

RETURN WITHIN 2 WEEKS TO:
CITY OF COLORADO SPRINGS
STORM WATER & SUBDIVISION
101 W. COSTILLA AVENUE 113
COLORADO SPRINGS, CO 80903
(719) 385-5979

**MASTER DEVELOPMENT DRAINAGE PLAN
FOR RIDGEVIEW SUBDIVISION
COLORADO SPRINGS
EL PASO COUNTY, COLORADO**

URS Greiner

**CPC MPA 99-151
CPC P 99-152**

**MASTER DEVELOPMENT DRAINAGE PLAN
FOR RIDGEVIEW SUBDIVISION
COLORADO SPRINGS
EL PASO COUNTY, COLORADO**

October 23, 1998

PREPARED FOR:

Ridgeview Development
616 W. Monument
Colorado Springs, CO 80905

PREPARED BY:

URS Greiner, Inc.
8415 Explorer Drive, Suite 110
Colorado Springs, CO 80920

URSG PROJECT NO. 67-42271

Engineer's Statement:

The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the City for drainage reports and said report is in conformity with the Sand Creek Drainage Basin Planning Study. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.

Charles K. Cothorn

10/23/98

Charles K. Cothorn, P.E. #24997

Date

Developer's Statement:

I, the developer have read and will comply with all of the requirements specified in this drainage report and plan.

Ridgeview Development, LLC
Business Name

By: Peter R. Mintz

Title: DEV. MGR.

Address: 616 W. Monument
Colorado Springs, CO 80906

City of Colorado Springs:

Filed in accordance with Section 15-3-906 of the Code of the City of Colorado Springs, 1980, as amended.

Timothy R. Mintz for

November 5, 1998

City Engineer

Date

Conditions:

TABLE OF CONTENTS

I. INTRODUCTION	1
A. PURPOSE.....	1
B. BACKGROUND.....	1
C. LOCATION AND DESCRIPTION OF STUDY AREA.....	1
II. DESIGN METHODOLOGY.....	5
A. HYDROLOGY.....	5
B. DETENTION STORAGE CRITERIA	5
III. HYDRAULIC CRITERIA.....	6
A. GENERAL.....	6
B. STREETS, ROADWAYS AND INLETS.....	6
C. STORM SEWERS	6
D. OPEN CHANNELS	6
IV. EXISTING DRAINAGE CONDITIONS.....	7
A. EXISTING FACILITIES	7
B. EXISTING DRAINAGE CHARACTERISTICS	7
V. DEVELOPED DRAINAGE CONDITIONS.....	10
A. EVALUATION OF DETENTION FACILITIES.....	10
B. GENERAL CONCEPT.....	10
C. DEVELOPED DRAINAGE CHARACTERISTICS	11
D. DEVELOPED BASIN DESCRIPTIONS.....	16
1. OFF-SITE BASINS	16
2. ON-SITE BASINS	16
E. COTTONWOOD CREEK	22
F. SAND CREEK AND MAJOR TRIBUTARY CHANNELS.....	22
1. SAND CREEK.....	22
2. MAJOR CHANNEL IMPROVEMENT PHASING	23
3. DETENTION POND.	24
4. SAND CREEK ROAD CROSSING.	27
VI. COST ESTIMATES.....	27
VII. REFERENCES.....	30

LIST OF TABLES

1. SUMMARY OF PLANNED DEVELOPMENT	3
2. SOIL DESCRIPTION	3
3. 100-YEAR STORM SEWER TRUNKLINE PIPE SIZES	18
4. PROPOSED FACILITIES AT STETSON HILLS BOULEVARD	18
5-1. RATIONAL METHOD: EXISTING CONDITIONS	19
5-2. RATIONAL METHOD: DEVELOPED CONDITIONS (TUTT STORM SEWER)	20
6. TR-20 BASINS PLUS DESIGN POINTS	21
7. COST ESTIMATE	28

LIST OF FIGURES

1. VICINITY MAP	2
2. SOILS	4
3. EXISTING CONDITIONS DRAWING MAP	9
4. PROPOSED CONDITIONS DRAWING MAP	14
5. COTTONWOOD CREEK / SAND CREEK SUBBASINS	15
6. SAND CREEK IMPROVEMENTS PHASING PLAN	25

APPENDICES

- A. EXISTING CONDITION TR-20 MODEL
- B. DEVELOPED CONDITION TR-20 MODEL
- C. PRELIMINARY STORAGE VOLUME CALCULATIONS
- D. HYDROLOGY MODEL COMPARISON
- E. CALCULATION OF DRAINAGE SURCHARGE FEE

I. INTRODUCTION

A. Purpose

The purpose of this Master Development Drainage Plan (MDDP) is to identify flow patterns, detention pond sites, locations of culverts, bridges, open channels and drainage areas for the conceptual drainage improvements necessitated by the proposed Ridgeview Development. This report addresses conceptual drainage mitigation for ultimate condition discharges in accordance with the design discharges presented in the Sand Creek Drainage Basin Planning Study (Kiowa Engineering, March 1996) and the Cottonwood Creek Drainage Basin Planning Study (URS Consultants, June 9, 1994). The concepts presented herein will need to be refined and specific improvements addressed during the Final Plat preparation.

B. Background

The Ridgeview Development Site was previously master planned in the mid-1980's (Reference – Stetson Hills Master Plan, Amwest Development Corporation, August 1983 and Master Drainage Study for Stetson Hills, Greiner Engineering, April 1985). This Master Plan redefines land use north of Stetson Hills Boulevard and renames this area Ridgeview. The Ridgeview Development is to be constructed in multiple phases. Phase I is located just north of Stetson Hills Boulevard (formerly known as Bridlespur Boulevard and Lariat Drive) generally in the southwest corner of the Master Plan. The discharges from this first stage of development will enter the Stetson Hills Subdivision located south of Stetson Hills Boulevard (Refer to the Master Development Drainage Plan for Stetson Hills Subdivision Phase I, prepared by Merrick and Company, May 1997) using previously proposed conveyance paths.

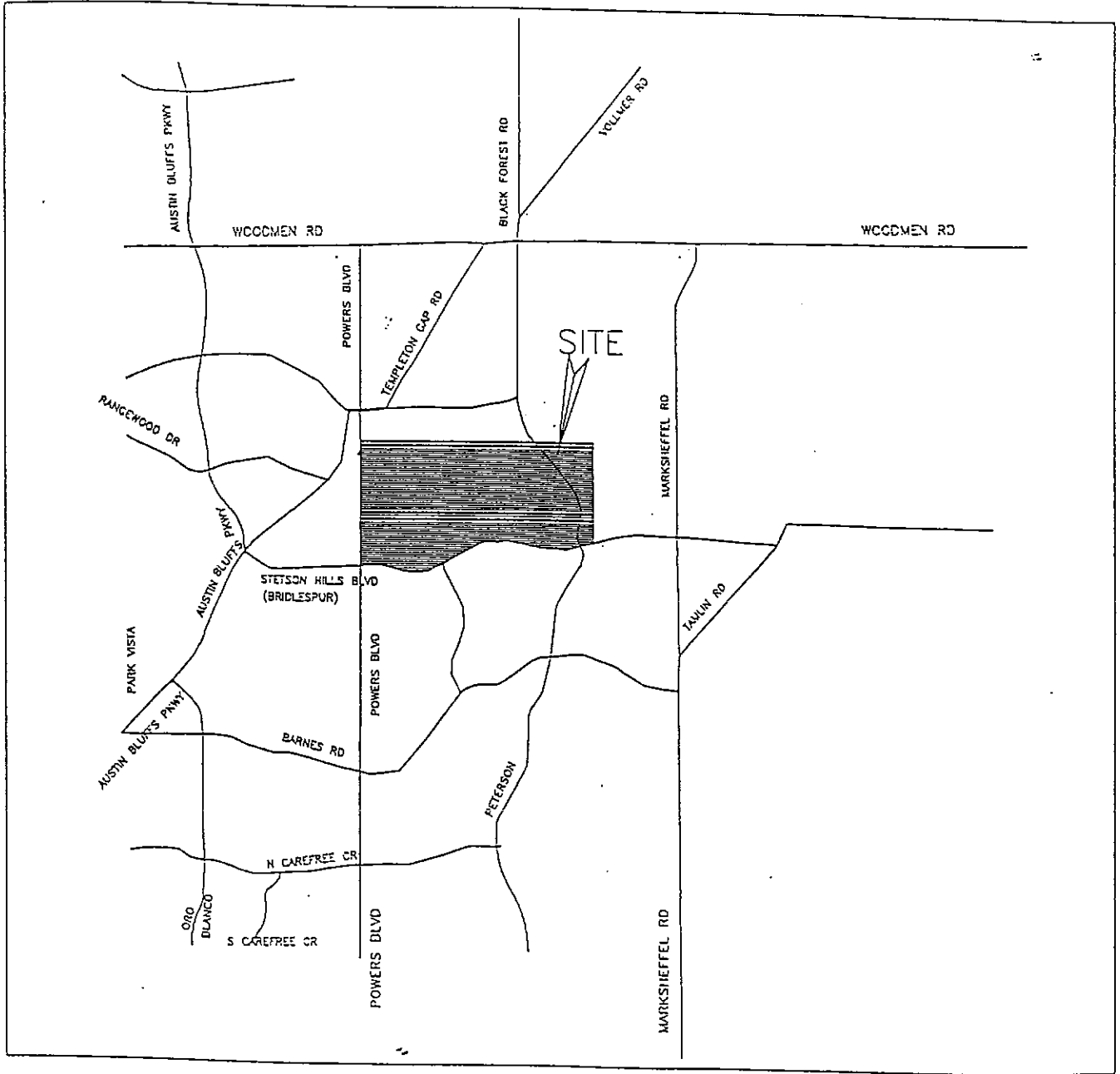
C. Location and Description of Study Area

The Ridgeview Development Site is located in eastern Colorado Springs, within Range 65 West, Township 13 south, sections 17 and 18 and Range 66 West, Township 13 south, section 13. The site is approximately 6 miles southwest of Falcon, Colorado in El Paso County. The site is generally located east of Powers Boulevard and south of Dublin Road (See Figure 1).

Other developments near Ridgeview include Stetson Hills to the south. While the entire site is currently zoned agricultural, the existing land use is predominately native range grasslands. An existing ranch, owned by the Pring family, occupies the northern section of the subdivision site. A section of the ranch property will not be conveyed to the developer; this property may be developed in the future and is evaluated as developed herein. The existing vegetation is typical eastern Colorado prairie grass with yucca plants and deciduous trees lining the meandering channel banks of Sand Creek.

The planned development for Ridgeview is a combination of single family residential, a planned retirement community, commercial, school, and park land. The subdivision site is to be developed in phases. Phase I is located in the southwestern quadrant of the property

RIDGEVIEW MDDP



VICINITY MAP

NOT TO SCALE

FIGURE 1

URS Greiner

8415 EXPLORER DR, SUITE 110
COLORADO SPRINGS, CO 80920
(719) 531-0001

adjacent to Stetson Hills Boulevard. The proposed land uses for the development are presented in Table 1.

TABLE 1
Summary of Planned Development

Office	55 Acres
Commercial	30 Acres
Schools	49 Acres
Multi-Family Residential	68 Acres
Single Family Residential	763 Acres
Open Space (Including Right of Way)	61 Acres
Park	34 Acres
TOTAL	1060 Acres

Most of the proposed Ridgeview development is within the Sand Creek watershed. A small area in the northwest portion of the site is tributary to Cottonwood Creek. This MDDP has been prepared in agreement with the conceptual improvements presented in the Drainage Basin Planning Studies (DBPSs) approved for each of these watersheds.

The development site and surrounding areas are comprised of various soil types as classified by the Soil Conservation Service (Reference "Soil Survey of El Paso County Area, Colorado", June 1981 - Sheet No. 9 of 37). These soil types are tabulated in Table 2.

TABLE 2
Soil Description

Number	Name	Hydrologic Soil Group
8	Blakeland Loamy Sand	A
10	Blendon Sandy Loam	B
85	Stapleton - Bernal Sandy Loams	B and D
97	Truckton Sandy Loam	B

As shown on the soil map (See Figure 2), the southwestern portion of the project site is comprised of soil types B and D, Stapleton - Bernal Sandy Loam. The Stapleton part of this soil is primarily sandy loam with gravelly, loamy sand at greater depths while the Bernal part of this soil is comprised of sandy loam, sandy clay loam and unweathered bedrock at greater depths. The middle of the project site is comprised of Blakeland Loamy Sand which belongs to soil group A. The eastern portion of the project site, where the tributaries to Sand Creek run, is comprised of group B soils: Blendon and Truckton Sandy Loams.

RIDGEVIEW MDDP SOILS TYPES



LEGEND

- A HYDROLOGIC SOILS GROUP
- 8 BLAKELAND SOIL
- 10 BLENDON SOIL
- 85 STAPLETON / BERNAL MIX
- 97 TRUCKTON SOIL
- SOIL TYPE BOUNDARY

SCALE: 1"=1000'



URS Greiner
 8415 EXPLORER DR, SUITE 110
 COLORADO SPRINGS, CO 80920
 (719) 531-0001

FIGURE 2

Type A Soils generally have a higher infiltration rate and produce lower amounts of runoff. Type B soils have a slightly lower infiltration rate and more runoff is generated from these areas. Soils classed as type D have the lowest infiltration rate and larger amounts of runoff are generated from watersheds which have Type D soils. Type A soils which will be disturbed during development were evaluated as being in soil Type B for the developed hydrologic models, per the Drainage Criteria Manual.

II. DESIGN METHODOLOGY

A. Hydrology

The Soil Conservation Service (SCS) Technical Release 20 Hydrologic Computer Program (TR-20) was used to model the existing and developed basins in the Sand Creek watershed. The TR20 files used for the Sand Creek Drainage Basin Planning Study (DBPS) were obtained courtesy of Kiowa Engineering. These base files were modified to reflect the more detailed topographic mapping and land use planning available for this study in the proposed Ridgeview Development area. The drainage areas for the on-site basins were determined using available FIMS mapping. (Reference Appendix A and B for existing and developed computer models).

The TR-20 program uses the SCS Runoff Curve Number (RCN) method to generate runoff values. Factors used in the determination of RCNs are hydrologic soil type, cover type and treatment, hydrologic condition and antecedent runoff condition (ARC).

The storms modeled were the 5-year, 10-year and 100-year events. The events were modeled using Antecedent Moisture Condition II with rainfall depths of 2.6, 3.0 and 4.4 inches for the 5-, 10- and 100-year storms, respectively. The 10-year storm was modeled as a check against previous models.

The Rational Method, as documented by the El Paso County / City of Colorado Springs Drainage Criteria Manual (Criteria Manual), was used to model drainage areas which are less than 100 acres including the area tributary to Cottonwood Creek.

B. Detention Storage Criteria

Preliminary pond dimensions for DBPS Sand Creek #2 (Sky Sox Pond, Structure 98) were approximated from the preliminary plans located in the appendix of the DBPS. Minimum 4:1 side slopes were assumed for a rectangular shaped pond. The alternative pond located north of Stetson Hills Blvd (Structure 77) was approximated from FIMS topography, assuming 5:1 side slopes and a maximum water surface area of 752,527 sq. ft. A more detailed discussion of the pond alternatives follows in Section V- Developed Drainage Conditions. Refer to Appendix C for preliminary storage volume computations.

III. HYDRAULIC CRITERIA

A. General

Hydraulic criteria used to layout and conceptually design proposed facilities are in conformance with criteria contained in the Criteria Manual. The Criteria Manual provides criteria for streets and roadways, storm sewers and open channels. Site specific geometric data for hydraulic design of proposed facilities, such as slope, are obtained from conceptual grading plans, which are subject to modification during final plat submittal. The facilities proposed in this MDDP present the generalized drainage system and are subject to refinement as more detailed final design plans are prepared.

B. Streets, Roadways and Inlets

Overland lot flow will be intercepted by curb and gutter. Curb and gutters will be designed to carry the 5-year storm as required by the Criteria Manual. Flows generated by the 100-year storm will be contained within the ROW. Flows in excess of the roadway capacity will be intercepted by storm inlets and sewers and will be conveyed to existing drainage channels via storm sewers.

Inlets will be sized per the current Criteria Manual. Locations for inlets will primarily be at sump conditions and along segments of roadway that will exceed carrying capacity. Storm sewers will convey runoff from inlets to the drainage channels.

C. Storm Sewers

Proposed storm sewers are sized based on Manning's equation and sewer grades are based on proposed street grades. Storm sewers are also sized based on a free water surface.

D. Open Channels

Open channels are proposed at various locations to convey both off-site and intercepted on-site flows through the study area to Sand Creek. Preliminary design of open channels is based on conveying the 100-year runoff with freeboard in accordance with the Criteria Manual. A maintenance access road will be provided as part of the final design. Proposed open channels are to be grass lined and include some drop structures to control velocities. Riprap will be placed at critical locations as required.

Selective channel improvements are also proposed for the main tributary of Sand Creek in accordance with the Sand Creek DBPS.

IV. EXISTING DRAINAGE CONDITIONS

A. Existing Facilities

Numerous facilities are located within the project limits. The following is a summary of existing or previously proposed facilities to be built by others:

1. A 68" x 106" RCEP at Tutt Boulevard.
2. A 10' x 8' RCBC at Charlotte Boulevard.
3. A 10' x 6' RCBC between Charlotte Boulevard and Anna Lee Way.
4. A 48" RCP east of Peterson Road.
5. A Triple 8x10 RCBC for Sand Creek conveyance under Stetson Hills Boulevard. There is an existing pond at this location that was created when the rough grading for Stetson Hills Boulevard was completed. This facility is fed by the Sand Creek watershed.
6. A Triple 48" CMP across Powers Blvd. south of the proposed Dublin extension.
7. A 43"x27" CMP across Powers Blvd roughly 800 ft south of the 48" CMPs.

B. Existing Drainage Characteristics

The northwest corner of Ridgeview drains west to Cottonwood Creek . There is an existing triple 48" CMP culvert under Powers Blvd approximately 1500 ft south of the proposed Dublin Blvd extension. There is also an existing 43" x 24" arch CMP under Powers Boulevard approximately 800 ft. further south at a low point. This area is called out in the Cottonwood Creek DBPS as subbasin H2. Rational method analysis of this area follows in Table 5-1. The remainder of the site is included in the Sand Creek watershed.

Sand Creek meanders through the eastern portion of the project site. The channel banks are eroded and steep in some locations.

An existing in-stream pond has been created on Sand Creek adjacent to the rough graded Stetson Hills Boulevard. The Sand Creek DBPS identified the area encompassing this pond as an alternate detention pond site. This pond site is further evaluated as to its feasibility in this report.

Five drainage crossings at Stetson Hills Boulevard have been identified. Stetson Hills as-built drainage systems and future drainage system construction must be coordinated to best serve the needs of the developer, the goals of Colorado Springs and El Paso County and to maintain the integrity of the Sand Creek watershed.

Basins identified in the Sand Creek DBPS which drain to Sand Creek upstream of the development boundary include DBPS basins 47, 48, 49, 50, 52, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70 through 82 and 88.

DBPS basins which directly affect the site include sub-basins 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45 and 46.

Under existing conditions, the area to be developed is comprised of undeveloped rangeland, minor woodlands, and residential development. The hydrologic model prepared by Kiowa Engineering was used in the preparation of the existing condition hydrologic model for the Sand Creek portion of the project site. The upper reach of the watershed is conveyed to the project site via Sand Creek and a tributary to Sand Creek. When Sand Creek reaches the project limit, it is a well-defined channel.

Design Point 1

Drainage area 1 is comprised of rural residential development and grasslands. This basin drains under Powers Boulevard at Design Point 1 via 3, 48-inch CMPs to an unnamed tributary of Cottonwood Creek. Soil Type A is used in the hydrologic analyses.

Design Point 2

Design Point 2 is located approximately 1400 feet east of the intersection of Powers and Stetson Hills Boulevards. This area (Sub-area 2) is characterized by range grass with yucca plants. Rills and small swales drain toward the rough graded Stetson Hills Boulevard. The predominant soil type was identified to be Type B/D with a small section classified as Type A.

Basin 3

Basin 3 discharges approximately 620 feet east of Peterson Road at Stetson Hills Blvd. Basin 3 is characterized by range grass and yucca plants. The predominant soil type was identified as Type B.

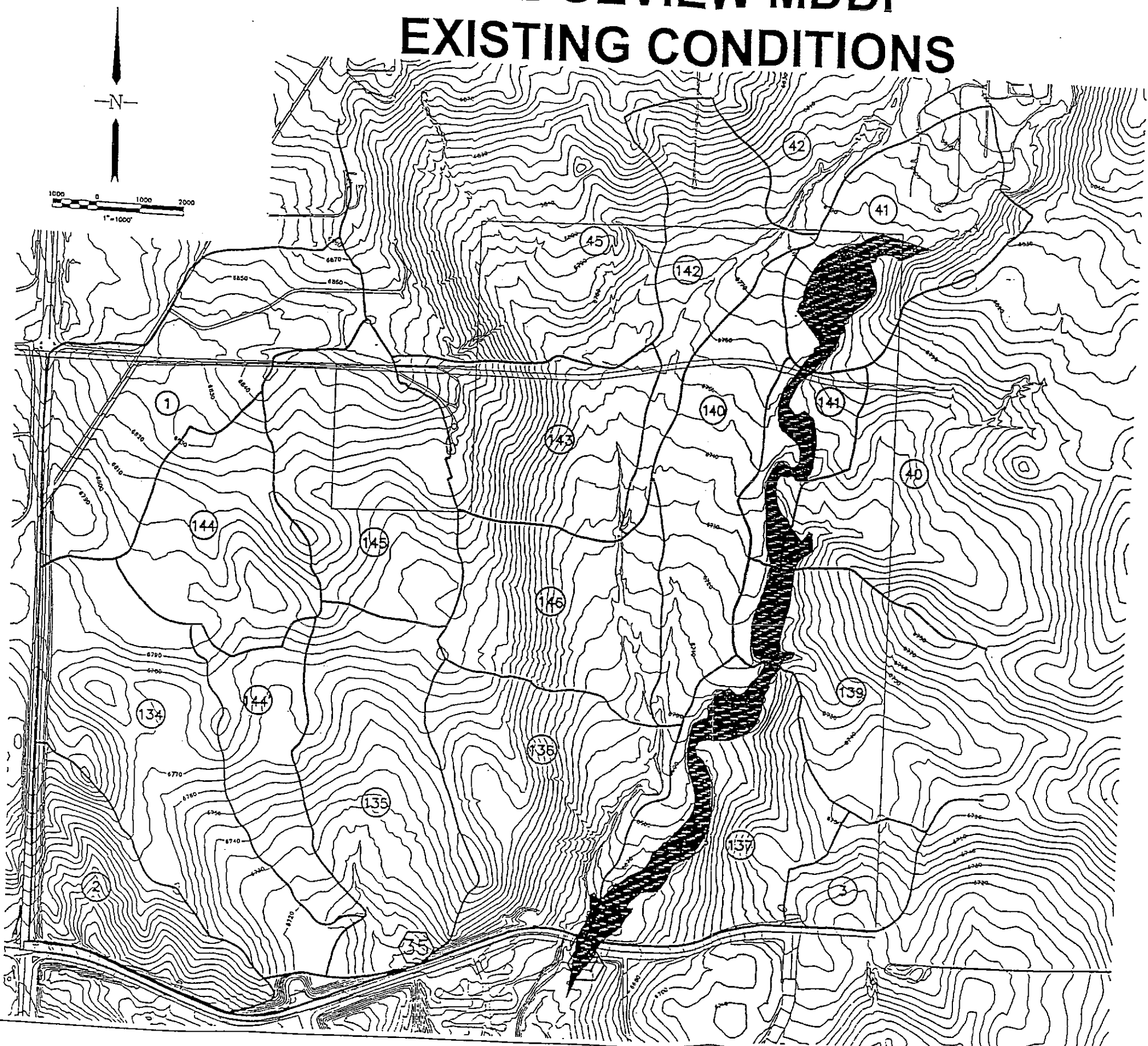
Design Point 35

To concur with the DBPS, design point 35 is located adjacent to Stetson Hills Boulevard where an existing swale crosses the rough graded roadway. Sub-areas 134, 135, 136, 144, 144' and 145 contribute to this swale. This area is comprised of rangeland with yucca plants. The soil type was determined to be primarily type A through the midsection of this basin. The western portion of the basin was determined to be mixed Soil Type B/D. URS Greiner's (URSG) determination varies from that presented by Kiowa in the DBPS. The Soil Type D is identified as being in the westernmost portion of the basin in the MDDP. This yields Runoff Curve Numbers (RCNs) which are higher than those used in the DBPS.




Design Point 37

To concur with the DBPS, design point 37 is located adjacent to Stetson Hills Boulevard at the existing pond, just downstream of the confluence of Sand Creek and its minor tributary. These areas are comprised of range grasses, yucca plants and clusters of trees along the banks of Sand Creek. The upper quadrant of the drainage basin has the following land uses: rural residential, farm and ranch land. The predominant soil types were determined to be Soil Type A and B. On-site sub-areas 136, 137, 139, 140, 141, 142, 143 and 146 discharge to Design Point 37. The storage capacity of the existing pond was not modeled by either Kiowa nor in the hydrologic models prepared by URS Greiner.

RIDGEVIEW MDDP EXISTING CONDITIONS



LEGEND

-  BASIN BOUNDARY
-  BASIN IDENTIFIER
-  SAND CREEK DBPS DESIGN POINT

URS Greiner
8415 EXPLORER DR, SUITE 110
COLORADO SPRINGS, CO 80920
(719) 531-0001

FIGURE 3

6142221\G00\URDP\MDDP\EXIST.DWG_PLOT DATE: 01/30/88

V. DEVELOPED DRAINAGE CONDITIONS

A. Evaluation of Detention Alternatives

Three detention alternatives were evaluated in the development of the MDDP:

1. A single pond at Stetson Hills Boulevard
2. Two ponds in series: 1 at Stetson Hills Blvd and a second at Sky Sox
3. A single pond at Sky Sox (DBPS SC#2)

A single pond at Stetson Hills Blvd was modeled to reduce developed peak flows to historic levels. However, due to the areas of Ridgeview and Stetson Hills which do not drain to the Stetson Hills pond, downstream flows were unacceptably high. It was determined that over-detention at a single Stetson Hills pond to meet downstream DBPS design flows was an unreasonable alternative in terms of pond sizing and expense.

Having two ponds in series, one at Stetson Hills Blvd and the other at the DBPS site Sand Creek #2 (Sky Sox), was a feasible alternative in terms of hydrology and meeting design discharges downstream. However, the Stetson Pond did not reduce the size of the Sky Sox pond significantly. It was determined that the expense of the second pond and outlet structure was not likely to be offset by the reduced cost of a slightly smaller pond at Sky Sox.

The preferred alternative was a single pond near Sky Sox stadium. Preliminary calculations indicate that the pond would be approximately 240 Acre-feet and have a 100-year peak discharge of approximately 4760 cfs. These are within 5% of the design values presented in the DBPS. Further refinement to the pond size, shape and outlet structure will be necessary during final design of the pond.

A discussion of funding for the pond follows in section E. 3.

B. General Concept

The overall drainage patterns under developed conditions are proposed to be similar to those of existing (historic) conditions to minimize the hydrologic impacts to the Cottonwood Creek and Sand Creek watersheds. (See Figure 4). Runoff for the minor and major storm events was estimated using the Rational Method for inlets and collector storm sewer systems, and the SCS Unit Hydrograph Method (TR-20) was used for major channel facilities with contributory areas greater than 100-acres.

Overland flow will be intercepted by curb and gutter along the residential and collector roads. Storm inlets and sewers will convey the 5-year storm runoff toward Powers Blvd, and towards the southern project boundary at Stetson Hills Boulevard. The drainage design herein proposes that the southerly end of the storm sewer pipe systems be designed to convey the 100-year storm to allow for the collection and conveyance of 100-year flows beneath Stetson Hills Boulevard through the previously proposed conveyance structures. The trunk line systems parallel to Charlotte and Tutt Boulevard and just west of Anna Lee Way will connect to drainage facilities constructed by the adjacent development, Stetson Hills Subdivision.

The adopted Sand Creek DBPS recommends a selective channel improvement concept for Sand Creek. The study recommends riprap bank linings at selective locations along with grade control structures. Ridgeview Development proposes that construction limits will be set back from channel banks to reduce the possibility of property damage and allow a more natural channel. Areas of high bank velocities and the outside of curves will also have proper bank lining. The banks will be graded as necessary to provide a stable slope for riprap placement. Concrete sills will be placed across the channel at select locations to control long term erosion of the channel invert. The remainder of the channel will remain undisturbed in its natural state as open space, habitat and wetlands.

Channel improvements to the tributary to Sand Creek are proposed to reduce the erosion potential and improve aesthetics. A low flow riprap protected pilot channel with a wider, high flow channel base is proposed. The side slopes of the improved channel sections will be a maximum of 3 to 1 since the existing soil is sandy, silty loam and it will not support steep slopes without armoring. Grade control structures will be used to reduce channel slopes. Future drainage reports may recommend enclosing sections of this channel within a storm sewer system after further detailed analysis.

The adopted Cottonwood Creek DBPS recommends regional detention facilities at various locations throughout the basin. However, due to the limited capacity of the existing 43"x27" CMP and facilities downstream of the existing triple 48" CMPs, flows will be controlled to release at maximum rates of 45 cfs and 90.5 cfs (historic) respectively. On-site detention may be necessary depending on final grading of the site. Also, a portion of the runoff from Cottonwood Creek will be diverted to Sand Creek via storm sewers so as not to exceed the capacity of facilities downstream of Powers Blvd. These flows are discussed in more detail below.

C. Developed Drainage Characteristics

Hydrologic models were prepared to reflect fully developed conditions within the Sand Creek watershed. The developed condition Sand Creek DBPS model was modified as needed to reflect the more detailed data available for the Ridgeview development. Due to their smaller size, the areas tributary to Cottonwood Creek were modeled using the Rational Method. The Rational Method was also applied to the western portion of Ridgeview tributary to Sand Creek in Table 5.2.

Design Point 1 / Cottonwood Creek

Offsite subbasin 100 is tributary to Cottonwood Creek under existing conditions. However it is proposed that the 66-inch Tutt Blvd. storm sewer be extended north to Dublin Blvd to convey the 100-yr peak runoff of 136.2 cfs to the Sand Creek watershed. This diversion will not significantly affect overall flows to Sand Creek, nor will it exceed the capacity of downstream facilities.

The existing facilities at and downstream of Powers Blvd. in the Cottonwood Creek watershed do not have capacity to handle the developed 100-year flows from Ridgeview. In accordance with the Templeton Gap Heights MDDP for Filing No. 2, facilities downstream of the triple 48" CMPs can accept a maximum flow from east of Powers of 90.5 cfs (existing flows). Maximum capacity of the 43"x27" CMP to the south is 45 cfs.

Figure 5 shows the subbasins analyzed for the routing of flows to Powers Blvd. and to the proposed Tutt Blvd. storm sewer. These basins were analyzed using the Rational method. Subbasin 101C, northwest of the abandoned Templeton Gap Road between Powers and Dublin, was assumed to release to the triple 48" CMPs at the historic rate of 19.7 cfs. This will likely require on-site detention for this parcel. Ridgeview subbasins 101A and 101D will release a maximum of 70 cfs to the triple 48" CMPs. Similarly, subbasin 101B will have a limited release rate to the existing arch CMP of 45 cfs. Alternative methods for limiting release rates at Powers Blvd. may include grading to divert flows to the Sand Creek watershed via the Tutt storm sewer and/ or on-site detention. Preliminary analysis of the HGL in the Tutt Blvd. storm sewer indicates that it has adequate capacity to convey 100-year peak runoff from the diverted areas, up to 100% of subbasins 101A,B and D, under surcharged conditions. The diversion of all or portions of these subbasins to the Sand Creek watershed will not adversely affect downstream facilities or the design of regional Detention Ponds.

Design Point 2

The 100-year peak discharge at Design Point 2 using a Rational analysis of upstream areas is 476 cfs. This analysis does include offsite basin 100, and basins 101A and 101B, and assumes maximum allowable discharges at Design Points 1 and 1A. Rational calculations for the Tutt storm sewer are included in Table 5-2.

The TR-20 100-year peak discharge at Design Point 2 is 439 cfs, assuming runoff from Basin 101B only. The more conservative Rational value of 476 cfs was selected as the design flow. The discharge will be conveyed under Stetson Hills Boulevard through culverts scheduled to be constructed or improved during the Stetson Hills Subdivision construction. The discharge from this Design Point will then be conveyed via an open channel that parallels the south side of Stetson Hills Boulevard.

Basin 3

The drainage area from the easternmost section of the project site adjacent to Stetson Hills Boulevard will drain to a 48-inch RCP that crosses Stetson Hills Boulevard. The rational method was used to evaluate this small drainage basin.

