill material needed to remain in conformance with FEMA regulations.

The 59th Avenue Bridge, modeled by Cross Section 4.43, with a factor of safety employed, is borderline pressure flow at the 100 year discharge. The Calculated Water Surface Elevation is 1266.50 feet, and the Energy Gradient (EG), is 1267.65 feet. The bridge low chord is at Elevation 1267.10 feet. The HEC-2 Model interprets this condition as pressure flow, even though the Calculated Water Surface Elevation is below the low chord elevation. With the addition of 1600 CFS, the new Calculated Water Surface Elevation at Section 4.43 is 1267.80 feet. This puts the Calculated Water Surface Elevation 0.7 feet above the bridge low chord and creates true pressure flow, and a rise in the Calculated Water Surface Elevation of 1.30 feet. A rise of more than one foot occurs for approximately 1400 feet upstream to Cross Section 4.646. This rise jeopardizes conformance of exsisting development upstream of the 59th Avenue Bridge. Continuing

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upstream to the proposed discharge area at Section 4.81, there is a moderate rise in the Calculated Water Surface Elevation, approximately 0.38 feet. Going 300 feet upstream to Section 4.867, an expected rise in the Calculated Water Surface Elevation occurs due to the new discharge into Skunk Creek Wash. From Cross Section 4.867 to the end of our analysis, there were no other items of concern.

In conclusion, we are of the opinion that the exsisting channel for the 100 year future condition discharge is at it's maximum flow capacity. We recommend field verification of building finished floor elevations within the study area. The finished floor elevations must be a minimum of 1.0 feet above the 100 year plus 1600 CFS discharge Calculated Water Surface Elevation. The additional 1600 CFS increases the amount of fill material required to stay in conformance with FEMA regulations for sites presently under construction from the 59th Avenue Bridge to the end of the HNTB Rechannelization. The additional flow also creates true pressure flow at the 59th Avenue Bridge and raises the Calculated Water Surface Elevation by more than 1.2 feet.

Very truly yours,

NBS/LOWRY

Dennis Phinney

Dennis J. Phinney, P.E. for
Brian J. Fry, Project Hydrologist

BJF;DEP:eps

enclosures

CITY OF GLENDALE

5850 West Glendale Avenue
Glendale, Arizona 85301
(602) 435-4000

Mayor
GEORGE R. RENNER
Vice-Mayor
BRUCE E. HEATWOLE
Councilmen
RICHARD BELLAH
JOE A. FALBO
ROBERT L. HUFFMAN
IAN HUGH
QUENTIN V. TOLBY

August 12, 1987

Erikson & Salmon
4022 East Broadway Road
Phoenix, Arizona 85040

Attention: Rolf Erikson, P.E.

PROJECT H878007 - UNION HILLS DRIVE DRAINAGE STUDY

Gentlemen:

Field verification by City forces indicates that the Honeywell Building, northeast of 59th Avenue and Union Hills Drive, finished floor elevation is 4.30 feet above the bottom cord of the 59th Avenue and Skunk Creek Bridge, and 3.6 feet above the new proposed water elevation indicated in the NBS/Lowry letter dated July 7, 1987 (attached).

Morrison-Knudsen Engineering is in the process of evaluating the effects of the water rise on the bridge. We will advise you of their findings as soon as such information becomes available.

Very truly yours,

Daniel V. Perna, P.E.
Acting Assistant City Engineer, Design

Lorenzo Ortiz, P.E.
Civil Engineer

va
Attachment
cc: Flood Control District of Maricopa County
City of Phoenix

BIBLIOGRAPHY

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2. Arizona Highway Department, Bridge Division, "Hydrologic Design of Highway Drainage" (December 1, 1968, with revisions of April 1975).

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4. Goodfarb, Stanley Z., Assistant Attorney General, State of Arizona, "Highway Design and Legal Liability for Drainage Changes" (1971). (Not a legal opinion of the Arizona Attorney General's Office).

5. United States Department of Agriculture, Soil Conservation Service, "General Soil Map - Maricopa County, Arizona" (March 1973).

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8. Bureau of Public Roads, "Hydraulic Charts for the Selection of Highway Culverts", Hydraulic Engineering Circular No. 5, Washington, D.C. 1964.

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11. Monroe Model 1880 Programmable Calculator - Hydraulic - Gravity Flow Through Trapezoidal Channels.

12. King, H.W and E.F. Brater, Handbook of Hydraulics, 5th Edition, McGraw-Hill Book Company, 1963.

13. U.S. Department of Agriculture, Soil Conservation Service, Engineering Division, Technical Release 20, Central Technical Unit, "Computer Program for Project Formulation - Hydrology", 1965.

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15. City of Phoenix, "Storm Drain Design Manual, Subdivision Drainage Design", September 1985.

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