Design Point 35

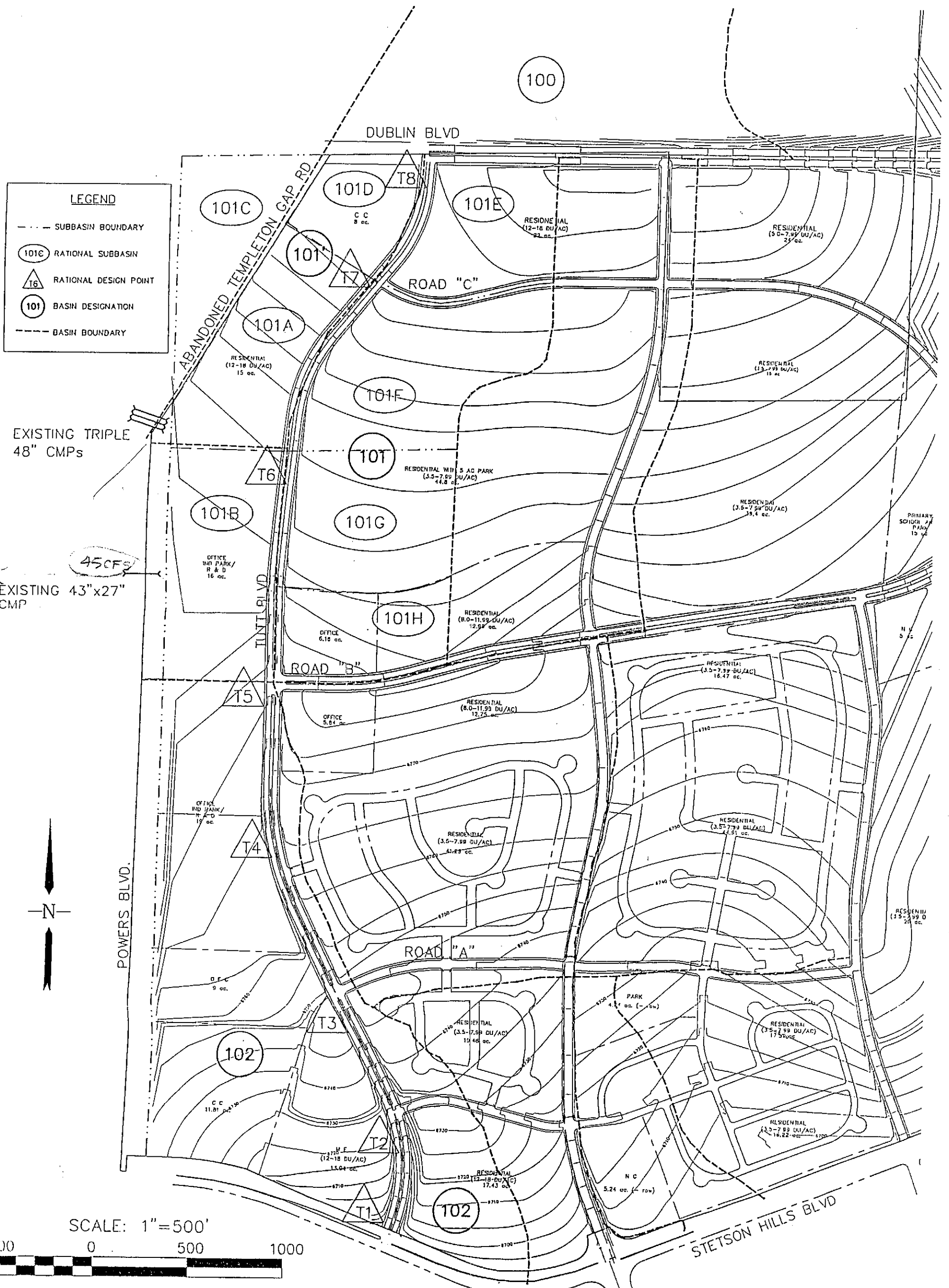
Design Point 35 is located adjacent to Stetson Hills Blvd between Anna Lee Way and Charlotte Blvd. The DBPS does not specify a design flow at this location. Stetson Hills Subdivision has proposed a 6'x10' RCBC. URS recommends a 72" RCP as adequate to convey the 100-year peak design flow of 336 cfs. According to the MDDP for Stetson Hills, the downstream channel has been designed for a 100-year peak flow of 569 cfs, most of which was discharge from Ridgeview. Thus downstream facilities have been deigned to adequately convey this design flow.

Design Point 37

Design Point 37 is on the main Sand Creek channel. The 100-year peak runoff at the crossing of Stetson Hills Blvd. is 3277 cfs, which is very close to the DBPS design flow of 3270 cfs. The

Sand Creek DBPS and Stetson Hills Subdivision to the south propose a triple 8' x 10' RCBC. URS Greiner recommends four 10'x10' RCBCs to reduce the maximum water level. Final design of this crossing will need to consider several factors and should evaluate a bridge as an alternative. Factors to be considered include maintaining the wetlands characteristics of the area immediately upstream of Stetson Hills Blvd by providing some retention of flow, and the major trail corridor crossing of Stetson Hills Blvd.

RATIONAL METHOD - DEVELOPED CONDITIONS TUTT BLVD. STORM SEWER



URS Greiner

8415 EXPLORER DR, SUITE 110
COLORADO SPRINGS, CO 80920
(719) 531-0100

FIGURE 5

D. Developed Basin Description

1. Off-Site Basins

Basin 100 has a 100-year developed peak runoff of 115.2 cfs. This basin will drain under Dublin Blvd just west of Tutt Blvd via twin 36-inch CMPs where the flow will enter the Tutt Blvd. storm sewer. This arrangement diverts flow from Cottonwood Creek watershed to the Sand Creek watershed as discussed above.

Basin 45 has a 100-year peak runoff of 504 cfs. Basin 46 has a 100-year peak runoff of 256 cfs. These two basins combine at Design Point 6 where they enter the onsite system.

Basin 42 has a 100-year peak runoff of 332 cfs and is recommended to be diverted easterly at Design Point 5 via an interceptor channel along the northern project limit to Sand Creek.

2. On-Site Basins

Basin 101 and 101B are subdivided into subbasins 101A through 101H as shown on Figure 5. These basins, along with Basin 102, were analyzed using both the Rational Method and the TR-20 model. As expected, the Rational Method produced slightly higher runoff values than the TR-20 model, and the higher numbers were used for a more conservative design.

Under proposed conditions, a portion of Basins 101 and 101B will drain to the existing Powers Blvd. crossings. Flow to these existing crossings will be limited due to the insufficient capacity of downstream facilities. The remaining runoff will be diverted to the Sand Creek watershed via the Tutt Blvd. storm sewer. Assuming detention for offsite subbasin 101C only, and maximum allowable discharges at the 48" CMPs and the 43"x27" CMP of 90 cfs and 45 cfs respectively, the net flow into the storm sewer at Design Point T5 is 343 cfs (see Table 5-2). When combined with runoff from Basin 102, the total 100-year peak discharge at Stetson Hills Blvd (Design Point 2) is 476 cfs.

Basin 144 has a 100-year peak runoff of 162 cfs. This flow will be conveyed south along Charlotte Boulevard via a 60-inch RCP storm sewer.

Basin 134 has a 100-year peak runoff of 126 cfs. When combined with runoff from basin 144 the total 100-year peak discharge at future road "A" (Design Point 3) is 284 cfs. This flow will be conveyed south along Charlotte Boulevard via a 66-inch RCP storm sewer.

Basin 184 has a 100-year peak runoff of 31 cfs. Basin 186 has a 100-year peak runoff of 25 cfs. When runoff from basins 184 and 186 is combined with runoff from basins 144 and 134 the total 100-year peak discharge at Design Point 4 is 324 cfs. This flow is conveyed south across Stetson Hills Boulevard via a proposed 8' x 8' box culvert and then continues south within a riprap lined channel in Stetson Hills.

Basin 135 has a 100-year peak runoff of 101 cfs. Basin 185 has a 100-year peak runoff of 94 cfs. Combined runoff from basins 135 and 185 results in a total 100-year peak discharge at Design

Point 35 of 336 cfs. This flow is conveyed under Stetson Hills Boulevard via a proposed 72" RCP and then south in a previously proposed concrete channel in Stetson Hills subdivision.

Basin 145 has a 100-year peak runoff of 101 cfs. This flow is conveyed east along future road "B" to Design Point 7 via street flow and minor systems.

Basin 142 has a 100-year peak runoff of 113 cfs. When combined with runoff from offsite Basins 42 and 46 (the minor tributary of Sand Creek) the total 100-year peak discharge at Design Point 6 is 873 cfs. This flow is conveyed under Dublin Boulevard via a 10' x 10' box culvert, then south along Peterson Boulevard and then west along Road B to discharge into the minor tributary channel at Design Point 7. An alternative design may be to continue conveyance of the flow along the southwest side of Peterson Blvd to discharge directly into Sand Creek.

Basin 143 has a 100-year peak runoff of 234 cfs. When combined with runoff from basin 145 and the minor tributary of Sand Creek (Design Point 6) the total 100-year peak discharge at Design Point 7 is 1188 cfs. This flow is conveyed across future road "B" via a 10' x 10' box culvert and then south via channel flow to Sand Creek.

Basin 140 has a 100-year peak runoff of 81 cfs. This flow is conveyed southeast along Peterson Boulevard via street flow and minor systems to Sand Creek.

Basin 136 has a 100-year peak runoff of 333 cfs. When combined with runoff from the minor tributary of Sand Creek, the total 100-year peak discharge at Design Point 8 is 1521 cfs. This flow will combine with the main channel of Sand Creek before crossing Stetson Hills Blvd at Design Point 37.

Basin 141 has a 100-year peak runoff of 25 cfs. Runoff will be conveyed directly to Sand Creek via street flow and minor systems.

Basin 137 has a 100-year peak runoff of 130 cfs. Runoff from basin 137 is conveyed to the main channel of Sand Creek upstream of Stetson Hills Boulevard.

Basin 3 has a 100-year peak runoff of 63 cfs. This flow is conveyed south under Stetson Hills Boulevard via a 48-inch RCP.

Table 3 is a summary of the major trunkline pipe sizes along the major drainage routes that connect to the previously proposed Stetson Hills facilities. These major trunklines are sized to convey the 100-year design flow.

TABLE 3
100-Year Storm Sewer Trunkline Pipe Sizes

LOCATION DESCRIPTION	DESIGN FLOW (cfs)	DESIGN SLOPE (%)	PIPE DIA (in)
TUTT: Stetson Hills Blvd North to Road "A" (DP2)	476	30	66
TUTT: Road "A" North to Road "C"	372	1.1	66
TUTT: Road "C" North to D.D. bin	222	0.5	66
CHARLOTTE Stetson Hills North to Rd "A" (DP4)	383	30	66
CHARLOTTE Road "A" North to Road "B" (DP3)	344	20	60
BETWEEN ANNA LEE & CHARLOTTE	343	25	54

The Stetson Hills MDDP proposed storm water conveyance facilities to accommodate upstream flows from what is now Ridgeview. These facilities were analyzed to determine their adequacy. Table 4 is a tabulation of this analysis with alternate proposed facilities as required.

TABLE 4
Proposed Facilities at Stetson Hills Boulevard

DESIGN POINT	DESIGN POINT DESCRIPTION	DESIGN FLOW (cfs)	PREVIOUSLY PROPOSED	URSG PROPOSED
DP2	@ Tutt Blvd	476	68" x 106" ELL. RCP	TWIN 54" RCP
DP4	@ Charlotte Blvd	324	10' x 8' RCBC	8' x 8' RCBC
DP35	Btwn Charlotte & Anna Lee	336	10' x 6' RCP	72" RCP
DP37	Sand Creek main channel	3277	Triple 8' x 10' RCBC	Four 10' x 10' RCBCs
BASIN 3	East of Peterson Blvd	62.6	48" RCP	OK

Table 5 summarizes the Rational Method calculations for basins and design points and Table 6 summarizes the TR20 output for basins and design points described in this section.

TABLE 5-1
MASTER DEVELOPMENT DRAINAGE PLAN
FOR
RIDGEVIEW SUBDIVISION

URSG PROJECT NUMBER 6742271 APRIL 9, 1998

RATIONAL METHOD

EXISTING CONDITIONS

BASIN DESIGN POINT	DRAINAGE AREA (ACRES)	COMP. C (5 YR)	COMP. C (100 YR)	TIME OF CONC. (MIN.)	RAINFALL INTENSITY (IN)		DISCHARGE (CFS)	
					5 YR	100 YR	5 YR	100 YR
COTTONWOOD CREEK								
100	41.9	0.15	0.25	20.0	3.00	5.10	18.9	53.4
101A+C+D	38.5	0.15	0.25	15.0	3.50	5.90	20.2	56.8
DP1	80.4	0.15	0.25	25.0	2.60	4.50	31.4	90.5
101B	25.4	0.15	0.25	25.0	2.60	4.50	9.9	28.6
101C	13.2	0.15	0.25	15.0	3.50	5.90	6.9	19.4
BASIN 3	21.69	0.15	0.25	20	3.00	5.10	9.8	27.7

MASTER DEVELOPMENT DRAINAGE PLAN FOR RIDGEVIEW SUBDIVISION

URSG PROJECT NUMBER 6742271 August 20, 1998

RATIONAL METHOD - DEVELOPED CONDITIONS - TUTT BLVD

DESIGN POINT	DRAINAGE AREA	COMP C ₁₀₀	TIME OF CONC.	i ₁₀₀	Q ₁₀₀ *	DESIGN Q ₁₀₀
T8	41.9	0.65	20	5.00	136.2	136.2
T7	62.8	0.74	22.5	4.8	221.8	221.8
T6*	98.45	0.73	25	4.5	324.1	324.1
T5	142.35	0.74	27.5	4.35	458.0	343.0
T4	153.9	0.75	30	4.10	474.1	359.1
T3	165.9	0.76	32.5	3.85	486.8	371.8
T2	176.9	0.75	35	3.75	494.8	379.8
T1	219.5	0.72	35	3.75	590.7	475.7

Assume: Triple 48" discharge historic Q of 90 cfs,
20 cfs of which is from Basin 101C,
43"X27" discharges 45 cfs (no detention)

* Basin 101C is NOT tributary to Sand Creek; runoff is detained onsite and released at historic rate of 20 cfs to the triple 48" CMPs under Powers Blvd.

AREAS TRIBUTARY TO TUTT STORM SEWER

Subbasin / Dsgn Pt.	Area	C value
100	41.9	0.70
T8	41.9	0.70
101D*	8	0.90
101E**	12.9	0.75
T7	62.8	0.74
101A*	17.35	0.75
101F**	18.3	0.70
T6	98.45	0.73
101B*	18	0.80
101G**	15.5	0.70
101H**	10.4	0.77
T5	142.35	0.74

* Areas 101 A, B and D are part of overall Basin 101/101A

** Areas 101 E, F, G, & H are part of overall Basin 101

TABLE 6
TR-20 Output Summary
(Based On Revised Road Grid 6/26/98)

BASIN	APR 16 MDDP (RV_REVB4.dat)				AUG MDDP (RV_REVC2.dat)			
	AREA	RCN	Q ₅	Q ₁₀₀	AREA	RCN	Q ₅	Q ₁₀₀
45	0.240	86	209	504	0.240	86	209	504
46	0.230	75	75	256	0.230	75	75	256
101B (100)	N/A	N/A	N/A	N/A	0.028	88	26	59
101	0.089	85	150	179	0.089	85	72	179
102	0.094	88	122	215	0.094	88	94	215
134	0.093	77	38	119	0.107	77	40	126
135	0.083	73	25	92	0.088	75	29	101
35	N/A	N/A	N/A	N/A	0.032	85	23	58
136	0.243	77	98	312	0.214	82	124	333
137	0.126	73	35	130	0.126	73	35	130
140	0.088	71	20	81	0.088	71	20	81
141	0.037	65	4	25	0.037	65	4	25
142	0.130	70	26	113	0.130	70	26	113
143	0.122	74	38	133	0.133	83	89	234
144	0.089	79	46	136	0.091	85	65	162
145	0.088	72	22	86	0.054	85	41	101
184	0.037	79	19	56	0.013	88	14	31
185	0.046	74	15	54	0.058	82	35	94
186	0.020	74	7	23	0.009	92	12	25

DESIGN POINT	APR 16 MDDP			AUG MDDP (RV_REVC2.dat)		
	AREA	Q ₅	Q ₁₀₀	AREA	Q ₅	Q ₁₀₀
2 (TR-1)	0.18	161	385	0.21	184	439
3 (TR-34)	0.18	82	253	0.20	137	284
4 (TR-2)	0.24	104	332	0.22	156	324
35 (STORM)	N/A	N/A	N/A	0.20	96	280
35 (CROSSING)	0.22	55	214	0.23	119	336
5 (TR-42)	0.20	119	332	0.20	119	332
6	0.60	310	873	0.60	310	873
7	0.81	370	1092	0.77	419	1188
8	1.05	468	1404	0.98	543	1521
37	10.15	922	3144	10.14	997	3277
20 (S.S. POND IN)	13.59	2453	7852	13.60	2537	8036
98 (S.S. POND OUT)	13.59	1516	4643	13.60	1623	4797

E. Cottonwood Creek

The Cottonwood Creek Drainage Basin Planning Study was consulted in the preparation of this MDDP. The DBPS calls for regional detention selective improvements to Cottonwood Creek, and storm sewer collection systems upstream of the main channel. The portion of Ridgeview which drains to Cottonwood Creek corresponds to DBPS Basin H2.

A single 72" CMP is proposed in the DBPS to convey 100-year design flows of 286.4 cfs from subbasin H2 under Powers Blvd. A field visit determined that there are currently 3- 48" CMPs across Powers approximately 1600 ft. south of the Dublin/ Powers intersection. There is also a single 43"x 27" arch CMP across Powers approximately 900 ft. south of the 48" CMPs at the low point of DBPS Basin H2 and MDDP Basin 101B (Figure 5).

MDDP offsite subbasin 100 was originally part of DBPS subbasin H6, but road re-alignments and more detailed topography indicate it is actually tributary to subbasin 101A. Subbasin 100 and portions of subbasin 101B are anticipated to be diverted to the Sand Creek watershed via the extension of the Tutt storm sewer to Dublin Boulevard. This diversion has been incorporated in the preliminary design of Sand Creek facilities in this MDDP.

A comparison of DBPS and MDDP Design Flows and facilities follows:

	Basins	Area	Q 100 (cfs)	Facility
DBPS Basin H2	H2	67.7 Ac.	287	72" CMP (proposed)
MDDP DP 1	100, 101A	80.4 Ac.	233	3- 48" CMPs existing
MDDP Basin 101B	101B	25.4 Ac.	97	existing 43"x27" CMP, much of flow diverted to Sand Creek via Tutt storm sewer

F. Sand Creek and Major Tributary Channels

1. Sand Creek

A previous study was conducted on Sand Creek for the City of Colorado Springs. This report, entitled Sand Creek Drainage Basin Planning Study, Preliminary Design Report (DBPS) was prepared for the City of Colorado Springs by Kiowa Engineering Corporation. The study was adopted in November of 1995. This report, along with the accompanying Technical Addendum, was reviewed as part of the drainage planning effort for Stetson Hills.

A review of the input data and the results of the DBPS were conducted. Based on this review, it appears the data and results of that planning effort are generally reasonable. The following input parameters have been reviewed, with the following observations:

- a. Point rainfall values are consistent with the values summarized in the Criteria Manual.

- b. Rainfall distributions are similar to, but not identical to, those contained in the Criteria Manual. These differences are nested at the beginning and end of the storm distribution and probably have no effect on the computed peak flows. The most intense rainfall remains consistent with the Type-IIA distribution.
- c. Curve Numbers used to represent the runoff potential of the site appear to be established based on the requirements of the Criteria Manual and on the soil types depicted on the area maps. The only discrepancy is in the selection of curve numbers for the western basin. Our selection of curve numbers result in a greater differential between existing and developed conditions runoff than that determined in the DBPS.
- d. The basins above the site currently being analyzed appear to be properly delineated and the area computations seem reasonable.
- e. The structure and organization of the model represent the apparent drainage patterns of the off-site basins.

The results of the DBPS were used to establish design flow rates for incoming channels and other off-site tributary areas. The flow rate in Sand Creek entering the site north of Dublin Boulevard under developed conditions is 2451 cfs, based on modifications to the Kiowa TR-20 model.

On-site basins were modeled using TR 20 to maintain consistency while determining the total runoff hydrograph from the site. The results of the current study compare closely to the results presented in the DBPS. A comparison of flows leaving the site at Stetson Hills Boulevard are as follows:

Model	100-Year
DBPS (future Conditions)	3270 cfs
Current TR-20 Analysis	3277 cfs

The Sand Creek DBPS requires regional detention upstream of the Ridgeview Subdivision. Future development upstream of Ridgeview should be evaluated for compliance with DBPS design flows at both Woodmen Road and Dublin Blvd.

2. Major Channel Improvements Phasing-Sand Creek and Tributaries

The adopted Sand Creek DBPS recommends a selective channel improvement concept for Sand Creek. The study recommends riprap bank linings at selective locations along with grade control structures. Development will be set back from channel banks to reduce the possibility of property damage and allow a more natural channel. Areas of high bank velocities and the outside of curves will also have proper bank lining. The banks will be graded as necessary to provide a stable slope for riprap placement. Grade control structures will be placed across the channel at select locations to control long term erosion of the channel invert (estimated minimum spacing is 500 ft). The remainder of the channel will remain undisturbed in its natural state as open space, habitat and wetlands.

The Sand Creek channel and major tributaries have been divided into phases, which will be constructed when an associated parcel is developed. This phasing has been discussed and agreed upon with City personnel and the Developer of Ridgeview. The channel phasing and the associated development "trigger points" for construction are shown on Figure 5. The phases are discussed as follows:

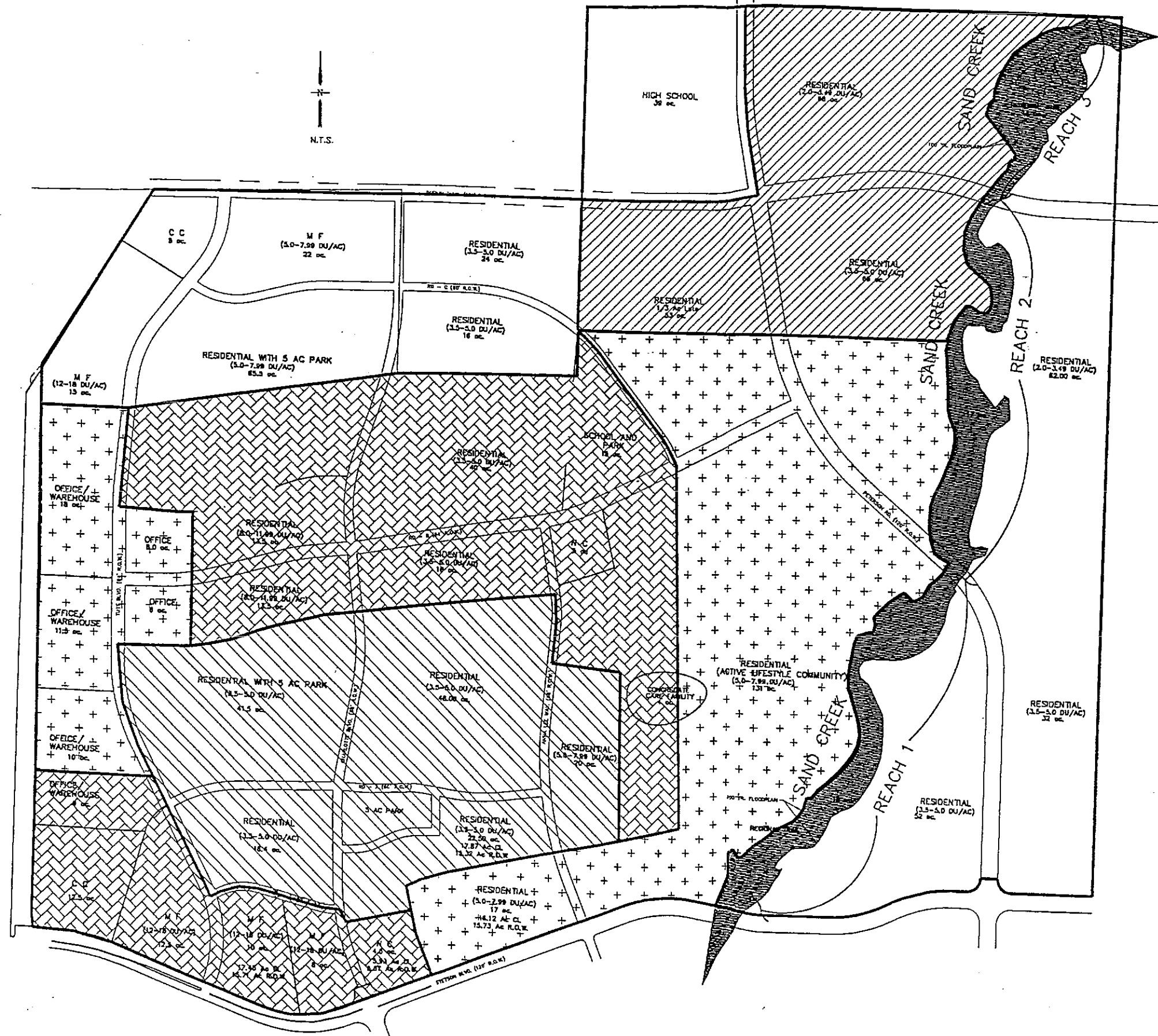
- a. *Sand Creek Channel Reach 1 from Stetson Hills Boulevard to Peterson Rd.*
This channel and the adjacent unimproved portion of the west tributary will be constructed at build out of Phase 4 or earlier as required by Final Drainage Report Analysis. Improvements for this section will be minimal due to the relative flat westerly bank slopes and the stability of this section of Sand Creek.
- b. *Sand Creek Channel Reach 2 from Peterson Road to Dublin Boulevard.*
This section of the channel will be improved as part of Phase 5. This section of the channel has significant meanders and will require some riprap armoring to protect the curves and steep side slopes.
- c. *Sand Creek Reach 3 from Dublin Boulevard to the northern boundary of the project*
This section of the channel will be improved as part of Phase 5 north of Dublin Boulevard. Improvements along this stretch will include grade control structures and minimal rip rap armoring.

3. Detention Pond






The 1993 Sand Creek DBPS (Revised October 1995) by Kiowa Engineering states the need for five regional detention ponds along Sand Creek. Pond #1 and Pond #2 are located south of Stetson Hills Blvd. within the Colorado Springs Ranch development. These facilities will control the runoff from upstream and release flows at pre-development levels. This control is needed since the downstream channel improvements south of The Colorado Springs Ranch are not adequate to convey the developed 100-year runoff as calculated utilizing current City criteria.

The construction of the regional detention basins within the Ranch property will be dependent upon the rate of development within the area tributary to the detention basins. In general, a funding plan agreement with financial assurances has been developed between the developers of the Springs Ranch and Stetson Hills Phase I for the Sand Creek Detention Pond #1, located upstream of Constitution Avenue. This agreement set up a funding mechanism for the construction of the pond. The "Sand Creek Channel Detention Pond Fee" will be paid at the rate determined in the Sand Creek DBPS. The pond fees paid by the Stetson Hills Phase I and Springs Ranch developers will go into a special escrow account. Another fee known as the "Detention Pond Additional Assurance" will be paid into this same special escrow account by the two developers to help meet the anticipated costs of construction. The pond will be needed when 600 acres in the immediate pond area are developed. Funds for construction of the Pond #1 will be taken from the escrow account first and then the developer will seek reimbursement from the Sand Creek

RIDGEVIEW MDDP BUILD-OUT PHASES



LEGEND

-  1-3 Years
-  4-7 Years
-  8-12 Years
-  13-16 Years
-  17-20 Years

URS Greiner

8415 EXPLORER DR, SUITE 110
 COLORADO SPRINGS, CO 80920
 (719) 531-0100

FIGURE 6

Detention Pond Fee fund. Sand Creek Pond #1 is planned for the year 2004, or year 6 of Ridgeview's development. Detention Pond Fees collected up to this time will be available to the developers of Pond #1 first, and therefore are assumed to be unavailable for the construction of Pond #2.

The final design for Sand Creek Detention Pond #1 was initiated in January of 1996 by Kiowa Engineering and is currently being reviewed by the State Engineer's office. Agreements for the transfer of the land to the City of Colorado Springs for construction of Pond #1 are currently being considered.

Design and construction timing for Sand Creek Detention Pond #2, located near Sky Sox Stadium, is discussed below. From the DBPS model, the total area tributary to Pond #2 below Woodmen Road is approximately 3700 Ac. The total acreage within the proposed Ridgeview development is approximately 1040 Ac; of this, only 960 Ac are tributary to Sand Creek. Preliminary analysis (by others) indicates that Pond #2 would be required between years 12 to 14 of a 20-year total buildout schedule for Ridgeview, assuming concurrent development in Stetson Hills in the Pond #2 tributary area. This time frame corresponds to between 561 and 680 developed acres of mixed land uses, including residential, commercial, office/industrial, school and open space within Ridgeview. The phasing plan used for this analysis follows in Figure 6.

An "Additional Assurance Fee" for Pond #2, similar to that collected for Pond #1, is proposed. This surcharge, or "additional assurance fee", was calculated on a preliminary basis using the following assumptions:

- a. Ridgeview is not the only development occurring in the basin during this time frame and therefore is not the only development generating drainage fees.
- b. Normal detention pond fees are collected from all development in the basin at time of platting. Pond fees from development outside of Ridgeview will not be available towards Pond #2 until after year 6 (2004), which is the estimated construction date for Pond #1.
- c. Development occurs in Ridgeview as projected in Figure 6, i.e. between 561 and 680 acres will be developed before Sand Creek #2 is necessary
- d. The projected cost of Sand Creek Pond #2 is \$2,273,423 based on the bid estimate for Sand Creek Pond #1 and pro-rating its cost on a per ac-ft basis for Pond #2. This includes a land cost of \$400,703 assuming \$32,000 per Ac for land outside the FEMA designated floodplain, and 15¢ per square foot for land within the floodplain.
- e. All values are in 1998 dollars, and a 4% interest rate was applied when conversion was necessary.

Based on a 12-year threshold for the construction of Pond #2, the "Additional Assurance Fee" will be approximately \$693 per acre. The preliminary calculations to develop this surcharge fee are included in Appendix E. A separate contractual document between the developers of Ridgeview and the City of Colorado Springs finalizing the Additional Assurance Fee will be submitted for review and approval by all parties involved.

Due to the complex combination of land uses represented by the 12 to 14 year time frame, additional development upstream of Pond #2 (but outside of Ridgeview development) will require

further hydrologic modeling to measure its impact on the Sand Creek watershed and the need for Pond #2. It is proposed that the "additional assurance fee" for Pond #2 be applied to other developments within the Pond #2 tributary area which occur prior to, and contribute to the need for, construction of Sand Creek Pond #2.

4. Sand Creek Road Crossings

The DBPS recommends road crossings of Sand Creek at Peterson Road and Dublin Boulevard by using 80' clear span bridges. In the DBPS, bridges were defined as those structures conveying at least 1500 cfs, having a flow area of at least 200 square feet, or having a span of 20 feet or greater. Structures defined as bridges were included in the bridge fee calculations. Our analysis indicates that triple 10' x 10' box culverts at Dublin Blvd and at Peterson Rd would be adequate to pass the 100-year flows. However, with more detailed design, the bridge versus box culvert alternative will need to be more closely evaluated, including attention to environmental concerns.

VI. COST ESTIMATES

Proposed drainage facility quantities were estimated from the layouts depicted on the attached MDDP plans. Costs are included for the Sand Creek channel. Table 7 summarizes the estimated probable cost for Ridgeview development drainage facilities.

SUMMARY	
STETSON HILLS BLVD CROSSINGS (RDS PORTION) ¹	\$476,894
DUBLIN BLVD & PETERSON RD CROSSINGS ¹	652,375
100-YEAR STORM SEWERS ²	2,559,375
100-YEAR OPEN CHANNELS ²	1,079,375
SAND CREEK IMPROVEMENTS ¹	914,063
DETENTION POND No. 2 ¹	1,872,270
TOTAL ESTIMATED DRAINAGE IMPROVEMENTS COST	\$7,554,801

¹Sand Creek DBPS Reimbursable Items.

²To be presented to Drainage Board for Reimbursement.

Reimbursable costs per the DBPS include the detention pond, the 100-year channel improvements to Sand Creek and the other items as noted above. RDS and URSG are preparing information for the Drainage Board in order to request reimbursement for the remaining items, namely the 100-year storm sewer and other major drainage improvements.

TABLE 7
 Engineer's Estimate of Probable Cost:
 Ridgeview Development Drainage Facilities

DESCRIPTION	QUANTITY	UNIT	UNIT COST	EXTENSION
STETSON HILLS BLVD 100-YR CROSSINGS				
Twin 54" RCP/ 84" RCP				
Crossing w/ Junction Boxes	1	EA	\$ 282,660	\$ 282,660
8' x 8' RCBC	120	LF	375	45,000
Headwalls & Wingwalls	30	CY	300	9,000
72" RCP	120	LF	200	\$ 24,000
72" RCP Flared End Sections	2	EA	2,000	4,000
FOUR 10' x 10' RCBC	150	LF	2,500	375,000
Headwalls & Wingwalls	35	CY	300	10,500
48" RCP	120	LF	90	10,800
48" Flared End Sections	2	EA	1,035	2,070
SUBTOTAL				\$ 763,030
15% CONTINGENCY				114,455
10% ENGINEERING				76,303
SUBTOTAL, STETSON HILLS 100-YR CROSSINGS				\$ 953,788
EDGEVIEW PORTION 15%				\$ 170,854
DUBLIN BLVD & PETERSON RD 100-YR CROSSINGS				
36" CMP	240	LF	\$ 75	\$ 18,000
36" CMP Flared End Sections	4	EA	650	2,600
60" RCP	120	LF	125	15,000
Headwalls & Wingwalls	25	CY	300	7,500
10'x10' RCBC	120	LF	125	15,000
Headwalls & Wingwalls	74	CY	300	22,200
TRIPLE 10' x 12' RCBC	120	LF	1,650	198,000
Headwalls & Wingwalls	74	CY	300	22,200
TRIPLE 10' x 13' RCBC	120	LF	1,660	199,200
Headwalls & Wingwalls	74	CY	300	22,200
SUBTOTAL				\$ 521,900
15% CONTINGENCY				78,285
10% ENGINEERING				52,190
SUBTOTAL, DUBLIN BLVD & PETERSON RD 100-YR CROSSINGS				\$ 652,375

100-YEAR STORM SEWERS				
66-inch RCP	7700	LF	\$ 200	\$ 1,540,000
60-inch RCP	1700	LF	175	297,500
54-inch RCP	1400	LF	150	210,000
SUBTOTAL				\$ 2,047,500
15% CONTINGENCY				307,125
10% ENGINEERING				204,750
SUBTOTAL, 100-YEAR STORM SEWERS				\$ 2,559,375
100-YEAR OPEN CHANNELS				
North Boundary Diversion	1000	LF	\$ 110	\$ 110,000
Dublin	500	LF	95	47,500
Peterson	2100	LF	110	231,000
Basin 136-SC Minor Tributary	3800	LF	125	475,000
SUBTOTAL				\$ 863,500
15% CONTINGENCY				129,525
10% ENGINEERING				86,350
SUBTOTAL, 100-YEAR OPEN CHANNELS				\$ 1,079,375
SAND CREEK IMPROVEMENTS				
Phase 1				
Grade Control	6	EA	\$ 25,000	\$ 150,000
Slope Stabilization	1500	LF	125	187,500
Phase 2				
Grade Control	5	EA	25,000	125,000
Slope Stabilization	1250	LF	125	156,250
Phase 3				
Grade Control	2	EA	25,000	50,000
Slope Stabilization	500	LF	125	62,500
SUBTOTAL				\$ 731,250
15% CONTINGENCY				109,688
10% ENGINEERING				73,125
SUBTOTAL, SAND CREEK IMPROVEMENTS				\$ 914,063
DETENTION POND NO. 2				
Pro-rated from Pond #1	1	EA	\$ 1,872,720	\$ 1,872,720
TOTAL ESTIMATED DRAINAGE IMPROVEMENTS COST				\$ 7,554,801

VII. REFERENCES

A. The following documents were used in the preparation of this MDDP:

Drainage Criteria Manual, City of Colorado Springs and El Paso County

"Master Drainage Study for Stetson Hills," prepared by Greiner Engineering Sciences, Inc., April, 1985

"Sand Creek Drainage Basin Planning Study, Preliminary Design Report," prepared by Kiowa Engineering Corporation, August, 1991, revised January, 1996

"MDDP for Stetson Hills Subdivision Phase I," prepared by Merrick & Company, January 1995, revised May 1997

"Cottonwood Creek Drainage Basin Planning Study," prepared by URS Consultants, July 1991, revised June 1994

"MDDP for Templeton Gap Heights Filing No. 2," prepared by Leigh Whitehead & Associates, January 1998

APPENDICES

APPENDIX A
Existing Condition TR-20 Model

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

JOB	TR-20		SUMMARY	NOPLOTS	
TITLE	RIDGVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT				
TITLE	24HR TYPE 11A (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97				
5 RAINFL	1	.50			
8		0.000	.0025	0.005	.0075
8		0.015	0.020	0.025	0.030
8		0.060	0.100	0.700	0.750
8		0.798	0.820	0.830	0.840
8		0.860	0.865	0.870	0.885
8		0.900	0.905	0.910	0.915
8		0.927	0.933	0.940	0.945
8		0.955	0.960	0.965	0.970
8		0.980	0.983	0.985	0.988
8		0.993	0.995	0.998	1.000
9 ENDTBL					
2 XSECTN	136	1.0			
8		0.0	0.0	0.0	
8		0.5	12.09	6.0	
8		1.0	41.81	14.0	
8		2.0	157.44	36.0	
8		3.0	360.95	66.0	
8		4.0	668.17	104.0	
9 ENDTBL					
2 XSECTN	137	1.0			
8		0.0	0.0	0.0	
8		0.5	22.45	8.2	
8		1.0	73.66	17.8	
8		2.0	252.36	41.2	
8		3.0	536.5	70.2	
8		4.0	935.94	104.8	
8		6.0	2124.9	190.8	
8		8.0	3906.4	299.2	
8		10.0	6365.6	430.0	
9 ENDTBL					
2 XSECTN	141	1.0			
8		0.0	0.0	0.0	
8		0.5	5.33	2.14	
8		1.0	20.12	5.55	
8		2.0	86.8	16.2	
8		3.0	213.86	31.95	
8		4.0	418.55	52.8	
8		6.0	1111.9	109.8	
8		8.0	2265.2	187.2	
8		10.0	3966.9	285.0	
9 ENDTBL					
2 XSECTN	143	1.0			

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

8			0.0	0.0	0.0
8			1.0	12.68	4.75
8			2.0	45.54	13.0
8			3.0	154.9	30.75
8			4.0	312.23	52.0
9	ENDTBL				
2	XSECTN	146	1.0		
8			0.0	0.0	0.0
8			1.0	37.98	14.0
8			2.0	143.03	36.0
8			3.0	327.89	66.0
8			4.0	606.98	104.0
9	ENDTBL				
2	XSECTN	41	1.0		
8			0.0	0.0	0.0
8			0.5	8.34	3.7
8			1.0	29.19	8.8
8			2.0	112.02	23.2
8			3.0	260.7	43.2
8			4.0	487.88	68.8
8			6.0	1225.3	136.8
8			8.0	2265.2	187.2
8			10.0	4136.5	340.0
9	ENDTBL				
2	XSECTN	42	1.0		
8			0.0	0.0	0.0
8			1.0	23.92	10.0
8			2.0	110.11	31.0
8			3.0	284.73	63.0
8			4.0	570.9	106.0
9	ENDTBL				
6	RUNOFF	1 82 1	0.19	67.0	0.19
6	REACH	3 174 1 2	2300.0	0.9	1.53
6	RUNOFF	1 74 1	0.18	67.0	0.48
6	ADDHYD	4 74 1 2 3			
6	REACH	3 173 3 1	2800.0	0.7	1.53
6	RUNOFF	1 75 2	0.12	67.0	.70
6	ADDHYD	4 75 1 2 3			
6	RUNOFF	1 73 1	0.12	67.0	.53
6	ADDHYD	4 75 1 3 2			
6	RUNOFF	1 81 1	0.39	67.0	0.51
6	REACH	3 175 1 3	3850.0	0.6	1.56
6	ADDHYD	4 75 2 3 1			
6	RUNOFF	1 80 2	0.22	67.0	0.39
6	REACH	3 176 2 3	4100.0	0.6	1.56
6	ADDHYD	4 75 3 1 2			

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

6	RUNOFF	1	76	1	0.17	67.0	0.68
6	ADDHYD	4	75	1 2 3			
6	REACH	3	172	3 2	1700.0	0.8	1.53
6	RUNOFF	1	88	1	0.10	67.0	.34
6	ADDHYD	4	77	1 2 3			
6	RUNOFF	1	77	2	0.25	67.0	.56
6	ADDHYD	4	77	3 2 1			
6	RUNOFF	1	79	2	0.29	67.0	0.29
6	REACH	3	178	2 3	3000.0	0.6	1.56
6	RUNOFF	1	78	2	0.88	67.0	0.44
6	ADDHYD	4	78	2 3 4			
6	REACH	3	177	4 2	3350.0	0.6	1.56
6	ADDHYD	4	77	2 1 3			
6	REACH	3	171	3 2	3850.0	0.2	1.63
6	RUNOFF	1	71	1	0.36	70.0	.30
6	ADDHYD	4	71	1 2 3			
6	REACH	3	170	3 2	2500.0	0.3	1.63
6	RUNOFF	1	70	1	0.31	70.0	0.35
6	ADDHYD	4	70	1 2 3			
6	REACH	3	187	3 2	1200.0	0.2	1.64
6	RUNOFF	1	87	3	0.04	70.0	0.14
6	ADDHYD	4	87	3 2 4			
6	RUNOFF	1	72	2	0.25	70.0	0.23
6	REACH	3	169	2 3	3000.0	.8	1.55
6	RUNOFF	1	69	1	0.25	70.0	0.80
6	ADDHYD	4	69	3 1 2			
6	REACH	3	186	2 1	1400.0	0.7	1.51
6	RUNOFF	1	86	2	0.05	70.0	0.37
6	ADDHYD	4	87	1 2 3			
6	ADDHYD	4	87	4 3 1			
6	REACH	3	163	1 2	4400.0	0.2	1.64
6	RUNOFF	1	63	3	0.16	66.0	0.43
6	ADDHYD	4	63	2 3 4			
6	REACH	3	160	4 1	4400.0	0.2	1.65
6	RUNOFF	1	60	3	0.15	66.0	0.41
6	ADDHYD	4	60	1 3 4			
6	RUNOFF	1	59	3	0.16	65.0	.33
6	ADDHYD	4	60	4 3 5			
6	RUNOFF	1	68	1	0.22	60.0	.65
6	REACH	3	167	1 3	3300.0	0.7	1.51
6	RUNOFF	1	67	1	0.27	60.0	1.52
6	ADDHYD	4	67	3 1 2			
6	REACH	3	164	2 3	2500.0	0.8	1.51
6	RUNOFF	1	64	2	0.25	59.0	1.12
6	ADDHYD	4	64	3 2 1			
6	REACH	3	159	1 3	3300.0	0.5	1.62

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

6	ADDHYD	4	60	5	3	2			
6	REACH	3	151	2	1		4000.0	0.1	1.65
6	RUNOFF	1	51			5	0.15	59.0	.39
6	ADDHYD	4	51	1	5	2			
6	RUNOFF	1	49			1	0.10	55.0	0.34
6	ADDHYD	4	51	1	2	5			
6	RUNOFF	1	52			1	0.19	55.0	0.60
6	ADDHYD	4	51	1	5	3			
6	RUNOFF	1	65			1	0.10	65.0	0.75
6	REACH	3	158	1	2		3600.0	.4	1.63
6	RUNOFF	1	58			1	0.17	84.0	0.43
6	ADDHYD	4	58	1	2	5			
6	REACH	3	152	5	1		3500.0	0.3	1.63
6	ADDHYD	4	51	3	1	4			
6	RUNOFF	1	62			3	0.25	55.0	0.70
6	REACH	3	161	3	2		3400.0	.7	1.51
6	RUNOFF	1	61			1	0.13	55.0	0.62
6	ADDHYD	4	61	1	2	3			
6	REACH	3	150	3	2		2950.0	0.6	1.53
6	RUNOFF	1	50			3	0.13	54.0	0.63
6	ADDHYD	4	50	2	3	1			
6	REACH	3	149	1	2		2400.0	0.3	1.63
6	ADDHYD	4	51	4	2	3			
6	REACH	3	148	3	1		3300.0	0.3	1.62
6	RUNOFF	1	48			2	0.15	55.0	0.23
6	ADDHYD	4	48	1	2	3			
6	REACH	3	141	3	1		3100.0		
6	RUNOFF	1	41			2	0.109	62.0	0.61
6	ADDHYD	4	41	1	2	3			
6	REACH	3	41	3	4		2415.0		
6	RUNOFF	1	141			5	0.043	59.0	0.76
6	ADDHYD	4	42	4	5	6			
6	RUNOFF	1	40			1	0.3	62.0	0.65
6	ADDHYD	4	42	1	6	7			
6	RUNOFF	1	139			2	0.15	65.0	0.54
6	ADDHYD	4	85	2	7	1			
6	REACH	3	137	1	2		2785.0		
6	RUNOFF	1	137			3	0.132	62.0	0.79
6	ADDHYD	4	37	2	3	4			
6	RUNOFF	1	66			3	0.31	57.0	0.80
6	REACH	3	157	3	2		2300.0	0.8	1.53
6	RUNOFF	1	57			3	0.16	60.0	0.53
6	ADDHYD	4	57	2	3	1			
6	REACH	3	154	1	2		3500.0	0.5	1.61
6	RUNOFF	1	55			3	0.25	60.0	.58
6	ADDHYD	4	54	2	3	1			

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

6	RUNOFF	1	56	3	0.15	60.0	0.23
6	REACH	3	155	3 2	3450.0	0.6	1.53
6	ADDHYD	4	54	2 1 5			
6	RUNOFF	1	54	7	0.25	60.0	0.33
6	ADDHYD	4	54	7 5 2			
6	REACH	3	153	2 3	2050.0	0.5	1.61
6	RUNOFF	1	53	5	0.17	60.0	0.41
6	ADDHYD	4	53	3 5 1			
6	REACH	3	147	1 3	2300.0	0.4	1.62
6	RUNOFF	1	47	2	0.26	60.0	0.45
6	ADDHYD	4	47	3 2 1			
6	REACH	3	142	1 2	2100.0	0.3	1.61
6	RUNOFF	1	42	3	0.079	58.0	0.3
6	ADDHYD	4	43	3 2 1			
6	REACH	3	42	1 2	3300.0		
6	RUNOFF	1	142	3	0.089	45.0	0.61
6	ADDHYD	4	43	2 3 6			
6	RUNOFF	1	45	1	0.24	60.0	0.50
6	RUNOFF	1	46	2	0.23	60.0	0.48
6	ADDHYD	4	45	1 2 3			
6	REACH	3	143	3 2	1550.0		
6	RUNOFF	1	143	3	0.094	45.0	0.53
6	ADDHYD	4	43	2 3 7			
6	ADDHYD	4	43	6 7 1			
6	REACH	3	146	1 2	1770.0		
6	RUNOFF	1	146	3	0.105	43.0	0.51
6	ADDHYD	4	44	2 3 5			
6	RUNOFF	1	140	1	0.107	61.0	0.99
6	ADDHYD	4	44	1 5 2			
6	REACH	3	136	2 3	1215.0		
6	RUNOFF	1	136	1	0.14	40.0	0.7
6	ADDHYD	4	37	3 1 2			
6	ADDHYD	4	37	2 4 7			
6	REACH	3	129	7 1	3800.0	0.1	1.65
6	RUNOFF	1	27	2	0.16	84.0	0.51
6	ADDHYD	4	29	1 2 3			
6	RUNOFF	1	38	1	0.32	66.0	0.57
6	REACH	3	128	1 2	1700.0	1.2	1.47
6	RUNOFF	1	28	4	0.17	77.0	0.38
6	ADDHYD	4	28	2 4 5			
6	REACH	3	127	5 6	2300.0	1.0	1.47
6	ADDHYD	4	29	3 6 1			
6	RUNOFF	1	29	2	0.23	80.0	0.41
6	ADDHYD	4	29	1 2 3			
6	REACH	3	184	3 2	1350.0	0.2	1.63
6	RUNOFF	1	84	3	0.04	86.0	0.08

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

6	ADDHYD	4	30	2	3	1			
6	RUNOFF	1	30			4	0.10	74.0	0.58
6	ADDHYD	4	30	1	4	2			
6	RUNOFF	1	31			3	0.21	68.0	0.72
6	ADDHYD	4	30	2	3	7			
6	RUNOFF	1	134			1	0.162	60.0	1.24
6	RUNOFF	1	144			2	0.157	59.0	1.1
6	RUNOFF	1	145			4	0.265	59.0	1.2
6	ADDHYD	4	34	1	2	3			
6	ADDHYD	4	35	3	4	5			
6	REACH	3	130			5	3700.0	0.9	1.52
6	ADDHYD	4	30	7	6	3			
6	RUNOFF	1	32			1	0.11	82.0	0.56
6	RUNOFF	1	33			2	0.29	78.0	0.42
6	ADDHYD	4	33	1	2	4			
6	REACH	3	131			4	4400.0	0.7	1.52
6	ADDHYD	4	99	3	5	1			

ENDATA

7	LIST								
7	INCREM	6					.083		
7	COMPUT	7	82			99	0.0	4.4	1.01 2 01 01 100-YR
	ENDCMP	1							
7	COMPUT	7	82			99	0.0	3.0	1.01 2 01 02 10-YR
	ENDCMP	1							
7	COMPUT	7	82			99	0.0	2.6	1.01 2 01 03 5-YR
	ENDCMP	1							
7	COMPUT	7	82			99	0.0	2.0	1.01 2 01 04 2-YR
	ENDCMP	1							
	ENDJOB	2							

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

COMPUTER PROGRAM FOR PROJECT FORMULATION - HYDROLOGY USER NOTES

THE USERS MANUAL FOR THIS PROGRAM IS THE MAY 1982 DRAFT OF TR-20. CHANGES FROM THE 2/14/74 VERSION INCLUDE:

REACH ROUTING - THE MODIFIED ATT-KIN ROUTING PROCEDURE REPLACES THE CONVEX METHOD. INPUT DATA PREPARED FOR PREVIOUS PROGRAM VERSIONS USING CONVEX ROUTING COEFFICIENTS WILL NOT RUN ON THIS VERSION.

THE PREFERRED TYPE OF DATA ENTRY IS CROSS SECTION DATA REPRESENTATIVE OF A REACH. IT IS RECOMMENDED THAT THE OPTIONAL CROSS SECTION DISCHARGE-AREA PLOTS BE OBTAINED WHENEVER NEW CROSS SECTION DATA IS ENTERED. THE PLOTS SHOULD BE CHECKED FOR REASONABLENESS AND ADEQUACY OF INPUT DATA FOR THE COMPUTATION OF "M" VALUES USED IN THE ROUTING PROCEDURE.

GUIDELINES FOR DETERMINING OR ANALYZING REACH LENGTHS AND COEFFICIENTS (X,M) ARE AVAILABLE IN THE USERS MANUAL. SUMMARY TABLE 2 DISPLAYS REACH ROUTING RESULTS AND ROUTING PARAMETERS FOR COMPARISON AND CHECKING.

HYDROGRAPH GENERATION - THE PROCEDURE TO CALCULATE THE INTERNAL TIME INCREMENT AND PEAK TIME OF THE UNIT HYDROGRAPH HAVE BEEN IMPROVED. PEAK DISCHARGES AND TIMES MAY DIFFER FROM THE PREVIOUS VERSION. OUTPUT HYDROGRAPHS ARE STILL INTERPOLATED, PRINTED, AND ROUTED AT THE USER SELECTED MAIN TIME INCREMENT.

INTERMEDIATE PEAKS - METHOD ADDED TO PROVIDE DISCHARGES AT INTERMEDIATE POINTS WITHIN REACHES WITHOUT ROUTING.

OTHER - THIS VERSION CONTAINS SOME ADDITIONS TO THE INPUT AND NUMEROUS MODIFICATIONS TO THE OUTPUT. USER OPTIONS HAVE BEEN MODIFIED AND AUGMENTED ON THE JOB RECORD, RAINTABLES ADDED, ERROR AND WARNING MESSAGES EXPANDED, AND THE SUMMARY TABLES COMPLETELY REVISED. THE HOLDOUT OPTION IS NOT OPERATIONAL AT THIS TIME.

PROGRAM QUESTIONS OR PROBLEMS SHOULD BE DIRECTED TO HYDRAULIC ENGINEERS AT THE SCS NATIONAL TECHNICAL CENTERS:

CHESTER, PA (NORTHEAST) -- 215-499-3933, FORT WORTH, TX (SOUTH) -- 334-5242 (FTS)
LINCOLN, NB (MIDWEST) -- 541-5318 (FTS), PORTLAND, OR (WEST) -- 423-4099 (FTS)
OR HYDROLOGY UNIT, ENGINEERING DIVISION, LANHAM, MD -- 436-7383 (FTS).

PROGRAM CHANGES SINCE MAY 1982:

- 12/17/82 - CORRECT PEAK RATE FACTOR FOR USER ENTERED DIMHYD
CORRECT REACH ROUTING PEAK TRAVEL TIME PRINTED WITH FULLPRINT OPTION
- 5/02/83 - CORRECT COMPUTATIONS FOR ---
 - 1. DIVISION OF BASEFLOW IN DIVERT OPERATION
 - 2. HYDROGRAPH VOLUME SPLIT BETWEEN BASEFLOW AND ABOVE BASEFLOW
 - 3. CROSS SECTION DATA PLOTTING POSITION
 - 4. INTERMEDIATE PEAK WHEN "FROM" AREA IS LARGER THAN "THRU" AREA
 - 5. STORAGE ROUTED REACH TRAVEL TIME FOR MULTYPEAK HYDROGRAPH
 - 6. ORDERING "FLOW-FREQ" FILE FROM SUMMARY TABLE #3 DATA
 - 7. BASEFLOW ENTERED WITH READHYD
 - 8. LOW FLOW SPLIT DURING DIVERT PROCEDURE #2 WHEN SECTION RATINGS START AT DIFFERENT ELEVATIONS
- ENHANCEMENTS ---
 - 1. REPLACE USER MANUAL ERROR CODES (PAGE 4-9 TO 4-11) WITH MESSAGES
 - 2. LABEL OUTPUT HYDROGRAPH FILES WITH CROSS SECTION/STRUCTURE, ALTERNATE AND STORM NO'S
- 09/01/83 - CORRECT INPUT AND OUTPUT ERRORS FOR INTERMEDIATE PEAKS
CORRECT COMBINATION OF RATING TABLES FOR DIVERT
CHECK REACH ROUTING PARAMETERS FOR ACCEPTABLE LIMITS
ELIMINATE MINIMUM REACH TRAVEL TIME WHEN ATT-KIN COEFFICIENT EQUALS ONE

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE 11A (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 2

TR20 XED 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE JJA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 3

EXECUTIVE CONTROL OPERATION LIST

RECORD ID

LISTING OF CURRENT DATA

XSECTN NO. DRAINAGE AREA
2 XSECTN 41 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
.50	8.34	3.70
1.00	29.19	8.80
2.00	112.02	23.20
3.00	260.70	43.20
4.00	487.88	68.80
6.00	1225.30	136.80
8.00	2265.20	187.20
10.00	4136.50	340.00

ENDTBL

XSECTN NO. DRAINAGE AREA
XSECTN 42 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
1.00	23.92	10.00
2.00	110.11	31.00
3.00	284.73	63.00
4.00	570.90	106.00

ENDTBL

XSECTN NO. DRAINAGE AREA
2 XSECTN 136 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
.50	12.09	6.00
1.00	41.81	14.00
2.00	157.44	36.00
3.00	360.95	66.00
4.00	668.17	104.00

ENDTBL

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE 11A (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 4

XSECTN NO. 137
DRAINAGE AREA 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
.50	22.45	8.20
1.00	73.66	17.80
2.00	252.36	41.20
3.00	536.50	70.20
4.00	935.94	104.80
6.00	2124.90	190.80
8.00	3906.40	299.20
10.00	6365.60	430.00

9 ENDTBL

XSECTN NO. 141
DRAINAGE AREA 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
.50	5.33	2.14
1.00	20.12	5.55
2.00	86.80	16.20
3.00	213.86	31.95
4.00	418.55	52.80
6.00	1111.90	109.80
8.00	2265.20	187.20
10.00	3966.90	285.00

ENDTBL

XSECTN NO. 143
DRAINAGE AREA 1.0000

ELEVATION	DISCHARGE	END AREA
.00	.00	.00
1.00	12.68	4.75
2.00	45.54	13.00
3.00	154.90	30.75
4.00	312.23	52.00

ENDTBL

XSECTN NO. DRAINAGE AREA

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 5

2 XSECTN 146 1.0000

	ELEVATION	DISCHARGE	END AREA
8	.00	.00	.00
8	1.00	37.98	14.00
8	2.00	143.03	36.00
8	3.00	327.89	66.00
8	4.00	606.98	104.00
9	ENDTBL		

4 DIMHYD TIME INCREMENT .0200

8	.0000	.0300	.1000	.1900	.3100
8	.4700	.6600	.8200	.9300	.9900
8	1.0000	.9900	.9300	.8600	.7800
8	.6800	.5600	.4600	.3900	.3300
8	.2800	.2410	.2070	.1740	.1470
8	.1260	.1070	.0910	.0770	.0660
8	.0550	.0470	.0400	.0340	.0290
8	.0250	.0210	.0180	.0150	.0130
8	.0110	.0090	.0080	.0070	.0060
8	.0050	.0040	.0030	.0020	.0010
8	.0000	.0000	.0000	.0000	.0000
9	ENDTBL				

COMPUTED PEAK RATE FACTOR = 484.00

TABLE NO. 5 RAINFL 1 TIME INCREMENT .5000

3	.0000	.0025	.0050	.0075	.0100
8	.0150	.0200	.0250	.0300	.0500
8	.0600	.1000	.7000	.7500	.7800
3	.7980	.8200	.8300	.8400	.8500
3	.8600	.8650	.8700	.8850	.8900
8	.9000	.9050	.9100	.9150	.9210
8	.9270	.9330	.9400	.9450	.9500
3	.9550	.9600	.9650	.9700	.9750
3	.9800	.9830	.9850	.9880	.9900
3	.9930	.9950	.9980	1.0000	1.0000
9	ENDTBL				

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 6

TABLE NO.
5 RAINFL 2
TIME INCREMENT
.2500

.0000	.0020	.0050	.0080	.0110
.0140	.0170	.0200	.0230	.0260
.0290	.0320	.0350	.0380	.0410
.0440	.0480	.0520	.0560	.0600
.0640	.0680	.0720	.0760	.0800
.0850	.0900	.0950	.1000	.1050
.1100	.1150	.1200	.1260	.1330
.1400	.1470	.1550	.1630	.1720
.1810	.1910	.2030	.2180	.2360
.2570	.2830	.3870	.6630	.7070
.7350	.7580	.7760	.7910	.8040
.8150	.8250	.8340	.8420	.8490
.8560	.8630	.8690	.8750	.8810
.8870	.8930	.8980	.9030	.9080
.9130	.9180	.9220	.9260	.9300
.9340	.9380	.9420	.9460	.9500
.9530	.9560	.9590	.9620	.9650
.9680	.9710	.9740	.9770	.9800
.9830	.9860	.9890	.9920	.9950
.9980	1.0000	1.0000	1.0000	1.0000

ENDTBL

TABLE NO.
1 RAINFL 3
TIME INCREMENT
.5000

.0000	.0100	.0220	.0360	.0510
.0670	.0830	.0990	.1160	.1350
.1560	.1790	.2040	.2330	.2680
.3100	.4250	.4800	.5200	.5500
.5770	.6010	.6230	.6440	.6640
.6830	.7010	.7190	.7360	.7530
.7690	.7850	.8000	.8150	.8300
.8440	.8580	.8710	.8840	.8960
.9080	.9200	.9320	.9440	.9560
.9670	.9780	.9890	1.0000	1.0000

ENDTBL

TABLE NO.
5 RAINFL 4
TIME INCREMENT
.5000

.0000	.0040	.0080	.0120	.0160
.0200	.0250	.0300	.0350	.0400

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 7

.0450	.0500	.0550	.0600	.0650
.0700	.0750	.0810	.0870	.0930
.0990	.1050	.1110	.1180	.1250
.1320	.1400	.1480	.1560	.1650
.1740	.1840	.1950	.2070	.2200
.2360	.2550	.2770	.3030	.4090
.5150	.5490	.5830	.6050	.6240
.6400	.6550	.6690	.6820	.6940
.7050	.7160	.7270	.7380	.7480
.7580	.7670	.7760	.7840	.7920
.8000	.8080	.8160	.8230	.8300
.8370	.8440	.8510	.8580	.8640
.8700	.8760	.8820	.8880	.8940
.9000	.9060	.9110	.9160	.9210
.9260	.9310	.9360	.9410	.9460
.9510	.9560	.9610	.9660	.9710
.9760	.9800	.9840	.9880	.9920
.9960	1.0000	1.0000	1.0000	1.0000

ENDTBL

TABLE NO. TIME INCREMENT
RAINFL 5 .5000

.0000	.0020	.0050	.0080	.0110
.0140	.0170	.0200	.0230	.0260
.0290	.0320	.0350	.0380	.0410
.0440	.0470	.0510	.0550	.0590
.0630	.0670	.0710	.0750	.0790
.0840	.0890	.0940	.0990	.1040
.1090	.1140	.1200	.1260	.1330
.1400	.1470	.1540	.1620	.1710
.1810	.1920	.2040	.2170	.2330
.2520	.2770	.3180	.3880	.6980
.7290	.7520	.7700	.7850	.7980
.8090	.8190	.8290	.8380	.8460
.8540	.8610	.8680	.8740	.8800
.8860	.8920	.8970	.9020	.9070
.9120	.9170	.9210	.9250	.9290
.9330	.9370	.9410	.9450	.9490
.9530	.9570	.9600	.9630	.9660
.9690	.9720	.9750	.9780	.9810
.9840	.9870	.9900	.9930	.9960
.9980	1.0000	1.0000	1.0000	1.0000

ENDTBL

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 8

TABLE NO.	TIME INCREMENT				
5 RAINFL 6	.0200				
8	.0000	.0080	.0162	.0246	.0333
8	.0425	.0524	.0630	.0743	.0863
8	.0990	.1124	.1265	.1420	.1595
8	.1800	.2050	.2550	.3450	.4370
8	.5300	.6030	.6330	.6600	.6840
8	.7050	.7240	.7420	.7590	.7750
8	.7900	.8043	.8180	.8312	.8439
8	.8561	.8678	.8790	.8898	.9002
8	.9103	.9201	.9297	.9391	.9483
8	.9573	.9661	.9747	.9832	.9916
8	1.0000	1.0000	1.0000	1.0000	1.0000
9 ENDTBL					

STANDARD CONTROL INSTRUCTIONS

5	RUNOFF	1	82	1	.1900	67.0000	.19000	0	0	0	0	1
6	REACH	3	174	1	2300.0000	.9000	1.53000	0	0	0	0	1
6	RUNOFF	1	74	1	.1800	67.0000	.48000	0	0	0	0	1
6	ADDHYD	4	74	1	2	3	0	0	0	0	0	1
5	REACH	3	173	3	1	2800.0000	.7000	1.53000	0	0	0	1
5	RUNOFF	1	75	2	.1200	67.0000	.70000	0	0	0	0	1
6	ADDHYD	4	75	1	2	3	0	0	0	0	0	1
6	RUNOFF	1	73	1	.1200	67.0000	.53000	0	0	0	0	1
6	ADDHYD	4	75	1	3	2	0	0	0	0	0	1
6	RUNOFF	1	81	1	.3900	67.0000	.51000	0	0	0	0	1
6	REACH	3	175	1	3	3850.0000	.6000	1.56000	0	0	0	1
6	ADDHYD	4	75	2	3	1	0	0	0	0	0	1
6	RUNOFF	1	80	2	.2200	67.0000	.39000	0	0	0	0	1
6	REACH	3	176	2	3	4100.0000	.6000	1.56000	0	0	0	1
6	ADDHYD	4	75	3	1	2	0	0	0	0	0	1
6	RUNOFF	1	76	1	.1700	67.0000	.68000	0	0	0	0	1
6	ADDHYD	4	75	1	2	3	0	0	0	0	0	1
6	REACH	3	172	3	2	1700.0000	.8000	1.53000	0	0	0	1
6	RUNOFF	1	88	1	.1000	67.0000	.34000	0	0	0	0	1
6	ADDHYD	4	77	1	2	3	0	0	0	0	0	1
6	RUNOFF	1	77	2	.2500	67.0000	.56000	0	0	0	0	1
6	ADDHYD	4	77	3	2	1	0	0	0	0	0	1
6	RUNOFF	1	79	2	.2900	67.0000	.29000	0	0	0	0	1
6	REACH	3	178	2	3	3000.0000	.6000	1.56000	0	0	0	1
6	RUNOFF	1	78	2	.8800	67.0000	.44000	0	0	0	0	1
6	ADDHYD	4	78	2	3	4	0	0	0	0	0	1
6	REACH	3	177	4	2	3350.0000	.6000	1.56000	0	0	0	1
6	ADDHYD	4	77	2	1	3	0	0	0	0	0	1
6	REACH	3	171	3	2	3850.0000	.2000	1.63000	0	0	0	1
6	RUNOFF	1	71	1	.3600	70.0000	.30000	0	0	0	0	1
6	ADDHYD	4	71	1	2	3	0	0	0	0	0	1
6	REACH	3	170	3	2	2500.0000	.3000	1.63000	0	0	0	1
6	RUNOFF	1	70	1	.3100	70.0000	.35000	0	0	0	0	1
6	ADDHYD	4	70	1	2	3	0	0	0	0	0	1
6	REACH	3	187	3	2	1200.0000	.2000	1.64000	0	0	0	1
6	RUNOFF	1	87	3	.0400	70.0000	.14000	0	0	0	0	1
6	ADDHYD	4	87	3	2	4	0	0	0	0	0	1
6	RUNOFF	1	72	2	.2500	70.0000	.23000	0	0	0	0	1
5	REACH	3	169	2	3	3000.0000	.8000	1.55000	0	0	0	1
6	RUNOFF	1	69	1	.2500	70.0000	.80000	0	0	0	0	1
6	ADDHYD	4	69	3	1	2	0	0	0	0	0	1
6	REACH	3	185	2	1	1400.0000	.7000	1.51000	0	0	0	1
6	RUNOFF	1	85	2	.0500	70.0000	.37000	0	0	0	0	1
6	ADDHYD	4	87	1	2	3	0	0	0	0	0	1
6	ADDHYD	4	87	4	3	1	0	0	0	0	0	1

R20 XED 11/25/97
REV 09/21/83

RIDGEVIEW HDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 10

REACH 3 143 1 2	4400.0000	.2000	1.64000	0 0 0 0 1
RUNOFF 1 53 3	.1600	66.0000	.43000	0 0 0 0 1
6 ADDHYD 4 63 2 3 4			0 0 0 0 0 1	
REACH 3 150 4 1	4400.0000	.2000	1.65000	0 0 0 0 1
RUNOFF 1 50 3	.1500	66.0000	.41000	0 0 0 0 1
6 ADDHYD 4 60 1 3 4			0 0 0 0 0 1	
RUNOFF 1 59 3	.1600	65.0000	.33000	0 0 0 0 1
6 ADDHYD 4 60 4 3 5			0 0 0 0 0 1	
RUNOFF 1 68 1	.2200	60.0000	.65000	0 0 0 0 1
REACH 3 157 1 3	3300.0000	.7000	1.51000	0 0 0 0 1
RUNOFF 1 67 1	.2700	60.0000	1.52000	0 0 0 0 1
6 ADDHYD 4 67 3 1 2			0 0 0 0 0 1	
REACH 3 164 2 3	2500.0000	.8000	1.51000	0 0 0 0 1
RUNOFF 1 64 2	.2500	59.0000	1.12000	0 0 0 0 1
6 ADDHYD 4 64 3 2 1			0 0 0 0 0 1	
REACH 3 159 1 3	3300.0000	.5000	1.62000	0 0 0 0 1
6 ADDHYD 4 60 5 3 2			0 0 0 0 0 1	
REACH 3 151 2 1	4000.0000	.1000	1.65000	0 0 0 0 1
RUNOFF 1 51 5	.1500	59.0000	.39000	0 0 0 0 1
6 ADDHYD 4 51 1 5 2			0 0 0 0 0 1	
RUNOFF 1 49 1	.1000	55.0000	.34000	0 0 0 0 1
6 ADDHYD 4 51 1 2 5			0 0 0 0 0 1	
RUNOFF 1 52 1	.1900	55.0000	.60000	0 0 0 0 1
6 ADDHYD 4 51 1 5 3			0 0 0 0 0 1	
RUNOFF 1 65 1	.1000	65.0000	.75000	0 0 0 0 1
REACH 3 158 1 2	3600.0000	.4000	1.63000	0 0 0 0 1
RUNOFF 1 58 1	.1700	84.0000	.43000	0 0 0 0 1
6 ADDHYD 4 58 1 2 5			0 0 0 0 0 1	
REACH 3 152 5 1	3500.0000	.3000	1.63000	0 0 0 0 1
6 ADDHYD 4 51 3 1 4			0 0 0 0 0 1	
RUNOFF 1 62 3	.2500	55.0000	.70000	0 0 0 0 1
REACH 3 161 3 2	3400.0000	.7000	1.51000	0 0 0 0 1
RUNOFF 1 61 1	.1300	55.0000	.62000	0 0 0 0 1
6 ADDHYD 4 61 1 2 3			0 0 0 0 0 1	
REACH 3 150 3 2	2950.0000	.6000	1.53000	0 0 0 0 1
RUNOFF 1 50 3	.1300	54.0000	.63000	0 0 0 0 1
6 ADDHYD 4 50 2 3 1			0 0 0 0 0 1	
REACH 3 149 1 2	2400.0000	.3000	1.63000	0 0 0 0 1
6 ADDHYD 4 51 4 2 3			0 0 0 0 0 1	
REACH 3 145 3 1	3300.0000	.3000	1.62000	0 0 0 0 1
RUNOFF 1 48 2	.1500	55.0000	.23000	0 0 0 0 1
6 ADDHYD 4 48 1 2 3			0 0 0 0 0 1	
REACH 3 141 3 1	3100.0000	.0000	.00000	0 0 0 0 1
RUNOFF 1 41 2	.1090	62.0000	.61000	0 0 0 0 1
6 ADDHYD 4 41 1 2 3			0 0 0 0 0 1	
REACH 3 41 3 1	2415.0000	.0000	.00000	0 0 0 0 1
RUNOFF 1 141 5	.0430	59.0000	.76000	0 0 0 0 1
6 ADDHYD 4 42 4 5 5			0 0 0 0 0 1	
RUNOFF 1 40 1	.3000	62.0000	.65000	0 0 0 0 1

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 11

5	ADDHYD	4	42	1	6	7															0	0	0	0	0	1	
6	RUNOFF	1	139				.1500	65.0000			.54000	0	0	0	0	0	1										
6	ADDHYD	4	85	2	7	1																0	0	0	0	0	1
6	REACH	3	137	1		2	2785.0000	.0000			.00000	0	0	0	0	0	1										
6	RUNOFF	1	137				.1320	62.0000			.79000	0	0	0	0	0	1										
6	ADDHYD	4	37	2	3	4																0	0	0	0	0	1
6	RUNOFF	1	66				.3100	57.0000			.80000	0	0	0	0	0	1										
6	REACH	3	157	3		2	2300.0000	.8000			1.53000	0	0	0	0	0	1										
6	RUNOFF	1	57				.1600	60.0000			.53000	0	0	0	0	0	1										
6	ADDHYD	4	57	2	3	1																0	0	0	0	0	1
6	REACH	3	154	1		2	3500.0000	.5000			1.61000	0	0	0	0	0	1										
6	RUNOFF	1	55				.2500	60.0000			.58000	0	0	0	0	0	1										
6	ADDHYD	4	54	2	3	1																0	0	0	0	0	1
6	RUNOFF	1	56				.1500	60.0000			.23000	0	0	0	0	0	1										
6	REACH	3	155	3		2	3450.0000	.6000			1.53000	0	0	0	0	0	1										
6	ADDHYD	4	54	2	1	5																0	0	0	0	0	1
6	RUNOFF	1	54				.2500	60.0000			.33000	0	0	0	0	0	1										
6	ADDHYD	4	54	7	5	2																0	0	0	0	0	1
6	REACH	3	153	2		3	2050.0000	.5000			1.61000	0	0	0	0	0	1										
6	RUNOFF	1	53				.1700	60.0000			.41000	0	0	0	0	0	1										
6	ADDHYD	4	53	3	5	1																0	0	0	0	0	1
6	REACH	3	147	1		3	2300.0000	.4000			1.62000	0	0	0	0	0	1										
6	RUNOFF	1	47				.2600	60.0000			.45000	0	0	0	0	0	1										
6	ADDHYD	4	47	3	2	1																0	0	0	0	0	1
6	REACH	3	142	1		2	2100.0000	.3000			1.61000	0	0	0	0	0	1										
6	RUNOFF	1	42				.0790	58.0000			.30000	0	0	0	0	0	1										
6	ADDHYD	4	43	3	2	1																0	0	0	0	0	1
6	REACH	3	42	1		2	3300.0000	.0000			.00000	0	0	0	0	0	1										
6	RUNOFF	1	142				.0890	45.0000			.61000	0	0	0	0	0	1										
6	ADDHYD	4	43	2	3	6																0	0	0	0	0	1
6	RUNOFF	1	45				.2400	60.0000			.50000	0	0	0	0	0	1										
6	RUNOFF	1	46				.2300	60.0000			.48000	0	0	0	0	0	1										
6	ADDHYD	4	45	1	2	3																0	0	0	0	0	1
6	REACH	3	143	3		2	1550.0000	.0000			.00000	0	0	0	0	0	1										
6	RUNOFF	1	143				.0940	45.0000			.53000	0	0	0	0	0	1										
6	ADDHYD	4	43	2	3	7																0	0	0	0	0	1
6	ADDHYD	4	43	6	7	1																0	0	0	0	0	1
6	REACH	3	146	1		2	1770.0000	.0000			.00000	0	0	0	0	0	1										
6	RUNOFF	1	146				.1050	43.0000			.51000	0	0	0	0	0	1										
6	ADDHYD	4	44	2	3	5																0	0	0	0	0	1
6	RUNOFF	1	140				.1070	61.0000			.99000	0	0	0	0	0	1										
6	ADDHYD	4	44	1	5	2																0	0	0	0	0	1
6	REACH	3	136	2		3	1215.0000	.0000			.00000	0	0	0	0	0	1										
6	RUNOFF	1	136				.1400	40.0000			.70000	0	0	0	0	0	1										
6	ADDHYD	4	37	3	1	2																0	0	0	0	0	1
6	ADDHYD	4	37	2	4	7																0	0	0	0	0	1
6	REACH	3	129	7		1	3800.0000	.1000			1.65000	0	0	0	0	0	1										
6	RUNOFF	1	27				.1600	84.0000			.51000	0	0	0	0	0	1										
6	ADDHYD	4	29	1	2	3																0	0	0	0	0	1

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 PASS 1
PAGE 12

6	RUNOFF	1	38	1	.3200	66.0000	.57000	0	0	0	0	1
6	REACH	3	128	1	2	1700.0000	1.2000	1.47000	0	0	0	1
6	RUNOFF	1	28	4	.1700	77.0000	.38000	0	0	0	0	1
6	ADDHYD	4	28	2	4			0	0	0	0	1
6	REACH	3	127	5	6	2300.0000	1.0000	1.47000	0	0	0	1
6	ADDHYD	4	29	3	6			0	0	0	0	1
6	RUNOFF	1	29	2	.2300	80.0000	.41000	0	0	0	0	1
6	ADDHYD	4	29	1	2			0	0	0	0	1
6	REACH	3	184	3	2	1350.0000	.2000	1.63000	0	0	0	1
6	RUNOFF	1	84	3	.0400	86.0000	.08000	0	0	0	0	1
6	ADDHYD	4	30	2	3			0	0	0	0	1
6	RUNOFF	1	30	4	.1000	74.0000	.58000	0	0	0	0	1
6	ADDHYD	4	30	1	4			0	0	0	0	1
6	RUNOFF	1	31	3	.2100	68.0000	.72000	0	0	0	0	1
6	ADDHYD	4	30	2	3			0	0	0	0	1
6	RUNOFF	1	134	1	.1620	60.0000	1.24000	0	0	0	0	1
6	RUNOFF	1	144	2	.1570	59.0000	1.10000	0	0	0	0	1
6	RUNOFF	1	145	4	.2650	59.0000	1.20000	0	0	0	0	1
6	ADDHYD	4	34	1	2			0	0	0	0	1
6	ADDHYD	4	35	3	4			0	0	0	0	1
6	REACH	3	130	5	6	3700.0000	.9000	1.52000	0	0	0	1
6	ADDHYD	4	30	7	6			0	0	0	0	1
6	RUNOFF	1	32	1	.1100	82.0000	.56000	0	0	0	0	1
6	RUNOFF	1	33	2	.2900	78.0000	.42000	0	0	0	0	1
6	ADDHYD	4	33	1	2			0	0	0	0	1
6	REACH	3	131	4	5	4400.0000	.7000	1.52000	0	0	0	1
6	ADDHYD	4	99	3	5			0	0	0	0	1

ENDATA

END OF LISTING

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 82	RUNOFF	.19	1	2	.08	.0	4.40	24.00	1.40	---	6.03	249.72	1314.3
XSECTION 174	REACH	.19	1	2	.08	.0	4.40	24.00	1.40	---	6.13	235.29	1238.4
XSECTION 74	RUNOFF	.18	1	2	.08	.0	4.40	24.00	1.40	---	6.18	148.53	825.2
STRUCTURE 74	ADDHYD	.37	1	2	.08	.0	4.40	24.00	1.40	---	6.14	379.44	1025.5
XSECTION 173	REACH	.37	1	2	.08	.0	4.40	24.00	1.40	---	6.25	346.58	936.7
XSECTION 75	RUNOFF	.12	1	2	.08	.0	4.40	24.00	1.40	---	6.33	75.13	626.1
STRUCTURE 75	ADDHYD	.49	1	2	.08	.0	4.40	24.00	1.40	---	6.25	418.87	854.8
XSECTION 73	RUNOFF	.12	1	2	.08	.0	4.40	24.00	1.40	---	6.21	92.61	771.7
STRUCTURE 75	ADDHYD	.61	1	2	.08	.0	4.40	24.00	1.40	---	6.25	510.06	836.2
XSECTION 81	RUNOFF	.39	1	2	.08	.0	4.40	24.00	1.40	---	6.20	304.01	779.5
XSECTION 175	REACH	.39	1	2	.08	.0	4.40	24.00	1.40	---	6.36	271.28	695.6
STRUCTURE 75	ADDHYD	1.00	1	2	.08	.0	4.40	24.00	1.40	---	6.28	754.36	754.4
XSECTION 80	RUNOFF	.22	1	2	.08	.0	4.40	24.00	1.40	---	6.14	206.24	937.4
XSECTION 176	REACH	.22	1	2	.08	.0	4.40	24.00	1.40	---	6.29	168.33	765.2
STRUCTURE 75	ADDHYD	1.22	1	2	.08	.0	4.40	24.00	1.40	---	6.28	922.26	756.0
XSECTION 76	RUNOFF	.17	1	2	.08	.0	4.40	24.00	1.39	---	6.31	107.47	632.2
STRUCTURE 75	ADDHYD	1.39	1	2	.08	.0	4.40	24.00	1.40	---	6.28	1029.19	740.4
XSECTION 172	REACH	1.39	1	2	.08	.0	4.40	24.00	1.40	---	6.28	1029.19	740.4
XSECTION 88	RUNOFF	.10	1	2	.08	.0	4.40	24.00	1.40	---	6.11	100.20	1002.0
STRUCTURE 77	ADDHYD	1.49	1	2	.08	.0	4.40	24.00	1.40	---	6.27	1097.78	736.8
XSECTION 77	RUNOFF	.25	1	2	.08	.0	4.40	24.00	1.40	---	6.23	182.71	730.9
STRUCTURE 77	ADDHYD	1.74	1	2	.08	.0	4.40	24.00	1.40	---	6.26	1278.88	735.0
XSECTION 79	RUNOFF	.29	1	2	.08	.0	4.40	24.00	1.40	---	6.08	318.12	1097.0
XSECTION 178	REACH	.29	1	2	.08	.0	4.40	24.00	1.40	---	6.20	284.15	979.8
XSECTION 78	RUNOFF	.88	1	2	.08	.0	4.40	24.00	1.40	---	6.16	762.75	866.8
STRUCTURE 78	ADDHYD	1.17	1	2	.08	.0	4.40	24.00	1.40	---	6.17	1041.83	890.4
XSECTION 177	REACH	1.17	1	2	.08	.0	4.40	24.00	1.40	---	6.28	998.05	853.0
STRUCTURE 77	ADDHYD	2.91	1	2	.08	.0	4.40	24.00	1.40	---	6.27	2264.92	778.3
XSECTION 171	REACH	2.91	1	2	.08	.0	4.40	24.00	1.40	---	6.40	2132.94	733.0
XSECTION 71	RUNOFF	.36	1	2	.08	.0	4.40	24.00	1.60	---	6.08	455.82	1266.2
STRUCTURE 71	ADDHYD	3.27	1	2	.08	.0	4.40	24.00	1.42	---	6.39	2249.04	687.8
XSECTION 170	REACH	3.27	1	2	.08	.0	4.40	24.00	1.42	---	6.47	2242.92	685.9

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAJN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1										
XSECTION 70	RUNOFF	.31	1	2	.08	.0	4.40	24.00	1.60	---			
STRUCTURE 70	ADDHYD	3.58	1	2	.08	.0	4.40	24.00	1.43	---	6.11	360.53	1163.0
XSECTION 187	REACH	3.58	1	2	.08	.0	4.40	24.00	1.43	---	6.47	2338.19	653.1
XSECTION 87	RUNOFF	.04	1	2	.08	.0	4.40	24.00	1.61	---	6.47	2338.19	653.1
STRUCTURE 87	ADDHYD	3.62	1	2	.08	.0	4.40	24.00	1.44	---	6.00	61.57	1539.2
										---	6.47	2344.67	647.8
XSECTION 72	RUNOFF	.25	1	2	.08	.0	4.40	24.00	1.60	---	6.04	354.53	1418.1
XSECTION 169	REACH	.25	1	2	.08	.0	4.40	24.00	1.60	---	6.15	327.65	1310.6
XSECTION 69	RUNOFF	.25	1	2	.08	.0	4.40	24.00	1.60	---	6.38	168.01	672.0
STRUCTURE 69	ADDHYD	.50	1	2	.08	.0	4.40	24.00	1.60	---	6.17	448.50	897.0
XSECTION 186	REACH	.50	1	2	.08	.0	4.40	24.00	1.60	---	6.26	448.35	896.7
XSECTION 86	RUNOFF	.05	1	2	.08	.0	4.40	24.00	1.60	---	6.12	56.52	1130.3
STRUCTURE 87	ADDHYD	.55	1	2	.08	.0	4.40	24.00	1.60	---	6.25	491.03	892.8
STRUCTURE 87	ADDHYD	4.17	1	2	.08	.0	4.40	24.00	1.46	---	6.44	2655.50	636.8
XSECTION 163	REACH	4.17	1	2	.08	.0	4.40	24.00	1.46	---	6.56	2570.67	616.5
XSECTION 63	RUNOFF	.16	1	2	.08	.0	4.40	24.00	1.33	---	6.16	153.14	632.2
STRUCTURE 63	ADDHYD	4.33	1	2	.08	.0	4.40	24.00	1.45	---	6.56	2611.75	603.2
XSECTION 160	REACH	4.33	1	2	.08	.0	4.40	24.00	1.45	---	6.68	2539.50	586.5
XSECTION 60	RUNOFF	.15	1	2	.08	.0	4.40	24.00	1.33	---	6.15	128.14	854.2
STRUCTURE 60	ADDHYD	4.48	1	2	.08	.0	4.40	24.00	1.45	---	6.68	2566.56	572.9
XSECTION 59	RUNOFF	.16	1	2	.08	.0	4.40	24.00	1.27	---	6.11	144.66	904.1
STRUCTURE 60	ADDHYD	4.64	1	2	.08	.0	4.40	24.00	1.44	---	6.68	2589.30	558.0
XSECTION 68	RUNOFF	.22	1	2	.08	.0	4.40	24.00	.96	---	6.32	87.71	398.7
XSECTION 167	REACH	.22	1	2	.08	.0	4.40	24.00	.96	---	6.51	75.67	344.0
XSECTION 67	RUNOFF	.27	1	2	.08	.0	4.40	24.00	.96	---	6.98	55.40	205.2
STRUCTURE 67	ADDHYD	.49	1	2	.08	.0	4.40	24.00	.96	---	6.62	116.49	237.7
XSECTION 164	REACH	.49	1	2	.08	.0	4.40	24.00	.96	---	6.78	113.08	230.8
XSECTION 64	RUNOFF	.25	1	2	.08	.0	4.40	24.00	.91	---	6.68	60.27	241.1
STRUCTURE 64	ADDHYD	.74	1	2	.08	.0	4.40	24.00	.94	---	6.75	172.56	233.2
XSECTION 159	REACH	.74	1	2	.08	.0	4.40	24.00	.94	---	6.92	166.83	225.4
STRUCTURE 60	ADDHYD	5.38	1	2	.08	.0	4.40	24.00	1.37	---	6.69	2732.22	507.8
XSECTION 151	REACH	5.38	1	2	.08	.0	4.40	24.00	1.37	---	6.84	2606.44	484.5
XSECTION 51	RUNOFF	.15	1	2	.08	.0	4.40	24.00	.91	---	6.16	81.05	540.3
STRUCTURE 51	ADDHYD	5.53	1	2	.08	.0	4.40	24.00	1.36	---	6.84	2620.02	473.8
XSECTION 49	RUNOFF	.10	1	2	.08	.0	4.40	24.00	.70	---	6.14	40.52	405.2
STRUCTURE 51	ADDHYD	5.63	1	2	.08	.0	4.40	24.00	1.35	---	6.84	2626.55	466.5
XSECTION 52	RUNOFF	.19	1	2	.08	.0	4.40	24.00	.70	---	6.30	50.73	267.0

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 SUMMARY
PAGE 23

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1										
STRUCTURE 51	ADDHYD	5.82	1	2	.08	.0	4.40	24.00	1.33	---	6.83	2646.38	454.7
XSECTION 65	RUNOFF	.10	1	2	.08	.0	4.40	24.00	1.27	---	6.37	51.91	519.1
XSECTION 158	REACH	.10	1	2	.08	.0	4.40	24.00	1.26	---	6.61	42.65	426.5
XSECTION 58	RUNOFF	.17	1	2	.08	.0	4.40	24.00	2.72	---	6.12	329.73	1939.6
STRUCTURE 58	ADDHYD	.27	1	2	.08	.0	4.40	24.00	2.18	---	6.13	339.51	1257.5
XSECTION 152	REACH	.27	1	2	.08	.0	4.40	24.00	2.18	---	6.28	301.38	1116.2
STRUCTURE 51	ADDHYD	6.09	1	2	.08	.0	4.40	24.00	1.36	---	6.82	2757.03	452.7
XSECTION 62	RUNOFF	.25	1	2	.08	.0	4.40	24.00	.70	---	6.38	58.97	235.9
XSECTION 161	REACH	.25	1	2	.08	.0	4.40	24.00	.70	---	6.61	49.77	199.1
XSECTION 61	RUNOFF	.13	1	2	.08	.0	4.40	24.00	.70	---	6.32	33.56	258.1
STRUCTURE 61	ADDHYD	.38	1	2	.08	.0	4.40	24.00	.70	---	6.50	74.54	196.2
XSECTION 150	REACH	.38	1	2	.08	.0	4.40	24.00	.70	---	6.72	67.94	178.8
XSECTION 50	RUNOFF	.13	1	2	.08	.0	4.40	24.00	.65	---	6.34	29.80	229.2
STRUCTURE 50	ADDHYD	.51	1	2	.08	.0	4.40	24.00	.68	---	6.63	85.37	167.4
XSECTION 149	REACH	.51	1	2	.08	.0	4.40	24.00	.68	---	6.84	81.16	159.1
STRUCTURE 51	ADDHYD	6.60	1	2	.08	.0	4.40	24.00	1.31	---	6.82	2838.16	430.0
XSECTION 148	REACH	6.60	1	2	.08	.0	4.40	24.00	1.31	---	6.92	2822.87	427.7
XSECTION 48	RUNOFF	.15	1	2	.08	.0	4.40	24.00	.70	---	6.07	77.77	518.5
STRUCTURE 48	ADDHYD	6.75	1	2	.08	.0	4.40	24.00	1.30	---	6.92	2831.15	419.4
SECTION 141	REACH	6.75	1	2	.08	.0	4.40	24.00	1.30	8.66	7.01	2822.81	418.2
XSECTION 41	RUNOFF*	.11	1	2	.08	.0	4.40	24.00	1.08	---	6.28	53.24	488.5
STRUCTURE 41	ADDHYD	6.86	1	2	.08	.0	4.40	24.00	1.29	---	7.01	2836.26	413.5
SECTION 41	REACH	6.86	1	2	.08	.0	4.40	24.00	1.29	8.61	7.01	2836.26	413.5
SECTION 141	RUNOFF*	.04	1	2	.08	.0	4.40	24.00	.91	---	6.40	13.98	325.1
STRUCTURE 42	ADDHYD	6.90	1	2	.08	.0	4.40	24.00	1.29	---	7.01	2841.97	411.8
XSECTION 40	RUNOFF*	.30	1	2	.08	.0	4.40	24.00	1.08	---	6.31	139.95	466.5
STRUCTURE 42	ADDHYD	7.20	1	2	.08	.0	4.40	24.00	1.28	---	7.01	2881.89	400.2
SECTION 139	RUNOFF*	.15	1	2	.08	.0	4.40	24.00	1.27	---	6.23	99.05	660.4
STRUCTURE 85	ADDHYD	7.35	1	2	.08	.0	4.40	24.00	1.28	---	7.01	2900.73	394.5
XSECTION 137	REACH	7.35	1	2	.08	.0	4.40	24.00	1.28	6.87	7.09	2896.56	394.0
SECTION 137	RUNOFF*	.13	1	2	.08	.0	4.40	24.00	1.08	---	6.41	53.00	401.5
STRUCTURE 37	ADDHYD	7.48	1	2	.08	.0	4.40	24.00	1.28	---	7.09	2915.98	389.6
XSECTION 66	RUNOFF	.31	1	2	.08	.0	4.40	24.00	.80	---	6.44	80.57	259.9
SECTION 157	REACH	.31	1	2	.08	.0	4.40	24.00	.80	---	6.59	77.13	248.8
SECTION 57	RUNOFF	.16	1	2	.08	.0	4.40	24.00	.97	---	6.24	75.73	473.3
STRUCTURE 57	ADDHYD	.47	1	2	.08	.0	4.40	24.00	.86	---	6.40	121.79	259.1

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1										
XSECTION 154	REACH	.47	1	2	.08	.0	4.40	24.00	.86	---	6.62	113.11	240.7
XSECTION 55	RUNOFF	.25	1	2	.08	.0	4.40	24.00	.96	---	6.27	108.08	432.3
STRUCTURE 54	ADDHYD	.72	1	2	.08	.0	4.40	24.00	.89	---	6.40	191.73	266.3
XSECTION 56	RUNOFF	.15	1	2	.08	.0	4.40	24.00	.97	---	6.06	118.68	791.2
XSECTION 155	REACH	.15	1	2	.08	.0	4.40	24.00	.96	---	6.21	83.54	556.9
STRUCTURE 54	ADDHYD	.87	1	2	.08	.0	4.40	24.00	.91	---	6.31	255.44	293.6
XSECTION 54	RUNOFF	.25	1	2	.08	.0	4.40	24.00	.96	---	6.12	160.64	642.6
STRUCTURE 54	ADDHYD	1.12	1	2	.08	.0	4.40	24.00	.92	---	6.21	371.96	332.1
XSECTION 153	REACH	1.12	1	2	.08	.0	4.40	24.00	.92	---	6.31	366.04	326.8
XSECTION 53	RUNOFF	.17	1	2	.08	.0	4.40	24.00	.97	---	6.16	95.87	563.9
STRUCTURE 53	ADDHYD	1.29	1	2	.08	.0	4.40	24.00	.92	---	6.28	440.18	341.2
XSECTION 147	REACH	1.29	1	2	.08	.0	4.40	24.00	.92	---	6.39	428.22	332.0
XSECTION 47	RUNOFF	.26	1	2	.08	.0	4.40	24.00	.97	---	6.19	136.86	526.4
STRUCTURE 47	ADDHYD	1.55	1	2	.08	.0	4.40	24.00	.93	---	6.35	523.41	337.7
XSECTION 142	REACH	1.55	1	2	.08	.0	4.40	24.00	.93	---	6.47	505.79	326.3
SECTION 42	RUNOFF*	.08	1	2	.08	.0	4.40	24.00	.85	---	6.11	45.76	579.3
STRUCTURE 43	ADDHYD	1.63	1	2	.08	.0	4.40	24.00	.93	---	6.46	517.07	317.4
XSECTION 42	REACH	1.63	1	2	.08	.0	4.40	24.00	.93	3.65	6.54	471.63	289.5
XSECTION 142	RUNOFF	.09	1	2	.08	.0	4.40	24.00	.27	---	6.42	4.23	47.5
STRUCTURE 43	ADDHYD	1.72	1	2	.08	.0	4.40	24.00	.89	---	6.64	475.18	276.6
XSECTION 45	RUNOFF*	.24	1	2	.08	.0	4.40	24.00	.97	---	6.22	117.67	490.3
XSECTION 46	RUNOFF*	.23	1	2	.08	.0	4.40	24.00	.97	---	6.21	115.77	503.3
STRUCTURE 45	ADDHYD	.47	1	2	.08	.0	4.40	24.00	.97	---	6.21	233.34	496.5
SECTION 143	REACH	.47	1	2	.08	.0	4.40	24.00	.97	3.47	6.31	229.24	487.7
SECTION 143	RUNOFF*	.09	1	2	.08	.0	4.40	24.00	.27	---	6.34	4.90	52.1
STRUCTURE 43	ADDHYD	.56	1	2	.08	.0	4.40	24.00	.85	---	6.31	234.10	415.1
STRUCTURE 43	ADDHYD	2.28	1	2	.08	.0	4.40	24.00	.88	---	6.56	600.35	263.1
SECTION 146	REACH	2.28	1	2	.08	.0	4.40	24.00	.88	3.96	6.66	595.68	261.0
XSECTION 146	RUNOFF*	.10	1	2	.08	.0	4.40	24.00	.20	---	6.39	2.83	27.0
STRUCTURE 44	ADDHYD	2.39	1	2	.08	.0	4.40	24.00	.85	---	6.66	598.14	250.6
SECTION 140	RUNOFF*	.11	1	2	.08	.0	4.40	24.00	1.02	---	6.57	33.37	311.8
STRUCTURE 44	ADDHYD	2.49	1	2	.08	.0	4.40	24.00	.86	---	6.66	630.67	252.9
XSECTION 136	REACH	2.49	1	2	.08	.0	4.40	24.00	.86	3.88	6.66	630.67	252.9
XSECTION 136	RUNOFF*	.14	1	2	.08	.0	4.40	24.00	.12	---	8.22	1.11	7.9
STRUCTURE 37	ADDHYD	2.63	1	2	.08	.0	4.40	24.00	.82	---	6.66	631.38	239.7
STRUCTURE 37	ADDHYD	10.12	1	2	.08	.0	4.40	24.00	1.16	---	7.06	3342.24	330.3

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE 11A (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 SUMMARY
PAGE 25

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 129	REACH	10.12	1	2	.08	.0	4.40	24.00	1.16	---	7.20	3275.47	323.7
STRUCTURE 27	RUNOFF	.16	1	2	.08	.0	4.40	24.00	2.72	---	6.15	282.39	1765.0
STRUCTURE 29	ADDHYD	10.28	1	2	.08	.0	4.40	24.00	1.18	---	7.20	3301.65	321.2
XSECTION 38	RUNOFF	.32	1	2	.08	.0	4.40	24.00	1.33	---	6.24	220.94	690.4
XSECTION 128	REACH	.32	1	2	.08	.0	4.40	24.00	1.33	---	6.33	218.97	684.3
XSECTION 28	RUNOFF	.17	1	2	.08	.0	4.40	24.00	2.13	---	6.11	263.97	1552.7
STRUCTURE 28	ADDHYD	.49	1	2	.08	.0	4.40	24.00	1.61	---	6.19	408.91	834.5
XSECTION 127	REACH	.49	1	2	.08	.0	4.40	24.00	1.61	---	6.30	401.25	818.9
STRUCTURE 29	ADDHYD	10.77	1	2	.08	.0	4.40	24.00	1.20	---	7.19	3369.44	312.9
XSECTION 29	RUNOFF	.23	1	2	.08	.0	4.40	24.00	2.37	---	6.11	390.25	1696.7
STRUCTURE 29	ADDHYD	11.00	1	2	.08	.0	4.40	24.00	1.22	---	7.19	3398.87	309.0
SECTION 184	REACH	11.00	1	2	.08	.0	4.40	24.00	1.22	---	7.19	3398.87	309.0
SECTION 84	RUNOFF	.04	1	2	.08	.0	4.40	24.00	2.89	---	5.94	117.00	2925.0
STRUCTURE 30	ADDHYD	11.04	1	2	.08	.0	4.40	24.00	1.23	---	7.19	3402.51	308.3
XSECTION 30	RUNOFF	.10	1	2	.08	.0	4.40	24.00	1.89	---	6.23	104.59	1045.9
STRUCTURE 30	ADDHYD	11.14	1	2	.08	.0	4.40	24.00	1.24	---	7.19	3417.16	306.8
XSECTION 31	RUNOFF	.21	1	2	.08	.0	4.40	24.00	1.46	---	6.33	137.15	653.1
STRUCTURE 30	ADDHYD	11.35	1	2	.08	.0	4.40	24.00	1.24	---	7.18	3449.23	304.0
XSECTION 134	RUNOFF	.16	1	2	.08	.0	4.40	24.00	.96	---	6.76	39.13	241.5
XSECTION 144	RUNOFF	.16	1	2	.08	.0	4.40	24.00	.91	---	6.66	38.28	243.8
XSECTION 145	RUNOFF	.26	1	2	.08	.0	4.40	24.00	.91	---	6.74	60.56	228.5
STRUCTURE 34	ADDHYD	.32	1	2	.08	.0	4.40	24.00	.94	---	6.71	76.97	241.3
STRUCTURE 35	ADDHYD	.58	1	2	.08	.0	4.40	24.00	.92	---	6.72	137.48	235.4
XSECTION 130	REACH	.58	1	2	.08	.0	4.40	24.00	.92	---	6.91	132.60	227.1
STRUCTURE 30	ADDHYD	11.93	1	2	.08	.0	4.40	24.00	1.23	---	7.18	3563.62	298.7
XSECTION 32	RUNOFF	.11	1	2	.08	.0	4.40	24.00	2.54	---	6.19	168.77	1534.3
XSECTION 33	RUNOFF	.29	1	2	.08	.0	4.40	24.00	2.21	---	6.13	448.13	1545.3
STRUCTURE 33	ADDHYD	.40	1	2	.08	.0	4.40	24.00	2.30	---	6.14	612.51	1531.3
XSECTION 131	REACH	.40	1	2	.08	.0	4.40	24.00	2.30	---	6.28	554.60	1386.5
STRUCTURE 99	ADDHYD	12.33	1	2	.08	.0	4.40	24.00	1.26	---	7.17	3635.42	294.8
ALTERNATE 1 STORM 2													
XSECTION 82	RUNOFF	.19	1	2	.08	.0	3.00	24.00	.59	---	6.05	97.75	514.5
XSECTION 174	REACH	.19	1	2	.08	.0	3.00	24.00	.58	---	6.16	82.70	435.2
SECTION 74	RUNOFF	.18	1	2	.08	.0	3.00	24.00	.58	---	6.21	52.40	291.1
STRUCTURE 74	ADDHYD	.37	1	2	.08	.0	3.00	24.00	.58	---	6.17	133.56	361.0
XSECTION 173	REACH	.37	1	2	.08	.0	3.00	24.00	.58	---	6.31	109.98	297.2

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	2										
XSECTION 75	RUNOFF	.12	1	2	.08	.0	3.00	24.00	.58	---	6.36	26.14	217.8
STRUCTURE 75	ADDHYD	.49	1	2	.08	.0	3.00	24.00	.58	---	6.32	135.83	277.2
XSECTION 73	RUNOFF	.12	1	2	.08	.0	3.00	24.00	.59	---	6.24	32.80	273.4
STRUCTURE 75	ADDHYD	.61	1	2	.08	.0	3.00	24.00	.58	---	6.31	166.64	273.2
XSECTION 81	RUNOFF	.39	1	2	.08	.0	3.00	24.00	.58	---	6.24	107.97	276.8
XSECTION 175	REACH	.39	1	2	.08	.0	3.00	24.00	.58	---	6.43	87.43	224.2
STRUCTURE 75	ADDHYD	1.00	1	2	.08	.0	3.00	24.00	.58	---	6.34	246.80	246.8
XSECTION 80	RUNOFF	.22	1	2	.08	.0	3.00	24.00	.58	---	6.16	74.81	340.0
XSECTION 176	REACH	.22	1	2	.08	.0	3.00	24.00	.58	---	6.35	52.18	237.2
STRUCTURE 75	ADDHYD	1.22	1	2	.08	.0	3.00	24.00	.58	---	6.34	299.22	245.3
XSECTION 76	RUNOFF	.17	1	2	.08	.0	3.00	24.00	.58	---	6.34	37.62	221.3
STRUCTURE 75	ADDHYD	1.39	1	2	.08	.0	3.00	24.00	.58	---	6.34	336.84	242.3
XSECTION 172	REACH	1.39	1	2	.08	.0	3.00	24.00	.58	---	6.43	334.83	240.9
XSECTION 88	RUNOFF	.10	1	2	.08	.0	3.00	24.00	.58	---	6.13	36.82	368.2
STRUCTURE 77	ADDHYD	1.49	1	2	.08	.0	3.00	24.00	.58	---	6.42	347.28	233.1
XSECTION 77	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.58	---	6.27	64.37	257.5
STRUCTURE 77	ADDHYD	1.74	1	2	.08	.0	3.00	24.00	.58	---	6.41	400.73	230.3
XSECTION 79	RUNOFF	.29	1	2	.08	.0	3.00	24.00	.58	---	6.10	117.87	406.5
XSECTION 178	REACH	.29	1	2	.08	.0	3.00	24.00	.58	---	6.24	93.39	322.0
XSECTION 78	RUNOFF	.88	1	2	.08	.0	3.00	24.00	.58	---	6.19	271.55	308.6
STRUCTURE 78	ADDHYD	1.17	1	2	.08	.0	3.00	24.00	.58	---	6.21	361.72	309.2
XSECTION 177	REACH	1.17	1	2	.08	.0	3.00	24.00	.58	---	6.34	327.48	279.9
STRUCTURE 77	ADDHYD	2.91	1	2	.08	.0	3.00	24.00	.58	---	6.37	716.91	246.4
XSECTION 171	REACH	2.91	1	2	.08	.0	3.00	24.00	.58	---	6.55	631.49	217.0
XSECTION 71	RUNOFF	.36	1	2	.08	.0	3.00	24.00	.71	---	6.10	186.14	517.0
STRUCTURE 71	ADDHYD	3.27	1	2	.08	.0	3.00	24.00	.60	---	6.54	667.80	204.2
XSECTION 170	REACH	3.27	1	2	.08	.0	3.00	24.00	.60	---	6.65	654.58	200.2
XSECTION 70	RUNOFF	.31	1	2	.08	.0	3.00	24.00	.71	---	6.13	145.97	470.9
STRUCTURE 70	ADDHYD	3.58	1	2	.08	.0	3.00	24.00	.61	---	6.64	683.38	190.9
XSECTION 187	REACH	3.58	1	2	.08	.0	3.00	24.00	.61	---	6.73	683.08	190.8
XSECTION 87	RUNOFF	.04	1	2	.08	.0	3.00	24.00	.72	---	6.02	27.75	693.8
STRUCTURE 87	ADDHYD	3.62	1	2	.08	.0	3.00	24.00	.61	---	6.73	685.16	189.3
XSECTION 72	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.71	---	6.06	148.80	595.2
XSECTION 169	REACH	.25	1	2	.08	.0	3.00	24.00	.71	---	6.18	124.18	496.7
XSECTION 69	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.71	---	6.42	64.92	259.7
STRUCTURE 69	ADDHYD	.50	1	2	.08	.0	3.00	24.00	.71	---	6.21	169.68	339.4

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	2										
SECTION 186	REACH	.50	1	2	.08	.0	3.00	24.00	.71	---	6.31	165.87	331.7
SECTION 86	RUNOFF	.05	1	2	.08	.0	3.00	24.00	.71	---	6.14	22.79	455.7
STRUCTURE 87	ADDHYD	.55	1	2	.08	.0	3.00	24.00	.71	---	6.30	180.29	327.8
STRUCTURE 87	ADDHYD	4.17	1	2	.08	.0	3.00	24.00	.62	---	6.71	771.34	185.0
SECTION 163	REACH	4.17	1	2	.08	.0	3.00	24.00	.62	---	6.87	726.28	174.2
SECTION 63	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.54	---	6.18	45.76	286.0
STRUCTURE 63	ADDHYD	4.33	1	2	.08	.0	3.00	24.00	.62	---	6.86	735.41	169.8
SECTION 160	REACH	4.33	1	2	.08	.0	3.00	24.00	.62	---	7.03	701.69	162.1
SECTION 60	RUNOFF	.15	1	2	.08	.0	3.00	24.00	.54	---	6.17	44.37	295.8
STRUCTURE 60	ADDHYD	4.48	1	2	.08	.0	3.00	24.00	.62	---	7.03	708.64	158.2
SECTION 59	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.51	---	6.13	49.15	307.2
STRUCTURE 60	ADDHYD	4.64	1	2	.08	.0	3.00	24.00	.61	---	7.03	715.09	154.1
SECTION 68	RUNOFF	.22	1	2	.08	.0	3.00	24.00	.33	---	6.37	21.13	96.0
SECTION 167	REACH	.22	1	2	.08	.0	3.00	24.00	.33	---	6.66	16.17	73.5
SECTION 67	RUNOFF	.27	1	2	.08	.0	3.00	24.00	.33	---	7.09	14.12	52.3
STRUCTURE 67	ADDHYD	.49	1	2	.08	.0	3.00	24.00	.33	---	6.82	27.89	56.9
SECTION 164	REACH	.49	1	2	.08	.0	3.00	24.00	.33	---	7.07	26.67	54.4
SECTION 64	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.30	---	6.78	13.94	55.8
STRUCTURE 64	ADDHYD	.74	1	2	.08	.0	3.00	24.00	.32	---	6.96	39.44	53.3
SECTION 159	REACH	.74	1	2	.08	.0	3.00	24.00	.32	---	7.24	36.93	49.9
STRUCTURE 60	ADDHYD	5.38	1	2	.08	.0	3.00	24.00	.57	---	7.04	749.94	139.4
SECTION 151	REACH	5.38	1	2	.08	.0	3.00	24.00	.57	---	7.25	700.57	130.2
SECTION 51	RUNOFF	.15	1	2	.08	.0	3.00	24.00	.30	---	6.20	18.06	120.4
STRUCTURE 51	ADDHYD	5.53	1	2	.08	.0	3.00	24.00	.56	---	7.25	703.84	127.3
SECTION 49	RUNOFF	.10	1	2	.08	.0	3.00	24.00	.19	---	6.19	5.53	55.3
STRUCTURE 51	ADDHYD	5.63	1	2	.08	.0	3.00	24.00	.56	---	7.25	705.23	125.3
SECTION 52	RUNOFF	.19	1	2	.08	.0	3.00	24.00	.19	---	6.39	7.03	37.0
STRUCTURE 51	ADDHYD	5.82	1	2	.08	.0	3.00	24.00	.54	---	7.25	708.50	121.7
SECTION 65	RUNOFF	.10	1	2	.08	.0	3.00	24.00	.51	---	6.41	16.71	167.1
SECTION 158	REACH	.10	1	2	.08	.0	3.00	24.00	.50	---	6.82	12.01	120.1
SECTION 58	RUNOFF	.17	1	2	.08	.0	3.00	24.00	1.51	---	6.13	178.46	1049.8
STRUCTURE 58	ADDHYD	.27	1	2	.08	.0	3.00	24.00	1.14	---	6.13	179.09	663.3
SECTION 152	REACH	.27	1	2	.08	.0	3.00	24.00	1.14	---	6.30	147.86	547.6
STRUCTURE 51	ADDHYD	6.09	1	2	.08	.0	3.00	24.00	.57	---	7.24	738.68	121.3
SECTION 62	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.19	---	6.50	8.41	33.6
SECTION 161	REACH	.25	1	2	.08	.0	3.00	24.00	.19	---	6.92	6.21	24.9

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	2										
XSECTION 61	RUNOFF	.13	1	2	.08	.0	3.00	24.00	.19	---	6.42	4.74	36.4
STRUCTURE 61	ADDHYD	.38	1	2	.08	.0	3.00	24.00	.19	---	6.75	9.45	24.9
XSECTION 150	REACH	.38	1	2	.08	.0	3.00	24.00	.19	---	7.22	8.32	21.9
XSECTION 50	RUNOFF	.13	1	2	.08	.0	3.00	24.00	.17	---	6.46	3.55	27.3
STRUCTURE 50	ADDHYD	.51	1	2	.08	.0	3.00	24.00	.19	---	7.10	10.44	20.5
XSECTION 149	REACH	.51	1	2	.08	.0	3.00	24.00	.19	---	7.52	9.63	18.9
STRUCTURE 51	ADDHYD	6.60	1	2	.08	.0	3.00	24.00	.54	---	7.24	747.85	113.3
XSECTION 148	REACH	6.60	1	2	.08	.0	3.00	24.00	.54	---	7.37	738.78	111.9
XSECTION 48	RUNOFF	.15	1	2	.08	.0	3.00	24.00	.19	---	6.12	11.00	73.3
STRUCTURE 48	ADDHYD	6.75	1	2	.08	.0	3.00	24.00	.53	---	7.37	740.47	109.7
XSECTION 141	REACH	6.75	1	2	.08	.0	3.00	24.00	.53	4.92	7.48	736.65	109.1
SECTION 41	RUNOFF	.11	1	2	.08	.0	3.00	24.00	.40	---	6.33	14.77	135.5
STRUCTURE 41	ADDHYD	6.86	1	2	.08	.0	3.00	24.00	.53	---	7.48	739.63	107.8
XSECTION 41	REACH	6.86	1	2	.08	.0	3.00	24.00	.53	4.68	7.59	737.03	107.5
XSECTION 141	RUNOFF	.04	1	2	.08	.0	3.00	24.00	.30	---	6.47	3.13	72.8
STRUCTURE 42	ADDHYD	6.90	1	2	.08	.0	3.00	24.00	.53	---	7.59	738.01	106.9
XSECTION 40	RUNOFF	.30	1	2	.08	.0	3.00	24.00	.40	---	6.36	38.49	128.3
STRUCTURE 42	ADDHYD	7.20	1	2	.08	.0	3.00	24.00	.52	---	7.58	745.85	103.6
XSECTION 139	RUNOFF	.15	1	2	.08	.0	3.00	24.00	.50	---	6.26	32.19	214.6
STRUCTURE 85	ADDHYD	7.35	1	2	.08	.0	3.00	24.00	.52	---	7.58	750.12	102.0
XSECTION 137	REACH	7.35	1	2	.08	.0	3.00	24.00	.52	3.53	7.69	747.32	101.6
XSECTION 137	RUNOFF	.13	1	2	.08	.0	3.00	24.00	.40	---	6.47	14.64	110.9
STRUCTURE 37	ADDHYD	7.48	1	2	.08	.0	3.00	24.00	.52	---	7.69	751.02	100.3
XSECTION 66	RUNOFF	.31	1	2	.08	.0	3.00	24.00	.25	---	6.54	15.12	48.8
XSECTION 157	REACH	.31	1	2	.08	.0	3.00	24.00	.25	---	6.78	13.57	43.8
XSECTION 57	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.33	---	6.28	18.11	113.2
STRUCTURE 57	ADDHYD	.47	1	2	.08	.0	3.00	24.00	.28	---	6.41	23.39	49.8
XSECTION 154	REACH	.47	1	2	.08	.0	3.00	24.00	.27	---	6.88	20.44	43.5
XSECTION 55	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.33	---	6.33	26.27	105.1
STRUCTURE 54	ADDHYD	.72	1	2	.08	.0	3.00	24.00	.29	---	6.42	38.48	53.4
XSECTION 56	RUNOFF	.15	1	2	.08	.0	3.00	24.00	.33	---	6.09	31.18	207.8
XSECTION 155	REACH	.15	1	2	.08	.0	3.00	24.00	.33	---	6.35	15.83	105.5
STRUCTURE 54	ADDHYD	.87	1	2	.08	.0	3.00	24.00	.30	---	6.40	53.92	62.0
SECTION 54	RUNOFF	.25	1	2	.08	.0	3.00	24.00	.33	---	6.15	40.73	162.9
STRUCTURE 54	ADDHYD	1.12	1	2	.08	.0	3.00	24.00	.31	---	6.27	77.70	69.4
XSECTION 153	REACH	1.12	1	2	.08	.0	3.00	24.00	.31	---	6.44	71.85	64.2

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	2										
XSECTION 53	RUNOFF	.17	1	2	.08	.0	3.00	24.00	.33	---			
STRUCTURE 53	ADDHYD	1.29	1	2	.08	.0	3.00	24.00	.31	---	6.21	23.44	137.9
XSECTION 147	REACH	1.29	1	2	.08	.0	3.00	24.00	.31	---	6.38	86.16	66.8
XSECTION 47	RUNOFF	.26	1	2	.08	.0	3.00	24.00	.31	---	6.58	80.36	62.3
STRUCTURE 47	ADDHYD	1.55	1	2	.08	.0	3.00	24.00	.33	---	6.23	33.57	129.1
XSECTION 142	REACH	1.55	1	2	.08	.0	3.00	24.00	.31	---	6.52	96.56	62.3
XSECTION 42	RUNOFF	.08	1	2	.08	.0	3.00	24.00	.31	---	6.72	91.95	59.3
STRUCTURE 43	ADDHYD	1.63	1	2	.08	.0	3.00	24.00	.27	---	6.15	9.85	124.7
XSECTION 42	REACH	1.63	1	2	.08	.0	3.00	24.00	.31	---	6.71	94.34	57.9
XSECTION 142	RUNOFF	.09	1	2	.08	.0	3.00	24.00	.31	1.73	6.97	86.81	53.3
STRUCTURE 43	ADDHYD	1.72	1	2	.08	.0	3.00	24.00	.02	---	16.18	.13	1.5
SECTION 45	RUNOFF	.24	1	2	.08	.0	3.00	24.00	.30	---	6.97	86.81	50.5
SECTION 46	RUNOFF	.23	1	2	.08	.0	3.00	24.00	.33	---	6.26	28.54	118.9
STRUCTURE 45	ADDHYD	.47	1	2	.08	.0	3.00	24.00	.33	---	6.25	28.18	122.5
XSECTION 143	REACH	.47	1	2	.08	.0	3.00	24.00	.33	---	6.25	56.70	120.6
XSECTION 143	RUNOFF	.09	1	2	.08	.0	3.00	24.00	.33	2.06	6.39	52.46	111.6
STRUCTURE 43	ADDHYD	.56	1	2	.08	.0	3.00	24.00	.02	---	11.62	.14	1.5
STRUCTURE 43	ADDHYD	2.28	1	2	.08	.0	3.00	24.00	.28	---	6.39	52.46	93.0
XSECTION 146	REACH	2.28	1	2	.08	.0	3.00	24.00	.29	---	6.85	108.30	47.5
XSECTION 146	RUNOFF	.10	1	2	.08	.0	3.00	24.00	.29	1.66	6.99	107.29	47.0
STRUCTURE 44	ADDHYD	2.39	1	2	.08	.0	3.00	24.00	.01	---	20.00	.08	.8
XSECTION 140	RUNOFF	.11	1	2	.08	.0	3.00	24.00	.28	---	6.99	107.29	44.9
STRUCTURE 44	ADDHYD	2.49	1	2	.08	.0	3.00	24.00	.36	---	6.64	8.78	82.0
SECTION 136	REACH	2.49	1	2	.08	.0	3.00	24.00	.28	---	6.96	114.18	45.8
SECTION 136	RUNOFF	.14	1	2	.08	.0	3.00	24.00	.28	1.62	7.06	113.94	45.7
STRUCTURE 37	ADDHYD	2.63	1	2	.08	.0	3.00	24.00	.00	---	.00	.00	.0
STRUCTURE 37	ADDHYD	10.12	1	2	.08	.0	3.00	24.00	.27	---	7.06	113.94	43.3
SECTION 129	REACH	10.12	1	2	.08	.0	3.00	24.00	.45	---	7.66	836.56	82.7
SECTION 27	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.45	---	7.86	809.97	80.1
STRUCTURE 29	ADDHYD	10.28	1	2	.08	.0	3.00	24.00	1.51	---	6.17	151.29	945.5
SECTION 38	RUNOFF	.32	1	2	.08	.0	3.00	24.00	.47	---	7.87	819.70	79.8
SECTION 128	REACH	.32	1	2	.08	.0	3.00	24.00	.55	---	6.27	74.38	232.4
SECTION 28	RUNOFF	.17	1	2	.08	.0	3.00	24.00	.55	---	6.39	72.03	225.1
STRUCTURE 28	ADDHYD	.49	1	2	.08	.0	3.00	24.00	1.07	---	6.13	126.38	743.4
SECTION 127	REACH	.49	1	2	.08	.0	3.00	24.00	.73	---	6.18	161.23	329.0
STRUCTURE 29	ADDHYD	10.77	1	2	.08	.0	3.00	24.00	.73	---	6.32	153.88	314.0
									.48	---	7.86	837.66	77.8

TR2D XEO 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE 11A (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 SUMMARY
PAGE 30

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 29	RUNOFF	.23	1	2	.08	.0	3.00	24.00	1.25	---			
STRUCTURE 29	ADDHYD	11.00	1	2	.08	.0	3.00	24.00	.50	---	6.13	197.12	857.0
XSECTION 184	REACH	11.00	1	2	.08	.0	3.00	24.00	.50	---	7.87	850.23	77.3
XSECTION 84	RUNOFF	.04	1	2	.08	.0	3.00	24.00	.50	---	7.95	849.93	77.3
STRUCTURE 30	ADDHYD	11.04	1	2	.08	.0	3.00	24.00	1.64	---	5.95	68.96	1723.9
						.0	3.00	24.00	.50	---	7.95	852.74	77.3
XSECTION 30	RUNOFF	.10	1	2	.08	.0	3.00	24.00	.91	---	6.25	45.60	456.0
STRUCTURE 30	ADDHYD	11.14	1	2	.08	.0	3.00	24.00	.50	---	7.95	857.16	77.0
XSECTION 31	RUNOFF	.21	1	2	.08	.0	3.00	24.00	.63	---	6.37	49.54	235.9
STRUCTURE 30	ADDHYD	11.35	1	2	.08	.0	3.00	24.00	.51	---	7.95	864.57	76.2
XSECTION 134	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.33	---	6.87	9.81	60.6
XSECTION 144	RUNOFF	.16	1	2	.08	.0	3.00	24.00	.30	---	6.76	8.85	56.4
XSECTION 145	RUNOFF	.26	1	2	.08	.0	3.00	24.00	.30	---	6.84	14.09	53.2
STRUCTURE 34	ADDHYD	.32	1	2	.08	.0	3.00	24.00	.32	---	6.82	18.58	58.2
STRUCTURE 35	ADDHYD	.58	1	2	.08	.0	3.00	24.00	.31	---	6.83	32.67	55.9
XSECTION 130	REACH	.58	1	2	.08	.0	3.00	24.00	.31	---	7.10	30.16	51.6
STRUCTURE 30	ADDHYD	11.93	1	2	.08	.0	3.00	24.00	.50	---	7.95	882.72	74.0
XSECTION 32	RUNOFF	.11	1	2	.08	.0	3.00	24.00	1.38	---	6.21	87.02	791.1
XSECTION 33	RUNOFF	.29	1	2	.08	.0	3.00	24.00	1.13	---	6.14	217.50	750.0
STRUCTURE 33	ADDHYD	.40	1	2	.08	.0	3.00	24.00	1.20	---	6.16	301.84	754.6
XSECTION 131	REACH	.40	1	2	.08	.0	3.00	24.00	1.20	---	6.32	257.77	644.4
STRUCTURE 99	ADDHYD	12.33	1	2	.08	.0	3.00	24.00	.52	---	7.95	903.72	73.3
ALTERNATE 1 STORM 3													
XSECTION 82	RUNOFF	.19	1	2	.08	.0	2.60	24.00	.40	---	6.06	62.46	328.8
XSECTION 174	REACH	.19	1	2	.08	.0	2.60	24.00	.40	---	6.17	48.84	257.1
XSECTION 74	RUNOFF	.18	1	2	.08	.0	2.60	24.00	.40	---	6.23	32.01	177.8
STRUCTURE 74	ADDHYD	.37	1	2	.08	.0	2.60	24.00	.40	---	6.18	79.75	215.5
SECTION 173	REACH	.37	1	2	.08	.0	2.60	24.00	.40	---	6.35	62.38	168.6
XSECTION 75	RUNOFF	.12	1	2	.08	.0	2.60	24.00	.40	---	6.38	15.90	132.5
STRUCTURE 75	ADDHYD	.49	1	2	.08	.0	2.60	24.00	.40	---	6.35	78.20	159.6
SECTION 73	RUNOFF	.12	1	2	.08	.0	2.60	24.00	.40	---	6.26	19.96	166.3
STRUCTURE 75	ADDHYD	.61	1	2	.08	.0	2.60	24.00	.40	---	6.34	96.64	158.4
XSECTION 81	RUNOFF	.39	1	2	.08	.0	2.60	24.00	.40	---	6.25	65.84	168.8
SECTION 175	REACH	.39	1	2	.08	.0	2.60	24.00	.40	---	6.47	50.17	128.6
STRUCTURE 75	ADDHYD	1.00	1	2	.08	.0	2.60	24.00	.40	---	6.38	141.69	141.7
SECTION 80	RUNOFF	.22	1	2	.08	.0	2.60	24.00	.40	---	6.17	45.93	208.8
XSECTION 176	REACH	.22	1	2	.08	.0	2.60	24.00	.40	---	6.39	29.51	134.1

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	3										
STRUCTURE 75	ADDHYD	1.22	1	2	.08	.0	2.60	24.00	.40				
SECTION 76	RUNOFF	.17	1	2	.08	.0	2.60	24.00	.40	---	6.38	171.15	140.3
STRUCTURE 75	ADDHYD	1.39	1	2	.08	.0	2.60	24.00	.40	---	6.37	22.78	134.0
XSECTION 172	REACH	1.39	1	2	.08	.0	2.60	24.00	.40	---	6.38	193.92	139.5
SECTION 88	RUNOFF	.10	1	2	.08	.0	2.60	24.00	.40	---	6.48	191.53	137.8
									.40	---	6.14	22.81	228.1
STRUCTURE 77	ADDHYD	1.49	1	2	.08	.0	2.60	24.00	.40	---	6.47	198.88	133.5
XSECTION 77	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.40	---	6.29	39.01	156.0
STRUCTURE 77	ADDHYD	1.74	1	2	.08	.0	2.60	24.00	.40	---	6.45	229.36	131.8
SECTION 79	RUNOFF	.29	1	2	.08	.0	2.60	24.00	.40	---	6.11	72.94	251.5
SECTION 178	REACH	.29	1	2	.08	.0	2.60	24.00	.40	---	6.35	53.81	185.6
XSECTION 78	RUNOFF	.88	1	2	.08	.0	2.60	24.00	.40	---	6.21	166.66	189.4
STRUCTURE 78	ADDHYD	1.17	1	2	.08	.0	2.60	24.00	.40	---	6.24	205.88	176.0
XSECTION 177	REACH	1.17	1	2	.08	.0	2.60	24.00	.40	---	6.40	180.13	154.0
STRUCTURE 77	ADDHYD	2.91	1	2	.08	.0	2.60	24.00	.40	---	6.42	408.45	140.4
XSECTION 171	REACH	2.91	1	2	.08	.0	2.60	24.00	.40	---	6.63	348.47	119.8
SECTION 71	RUNOFF	.36	1	2	.08	.0	2.60	24.00	.50	---	6.11	122.84	341.2
STRUCTURE 71	ADDHYD	3.27	1	2	.08	.0	2.60	24.00	.41	---	6.62	370.96	113.4
XSECTION 170	REACH	3.27	1	2	.08	.0	2.60	24.00	.41	---	6.75	360.64	110.3
XSECTION 70	RUNOFF	.31	1	2	.08	.0	2.60	24.00	.50	---	6.14	96.48	311.2
STRUCTURE 70	ADDHYD	3.58	1	2	.08	.0	2.60	24.00	.42	---	6.74	377.56	105.5
XSECTION 187	REACH	3.58	1	2	.08	.0	2.60	24.00	.42	---	6.84	375.82	105.0
XSECTION 87	RUNOFF	.04	1	2	.08	.0	2.60	24.00	.51	---	6.03	19.10	477.4
STRUCTURE 87	ADDHYD	3.62	1	2	.08	.0	2.60	24.00	.42	---	6.84	377.32	104.2
SECTION 72	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.50	---	6.07	99.92	399.7
SECTION 169	REACH	.25	1	2	.08	.0	2.60	24.00	.50	---	6.20	77.78	311.1
XSECTION 69	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.50	---	6.44	42.03	168.1
STRUCTURE 69	ADDHYD	.50	1	2	.08	.0	2.60	24.00	.50	---	6.23	108.44	216.9
SECTION 186	REACH	.50	1	2	.08	.0	2.60	24.00	.50	---	6.34	104.15	208.3
XSECTION 86	RUNOFF	.05	1	2	.08	.0	2.60	24.00	.50	---	6.15	15.02	300.4
STRUCTURE 87	ADDHYD	.55	1	2	.08	.0	2.60	24.00	.50	---	6.32	113.03	205.5
STRUCTURE 87	ADDHYD	4.17	1	2	.08	.0	2.60	24.00	.43	---	6.80	428.36	102.7
SECTION 163	REACH	4.17	1	2	.08	.0	2.60	24.00	.43	---	7.00	401.15	96.2
XSECTION 63	RUNOFF	.16	1	2	.08	.0	2.60	24.00	.37	---	6.20	26.94	168.4
STRUCTURE 63	ADDHYD	4.33	1	2	.08	.0	2.60	24.00	.43	---	7.00	406.57	93.9
SECTION 160	REACH	4.33	1	2	.08	.0	2.60	24.00	.42	---	7.20	386.55	89.3
XSECTION 60	RUNOFF	.15	1	2	.08	.0	2.60	24.00	.37	---	6.19	26.21	174.8

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	3										
STRUCTURE 60	ADDHYD	4.48	1	2	.08	.0	2.60	24.00	.42	---			
XSECTION 59	RUNOFF	.16	1	2	.08	.0	2.60	24.00	.34	---	7.20	390.68	87.2
STRUCTURE 60	ADDHYD	4.64	1	2	.08	.0	2.60	24.00	.42	---	6.15	28.76	179.7
XSECTION 68	RUNOFF	.22	1	2	.08	.0	2.60	24.00	.20	---	7.19	394.48	85.0
XSECTION 167	REACH	.22	1	2	.08	.0	2.60	24.00	.20	---	6.42	9.64	43.8
XSECTION 67	RUNOFF	.27	1	2	.08	.0	2.60	24.00	.20	---	6.78	6.91	31.4
STRUCTURE 67	ADDHYD	.49	1	2	.08	.0	2.60	24.00	.20	---	7.20	6.89	25.5
XSECTION 164	REACH	.49	1	2	.08	.0	2.60	24.00	.20	---	6.99	13.15	26.8
XSECTION 64	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.20	---	7.30	12.48	25.5
STRUCTURE 64	ADDHYD	.74	1	2	.08	.0	2.60	24.00	.18	---	6.88	6.27	25.1
XSECTION 159	REACH	.74	1	2	.08	.0	2.60	24.00	.19	---	7.14	17.84	24.1
STRUCTURE 60	ADDHYD	5.38	1	2	.08	.0	2.60	24.00	.39	---	7.54	16.62	22.5
XSECTION 151	REACH	5.38	1	2	.08	.0	2.60	24.00	.39	---	7.20	409.57	76.1
XSECTION 51	RUNOFF	.15	1	2	.08	.0	2.60	24.00	.18	---	7.47	380.42	70.7
STRUCTURE 51	ADDHYD	5.53	1	2	.08	.0	2.60	24.00	.38	---	6.23	7.52	50.1
XSECTION 49	RUNOFF	.10	1	2	.08	.0	2.60	24.00	.10	---	7.47	382.06	69.1
STRUCTURE 51	ADDHYD	5.63	1	2	.08	.0	2.60	24.00	.38	---	6.22	1.15	11.5
XSECTION 52	RUNOFF	.19	1	2	.08	.0	2.60	24.00	.10	---	7.47	382.65	68.0
STRUCTURE 51	ADDHYD	5.82	1	2	.08	.0	2.60	24.00	.37	---	6.72	1.82	9.6
XSECTION 65	RUNOFF	.10	1	2	.08	.0	2.60	24.00	.34	---	7.47	383.97	66.0
SECTION 158	REACH	.10	1	2	.08	.0	2.60	24.00	.34	---	6.43	9.60	96.0
XSECTION 58	RUNOFF	.17	1	2	.08	.0	2.60	24.00	.33	---	6.91	6.40	64.0
STRUCTURE 58	ADDHYD	.27	1	2	.08	.0	2.60	24.00	1.19	---	6.14	138.40	814.1
SECTION 152	REACH	.27	1	2	.08	.0	2.60	24.00	.87	---	6.14	138.62	513.4
STRUCTURE 51	ADDHYD	6.09	1	2	.08	.0	2.60	24.00	.87	---	6.32	110.52	409.3
XSECTION 62	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.39	---	7.45	401.37	65.9
XSECTION 161	REACH	.25	1	2	.08	.0	2.60	24.00	.10	---	6.72	2.32	9.3
SECTION 61	RUNOFF	.13	1	2	.08	.0	2.60	24.00	.10	---	7.47	1.83	7.3
STRUCTURE 61	ADDHYD	.38	1	2	.08	.0	2.60	24.00	.10	---	6.64	1.26	9.7
XSECTION 150	REACH	.38	1	2	.08	.0	2.60	24.00	.10	---	7.22	2.81	7.4
SECTION 50	RUNOFF	.13	1	2	.08	.0	2.60	24.00	.10	---	8.36	2.59	6.8
STRUCTURE 50	ADDHYD	.51	1	2	.08	.0	2.60	24.00	.09	---	6.89	.86	6.6
XSECTION 149	REACH	.51	1	2	.08	.0	2.60	24.00	.10	---	8.18	3.34	6.5
STRUCTURE 51	ADDHYD	6.60	1	2	.08	.0	2.60	24.00	.09	---	8.78	3.10	6.1
XSECTION 148	REACH	6.60	1	2	.08	.0	2.60	24.00	.37	---	7.45	403.20	61.1
SECTION 48	RUNOFF	.15	1	2	.08	.0	2.60	24.00	.37	---	7.61	397.89	60.3
										---	6.14	2.24	15.0

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	3										
STRUCTURE 48	ADDHYD	6.75	1	2	.08	.0	2.60	24.00	.36	---	7.61	398.83	59.1
XSECTION 141	REACH	6.75	1	2	.08	.0	2.60	24.00	.36	---	7.74	396.83	58.8
XSECTION 41	RUNOFF*	.11	1	2	.08	.0	2.60	24.00	.25	3.89	6.36	7.49	68.8
STRUCTURE 41	ADDHYD	6.86	1	2	.08	.0	2.60	24.00	.36	---	7.74	398.54	58.1
XSECTION 41	REACH	6.86	1	2	.08	.0	2.60	24.00	.36	---	7.85	397.10	57.9
XSECTION 141	RUNOFF*	.04	1	2	.08	.0	2.60	24.00	.18	3.60	6.56	1.34	31.2
STRUCTURE 42	ADDHYD	6.90	1	2	.08	.0	2.60	24.00	.36	---	7.85	397.62	57.6
XSECTION 40	RUNOFF*	.30	1	2	.08	.0	2.60	24.00	.25	---	6.39	19.68	65.6
STRUCTURE 42	ADDHYD	7.20	1	2	.08	.0	2.60	24.00	.35	---	7.85	402.41	55.9
XSECTION 139	RUNOFF*	.15	1	2	.08	.0	2.60	24.00	.34	---	6.28	18.40	122.6
STRUCTURE 85	ADDHYD	7.35	1	2	.08	.0	2.60	24.00	.35	---	7.85	405.37	55.1
SECTION 137	REACH	7.35	1	2	.08	.0	2.60	24.00	.35	2.53	7.97	403.91	54.9
XSECTION 137	RUNOFF*	.13	1	2	.08	.0	2.60	24.00	.25	---	6.51	7.54	57.2
STRUCTURE 37	ADDHYD	7.48	1	2	.08	.0	2.60	24.00	.35	---	7.97	406.11	54.3
XSECTION 66	RUNOFF	.31	1	2	.08	.0	2.60	24.00	.14	---	6.66	5.53	17.8
XSECTION 157	REACH	.31	1	2	.08	.0	2.60	24.00	.14	---	7.00	4.79	15.5
XSECTION 57	RUNOFF	.16	1	2	.08	.0	2.60	24.00	.20	---	6.31	8.16	51.0
STRUCTURE 57	ADDHYD	.47	1	2	.08	.0	2.60	24.00	.16	---	6.39	9.36	19.9
XSECTION 154	REACH	.47	1	2	.08	.0	2.60	24.00	.16	---	7.16	7.83	16.7
XSECTION 55	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.20	---	6.36	11.88	47.5
STRUCTURE 54	ADDHYD	.72	1	2	.08	.0	2.60	24.00	.17	---	6.45	16.02	22.2
XSECTION 56	RUNOFF	.15	1	2	.08	.0	2.60	24.00	.20	---	6.11	13.82	92.2
XSECTION 155	REACH	.15	1	2	.08	.0	2.60	24.00	.20	---	6.58	6.05	40.3
STRUCTURE 54	ADDHYD	.87	1	2	.08	.0	2.60	24.00	.18	---	6.51	21.71	25.0
SECTION 54	RUNOFF	.25	1	2	.08	.0	2.60	24.00	.20	---	6.17	18.40	73.6
STRUCTURE 54	ADDHYD	1.12	1	2	.08	.0	2.60	24.00	.18	---	6.47	29.49	26.3
XSECTION 153	REACH	1.12	1	2	.08	.0	2.60	24.00	.18	---	6.65	28.04	25.0
SECTION 53	RUNOFF	.17	1	2	.08	.0	2.60	24.00	.20	---	6.23	10.61	62.4
STRUCTURE 53	ADDHYD	1.29	1	2	.08	.0	2.60	24.00	.19	---	6.59	33.08	25.6
XSECTION 147	REACH	1.29	1	2	.08	.0	2.60	24.00	.19	---	6.82	31.28	24.3
SECTION 47	RUNOFF	.26	1	2	.08	.0	2.60	24.00	.20	---	6.25	15.11	58.1
STRUCTURE 47	ADDHYD	1.55	1	2	.08	.0	2.60	24.00	.19	---	6.73	37.75	24.4
SECTION 142	REACH	1.55	1	2	.08	.0	2.60	24.00	.19	---	6.99	36.00	23.2
XSECTION 42	RUNOFF*	.08	1	2	.08	.0	2.60	24.00	.16	---	6.17	3.68	46.6
STRUCTURE 43	ADDHYD	1.63	1	2	.08	.0	2.60	24.00	.19	---	6.99	37.09	22.8
SECTION 42	REACH	1.63	1	2	.08	.0	2.60	24.00	.19	1.13	7.32	34.86	21.4

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 142	RUNOFF *	.09	1	2	.08	.0	2.60	24.00	.00	---	20.09	.02	.3
STRUCTURE 43	ADDHYD	1.72	1	2	.08	.0	2.60	24.00	.18	---	7.32	34.86	20.3
XSECTION 45	RUNOFF *	.24	1	2	.08	.0	2.60	24.00	.20	---	6.29	12.72	53.0
XSECTION 46	RUNOFF *	.23	1	2	.08	.0	2.60	24.00	.20	---	6.28	12.56	54.6
STRUCTURE 45	ADDHYD	.47	1	2	.08	.0	2.60	24.00	.20	---	6.28	25.27	53.8
XSECTION 143	REACH	.47	1	2	.08	.0	2.60	24.00	.20	1.31	6.44	22.83	48.6
XSECTION 143	RUNOFF *	.09	1	2	.08	.0	2.60	24.00	.00	---	20.09	.02	.3
STRUCTURE 43	ADDHYD	.56	1	2	.08	.0	2.60	24.00	.17	---	6.44	22.83	40.5
STRUCTURE 43	ADDHYD	2.28	1	2	.08	.0	2.60	24.00	.17	---	7.19	43.81	19.2
XSECTION 146	REACH	2.28	1	2	.08	.0	2.60	24.00	.17	1.05	7.34	43.47	19.0
XSECTION 146	RUNOFF *	.10	1	2	.08	.0	2.60	24.00	.00	---	.00	.00	.0
STRUCTURE 44	ADDHYD	2.39	1	2	.08	.0	2.60	24.00	.17	---	7.34	43.47	18.2
XSECTION 140	RUNOFF *	.11	1	2	.08	.0	2.60	24.00	.23	---	6.70	4.36	40.8
STRUCTURE 44	ADDHYD	2.49	1	2	.08	.0	2.60	24.00	.17	---	7.30	46.23	18.5
XSECTION 136	REACH	2.49	1	2	.08	.0	2.60	24.00	.17	1.04	7.41	46.14	18.5
XSECTION 136	RUNOFF *	.14	1	2	.08	.0	2.60	24.00	.00	---	.00	.00	.0
STRUCTURE 37	ADDHYD	2.63	1	2	.08	.0	2.60	24.00	.16	---	7.41	46.14	17.5
STRUCTURE 37	ADDHYD	10.12	1	2	.08	.0	2.60	24.00	.30	---	7.95	446.39	44.1
XSECTION 129	REACH	10.12	1	2	.08	.0	2.60	24.00	.30	---	8.21	431.02	42.6
XSECTION 27	RUNOFF	.16	1	2	.08	.0	2.60	24.00	1.19	---	6.18	116.82	730.1
STRUCTURE 29	ADDHYD	10.28	1	2	.08	.0	2.60	24.00	.31	---	8.20	438.68	42.7
XSECTION 38	RUNOFF	.32	1	2	.08	.0	2.60	24.00	.37	---	6.29	44.10	137.8
XSECTION 128	REACH	.32	1	2	.08	.0	2.60	24.00	.37	---	6.42	41.97	131.2
XSECTION 28	RUNOFF	.17	1	2	.08	.0	2.60	24.00	.80	---	6.13	92.06	541.5
STRUCTURE 28	ADDHYD	.49	1	2	.08	.0	2.60	24.00	.52	---	6.18	109.29	223.0
XSECTION 127	REACH	.49	1	2	.08	.0	2.60	24.00	.52	---	6.32	101.10	206.3
STRUCTURE 29	ADDHYD	10.77	1	2	.08	.0	2.60	24.00	.32	---	8.19	452.31	42.0
XSECTION 29	RUNOFF	.23	1	2	.08	.0	2.60	24.00	.96	---	6.14	147.70	642.2
STRUCTURE 29	ADDHYD	11.00	1	2	.08	.0	2.60	24.00	.34	---	8.17	461.69	42.0
XSECTION 184	REACH	11.00	1	2	.08	.0	2.60	24.00	.33	---	8.27	461.04	41.9
XSECTION 84	RUNOFF	.04	1	2	.08	.0	2.60	24.00	1.31	---	5.95	55.54	1388.6
STRUCTURE 30	ADDHYD	11.04	1	2	.08	.0	2.60	24.00	.34	---	8.27	462.08	41.9
XSECTION 30	RUNOFF	.10	1	2	.08	.0	2.60	24.00	.66	---	6.26	31.64	316.4
STRUCTURE 30	ADDHYD	11.14	1	2	.08	.0	2.60	24.00	.34	---	8.27	465.18	41.8
XSECTION 31	RUNOFF	.21	1	2	.08	.0	2.60	24.00	.43	---	6.39	30.84	146.9
STRUCTURE 30	ADDHYD	11.35	1	2	.08	.0	2.60	24.00	.34	---	8.27	470.21	41.4

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 134	RUNOFF	.16	1	2	.08	.0	2.60	24.00	.20	---	6.95	4.72	29.1
XSECTION 144	RUNOFF	.16	1	2	.08	.0	2.60	24.00	.18	---	6.86	3.97	25.3
XSECTION 145	RUNOFF	.26	1	2	.08	.0	2.60	24.00	.18	---	6.95	6.35	24.0
STRUCTURE 34	ADDHYD	.32	1	2	.08	.0	2.60	24.00	.19	---	6.91	8.67	27.2
STRUCTURE 35	ADDHYD	.58	1	2	.08	.0	2.60	24.00	.18	---	6.92	15.00	25.7
XSECTION 130	REACH	.58	1	2	.08	.0	2.60	24.00	.18	---	7.25	13.48	23.1
STRUCTURE 30	ADDHYD	11.93	1	2	.08	.0	2.60	24.00	.34	---	8.26	479.20	40.2
XSECTION 32	RUNOFF	.11	1	2	.08	.0	2.60	24.00	1.07	---	6.22	65.98	599.8
XSECTION 33	RUNOFF	.29	1	2	.08	.0	2.60	24.00	.85	---	6.15	159.66	550.5
STRUCTURE 33	ADDHYD	.40	1	2	.08	.0	2.60	24.00	.91	---	6.16	223.45	558.6
XSECTION 131	REACH	.40	1	2	.08	.0	2.60	24.00	.91	---	6.34	184.97	462.4
STRUCTURE 99	ADDHYD	12.33	1	2	.08	.0	2.60	24.00	.35	---	6.32	592.86	48.1
ALTERNATE 1 STORM 4													
XSECTION 82	RUNOFF	.19	1	2	.08	.0	2.00	24.00	.17	---	6.07	20.05	105.5
XSECTION 174	REACH	.19	1	2	.08	.0	2.00	24.00	.17	---	6.22	12.08	63.6
XSECTION 74	RUNOFF	.18	1	2	.08	.0	2.00	24.00	.17	---	6.27	9.43	52.4
STRUCTURE 74	ADDHYD	.37	1	2	.08	.0	2.00	24.00	.17	---	6.24	21.34	57.7
XSECTION 173	REACH	.37	1	2	.08	.0	2.00	24.00	.17	---	6.48	14.81	40.0
SECTION 75	RUNOFF	.12	1	2	.08	.0	2.00	24.00	.17	---	6.44	4.72	39.4
STRUCTURE 75	ADDHYD	.49	1	2	.08	.0	2.00	24.00	.17	---	6.47	19.51	39.8
XSECTION 73	RUNOFF	.12	1	2	.08	.0	2.00	24.00	.17	---	6.30	5.81	48.4
STRUCTURE 75	ADDHYD	.61	1	2	.08	.0	2.00	24.00	.17	---	6.43	24.52	40.2
SECTION 81	RUNOFF	.39	1	2	.08	.0	2.00	24.00	.17	---	6.30	19.33	49.6
XSECTION 175	REACH	.39	1	2	.08	.0	2.00	24.00	.17	---	6.68	12.75	32.7
STRUCTURE 75	ADDHYD	1.00	1	2	.08	.0	2.00	24.00	.17	---	6.53	34.83	34.8
XSECTION 80	RUNOFF	.22	1	2	.08	.0	2.00	24.00	.17	---	6.21	13.39	60.9
SECTION 176	REACH	.22	1	2	.08	.0	2.00	24.00	.17	---	6.60	7.05	32.0
STRUCTURE 75	ADDHYD	1.22	1	2	.08	.0	2.00	24.00	.17	---	6.54	41.80	34.3
XSECTION 76	RUNOFF	.17	1	2	.08	.0	2.00	24.00	.17	---	6.43	6.79	40.0
STRUCTURE 75	ADDHYD	1.39	1	2	.08	.0	2.00	24.00	.17	---	6.52	48.22	34.7
SECTION 172	REACH	1.39	1	2	.08	.0	2.00	24.00	.17	---	6.67	46.83	33.7
XSECTION 88	RUNOFF	.10	1	2	.08	.0	2.00	24.00	.17	---	6.17	6.83	68.3
STRUCTURE 77	ADDHYD	1.49	1	2	.08	.0	2.00	24.00	.17	---	6.66	49.03	32.9
SECTION 77	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.17	---	6.33	11.56	46.2
STRUCTURE 77	ADDHYD	1.74	1	2	.08	.0	2.00	24.00	.17	---	6.63	56.45	32.4
XSECTION 79	RUNOFF	.29	1	2	.08	.0	2.00	24.00	.17	---	6.14	22.44	77.4

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 178	REACH	.29	1	2	.08	.0	2.00	24.00	.17	---	6.42	13.08	45.1
XSECTION 78	RUNOFF	.88	1	2	.08	.0	2.00	24.00	.17	---	6.24	49.42	56.2
STRUCTURE 78	ADDHYD	1.17	1	2	.08	.0	2.00	24.00	.17	---	6.28	57.29	49.0
XSECTION 177	REACH	1.17	1	2	.08	.0	2.00	24.00	.17	---	6.50	45.06	38.5
STRUCTURE 77	ADDHYD	2.91	1	2	.08	.0	2.00	24.00	.17	---	6.57	99.88	34.3
XSECTION 171	REACH	2.91	1	2	.08	.0	2.00	24.00	.17	---	6.93	82.12	28.2
XSECTION 71	RUNOFF	.36	1	2	.08	.0	2.00	24.00	.24	---	6.13	47.63	132.3
STRUCTURE 71	ADDHYD	3.27	1	2	.08	.0	2.00	24.00	.18	---	6.91	89.53	27.4
XSECTION 170	REACH	3.27	1	2	.08	.0	2.00	24.00	.18	---	7.12	86.65	26.5
XSECTION 70	RUNOFF	.31	1	2	.08	.0	2.00	24.00	.24	---	6.16	36.78	118.7
STRUCTURE 70	ADDHYD	3.58	1	2	.08	.0	2.00	24.00	.18	---	7.10	92.69	25.9
XSECTION 187	REACH	3.58	1	2	.08	.0	2.00	24.00	.18	---	7.23	91.83	25.7
XSECTION 87	RUNOFF	.04	1	2	.08	.0	2.00	24.00	.24	---	6.04	8.08	201.9
STRUCTURE 87	ADDHYD	3.62	1	2	.08	.0	2.00	24.00	.18	---	7.23	92.34	25.5
XSECTION 72	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.24	---	6.08	39.32	157.3
XSECTION 169	REACH	.25	1	2	.08	.0	2.00	24.00	.24	---	6.24	25.89	103.6
XSECTION 69	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.24	---	6.49	15.69	62.8
STRUCTURE 69	ADDHYD	.50	1	2	.08	.0	2.00	24.00	.24	---	6.28	36.73	73.5
XSECTION 186	REACH	.50	1	2	.08	.0	2.00	24.00	.24	---	6.44	34.09	68.2
XSECTION 86	RUNOFF	.05	1	2	.08	.0	2.00	24.00	.24	---	6.17	5.69	113.8
STRUCTURE 87	ADDHYD	.55	1	2	.08	.0	2.00	24.00	.24	---	6.42	36.96	67.2
STRUCTURE 87	ADDHYD	4.17	1	2	.08	.0	2.00	24.00	.19	---	7.16	107.19	25.7
XSECTION 163	REACH	4.17	1	2	.08	.0	2.00	24.00	.19	---	7.44	101.36	24.3
XSECTION 63	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.15	---	6.25	7.18	44.9
STRUCTURE 63	ADDHYD	4.33	1	2	.08	.0	2.00	24.00	.19	---	7.43	102.92	23.8
XSECTION 160	REACH	4.33	1	2	.08	.0	2.00	24.00	.19	---	7.77	97.79	22.6
XSECTION 60	RUNOFF	.15	1	2	.08	.0	2.00	24.00	.15	---	6.23	7.02	46.8
STRUCTURE 60	ADDHYD	4.48	1	2	.08	.0	2.00	24.00	.19	---	7.78	99.25	22.2
XSECTION 59	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.13	---	6.18	6.71	42.0
STRUCTURE 60	ADDHYD	4.64	1	2	.08	.0	2.00	24.00	.19	---	7.79	100.69	21.7
XSECTION 68	RUNOFF	.22	1	2	.08	.0	2.00	24.00	.06	---	7.05	.95	4.3
XSECTION 167	REACH	.22	1	2	.08	.0	2.00	24.00	.06	---	8.38	.80	3.6
XSECTION 67	RUNOFF	.27	1	2	.08	.0	2.00	24.00	.06	---	8.47	1.01	3.7
STRUCTURE 67	ADDHYD	.49	1	2	.08	.0	2.00	24.00	.06	---	8.47	1.80	3.7
XSECTION 164	REACH	.49	1	2	.08	.0	2.00	24.00	.06	---	8.88	1.72	3.5
XSECTION 64	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.05	---	8.38	.73	2.9

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 4													
STRUCTURE 64	ADDHYD	.74	1	2	.08	.0	2.00	24.00	.06	---	8.63	2.38	3.2
XSECTION 159	REACH	.74	1	2	.08	.0	2.00	24.00	.05	---	9.38	2.17	2.9
STRUCTURE 60	ADDHYD	5.38	1	2	.08	.0	2.00	24.00	.17	---	7.80	101.77	18.9
XSECTION 151	REACH	5.38	1	2	.08	.0	2.00	24.00	.17	---	8.26	94.42	17.6
XSECTION 51	RUNOFF	.15	1	2	.08	.0	2.00	24.00	.05	---	11.54	.52	3.5
STRUCTURE 51	ADDHYD	5.53	1	2	.08	.0	2.00	24.00	.16	---	8.25	94.85	17.2
XSECTION 49	RUNOFF	.10	1	2	.08	.0	2.00	24.00	.02	---	11.54	.11	1.1
STRUCTURE 51	ADDHYD	5.63	1	2	.08	.0	2.00	24.00	.16	---	8.25	94.85	16.8
XSECTION 52	RUNOFF	.19	1	2	.08	.0	2.00	24.00	.02	---	16.10	.18	.9
STRUCTURE 51	ADDHYD	5.62	1	2	.08	.0	2.00	24.00	.16	---	8.25	94.85	16.3
XSECTION 65	RUNOFF	.10	1	2	.08	.0	2.00	24.00	.13	---	6.53	2.32	23.2
SECTION 158	REACH	.10	1	2	.08	.0	2.00	24.00	.13	---	7.39	1.35	13.5
XSECTION 58	RUNOFF	.17	1	2	.08	.0	2.00	24.00	.74	---	6.15	82.84	487.3
STRUCTURE 58	ADDHYD	.27	1	2	.08	.0	2.00	24.00	.52	---	6.15	82.84	306.8
XSECTION 152	REACH	.27	1	2	.08	.0	2.00	24.00	.52	---	6.43	60.88	225.5
STRUCTURE 51	ADDHYD	6.09	1	2	.08	.0	2.00	24.00	.17	---	8.24	101.96	16.7
XSECTION 62	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.02	---	16.18	.23	.9
XSECTION 161	REACH	.25	1	2	.08	.0	2.00	24.00	.01	---	20.17?	.22?	.9
XSECTION 61	RUNOFF	.13	1	2	.08	.0	2.00	24.00	.02	---	16.18	.12	.9
STRUCTURE 61	ADDHYD	.38	1	2	.08	.0	2.00	24.00	.01	---	20.09	.34	.9
XSECTION 150	REACH	.38	1	2	.08	.0	2.00	24.00	.01	---	21.16?	.31?	.8
XSECTION 50	RUNOFF	.13	1	2	.08	.0	2.00	24.00	.01	---	20.00	.09	.7
STRUCTURE 50	ADDHYD	.51	1	2	.08	.0	2.00	24.00	.01	---	20.09	.39	.8
XSECTION 149	REACH	.51	1	2	.08	.0	2.00	24.00	.01	---	21.33?	.36?	.7
STRUCTURE 51	ADDHYD	6.60	1	2	.08	.0	2.00	24.00	.16	---	8.24	101.96	15.4
XSECTION 148	REACH	6.60	1	2	.08	.0	2.00	24.00	.16	---	8.47	100.47	15.2
XSECTION 48	RUNOFF	.15	1	2	.08	.0	2.00	24.00	.02	---	11.54	.17	1.1
STRUCTURE 48	ADDHYD	6.75	1	2	.08	.0	2.00	24.00	.16	---	8.47	100.49	14.9
XSECTION 141	REACH	6.75	1	2	.08	.0	2.00	24.00	.15	2.10	8.63	100.07	14.8
XSECTION 41	RUNOFF	.11	1	2	.08	.0	2.00	24.00	.09	---	6.56	1.04	9.6
STRUCTURE 41	ADDHYD	6.86	1	2	.08	.0	2.00	24.00	.15	---	8.62	100.50	14.7
SECTION 41	REACH	6.86	1	2	.08	.0	2.00	24.00	.15	1.86	8.76	100.19	14.6
XSECTION 141	RUNOFF	.04	1	2	.08	.0	2.00	24.00	.05	---	8.22	.13	3.1
STRUCTURE 42	ADDHYD	6.90	1	2	.08	.0	2.00	24.00	.15	---	8.76	100.29	14.5
SECTION 40	RUNOFF	.30	1	2	.08	.0	2.00	24.00	.09	---	6.59	2.82	9.4
STRUCTURE 42	ADDHYD	7.20	1	2	.08	.0	2.00	24.00	.15	---	8.75	101.43	14.1

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 SUMMARY
PAGE 38

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 4													
XSECTION 139	RUNOFF	.15	1	2	.08	.0	2.00	24.00	.13	---	6.35	4.34	28.9
STRUCTURE 85	ADDHYD	7.35	1	2	.08	.0	2.00	24.00	.15	---	8.75	102.22	13.9
XSECTION 137	REACH	7.35	1	2	.08	.0	2.00	24.00	.15	1.16	8.90	101.88	13.9
XSECTION 137	RUNOFF	.13	1	2	.08	.0	2.00	24.00	.09	---	6.72	1.17	8.9
STRUCTURE 37	ADDHYD	7.48	1	2	.08	.0	2.00	24.00	.15	---	8.90	102.39	13.7
XSECTION 66	RUNOFF	.31	1	2	.08	.0	2.00	24.00	.03	---	11.79	.55	1.8
XSECTION 157	REACH	.31	1	2	.08	.0	2.00	24.00	.03	---	12.95	.44	1.4
XSECTION 57	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.06	---	7.14	.70	4.4
STRUCTURE 57	ADDHYD	.47	1	2	.08	.0	2.00	24.00	.04	---	11.70	.94	2.0
XSECTION 154	REACH	.47	1	2	.08	.0	2.00	24.00	.04	---	12.95	.80	1.7
XSECTION 55	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.06	---	7.05	1.09	4.4
STRUCTURE 54	ADDHYD	.72	1	2	.08	.0	2.00	24.00	.05	---	8.13	1.65	2.3
XSECTION 56	RUNOFF	.15	1	2	.08	.0	2.00	24.00	.06	---	6.56	.78	5.2
XSECTION 155	REACH	.15	1	2	.08	.0	2.00	24.00	.06	---	8.22	.54	3.6
STRUCTURE 54	ADDHYD	.87	1	2	.08	.0	2.00	24.00	.05	---	8.13	2.18	2.5
XSECTION 54	RUNOFF	.25	1	2	.08	.0	2.00	24.00	.06	---	6.64	1.21	4.9
STRUCTURE 54	ADDHYD	1.12	1	2	.08	.0	2.00	24.00	.05	---	8.05	3.26	2.9
XSECTION 153	REACH	1.12	1	2	.08	.0	2.00	24.00	.05	---	8.38	3.04	2.7
XSECTION 53	RUNOFF	.17	1	2	.08	.0	2.00	24.00	.06	---	6.72	.79	4.6
STRUCTURE 53	ADDHYD	1.29	1	2	.08	.0	2.00	24.00	.05	---	8.22	3.64	2.8
XSECTION 147	REACH	1.29	1	2	.08	.0	2.00	24.00	.05	---	8.61	3.45	2.7
XSECTION 47	RUNOFF	.26	1	2	.08	.0	2.00	24.00	.06	---	6.72	1.18	4.5
STRUCTURE 47	ADDHYD	1.55	1	2	.08	.0	2.00	24.00	.05	---	8.16	4.31	2.8
XSECTION 142	REACH	1.55	1	2	.08	.0	2.00	24.00	.05	---	8.80	4.04	2.6
XSECTION 42	RUNOFF	.08	1	2	.08	.0	2.00	24.00	.04	---	11.54	.24	3.0
STRUCTURE 43	ADDHYD	1.63	1	2	.08	.0	2.00	24.00	.05	---	8.88	4.16	2.6
XSECTION 42	REACH	1.63	1	2	.08	.0	2.00	24.00	.05	.17	9.46	4.04	2.5
XSECTION 142	RUNOFF	.09	1	2	.08	.0	2.00	24.00	.00	---	.00	.00	.0
STRUCTURE 43	ADDHYD	1.72	1	2	.08	.0	2.00	24.00	.05	---	9.46	4.04	2.3
XSECTION 45	RUNOFF	.24	1	2	.08	.0	2.00	24.00	.06	---	6.81	1.06	4.4
SECTION 46	RUNOFF	.23	1	2	.08	.0	2.00	24.00	.06	---	6.72	1.03	4.5
STRUCTURE 45	ADDHYD	.47	1	2	.08	.0	2.00	24.00	.06	---	6.81	2.09	4.5
XSECTION 143	REACH	.47	1	2	.08	.0	2.00	24.00	.06	.16	7.22	2.04	4.3
XSECTION 143	RUNOFF	.09	1	2	.08	.0	2.00	24.00	.00	---	.00	.00	.0
STRUCTURE 43	ADDHYD	.56	1	2	.08	.0	2.00	24.00	.05	---	7.22	2.04	3.6
STRUCTURE 43	ADDHYD	2.28	1	2	.08	.0	2.00	24.00	.05	---	8.38	5.22	2.3

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	4										
XSECTION 146	REACH	2.28	1	2	.08	.0	2.00	24.00	.05	.14	9.79	5.19	2.3
STRUCTURE 146	RUNOFF	.10	1	2	.08	.0	2.00	24.00	.00	---	.00	.00	.0
STRUCTURE 44	ADDHYD	2.39	1	2	.08	.0	2.00	24.00	.05	---	9.79	5.19	2.2
XSECTION 140	RUNOFF	.11	1	2	.08	.0	2.00	24.00	.07	---	7.22	.61	5.7
STRUCTURE 44	ADDHYD	2.49	1	2	.08	.0	2.00	24.00	.05	---	8.71	5.53	2.2
XSECTION 136	REACH	2.49	1	2	.08	.0	2.00	24.00	.05	.23	9.96	5.51	2.2
XSECTION 136	RUNOFF	.14	1	2	.08	.0	2.00	24.00	.00	---	.00	.00	.0
STRUCTURE 37	ADDHYD	2.63	1	2	.08	.0	2.00	24.00	.04	---	9.96	5.51	2.1
STRUCTURE 37	ADDHYD	10.12	1	2	.08	.0	2.00	24.00	.12	---	8.90	107.88	10.7
XSECTION 129	REACH	10.12	1	2	.08	.0	2.00	24.00	.12	---	9.32	103.79	10.3
XSECTION 27	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.74	---	6.19	69.10	431.9
STRUCTURE 29	ADDHYD	10.28	1	2	.08	.0	2.00	24.00	.13	---	9.32	106.47	10.4
XSECTION 38	RUNOFF	.32	1	2	.08	.0	2.00	24.00	.15	---	6.34	11.71	36.6
XSECTION 128	REACH	.32	1	2	.08	.0	2.00	24.00	.15	---	6.52	10.47	32.7
XSECTION 28	RUNOFF	.17	1	2	.08	.0	2.00	24.00	.45	---	6.15	47.10	277.1
STRUCTURE 28	ADDHYD	.49	1	2	.08	.0	2.00	24.00	.26	---	6.16	49.44	100.9
XSECTION 127	REACH	.49	1	2	.08	.0	2.00	24.00	.26	---	6.32	42.36	86.5
STRUCTURE 29	ADDHYD	10.77	1	2	.08	.0	2.00	24.00	.14	---	9.31	110.31	10.2
XSECTION 29	RUNOFF	.23	1	2	.08	.0	2.00	24.00	.56	---	6.15	81.38	353.8
STRUCTURE 29	ADDHYD	11.00	1	2	.08	.0	2.00	24.00	.14	---	6.20	182.71	16.6
XSECTION 184	REACH	11.00	1	2	.08	.0	2.00	24.00	.14	---	6.32	173.70	15.8
XSECTION 84	RUNOFF	.04	1	2	.08	.0	2.00	24.00	.84	---	5.95	36.10	902.4
STRUCTURE 30	ADDHYD	11.04	1	2	.08	.0	2.00	24.00	.15	---	6.32	177.05	16.0
XSECTION 30	RUNOFF	.10	1	2	.08	.0	2.00	24.00	.35	---	6.29	14.23	142.3
STRUCTURE 30	ADDHYD	11.14	1	2	.08	.0	2.00	24.00	.15	---	6.32	191.18	17.2
XSECTION 31	RUNOFF	.21	1	2	.08	.0	2.00	24.00	.19	---	6.44	9.97	47.5
STRUCTURE 30	ADDHYD	11.35	1	2	.08	.0	2.00	24.00	.15	---	6.32	200.39	17.7
XSECTION 134	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.06	---	8.38	.62	3.8
XSECTION 144	RUNOFF	.16	1	2	.08	.0	2.00	24.00	.05	---	8.38	.46	2.9
XSECTION 145	RUNOFF	.26	1	2	.08	.0	2.00	24.00	.05	---	8.38	.76	2.9
STRUCTURE 34	ADDHYD	.32	1	2	.08	.0	2.00	24.00	.05	---	8.38	1.08	3.4
STRUCTURE 35	ADDHYD	.58	1	2	.08	.0	2.00	24.00	.05	---	8.38	1.84	3.2
XSECTION 130	REACH	.58	1	2	.08	.0	2.00	24.00	.05	---	8.96	1.67	2.9
STRUCTURE 30	ADDHYD	11.93	1	2	.08	.0	2.00	24.00	.14	---	6.32	200.39	16.8
XSECTION 32	RUNOFF	.11	1	2	.08	.0	2.00	24.00	.65	---	6.23	37.52	341.1
XSECTION 33	RUNOFF	.29	1	2	.08	.0	2.00	24.00	.48	---	6.16	83.45	287.7

TR20 XEQ 11/25/97
REV 09/01/83

RIDGEVIEW MDDP EXISTING (WOODMAN TO BARNES) RV_EX.DAT
24HR TYPE IIA (AMC 2) STORMS 1 THRU 4 = 100,10,5,2-YR 11/97

JOB 1 SUMMARY
PAGE 40

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

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 4													
STRUCTURE 33	ADDHYD	.40	1	2	.08	.0	2.00	24.00	.53	---	6.18	119.55	298.9
SECTION 131	REACH	.40	1	2	.08	.0	2.00	24.00	.53	---	6.38	91.40	228.5
STRUCTURE 99	ADDHYD	12.33	1	2	.08	.0	2.00	24.00	.16	---	6.34	290.52	23.6

URS Greiner

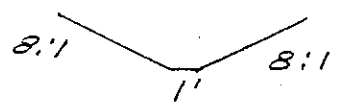
Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271
 Computed By LJM
 Checked By _____

Sheet _____ of _____
 Date 11/97
 Date _____

REACH
 AREA 145 THRU AREA 135

$L = 3485'$
 $S = 0.02697' \approx 0.027'$
 $n = 0.06$



d	A	WP	R	Q
0.25	0.75	5.03	0.149	0.86
0.5	2.5	9.062	0.276	4.32
1.0	9.0	17.125	0.526	23.93
2.0	34	33.249	1.026	141.13
3.0	75	49.374	1.519	404.46

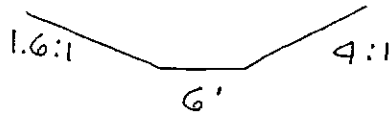
URS Greiner

Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271 Sheet _____ of _____
 Computed By LJM Date 11/97
 Checked By _____ Date _____

REACH 41
 AREA 41 THRU AREA 141
 AVG. SECTION:

$L = 2415$
 $S = 0.0121'$
 $n = 0.04$



D	A	WP	R	Q
0.5	3.7	9.00	0.411	8.34
1	8.8	12.01	0.733	29.19
2	23.2	18.02	1.287	112.02
3	43.2	24.03	1.798	260.7
4	68.8	30.04	2.29	487.88
6	136.8	42.06	3.25	1225.26
8	227.2	54.08	4.201	2414.91
10	340.0	66.1	5.144	4136.51

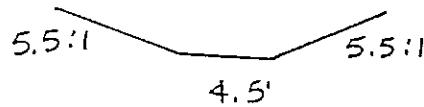
URS Greiner

Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271 Sheet _____ of _____
 Computed By LJM Date 11/97
 Checked By _____ Date _____

REACH 42
 AREA 42 THRU AREA 142
 AVG. SECTION:

$L = 3300$
 AVG. $S = 0.0169'$
 $n = 0.06$



d	A	WP	R	Q
1	10	15.68	0.638	23.92
2	31	26.86	1.154	110.11
3	63	38.04	1.656	284.73
4	106	49.22	2.154	570.9

URS Greiner

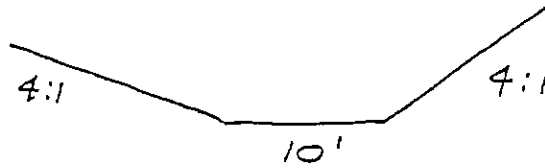
Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271
 Computed By LJM
 Checked By _____

Sheet _____ of _____
 Date 11/97
 Date _____

REACH 136
 AREA 146 THRU AREA 136

$L = 1215'$
 $S = 0.0206'/'$
 $n = 0.06$



d	A	WP	R	Q
0.5	6	14.123	0.425	12.09
1	14	18.246	0.767	41.81
2	36	26.492	1.359	157.44
3	66	34.739	1.9	360.95
4	104	42.985	2.419	668.17

URS Greiner

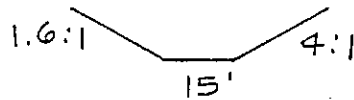
Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271
 Computed By LJM
 Checked By _____

Sheet _____ of _____
 Date 11/97
 Date _____

REACH 137
 AREA 139 THRU AREA 137

$L = 2785'$
 $S = 0.0154'/'$
 $n = 0.04$



d	A	WP	R	Q
0.5	8.2	18.0	0.456	22.45
1	17.8	21.01	0.847	73.66
2	41.2	27.02	1.525	252.36
3	70.2	33.03	2.125	536.5
4	104.8	39.04	2.684	935.94
6	190.8	51.06	3.737	2124.9
8	299.2	63.08	4.743	3906.39
10	430.0	75.1	5.726	6365.64

URS Greiner

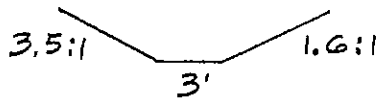
Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271
 Computed By LJM
 Checked By _____

Sheet _____ of _____
 Date 11/97
 Date _____

REACH 141
 AREA 48 THRU AREA 41
 AVG. SECTION:

$L = 3100'$
 $S = 0.0168'$
 $n = 0.04$



d	A	WP	R	Q
0.5	2.138	5.763	0.371	5.328
1	5.55	8.527	0.651	20.12
2	16.2	13.858	1.169	86.8
3	31.95	19.581	1.632	213.86
4	52.8	25.107	2.103	418.55
6	109.8	36.161	3.036	1111.93
8	187.2	47.215	3.965	2265.24
10	285	58.269	4.891	3966.93

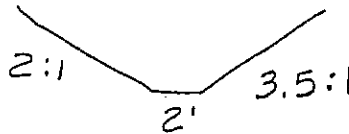
URS Greiner

Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271 Sheet _____ of _____
 Computed By LJM Date 11/97
 Checked By _____ Date _____

REACH 143
 AREAS 45,60 THRU AREA 143
 AVG. SECTION:

$L = 1550'$
 $S = 35'/1550' = 0.0226'$
 $n = 0.06$



d	A	WP	R	Q
0.5				
1	4.75	7.876	0.603	12.65
2	13.0	14.298	0.909	45.54
3	30.75	19.628	1.567	154.9
4	52.0	25.504	2.039	312.23

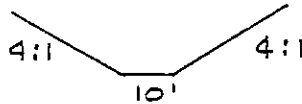
URS Greiner

Job STETSON HILLS
 Description EXISTING CONDITION
HYDROLOGY

Project No. 6742271 Sheet _____ of _____
 Computed By LJM Date 11/97
 Checked By _____ Date _____

REACH 146
 AREA 143 THRU AREA 146
 AVG. SECTION

$L = 1770'$
 $S = 0.0171'$
 $n = 0.06$



d	A	WP	R	Q
1	14	18.246	0.767	37.98
2	36	26.492	1.359	143.03
3	66	34.739	1.9	327.89
4	104	42.985	2.419	606.98

APPENDIX B
Developed Condition TR-20 Model

RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
REVISED TR20 INPUT PARAMETERS - RIDGEVIEW MDDP
URSG Project No. 6742271

08/19/98

ROUTING

	144			
101 (100A)**	V			
V V	134	135	143	
102	V	V	145	
V	184 186	185 35	136	
DP2	V V	V V	V	
	DP4	DP35	TRIB TO MAIN CHANNEL	

NOTE: Basin 100A (783,732sf OFFICE) is NOT tributary to DP2 in scenario 1, but it is in scenario 2.

INPUT DATA SUMMARY: RV_REVC2.DAT

BASIN	AREA (sq ft)	AREA (Ac)	AREA (sq.mi.)	Avg RCN	Tc (hr)
100A	783732	17.99	0.028	88	0.41
101	2983051.65	68.48	0.107	86	0.58
102	3336659.59	76.60	0.120	89	0.33
134	2971030.53	68.21	0.107	77	0.50
135	2441680.25	56.05	0.088	75	0.42
136	5965056	136.94	0.214	82	0.46
35	892816	20.50	0.032	85	0.44
143	3698550	84.91	0.133	83	0.38
144	2852540	122.45	0.191	85	0.47
145	1503911.24	34.53	0.054	85	0.41
184	375027	8.61	0.013	88	0.23
185	1629826	37.42	0.058	82	0.42
186	257584	5.91	0.009	92	0.21

RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
REVISED TR20 INPUT PARAMETERS - RIDGEVIEW MDDP
URSG Project No. 6742271

08/19/98

LAND USES: Avg RCN

BASIN	TOTAL AREA (sf)	LAND USE (B SOILS FOR ALL DISTURBED AREAS)								AVG RCN
		COMM 92	OFF 88	MF 88	1/8-Ac 85	1/4-Ac 75	PARK 65	SCHOOL 69	OPEN 61	
100A	783,732		783,732							88
101	2,983,052		527,166	922,680	1,406,521		108,900			86
102	3,336,660	622,601	1,345,476	1,072,537	273,396					89
134	2,971,031			389,164		2,568,641				77
135	2,441,680					2,441,680				75
136	5,965,056				4,760,168				653,400	82
35	892,816				1,444,304					85
143	3,698,550				3,127,957			560,776		83
144	2,852,540			767,469	1,901,047		108,900			85
145	1,503,911				1,503,911					85
184	375,027			375,027						88
185	1,629,826				1,373,037		256,789			82
186	257,584	257,584								92

TIME OF CONCENTRATION - REVISED FOR RV_REVC2.DAT

BASIN	FROM TR-55 CALC SHEETS		
	LENGTH (ft)	SLOPE	Tc (hr)
100A	1750	1.20%	0.41
101	3700	1.80%	0.58
102	3275	2.20%	0.33
134	2800	2.00%	0.50
135	2000	2.50%	0.42
136	4000	3.00%	0.46
35	2500	2.40%	0.44
143	3200	4.00%	0.38
144	2800	2.30%	0.47
145	1700	2.30%	0.41
184	1200	2.70%	0.23
185	1800	2.30%	0.42
186	875	1.90%	0.21

TABLE 6
TR-20 Output Summary
(Based On Revised Road Grid 6/26/98)

BASIN	APR 16 MDDP (RV_REVB4.dat)				AUG MDDP (RV_REVC2.dat)			
	AREA	RCN	Q ₅	Q ₁₀₀	AREA	RCN	Q ₅	Q ₁₀₀
45	0.240	86	209	504	0.240	86	209	504
46	0.230	75	75	256	0.230	75	75	256
* 101B (100)	N/A	N/A	N/A	N/A	0.028	88	26	59
101	0.089	85	150	179	0.089	85	72	179
* 102	0.094	88	122	215	0.094	88	94	215
* 134	0.093	77	38	119	0.107	77	40	126
* 135	0.083	73	25	92	0.088	75	29	101
* 35	N/A	N/A	N/A	N/A	0.032	85	23	58
* 136	0.243	77	98	312	0.214	82	124	333
137	0.126	73	35	130	0.126	73	35	130
140	0.088	71	20	81	0.088	71	20	81
141	0.037	65	4	25	0.037	65	4	25
* 142	0.130	70	26	113	0.130	70	26	113
* 143	0.122	74	38	133	0.133	83	89	234
* 144	0.089	79	46	136	0.091	85	65	162
* 145	0.088	72	22	86	0.054	85	41	101
* 184	0.037	79	19	56	0.013	88	14	31
* 185	0.046	74	15	54	0.058	82	35	94
* 186	0.020	74	7	23	0.009	92	12	25

DESIGN POINT	APR 16 MDDP			AUG MDDP (RV_REVC2.dat)		
	AREA	Q ₅	Q ₁₀₀	AREA	Q ₅	Q ₁₀₀
2 (TR-1)	0.18	161	385	0.21	184	439
3 (TR-34)	0.18	82	253	0.20	137	284
4 (TR-2)	0.24	104	332	0.22	156	324
35 (STORM)	N/A	N/A	N/A	0.20	96	280
35 (CROSSING)	0.22	55	214	0.23	119	336
5 (TR-42)	0.20	119	332	0.20	119	332
6	0.60	310	873	0.60	310	873
7	0.81	370	1092	0.77	419	1188
8	1.05	468	1404	0.98	543	1521
37	10.15	922	3144	10.14	997	3277
20 (S.S. POND IN)	13.59	2453	7852	13.60	2537	8036
98 (S.S. POND OUT)	13.59	1516	4643	13.60	1623	4797

Tutt Design Q was 485cfs

Charlotte Design Q was 336cfs - 66" still OK

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

JOB TR-20 RIDGVIEW

SUMMARY NOPLOTS

TITLE REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 RCBC
TITLE 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REVC2.DAT

5 RAINFL	1	.50				
8		0.000	.0025	0.005	.0075	0.010
8		0.015	0.020	0.025	0.030	0.050
8		0.060	0.100	0.700	0.750	0.780
8		0.798	0.820	0.830	0.840	0.850
8		0.860	0.865	0.870	0.885	0.890
8		0.900	0.905	0.910	0.915	0.921
8		0.927	0.933	0.940	0.945	0.950
8		0.955	0.960	0.965	0.970	0.975
8		0.980	0.983	0.985	0.988	0.990
8		0.993	0.995	0.998	1.000	1.000
9	ENDTBL					
2	XSECTN	101	1.0			
8			0.	0.0	0.0	
8			0.5	10.5	2.75	
8			1.0	39.2	7.0	
8			1.5	89.0	12.75	
8			2.0	163.8	20.0	
8			3.0	402.5	39.0	
8			4.0	781.2	64.0	
9	ENDTBL					
2	XSECTN	134	1.0			
8			0.	0.0	0.0	
8			0.5	10.5	2.75	
8			1.0	39.2	7.0	
8			1.5	89.0	12.75	
8			2.0	163.8	20.0	
8			3.0	402.5	39.0	
8			4.0	781.2	64.0	
9	ENDTBL					
2	XSECTN	135	1.0			
8			0.	0.0	0.0	
8			0.5	10.5	2.75	
8			1.0	39.2	7.0	
8			1.5	89.0	12.75	
8			2.0	163.8	20.0	
8			3.0	402.5	39.0	
8			4.0	781.2	64.0	
9	ENDTBL					
2	XSECTN	136	1.0			
8			0.	0.0	0.0	
8			1.0	76.3	16.0	
8			2.0	280.1	40.0	
8			3.0	629.7	72.0	
8			4.0	1149.1	112.0	
8			5.0	1861.3	160.0	
8			6.0	2788.6	216.0	

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

8			7.0	3951.6	280.0
9	ENDTBL				
2	XSECTN	137	1.0		
8			0.	0.0	0.0
8			0.5	22.45	8.2
8			1.0	73.66	17.8
8			2.0	252.36	41.2
8			3.0	536.5	70.2
8			4.0	935.94	104.8
8			6.0	2124.9	190.8
8			8.0	3906.4	299.2
8			10.0	6365.6	430.0
9	ENDTBL				
2	XSECTN	141	1.0		
8			0.	0.0	0.0
8			0.5	5.33	2.14
8			1.0	20.12	5.55
8			2.0	86.8	16.2
8			3.0	213.86	31.95
8			4.0	418.55	52.8
8			6.0	1111.9	109.8
8			8.0	2265.2	187.2
8			10.0	3966.9	285.0
9	ENDTBL				
2	XSECTN	142	1.0		
8			0.	0.0	0.0
8			0.5	10.5	2.75
8			1.0	39.2	7.00
8			1.5	89.0	12.75
8			2.0	163.8	20.00
8			3.0	402.5	39.00
8			4.0	781.2	64.00
9	ENDTBL				
2	XSECTN	042	1.0		
8			0.	0.0	0.0
8			1.0	38.8	10.0
8			2.0	171.8	30.0
8			3.0	435.8	60.0
8			4.0	863.1	100.0
8			6.0	2325.4	210.0
8			8.0	4774.2	360.0
9	ENDTBL				
2	XSECTN	041	1.0		
8			0.	0.0	0.0
8			1.0	36.8	10.0
8			2.0	151.1	28.0
8			3.0	366.7	54.0
8			4.0	706.3	88.0
8			6.0	1840.2	180.0
8			8.0	3706.3	304.0

1

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

8		10.0	6442.3	460.0
9	ENDTBL			
3	STRUCT	92		
8		0.	0.	0.
8		4.	40.	40.
8		5.	60.	60.
8		6.	82.	90.
8		8.	90.	110.
8		9.	91.	120.
8		10.	95.	130.
9	ENDTBL			
3	STRUCT	93		
8		0.	0.	0.
8		4.	20.	10.
8		6.	100.	20.
8		8.	290.	30.
9	ENDTBL			
3	STRUCT	94		
8		0.	0.	0.
8		4.	80.	30.
8		5.	90.	40.
8		7.	300.	60.
8		8.	800.	80.
8		9.	1750.	120.
8		10.	2000.	130.
9	ENDTBL			
3	STRUCT	95		
8		0.	0.	0.
8		4.	10.	20.
8		7.	20.	34.
8		8.	30.	39.
8		9.	40.	42.
8		10.	43.	50.
9	ENDTBL			
3	STRUCT	98		
8		0.	0.	0.
8		2.	450.	39.
8		4.	1250.	80.
8		6.	2250.	122.
8		8.	3250.	166.
8		10.	4250.	211.
8		15.	6500.	330.
8		20.	7750.	460.
9	ENDTBL			
3	STRUCT	97		
8		0.	0.	0.
8		4.	400.	75.0
8		5.	800.	100.
8		6.	2000.	137.5
8		7.	2700.	162.5

1

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

8				8.	2900.	187.5
8				9.	3000.	237.5
8				10.	3150.	250.
8				13.	3200.	375.
9	ENDTBL					
6	RUNOFF	1	82		0.19	67.0
6	REACH	3	174	1	2300.0	0.9
6	RUNOFF	1	74		0.18	67.0
6	ADDHYD	4	74	1 2 3		0.48
6	REACH	3	173	3	2800.0	0.7
6	RUNOFF	1	75		0.12	67.0
6	ADDHYD	4	75	1 2 3		.70
6	RUNOFF	1	73		0.12	67.0
6	ADDHYD	4	75	1 3 2		.53
6	RUNOFF	1	81		0.39	67.0
6	REACH	3	175	1	3850.0	0.6
6	ADDHYD	4	75	2 3 1		1.56
6	RUNOFF	1	80		0.22	67.0
6	REACH	3	176	2	4100.0	0.6
6	ADDHYD	4	75	3 1 2		1.56
6	RUNOFF	1	76		0.17	67.0
6	ADDHYD	4	75	1 2 3		0.68
6	REACH	3	172	3	1700.0	0.8
6	RUNOFF	1	88		0.10	67.0
6	ADDHYD	4	77	1 2 3		.34
6	RUNOFF	1	77		0.25	67.0
6	ADDHYD	4	77	3 2 1		.56
6	RUNOFF	1	79		0.29	67.0
6	REACH	3	178	2	3000.0	0.6
6	RUNOFF	1	78		0.88	67.0
6	ADDHYD	4	78	2 3 4		0.44
6	REACH	3	177	4	3350.0	0.6
6	ADDHYD	4	77	2 1 3		1.56
6	REACH	3	171	3	3850.0	0.2
6	RUNOFF	1	71		0.36	75.0
6	ADDHYD	4	71	1 2 3		.30
6	REACH	3	170	3	2500.0	0.3
6	RUNOFF	1	70		0.31	75.0
6	ADDHYD	4	70	1 2 3		0.35
6	REACH	3	187	3	1200.0	0.2
6	RUNOFF	1	87		0.04	71.0
6	ADDHYD	4	87	3 2 4		0.14
6	RUNOFF	1	72		0.25	70.0
6	REACH	3	169	2	3000.0	.8
6	RUNOFF	1	69		0.25	75.0
6	ADDHYD	4	69	3 1 2		0.80
6	REACH	3	186	2	1400.0	0.7
6	RUNOFF	1	86		0.05	75.0
6	ADDHYD	4	87	1 2 3		0.37
6	ADDHYD	4	87	4 3 1		

1

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

6 REACH	3	163	1	2	4400.0	0.2	1.64
6 RUNOFF	1	63		3	0.16	73.0	0.43
6 ADDHYD	4	63	2	3			
6 REACH	3	160	4	1	4400.0	0.2	1.65
6 RUNOFF	1	60		3	0.15	72.0	0.41
6 ADDHYD	4	60	1	3			
6 RUNOFF	1	59		3	0.16	86.0	.33
6 ADDHYD	4	60	4	3			
6 RUNOFF	1	68		1	0.22	75.0	.65
6 REACH	3	167	1	3	3300.0	0.7	1.51
6 RUNOFF	1	67		1	0.27	85.0	.54
6 ADDHYD	4	67	3	1			
6 REACH	3	164	2	3	2500.0	0.8	1.51
6 RUNOFF	1	64		2	0.25	85.0	.30
6 ADDHYD	4	64	3	2			
6 REACH	3	159	1	3	3300.0	0.5	1.62
6 ADDHYD	4	60	5	3			
6 REACH	3	151	2	1	4000.0	0.1	1.65
6 RESVOR	2	94	1	4			
6 RUNOFF	1	51		5	0.15	75.0	.39
6 ADDHYD	4	51	4	5			
6 RUNOFF	1	49		1	0.10	78.0	0.34
6 ADDHYD	4	51	1	2			
6 RUNOFF	1	52		1	0.19	85.0	0.61
6 ADDHYD	4	51	1	5			
6 RUNOFF	1	65		1	0.10	85.0	0.26
6 REACH	3	158	1	2	3600.0	.4	1.63
6 RUNOFF	1	58		1	0.17	93.0	0.26
6 ADDHYD	4	58	1	2			
6 REACH	3	152	5	1	3500.0	0.3	1.63
6 RESVOR	2	93	1	2			
6 ADDHYD	4	51	3	2			
6 RUNOFF	1	62		3	0.25	86.0	.70
6 REACH	3	161	3	2	3400.0	.7	1.51
6 RUNOFF	1	61		1	0.13	73.0	0.62
6 ADDHYD	4	61	1	2			
6 REACH	3	150	3	2	2950.0	0.6	1.53
6 RUNOFF	1	50		3	0.13	85.0	0.64
6 ADDHYD	4	50	2	3			
6 RESVOR	2	95	1	5			
6 REACH	3	149	5	2	2400.0	0.3	1.63
6 ADDHYD	4	51	4	2			
6 REACH	3	148	3	1	3300.0	0.3	1.62
6 RUNOFF	1	48		2	0.15	73.0	0.23
6 ADDHYD	4	48	1	2			
6 REACH	3	141	3	1	3100.0	0.3	1.62
6 RUNOFF	1	40		2	0.30	79.0	.62
6 ADDHYD	4	41	1	2			
6 RUNOFF	1	141		1	.037	65.0	0.30
6 ADDHYD	4	41	1	3			

1

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

6 REACH	3	141	4	3	1100.0		
6 RUNOFF	1	139		2	.138	76.0	0.30
6 ADDHYD	4	85	2	3	1		
6 REACH	3	137	1	2	3900.0		
6 RUNOFF	1	137		1	.126	73.0	0.40
6 ADDHYD	4	37	2	1	4		
6 RUNOFF	1	66		3	0.31	87.0	.43
6 REACH	3	157	3	2	2300.0	0.8	1.53
6 RUNOFF	1	57		3	0.16	93.0	0.34
6 ADDHYD	4	57	2	3	1		
6 REACH	3	154	1	2	3500.0	0.5	1.61
6 RUNOFF	1	55		3	0.25	86.0	.46
6 ADDHYD	4	54	2	3	1		
6 RUNOFF	1	56		3	0.15	83.0	0.23
6 REACH	3	155	3	2	3450.0	0.6	1.53
6 ADDHYD	4	54	2	1	5		
6 RUNOFF	1	54		7	0.25	93.0	0.33
6 ADDHYD	4	54	7	5	2		
6 RESVOR	2	92	2	3			
6 REACH	3	153	3	6	2050.0	0.5	1.61
6 RUNOFF	1	53		5	0.17	74.0	0.41
6 ADDHYD	4	53	6	5	1		
6 REACH	3	147	1	3	2300.0	0.4	1.62
6 RUNOFF	1	47		2	0.26	74.0	0.45
6 ADDHYD	4	47	3	2	1		
6 REACH	3	142	1	2	5400.0	0.3	1.61
6 RUNOFF	1	42		3	0.20	81.0	0.33
6 ADDHYD	4	42	3	2	1		
6 RUNOFF	1	142		2	0.13	70.0	0.40
6 ADDHYD	4	42	1	2	5		
6 RUNOFF	1	45		1	0.24	86.0	.32
6 RUNOFF	1	46		2	0.23	75.0	0.44
6 ADDHYD	4	45	1	2	3		
6 ADDHYD	4	42	5	3	2		
6 REACH	3	142	2	3	2500.0		
6 RUNOFF	1	140		1	.088	71.0	0.40
6 RUNOFF	1	143		2	.133	83.0	0.38
6 ADDHYD	4	43	1	2	6		
6 ADDHYD	4	43	6	3	1		
6 REACH	3	136	1	2	2900.0		
6 RUNOFF	1	136		3	.214	82.0	0.46
6 ADDHYD	4	37	3	2	6		
6 ADDHYD	4	37	6	4	1		
6 REACH	3	129	1	2	3800.0	0.1	1.65
6 RUNOFF	1	27		3	0.16	85.0	0.23
6 ADDHYD	4	29	2	3	1		
6 RUNOFF	1	38		3	0.32	76.0	0.58
6 REACH	3	128	3	2	1700.0	1.2	1.47
6 RUNOFF	1	28		4	0.17	86.0	0.18
6 ADDHYD	4	28	2	4	5		

1

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

6 REACH	3	127	5	3	2300.0	1.0	1.47
6 ADDHYD	4	29	1	3	5		
6 RUNOFF	1	29		1	.23	80.0	.24
6 ADDHYD	4	29	1	5	4		
6 REACH	3	184	4	2	1350.0	.2	1.63
6 RUNOFF	1	84		3	0.04	86.0	.08
6 ADDHYD	4	30	2	3	1		
6 RUNOFF	1	30		3	0.10	82.0	0.57
6 ADDHYD	4	30	3	1	2		
6 RUNOFF	1	31		3	0.21	92.0	.70
6 ADDHYD	4	30	2	3	1		
6 RUNOFF	1	145		3	.054	85.0	.41
6 REACH	3	135	3	2	1800.0		
6 RUNOFF	1	135		3	.088	75.0	.42
6 ADDHYD	4	45	2	3	4		
6 REACH	3	135	4	3	2500.0		
6 RUNOFF	1	185		2	.058	82.0	.42
6 ADDHYD	4	35	2	3	4		
6 RUNOFF	1	35		2	.032	85.0	.44
6 ADDHYD	4	35	2	4	3		
6 REACH	3	130	3	2	3700.0	.9	1.52
6 RUNOFF	1	144		4	.091	85.0	.47
6 REACH	3	134	4	3	2000.0		
6 RUNOFF	1	134		4	.107	77.0	.50
6 ADDHYD	4	34	4	3	6		
6 REACH	3	134	6	7	1500.0		
6 RUNOFF	1	184		4	.013	88.0	.23
6 RUNOFF	1	186		3	.009	92.0	.21
6 ADDHYD	4	02	4	3	6		
6 ADDHYD	4	02	6	7	4		
6 REACH	3	130	4	3	4000.0	0.9	1.52
6 ADDHYD	4	30	3	2	4		
6 RUNOFF	1	100		5	.028	88.0	.41
6 RUNOFF	1	101		3	.089	85.0	.30
6 ADDHYD	4	10	3	5	6		
6 REACH	3	101	6	5	3100.0		
6 RUNOFF	1	102		3	.094	88.0	.30
6 ADDHYD	4	01	3	5	6		
6 REACH	3	101	6	3	400.0		
6 RUNOFF	1	33		5	.14	90.0	.30
6 ADDHYD	4	33	3	5	6		
6 RUNOFF	1	32		5	.11	95.0	.56
6 ADDHYD	4	33	6	5	7		
6 REACH	3	131	7	3	4400.0	0.7	1.52
6 ADDHYD	4	30	3	4	5		
6 ADDHYD	4	30	1	5	2		
6 REACH	3	125	2	3	1200.0	0.4	1.63
6 RUNOFF	1	26		2	0.19	85.0	.22
6 ADDHYD	4	25	3	2	1		
6 RUNOFF	1	25		2	0.04	82.0	.07

1

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

6 ADDHYD 4 25 1 2 3

6	RUNOFF	1	24		1		0.19	93.0	0.23
6	ADDHYD	4		25	1	3	2		
6	REACH	3	120		2	4	2700.0	0.4	1.61
6	RUNOFF	1	22		2		0.13	90.0	0.13
6	ADDHYD	4		20	4	2	3		
6	RUNOFF	1	20		2		0.09	79.0	.19
6	ADDHYD	4		20	3	2	1		
6	RUNOFF	1	21		2		0.12	86.0	0.14
6	ADDHYD	4		20	2	1	3		
6	RUNOFF	1	19		2		0.17	85.0	0.28
6	ADDHYD	4		20	3	2	1		
6	RUNOFF	1	83		2		0.11	91.0	0.23
6	ADDHYD	4		20	1	2	3		
6	RUNOFF	1	23		2		0.28	93.0	.34
6	REACH	3	183		2	1	2700.0	1.4	1.45
6	ADDHYD	4		20	1	3	2		
6	RESVOR	2		98	2	5			
6	REACH	3	113		5	1	4200.0	0.1	1.65
6	RUNOFF	1	13		3		0.24	82.0	0.30
6	ADDHYD	4		13	1	3	2		
6	RUNOFF	1	14		3		0.07	86.0	0.23
6	ADDHYD	4		13	2	3	1		
6	RUNOFF	1	15		2		0.17	84.0	0.31
6	ADDHYD	4		13	1	2	3		
6	RUNOFF	1	16		2		0.21	83.0	0.34
6	REACH	3	115		2	1	1800.0	0.8	1.55
6	ADDHYD	4		13	1	3	2		
6	RUNOFF	1	18		1		0.13	87.0	0.23
6	RUNOFF	1	17		3		0.17	85.0	0.30
6	ADDHYD	4		18	1	3	6		
6	REACH	3	114		6	3	1750.0	0.7	1.56
6	ADDHYD	4		13	3	2	1		
6	REACH	3	106		1	2	3100.0	0.3	1.64
6	RUNOFF	1	6		1		0.13	81.0	0.37
6	ADDHYD	4		6	1	2	3		
6	RUNOFF	1	5		2		0.15	84.0	0.26
6	ADDHYD	4		6	3	2	1		
6	RUNOFF	1	7		3		0.19	93.0	0.54
6	ADDHYD	4		6	3	1	2		
6	RUNOFF	1	11		1		0.16	91.0	.35
6	RUNOFF	1	12		3		0.13	93.0	.30
6	ADDHYD	4		11	3	1	5		
6	REACH	3	107		5	1	2650.0	1.0	1.45
6	ADDHYD	4		6	1	2	3		
6	RESVOR	2		97	3	4			
6	REACH	3	104		4	1	1950.0	0.2	1.65
6	RUNOFF	1	4		2		0.19	86.0	0.24
6	ADDHYD	4		4	1	2	3		
6	RUNOFF	1	8		2		0.20	91.0	.39

1

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

6	ADDHYD	4		8	3	2	1		
6	RUNOFF	1	10		2		0.14	85.0	0.17

6 REACH	3	109	2	3	2350.0	1.8	1.41				
6 RUNOFF	1	9		2	0.25	87.0	0.15				
6 ADDHYD	4		9	3	2						
6 REACH	3	108	4	2	2500.0	0.9	1.47				
6 ADDHYD	4		99	1	2			1	1	1	1 TO D/S
ENDATA											
7 LIST											
7 INCREM	6				.083						
7 COMPUT	7	82		99	0.0	4.4	1.01	2	01	01	100-YR
ENDCMP 1											
7 COMPUT	7	82		99	0.0	3.0	1.01	2	01	02	10-YR
ENDCMP 1											
7 COMPUT	7	82		99	0.0	2.6	1.01	2	01	03	5-YR
ENDCMP 1											
ENDJOB 2											

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

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 24

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
RAINFALL OF 4.40 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.							
RAINTABLE NUMBER 1, ARC 2							
MAIN TIME INCREMENT .083 HOURS							
ALTERNATE 1 STORM 1							
XSECTION 82	RUNOFF	.19	1.40	---	5.95	153	805.3
XSECTION 174	REACH	.19	1.40	---	6.05	150	789.5
XSECTION 74	RUNOFF	.18	1.40	---	6.11	121	672.2
STRUCTURE 74	ADDHYD	.37	1.40	---	6.08	270	729.7
XSECTION 173	REACH	.37	1.40	---	6.20	262	708.1
XSECTION 75	RUNOFF	.12	1.40	---	6.23	67	558.3
STRUCTURE 75	ADDHYD	.49	1.40	---	6.20	328	669.4
XSECTION 73	RUNOFF	.12	1.40	---	6.13	77	641.7
STRUCTURE 75	ADDHYD	.61	1.40	---	6.19	403	660.7
XSECTION 81	RUNOFF	.39	1.40	---	6.11	253	648.7
XSECTION 175	REACH	.39	1.40	---	6.27	233	597.4
STRUCTURE 75	ADDHYD	1.00	1.40	---	6.22	629	629.0
XSECTION 80	RUNOFF	.22	1.40	---	6.06	157	713.6
XSECTION 176	REACH	.22	1.40	---	6.23	138	627.3
STRUCTURE 75	ADDHYD	1.22	1.40	---	6.22	766	627.9
XSECTION 76	RUNOFF	.17	1.40	---	6.22	96	564.7
STRUCTURE 75	ADDHYD	1.39	1.40	---	6.22	862	620.1
XSECTION 172	REACH	1.39	1.40	---	6.22	862	620.1
XSECTION 88	RUNOFF	.10	1.40	---	6.03	75	750.0
STRUCTURE 77	ADDHYD	1.49	1.40	---	6.20	915	614.1
XSECTION 77	RUNOFF	.25	1.40	---	6.15	155	620.0
STRUCTURE 77	ADDHYD	1.74	1.40	---	6.19	1068	613.8
XSECTION 79	RUNOFF	.29	1.40	---	6.01	223	769.0
XSECTION 178	REACH	.29	1.40	---	6.13	213	734.5
XSECTION 78	RUNOFF	.88	1.40	---	6.08	606	688.6
STRUCTURE 78	ADDHYD	1.17	1.40	---	6.10	815	696.6
XSECTION 177	REACH	1.17	1.40	---	6.21	798	682.1
STRUCTURE 77	ADDHYD	2.91	1.40	---	6.20	1866	641.2

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 25

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1				
XSECTION 171	REACH	2.91	1.40	---	6.33	1784	613.1
XSECTION 71	RUNOFF	.36	1.97	---	6.01	446	1238.9
STRUCTURE 71	ADDHYD	3.27	1.46	---	6.29	1946	595.1
XSECTION 170	REACH	3.27	1.46	---	6.38	1942	593.9
XSECTION 70	RUNOFF	.31	1.97	---	6.03	375	1209.7
STRUCTURE 70	ADDHYD	3.58	1.50	---	6.33	2081	581.3
XSECTION 187	REACH	3.58	1.50	---	6.33	2081	581.3
XSECTION 87	RUNOFF	.04	1.67	---	5.94	42	1050.0
STRUCTURE 87	ADDHYD	3.62	1.51	---	6.33	2088	576.8
XSECTION 72	RUNOFF	.25	1.60	---	5.97	241	964.0
XSECTION 169	REACH	.25	1.60	---	6.09	234	936.0
XSECTION 69	RUNOFF	.25	1.97	---	6.29	207	828.0
STRUCTURE 69	ADDHYD	.50	1.79	---	6.14	416	832.0
XSECTION 186	REACH	.50	1.79	---	6.23	415	830.0
XSECTION 86	RUNOFF	.05	1.97	---	6.04	59	1180.0
STRUCTURE 87	ADDHYD	.55	1.80	---	6.21	459	834.5
STRUCTURE 87	ADDHYD	4.17	1.55	---	6.29	2510	601.9
XSECTION 163	REACH	4.17	1.55	---	6.43	2445	586.3
XSECTION 63	RUNOFF	.16	1.82	---	6.07	161	1006.3
STRUCTURE 63	ADDHYD	4.33	1.56	---	6.42	2514	580.6
XSECTION 160	REACH	4.33	1.56	---	6.55	2460	568.1
XSECTION 60	RUNOFF	.15	1.75	---	6.06	146	973.3
STRUCTURE 60	ADDHYD	4.48	1.56	---	6.55	2500	558.0
XSECTION 59	RUNOFF	.16	2.91	---	6.02	334	2087.5
STRUCTURE 60	ADDHYD	4.64	1.61	---	6.54	2556	550.9
XSECTION 68	RUNOFF	.22	1.97	---	6.20	204	927.3
XSECTION 167	REACH	.22	1.97	---	6.36	190	863.6
XSECTION 67	RUNOFF	.27	2.82	---	6.13	452	1674.1
STRUCTURE 67	ADDHYD	.49	2.44	---	6.18	603	1230.6
XSECTION 164	REACH	.49	2.44	---	6.28	595	1214.3

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 26

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	1			
XSECTION 64	RUNOFF	.25	2.81	---	6.01	504	2016.0
STRUCTURE 64	ADDHYD	.74	2.56	---	6.11	943	1274.3
XSECTION 159	REACH	.74	2.56	---	6.21	929	1255.4
STRUCTURE 60	ADDHYD	5.38	1.74	---	6.46	3225	599.4
XSECTION 151	REACH	5.38	1.74	---	6.61	3148	585.1
STRUCTURE 94	RESVOR	5.38	1.73	10.63	7.04	2157	400.9
XSECTION 51	RUNOFF	.15	1.97	---	6.05	175	1166.7
STRUCTURE 51	ADDHYD	5.53	1.74	---	7.03	2177	393.7
XSECTION 49	RUNOFF	.10	2.21	---	6.03	142	1420.0
STRUCTURE 51	ADDHYD	5.63	1.75	---	7.03	2190	389.0
XSECTION 52	RUNOFF	.19	2.82	---	6.16	299	1573.7
STRUCTURE 51	ADDHYD	5.82	1.78	---	7.02	2239	384.7
XSECTION 65	RUNOFF	.10	2.82	---	5.98	206	2060.0
XSECTION 158	REACH	.10	2.82	---	6.13	191	1910.0
XSECTION 58	RUNOFF	.17	3.60	---	5.98	478	2811.8
STRUCTURE 58	ADDHYD	.27	3.31	---	6.02	655	2425.9
XSECTION 152	REACH	.27	3.31	---	6.14	618	2288.9
STRUCTURE 93	RESVOR	.27	3.28	6.83	6.57	179	663.0
STRUCTURE 51	ADDHYD	6.09	1.85	---	7.00	2374	389.8
XSECTION 62	RUNOFF	.25	2.91	---	6.22	384	1536.0
XSECTION 161	REACH	.25	2.91	---	6.36	364	1456.0
XSECTION 61	RUNOFF	.13	1.82	---	6.17	112	861.5
STRUCTURE 61	ADDHYD	.38	2.54	---	6.32	460	1210.5
XSECTION 150	REACH	.38	2.54	---	6.45	445	1171.1
XSECTION 50	RUNOFF	.13	2.81	---	6.19	197	1515.4
STRUCTURE 50	ADDHYD	.51	2.61	---	6.38	594	1164.7
STRUCTURE 95	RESVOR	.51	2.01	9.43	8.57T	41T	80.4
XSECTION 149	REACH	.51	2.00	---	8.82T	41T	80.4
STRUCTURE 51	ADDHYD	6.60	1.86	---	7.01	2396	363.0
XSECTION 148	REACH	6.60	1.86	---	7.11	2388	361.8

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 27

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1				
XSECTION 48	RUNOFF	.15	1.82	---	5.96	173	1153.3
STRUCTURE 48	ADDHYD	6.75	1.86	---	7.11	2403	356.0
XSECTION 141	REACH	6.75	1.86	8.16	7.21	2397	355.1
XSECTION 40	RUNOFF	.30	2.29	---	6.17	354	1180.0
STRUCTURE 41	ADDHYD	7.05	1.87	---	7.20	2448	347.2
XSECTION 141	RUNOFF	.04	1.27	---	6.02	25	625.0
STRUCTURE 41	ADDHYD	7.09	1.87	---	7.20	2451	345.7
XSECTION 141	REACH	7.09	1.87	8.22	7.20	2451	345.7
XSECTION 139	RUNOFF	.14	2.05	---	6.01	180	1285.7
STRUCTURE 85	ADDHYD	7.23	1.88	---	7.20	2465	340.9
XSECTION 137	REACH	7.23	1.87	6.37	7.31	2454	339.4
XSECTION 137	RUNOFF	.13	1.82	---	6.06	130	1000.0
STRUCTURE 37	ADDHYD	7.35	1.87	---	7.30	2466	335.5
XSECTION 66	RUNOFF	.31	3.00	---	6.07	617	1990.3
XSECTION 157	REACH	.31	3.00	---	6.16	613	1977.4
XSECTION 57	RUNOFF	.16	3.61	---	6.03	433	2706.3
STRUCTURE 57	ADDHYD	.47	3.21	---	6.09	1006	2140.4
XSECTION 154	REACH	.47	3.21	---	6.20	985	2095.7
XSECTION 55	RUNOFF	.25	2.91	---	6.08	465	1860.0
STRUCTURE 54	ADDHYD	.72	3.10	---	6.16	1418	1969.4
XSECTION 56	RUNOFF	.15	2.63	---	5.96	287	1913.3
XSECTION 155	REACH	.15	2.63	---	6.11	272	1813.3
STRUCTURE 54	ADDHYD	.87	3.02	---	6.15	1683	1934.5
XSECTION 54	RUNOFF	.25	3.61	---	6.02	681	2724.0
STRUCTURE 54	ADDHYD	1.12	3.15	---	6.11	2285	2040.2
STRUCTURE 92	RESVOR	1.12	2.79	9.63	8.35T	94T	83.9
XSECTION 153	REACH	1.12	2.79	---	8.49T	93T	83.0
XSECTION 53	RUNOFF	.17	1.89	---	6.06	185	1088.2
STRUCTURE 53	ADDHYD	1.29	2.67	---	6.11T	216T	167.4
XSECTION 147	REACH	1.29	2.66	---	6.24T	208T	161.2

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 28

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1							
XSECTION 47	RUNOFF	.26	1.89	---	6.08	272	1046.2
STRUCTURE 47	ADDHYD	1.55	2.53	---	6.14	462	298.1
XSECTION 142	REACH	1.55	2.53	2.97	6.34	396	255.5
XSECTION 42	RUNOFF	.20	2.46	---	6.02	332	1660.0
STRUCTURE 42	ADDHYD	1.75	2.52	---	6.14	603	344.6
XSECTION 142	RUNOFF	.13	1.60	---	6.06	113	869.2
STRUCTURE 42	ADDHYD	1.88	2.46	---	6.12	711	378.2
XSECTION 45	RUNOFF	.24	2.91	---	6.02	504	2100.0
XSECTION 46	RUNOFF	.23	1.97	---	6.08	256	1113.0
STRUCTURE 45	ADDHYD	.47	2.45	---	6.03	756	1608.5
STRUCTURE 42	ADDHYD	2.35	2.46	---	6.07	1444	614.5
XSECTION 142	REACH	2.35	2.46	5.75	6.07	1444	614.5
XSECTION 140	RUNOFF	.09	1.67	---	6.06	81	900.0
XSECTION 143	RUNOFF	.13	2.63	---	6.04	234	1800.0
STRUCTURE 43	ADDHYD	.22	2.25	---	6.05	314	1427.3
STRUCTURE 43	ADDHYD	2.57	2.44	---	6.07	1757	683.7
XSECTION 136	REACH	2.57	2.44	4.84	6.16	1744	678.6
XSECTION 136	RUNOFF	.21	2.55	---	6.08	333	1585.7
STRUCTURE 37	ADDHYD	2.78	2.45	---	6.15	2067	743.5
STRUCTURE 37	ADDHYD	10.14	2.03	---	6.18	3277	323.2
XSECTION 129	REACH	10.14	2.03	---	6.32	3101	305.8
XSECTION 27	RUNOFF	.16	2.81	---	5.96	335	2093.8
STRUCTURE 29	ADDHYD	10.30	2.04	---	6.31	3169	307.7
XSECTION 38	RUNOFF	.32	2.05	---	6.15	333	1040.6
XSECTION 128	REACH	.32	2.05	---	6.24	333	1040.6
XSECTION 28	RUNOFF	.17	2.91	---	5.94	380	2235.3
STRUCTURE 28	ADDHYD	.49	2.35	---	6.03	613	1251.0
XSECTION 127	REACH	.49	2.35	---	6.12	603	1230.6
STRUCTURE 29	ADDHYD	10.79	2.06	---	6.29	3608	334.4
XSECTION 29	RUNOFF	.23	2.37	---	5.97	380	1652.2

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 29

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1							
XSECTION 29	ADDHYD	11.02	2.06	---	6.26	3710	336.7
XSECTION 184	REACH	11.02	2.06	---	6.26	3710	336.7
XSECTION 84	RUNOFF	.04	2.91	---	5.88	89	2225.0
STRUCTURE 30	ADDHYD	11.06	2.07	---	6.26	3720	336.3
XSECTION 30	RUNOFF	.10	2.55	---	6.14	143	1430.0
STRUCTURE 30	ADDHYD	11.16	2.07	---	6.25	3850	345.0
XSECTION 31	RUNOFF	.21	3.51	---	6.22	407	1938.1
STRUCTURE 30	ADDHYD	11.37	2.10	---	6.24	4254	374.1
XSECTION 145	RUNOFF	.05	2.82	---	6.06	101	2020.0
XSECTION 135	REACH	.05	2.82	1.57	6.15	100	2000.0
XSECTION 135	RUNOFF	.09	1.97	---	6.07	101	1122.2
STRUCTURE 45	ADDHYD	.14	2.29	---	6.10	198	1414.3
XSECTION 135	REACH	.14	2.29	2.13	6.20	196	1400.0
XSECTION 185	RUNOFF	.06	2.55	---	6.06	94	1566.7
STRUCTURE 35	ADDHYD	.20	2.37	---	6.15	280	1400.0
XSECTION 35	RUNOFF	.03	2.82	---	6.07	58	1933.3
STRUCTURE 35	ADDHYD	.23	2.43	---	6.14	336	1460.9
XSECTION 130	REACH	.23	2.43	---	6.27	318	1382.6
XSECTION 144	RUNOFF	.09	2.82	---	6.09	162	1800.0
XSECTION 134	REACH	.09	2.82	1.98	6.18	161	1788.9
XSECTION 134	RUNOFF	.11	2.13	---	6.11	126	1145.5
STRUCTURE 34	ADDHYD	.20	2.44	---	6.15	284	1420.0
XSECTION 134	REACH	.20	2.44	2.51	6.15	284	1420.0
XSECTION 184	RUNOFF	.01	3.10	---	5.96	31	3100.0
XSECTION 186	RUNOFF	.01	3.50	---	5.95	25	2500.0
STRUCTURE 2	ADDHYD	.02	3.26	---	5.96	56	2800.0
STRUCTURE 2	ADDHYD	.22	2.53	---	6.10	324	1472.7
XSECTION 130	REACH	.22	2.53	---	6.25	304	1381.8
STRUCTURE 30	ADDHYD	.45	2.48	---	6.26	622	1382.2
XSECTION 100	RUNOFF	.03	3.10	---	6.06	59	1966.7

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 30

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE	1	STORM	1				

XSECTION 101	RUNOFF	.09	2.81	---	6.01	179	1988.9
STRUCTURE 10	ADDHYD	.12	2.88	---	6.02	240	2000.0
XSECTION 101	REACH	.12	2.88	2.30	6.12	235	1958.3
XSECTION--102	RUNOFF	.09	3.10	---	6.01	215	2388.9
STRUCTURE 1	ADDHYD	.21	2.98	---	6.05	439	2090.5
XSECTION 101	REACH	.21	2.98	3.10	6.05	439	2090.5
XSECTION 33	RUNOFF	.14	3.30	---	6.01	346	2471.4
STRUCTURE 33	ADDHYD	.35	3.11	---	6.03	787	2248.6
XSECTION 32	RUNOFF	.11	3.83	---	6.13	264	2400.0
STRUCTURE 33	ADDHYD	.46	3.28	---	6.05	1035	2250.0
XSECTION 131	REACH	.46	3.28	---	6.17	983	2137.0
STRUCTURE 30	ADDHYD	.91	2.88	---	6.20	1586	1742.9
STRUCTURE 30	ADDHYD	12.28	2.15	---	6.22	5830	474.8
XSECTION 125	REACH	12.28	2.15	---	6.22	5830	474.8
XSECTION 26	RUNOFF	.19	2.82	---	5.96	400	2105.3
STRUCTURE 25	ADDHYD	12.47	2.16	---	6.19	5979	479.5
XSECTION 25	RUNOFF	.04	2.54	---	5.91	74	1850.0
STRUCTURE 25	ADDHYD	12.51	2.16	---	6.19	5989	478.7
XSECTION 24	RUNOFF	.19	3.61	---	5.96	543	2857.9
STRUCTURE 25	ADDHYD	12.70	2.18	---	6.16	6300	496.1
XSECTION 120	REACH	12.70	2.18	---	6.16	6300	496.1
XSECTION 22	RUNOFF	.13	3.30	---	5.93	347	2669.2
STRUCTURE 20	ADDHYD	12.83	2.19	---	6.13	6394	498.4
XSECTION 20	RUNOFF	.09	2.29	---	5.95	145	1611.1
STRUCTURE 20	ADDHYD	12.92	2.19	---	6.11	6484	501.9
XSECTION 21	RUNOFF	.12	2.91	---	5.94	272	2266.7
STRUCTURE 20	ADDHYD	13.04	2.20	---	6.09	6713	514.8
XSECTION 19	RUNOFF	.17	2.81	---	6.00	347	2041.2
STRUCTURE 20	ADDHYD	13.21	2.21	---	6.09	7036	532.6
XSECTION 83	RUNOFF	.11	3.40	---	5.96	293	2663.6

1911

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 31

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1				
STRUCTURE 20	ADDHYD	13.32	2.22	---	6.08	7297	547.8
XSECTION 23	RUNOFF	.28	3.61	---	6.03	757	2703.6
XSECTION 183	REACH	.28	3.61	---	6.12	752	2685.7
STRUCTURE 20	ADDHYD	13.60	2.25	---	6.08	8036	590.9
STRUCTURE 98	RESVOR	13.60	2.24	11.22	6.51	4797	352.7
XSECTION 113	REACH	13.60	2.24	---	6.66	4728	347.6
XSECTION 13	RUNOFF	.24	2.54	---	6.01	423	1762.5
STRUCTURE 13	ADDHYD	13.84	2.25	---	6.65	4781	345.4
XSECTION 14	RUNOFF	.07	2.91	---	5.96	153	2185.7
STRUCTURE 13	ADDHYD	13.91	2.25	---	6.65	4796	344.8
XSECTION 15	RUNOFF	.17	2.72	---	6.02	330	1941.2
STRUCTURE 13	ADDHYD	14.08	2.26	---	6.64	4838	343.6
XSECTION 16	RUNOFF	.21	2.63	---	6.03	381	1814.3
XSECTION 115	REACH	.21	2.63	---	6.11	380	1809.5
STRUCTURE 13	ADDHYD	14.29	2.26	---	6.63	4906	343.3
XSECTION 18	RUNOFF	.13	3.00	---	5.96	296	2276.9
XSECTION 17	RUNOFF	.17	2.81	---	6.01	343	2017.6
STRUCTURE 18	ADDHYD	.30	2.90	---	5.99	637	2123.3
XSECTION 114	REACH	.30	2.90	---	5.99	637	2123.3
STRUCTURE 13	ADDHYD	14.59	2.27	---	6.62	4979	341.3
XSECTION 106	REACH	14.59	2.27	---	6.62	4979	341.3
XSECTION 6	RUNOFF	.13	2.46	---	6.04	209	1607.7
STRUCTURE 6	ADDHYD	14.72	2.28	---	6.61	5017	340.8
XSECTION 5	RUNOFF	.15	2.72	---	5.98	296	1973.3
STRUCTURE 6	ADDHYD	14.87	2.28	---	6.61	5052	339.7
XSECTION 7	RUNOFF	.19	3.61	---	6.13	433	2278.9
STRUCTURE 6	ADDHYD	15.06	2.30	---	6.57	5194	344.9
XSECTION 11	RUNOFF	.16	3.40	---	6.03	401	2506.3
XSECTION 12	RUNOFF	.13	3.60	---	6.01	358	2753.8
STRUCTURE 11	ADDHYD	.29	3.49	---	6.02	762	2627.6

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 32

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1							
XSECTION 107	REACH	.29	3.49	---	6.12	749	2582.8
STRUCTURE 6	ADDHYD	15.35	2.32	---	6.20	5496	358.0
STRUCTURE 97	RESVOR	15.35	2.30	12.24	8.15	3187	207.6
XSECTION 104	REACH	15.35	2.30	---	8.15	3187	207.6
XSECTION 4	RUNOFF	.19	2.91	---	5.97	413	2173.7
STRUCTURE 4	ADDHYD	15.54	2.31	---	8.00	3208	206.4
XSECTION 8	RUNOFF	.20	3.40	---	6.05	483	2415.0
STRUCTURE 8	ADDHYD	15.74	2.33	---	6.76	3259	207.1
XSECTION 10	RUNOFF	.14	2.82	---	5.94	301	2150.0
XSECTION 109	REACH	.14	2.82	---	6.03	299	2135.7
XSECTION 9	RUNOFF	.25	3.00	---	5.94	589	2356.0
STRUCTURE 9	ADDHYD	.39	2.94	---	5.95	878	2251.3
XSECTION 108	REACH	.39	2.94	---	6.04	871	2233.3
STRUCTURE 99	ADDHYD	16.13	2.34	---	6.27	3442	213.4
RAINFALL OF 3.00 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.							
ALTERNATE 1 STORM 2							
XSECTION 82	RUNOFF	.19	.58	---	5.95	50	263.2
XSECTION 174	REACH	.19	.58	---	6.09	48	252.6
XSECTION 74	RUNOFF	.18	.58	---	6.11	40	222.2
STRUCTURE 74	ADDHYD	.37	.58	---	6.10	88	237.8
XSECTION 173	REACH	.37	.58	---	6.32	80	216.2
XSECTION 75	RUNOFF	.12	.58	---	6.24	22	183.3
STRUCTURE 75	ADDHYD	.49	.58	---	6.31	102	208.2
XSECTION 73	RUNOFF	.12	.58	---	6.13	26	216.7
STRUCTURE 75	ADDHYD	.61	.58	---	6.29	123	201.6
XSECTION 81	RUNOFF	.39	.58	---	6.12	84	215.4
XSECTION 175	REACH	.39	.58	---	6.33	72	184.6
STRUCTURE 75	ADDHYD	1.00	.58	---	6.30	195	195.0

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 33

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 2							
XSECTION 80	RUNOFF	.22	.58	---	6.06	52	236.4
XSECTION 176	REACH	.22	.58	---	6.28	41	186.4
STRUCTURE 75	ADDHYD	1.22	.58	---	6.30	236	193.4
XSECTION 76	RUNOFF	.17	.58	---	6.23	32	188.2
STRUCTURE 75	ADDHYD	1.39	.58	---	6.29	267	192.1
XSECTION 172	REACH	1.39	.58	---	6.38	265	190.6
XSECTION 88	RUNOFF	.10	.58	---	6.03	25	250.0
STRUCTURE 77	ADDHYD	1.49	.58	---	6.37	276	185.2
XSECTION 77	RUNOFF	.25	.58	---	6.15	52	208.0
STRUCTURE 77	ADDHYD	1.74	.58	---	6.34	317	182.2
XSECTION 79	RUNOFF	.29	.58	---	6.01	73	251.7
XSECTION 178	REACH	.29	.58	---	6.16	66	227.6
XSECTION 78	RUNOFF	.88	.58	---	6.09	200	227.3
STRUCTURE 78	ADDHYD	1.17	.58	---	6.11	264	225.6
XSECTION 177	REACH	1.17	.58	---	6.25	249	212.8
STRUCTURE 77	ADDHYD	2.91	.58	---	6.29	558	191.8
XSECTION 171	REACH	2.91	.58	---	6.48	511	175.6
XSECTION 71	RUNOFF	.36	.96	---	6.02	190	527.8
STRUCTURE 71	ADDHYD	3.27	.63	---	6.45	559	170.9
XSECTION 170	REACH	3.27	.63	---	6.57	552	168.8
XSECTION 70	RUNOFF	.31	.96	---	6.03	160	516.1
STRUCTURE 70	ADDHYD	3.58	.65	---	6.54	591	165.1
XSECTION 187	REACH	3.58	.65	---	6.63	591	165.1
XSECTION 87	RUNOFF	.04	.76	---	5.94	16	400.0
STRUCTURE 87	ADDHYD	3.62	.66	---	6.63	594	164.1
XSECTION 72	RUNOFF	.25	.71	---	5.97	89	356.0
XSECTION 169	REACH	.25	.71	---	6.11	84	336.0
XSECTION 69	RUNOFF	.25	.96	---	6.30	89	356.0
STRUCTURE 69	ADDHYD	.50	.84	---	6.17	163	326.0
XSECTION 186	REACH	.50	.84	---	6.27	160	320.0

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 34

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	2			
XSECTION 86	RUNOFF	.05	.96	---	6.04	25	500.0
STRUCTURE 87	ADDHYD	.55	.85	---	6.24	177	321.8
STRUCTURE 87	ADDHYD	4.17	.68	---	6.53	707	169.5
XSECTION 163	REACH	4.17	.68	---	6.71	693	166.2
XSECTION 63	RUNOFF	.16	.86	---	6.07	65	406.3
STRUCTURE 63	ADDHYD	4.33	.69	---	6.69	710	164.0
XSECTION 160	REACH	4.33	.69	---	6.87	694	160.3
XSECTION 60	RUNOFF	.15	.81	---	6.06	57	380.0
STRUCTURE 60	ADDHYD	4.48	.69	---	6.86	705	157.4
XSECTION 59	RUNOFF	.16	1.66	---	6.02	179	1118.8
STRUCTURE 60	ADDHYD	4.64	.73	---	6.85	723	155.8
XSECTION 68	RUNOFF	.22	.96	---	6.20	87	395.5
XSECTION 167	REACH	.22	.96	---	6.40	78	354.5
XSECTION 67	RUNOFF	.27	1.59	---	6.13	239	885.2
STRUCTURE 67	ADDHYD	.49	1.31	---	6.17	296	604.1
XSECTION 164	REACH	.49	1.30	---	6.29	288	587.8
XSECTION 64	RUNOFF	.25	1.59	---	6.01	266	1064.0
STRUCTURE 64	ADDHYD	.74	1.40	---	6.11	473	639.2
XSECTION 159	REACH	.74	1.40	---	6.23	458	618.9
STRUCTURE 60	ADDHYD	5.38	.82	---	6.50	985	183.1
XSECTION 151	REACH	5.38	.82	---	6.74	956	177.7
STRUCTURE 94	RESVOR	5.38	.81	7.64	7.56	620	115.2
XSECTION 51	RUNOFF	.15	.96	---	6.05	74	493.3
STRUCTURE 51	ADDHYD	5.53	.82	---	7.56	626	113.2
XSECTION 49	RUNOFF	.10	1.13	---	6.03	65	650.0
STRUCTURE 51	ADDHYD	5.63	.82	---	7.56	631	112.1
XSECTION 52	RUNOFF	.19	1.59	---	6.17	158	831.6
STRUCTURE 51	ADDHYD	5.82	.85	---	7.55	644	110.7
XSECTION 65	RUNOFF	.10	1.59	---	5.98	109	1090.0
XSECTION 158	REACH	.10	1.59	---	6.15	95	950.0

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 35

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	2			
XSECTION 58	RUNOFF	.17	2.25	---	5.98	293	1723.5
STRUCTURE 58	ADDHYD	.27	2.01	---	6.02	381	1411.1
XSECTION 152	REACH	.27	2.01	---	6.23	348	1288.9
STRUCTURE 93	RESVOR	.27	1.98	5.10	6.87	64	237.0
STRUCTURE 51	ADDHYD	6.09	.90	---	7.53	698	114.6
XSECTION 62	RUNOFF	.25	1.66	---	6.22	205	820.0
XSECTION 161	REACH	.25	1.66	---	6.39	190	760.0
XSECTION 61	RUNOFF	.13	.86	---	6.18	45	346.2
STRUCTURE 61	ADDHYD	.38	1.38	---	6.35	227	597.4
XSECTION 150	REACH	.38	1.38	---	6.51	217	571.1
XSECTION 50	RUNOFF	.13	1.59	---	6.19	104	800.0
STRUCTURE 50	ADDHYD	.51	1.44	---	6.42	288	564.7
STRUCTURE 95	RESVOR	.51	1.02	5.20	10.29F	14F	27.5
XSECTION 149	REACH	.51	1.01	---	10.62F	14F	27.5
STRUCTURE 51	ADDHYD	6.60	.91	---	7.54	708	107.3
XSECTION 148	REACH	6.60	.91	---	7.68	703	106.5
XSECTION 48	RUNOFF	.15	.86	---	5.97	70	466.7
STRUCTURE 48	ADDHYD	6.75	.90	---	7.69	709	105.0
XSECTION 141	REACH	6.75	.90	4.82	7.83	704	104.3
XSECTION 40	RUNOFF	.30	1.19	---	6.18	165	550.0
STRUCTURE 41	ADDHYD	7.05	.92	---	7.82	720	102.1
XSECTION 141	RUNOFF	.04	.51	---	6.02	7	175.0
STRUCTURE 41	ADDHYD	7.09	.91	---	7.82	721	101.7
XSECTION 141	REACH	7.09	.91	4.87	7.82	721	101.7
XSECTION 139	RUNOFF	.14	1.01	---	6.02	79	564.3
STRUCTURE 85	ADDHYD	7.23	.92	---	7.83	728	100.7
XSECTION 137	REACH	7.23	.92	3.47	7.97	724	100.1
XSECTION 137	RUNOFF	.13	.86	---	6.06	53	407.7
STRUCTURE 37	ADDHYD	7.35	.91	---	7.97	729	99.2
XSECTION 66	RUNOFF	.31	1.74	---	6.07	338	1090.3

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 36

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	2				
XSECTION 157	REACH	.31	1.74	---	6.17	333	1074.2
XSECTION 57	RUNOFF	.16	2.25	---	6.03	266	1662.5
STRUCTURE 57	ADDHYD	.47	1.91	---	6.09	572	1217.0
XSECTION 154	REACH	.47	1.91	---	6.21	551	1172.3
XSECTION 55	RUNOFF	.25	1.66	---	6.08	251	1004.0
STRUCTURE 54	ADDHYD	.72	1.83	---	6.17	779	1081.9
XSECTION 56	RUNOFF	.15	1.44	---	5.96	145	966.7
XSECTION 155	REACH	.15	1.44	---	6.12	132	880.0
STRUCTURE 54	ADDHYD	.87	1.76	---	6.16	908	1043.7
XSECTION 54	RUNOFF	.25	2.25	---	6.02	418	1672.0
STRUCTURE 54	ADDHYD	1.12	1.87	---	6.11	1272	1135.7
STRUCTURE 92	RESVOR	1.12	1.69	5.36	8.26T	68T	60.7
XSECTION 153	REACH	1.12	1.68	---	8.39T	68T	60.7
XSECTION 53	RUNOFF	.17	.91	---	6.06	77	452.9
STRUCTURE 53	ADDHYD	1.29	1.58	---	6.14T	93T	72.1
XSECTION 147	REACH	1.29	1.58	---	6.30T	88T	68.2
XSECTION 47	RUNOFF	.26	.91	---	6.08	113	434.6
STRUCTURE 47	ADDHYD	1.55	1.47	---	6.15	189	121.9
XSECTION 142	REACH	1.55	1.46	1.91	6.42	150	96.8
XSECTION 42	RUNOFF	.20	1.31	---	6.02	162	810.0
STRUCTURE 42	ADDHYD	1.75	1.45	---	6.12	248	141.7
XSECTION 142	RUNOFF	.13	.71	---	6.06	41	315.4
STRUCTURE 42	ADDHYD	1.88	1.40	---	6.11	288	153.2
XSECTION 45	RUNOFF	.24	1.66	---	6.02	271	1129.2
XSECTION 46	RUNOFF	.23	.96	---	6.08	109	473.9
STRUCTURE 45	ADDHYD	.47	1.32	---	6.03	378	804.3
STRUCTURE 42	ADDHYD	2.35	1.38	---	6.06	659	280.4
XSECTION 142	REACH	2.35	1.38	3.67	6.15	658	280.0
XSECTION 140	RUNOFF	.09	.76	---	6.06	31	344.4
XSECTION 143	RUNOFF	.13	1.45	---	6.05	119	915.4

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 37

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	2			
STRUCTURE 43	ADDHYD	.22	1.17	---	6.05	149	677.3
STRUCTURE 43	ADDHYD	2.57	1.36	---	6.13	797	310.1
XSECTION 136	REACH	2.57	1.36	3.30	6.23	785	305.4
XSECTION 136	RUNOFF	.21	1.38	---	6.08	166	790.5
STRUCTURE 37	ADDHYD	2.78	1.36	---	6.20	931	334.9
STRUCTURE 37	ADDHYD	10.14	1.04	---	6.24	1434	141.4
XSECTION 129	REACH	10.14	1.04	---	6.41	1305	128.7
XSECTION 27	RUNOFF	.16	1.59	---	5.96	176	1100.0
STRUCTURE 29	ADDHYD	10.30	1.05	---	6.40	1334	129.5
XSECTION 38	RUNOFF	.32	1.01	---	6.15	146	456.3
XSECTION 128	REACH	.32	1.01	---	6.25	144	450.0
XSECTION 28	RUNOFF	.17	1.66	---	5.94	204	1200.0
STRUCTURE 28	ADDHYD	.49	1.24	---	6.03	299	610.2
XSECTION 127	REACH	.49	1.24	---	6.12	291	593.9
STRUCTURE 29	ADDHYD	10.79	1.05	---	6.38	1517	140.6
XSECTION 29	RUNOFF	.23	1.25	---	5.97	181	787.0
XSECTION 29	ADDHYD	11.02	1.06	---	6.37	1555	141.1
XSECTION 184	REACH	11.02	1.06	---	6.37	1555	141.1
XSECTION 84	RUNOFF	.04	1.66	---	5.93	48	1200.0
STRUCTURE 30	ADDHYD	11.06	1.06	---	6.37	1561	141.1
XSECTION 30	RUNOFF	.10	1.38	---	6.15	70	700.0
STRUCTURE 30	ADDHYD	11.16	1.06	---	6.36	1614	144.6
XSECTION 31	RUNOFF	.21	2.16	---	6.22	243	1157.1
STRUCTURE 30	ADDHYD	11.37	1.08	---	6.33	1832	161.1
XSECTION 145	RUNOFF	.05	1.59	---	6.06	53	1060.0
XSECTION 135	REACH	.05	1.59	1.13	6.16	52	1040.0
XSECTION 135	RUNOFF	.09	.96	---	6.07	43	477.8
STRUCTURE 45	ADDHYD	.14	1.20	---	6.12	94	671.4
XSECTION 135	REACH	.14	1.20	1.52	6.22	92	657.1
XSECTION 185	RUNOFF	.06	1.38	---	6.06	47	783.3

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 38

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	2			
STRUCTURE 35	ADDHYD	.20	1.25	---	6.17	132	660.0
XSECTION 35	RUNOFF	.03	1.59	---	6.08	31	1033.3
STRUCTURE 35	ADDHYD	.23	1.30	---	6.15	162	704.3
XSECTION 130	REACH	.23	1.30	---	6.30	149	647.8
XSECTION 144	RUNOFF	.09	1.59	---	6.09	85	944.4
XSECTION 134	REACH	.09	1.59	1.45	6.19	84	933.3
XSECTION 134	RUNOFF	.11	1.07	---	6.11	56	509.1
STRUCTURE 34	ADDHYD	.20	1.31	---	6.16	139	695.0
XSECTION 134	REACH	.20	1.31	1.84	6.16	139	695.0
XSECTION 184	RUNOFF	.01	1.82	---	5.96	17	1700.0
XSECTION 186	RUNOFF	.01	2.16	---	5.95	15	1500.0
STRUCTURE 2	ADDHYD	.02	1.96	---	5.96	32	1600.0
STRUCTURE 2	ADDHYD	.22	1.37	---	6.10	162	736.4
XSECTION 130	REACH	.22	1.37	---	6.27	146	663.6
STRUCTURE 30	ADDHYD	.45	1.33	---	6.29	294	653.3
XSECTION 100	RUNOFF	.03	1.82	---	6.06	33	1100.0
XSECTION 101	RUNOFF	.09	1.59	---	6.01	95	1055.6
STRUCTURE 10	ADDHYD	.12	1.64	---	6.02	128	1066.7
XSECTION 101	REACH	.12	1.64	1.74	6.13	124	1033.3
XSECTION 102	RUNOFF	.09	1.82	---	6.01	120	1333.3
STRUCTURE 1	ADDHYD	.21	1.72	---	6.06	237	1128.6
XSECTION 101	REACH	.21	1.72	2.31	6.06	237	1128.6
XSECTION 33	RUNOFF	.14	1.98	---	6.01	201	1435.7
STRUCTURE 33	ADDHYD	.35	1.82	---	6.03	439	1254.3
XSECTION 32	RUNOFF	.11	2.44	---	6.14	167	1518.2
STRUCTURE 33	ADDHYD	.46	1.97	---	6.05	596	1295.7
XSECTION 131	REACH	.46	1.97	---	6.19	553	1202.2
STRUCTURE 30	ADDHYD	.91	1.66	---	6.22	837	919.8
STRUCTURE 30	ADDHYD	12.28	1.12	---	6.26	2636	214.7
XSECTION 125	REACH	12.28	1.12	---	6.26	2636	214.7

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 39

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
	ALTERNATE	1	STORM	2				
XSECTION	26	RUNOFF	.19	1.59	---	5.96	210	1105.3
STRUCTURE	25	ADDHYD	12.47	1.13	---	6.23	2697	216.3
XSECTION	25	RUNOFF	.04	1.38	---	5.87	37	925.0
STRUCTURE	25	ADDHYD	12.51	1.13	---	6.23	2702	216.0
XSECTION	24	RUNOFF	.19	2.25	---	5.96	333	1752.6
STRUCTURE	25	ADDHYD	12.70	1.15	---	6.15	2878	226.6
XSECTION	120	REACH	12.70	1.15	---	6.15	2878	226.6
XSECTION	22	RUNOFF	.13	1.98	---	5.93	202	1553.8
STRUCTURE	20	ADDHYD	12.83	1.16	---	6.11	2942	229.3
XSECTION	20	RUNOFF	.09	1.19	---	5.95	68	755.6
STRUCTURE	20	ADDHYD	12.92	1.16	---	6.10	3026	234.2
XSECTION	21	RUNOFF	.12	1.66	---	5.94	146	1216.7
STRUCTURE	20	ADDHYD	13.04	1.16	---	6.08	3126	239.7
XSECTION	19	RUNOFF	.17	1.59	---	6.00	183	1076.5
STRUCTURE	20	ADDHYD	13.21	1.17	---	6.08	3300	249.8
XSECTION	83	RUNOFF	.11	2.07	---	5.96	173	1572.7
STRUCTURE	20	ADDHYD	13.32	1.18	---	6.07	3458	259.6
XSECTION	23	RUNOFF	.28	2.25	---	6.03	465	1660.7
XSECTION	183	REACH	.28	2.25	---	6.12	458	1635.7
STRUCTURE	20	ADDHYD	13.60	1.20	---	6.07	3905	287.1
STRUCTURE	98	RESVOR	13.60	1.19	6.19	6.55	2345	172.4
XSECTION	113	REACH	13.60	1.19	---	6.74	2279	167.6
XSECTION	13	RUNOFF	.24	1.38	---	6.01	210	875.0
STRUCTURE	13	ADDHYD	13.84	1.20	---	6.73	2305	166.5
XSECTION	14	RUNOFF	.07	1.66	---	5.96	82	1171.4
STRUCTURE	13	ADDHYD	13.91	1.20	---	6.73	2313	166.3
XSECTION	15	RUNOFF	.17	1.51	---	6.02	170	1000.0
STRUCTURE	13	ADDHYD	14.08	1.20	---	6.72	2334	165.8
XSECTION	16	RUNOFF	.21	1.45	---	6.03	193	919.0
XSECTION	115	REACH	.21	1.45	---	6.12	191	909.5

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 40

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE	1	STORM	2				

STRUCTURE 13	ADDHYD	14.29	1.21	---	6.71	2368	165.7
XSECTION 18	RUNOFF	.13	1.74	---	5.96	162	1246.2
XSECTION 17	RUNOFF	.17	1.59	---	6.01	181	1064.7
STRUCTURE 18	ADDHYD	.30	1.65	---	5.99	342	1140.0
XSECTION 114	REACH	.30	1.65	---	6.08	341	1136.7
STRUCTURE 13	ADDHYD	14.59	1.22	---	6.69	2413	165.4
XSECTION 106	REACH	14.59	1.22	---	6.79	2409	165.1
XSECTION 6	RUNOFF	.13	1.31	---	6.04	102	784.6
STRUCTURE 6	ADDHYD	14.72	1.22	---	6.78	2424	164.7
XSECTION 5	RUNOFF	.15	1.51	---	5.98	153	1020.0
STRUCTURE 6	ADDHYD	14.87	1.22	---	6.78	2439	164.0
XSECTION 7	RUNOFF	.19	2.25	---	6.13	266	1400.0
STRUCTURE 6	ADDHYD	15.06	1.23	---	6.76	2494	165.6
XSECTION 11	RUNOFF	.16	2.07	---	6.03	236	1475.0
XSECTION 12	RUNOFF	.13	2.25	---	6.01	220	1692.3
STRUCTURE 11	ADDHYD	.29	2.15	---	6.02	458	1579.3
XSECTION 107	REACH	.29	2.15	---	6.12	446	1537.9
STRUCTURE 6	ADDHYD	15.35	1.25	---	6.73	2555	166.4
STRUCTURE 97	RESVOR	15.35	1.24	6.22	7.18	2155	140.4
XSECTION 104	REACH	15.35	1.24	---	7.26	2155	140.4
XSECTION 4	RUNOFF	.19	1.66	---	5.97	222	1168.4
STRUCTURE 4	ADDHYD	15.54	1.25	---	7.26	2167	139.4
XSECTION 8	RUNOFF	.20	2.07	---	6.05	285	1425.0
STRUCTURE 8	ADDHYD	15.74	1.26	---	7.25	2185	138.8
XSECTION 10	RUNOFF	.14	1.59	---	5.94	158	1128.6
XSECTION 109	REACH	.14	1.59	---	6.03	156	1114.3
XSECTION 9	RUNOFF	.25	1.74	---	5.94	322	1288.0
STRUCTURE 9	ADDHYD	.39	1.68	---	5.95	473	1212.8
XSECTION 108	REACH	.39	1.68	---	6.05	464	1189.7
STRUCTURE 99	ADDHYD	16.13	1.27	---	7.23	2215	137.3

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 41

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
RAINFALL OF 2.60 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.							
ALTERNATE 1 STORM 3							
XSECTION 82	RUNOFF	.19	.40	---	5.95	30	157.9
XSECTION 174	REACH	.19	.40	---	6.11	28	147.4
XSECTION 74	RUNOFF	.18	.40	---	6.11	24	133.3
STRUCTURE 74	ADDHYD	.37	.40	---	6.11	51	137.8
XSECTION 173	REACH	.37	.40	---	6.27	45	121.6
XSECTION 75	RUNOFF	.12	.40	---	6.25	13	108.3
STRUCTURE 75	ADDHYD	.49	.40	---	6.27	58	118.4
XSECTION 73	RUNOFF	.12	.40	---	6.14	15	125.0
STRUCTURE 75	ADDHYD	.61	.40	---	6.24	72	118.0
XSECTION 81	RUNOFF	.39	.40	---	6.13	49	125.6
XSECTION 175	REACH	.39	.40	---	6.36	41	105.1
STRUCTURE 75	ADDHYD	1.00	.40	---	6.28	111	111.0
XSECTION 80	RUNOFF	.22	.40	---	6.07	30	136.4
XSECTION 176	REACH	.22	.40	---	6.40	23	104.5
STRUCTURE 75	ADDHYD	1.22	.40	---	6.30	133	109.0
XSECTION 76	RUNOFF	.17	.40	---	6.23	19	111.8
STRUCTURE 75	ADDHYD	1.39	.40	---	6.29	151	108.6
XSECTION 172	REACH	1.39	.40	---	6.40	150	107.9
XSECTION 88	RUNOFF	.10	.40	---	6.04	15	150.0
STRUCTURE 77	ADDHYD	1.49	.40	---	6.39	156	104.7
XSECTION 77	RUNOFF	.25	.40	---	6.16	30	120.0
STRUCTURE 77	ADDHYD	1.74	.40	---	6.36	180	103.4
XSECTION 79	RUNOFF	.29	.40	---	6.01	43	148.3
XSECTION 178	REACH	.29	.40	---	6.19	37	127.6

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 42

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE	1	STORM	3				
XSECTION 78	RUNOFF	.88	.40	---	6.09	118	134.1
STRUCTURE 78	ADDHYD	1.17	.40	---	6.11	154	131.6
XSECTION 177	REACH	1.17	.40	---	6.27	141	120.5
STRUCTURE 77	ADDHYD	2.91	.40	---	6.31	319	109.6
XSECTION 171	REACH	2.91	.40	---	6.54	283	97.3
XSECTION 71	RUNOFF	.36	.71	---	6.02	131	363.9
STRUCTURE 71	ADDHYD	3.27	.43	---	6.51	316	96.6
XSECTION 170	REACH	3.27	.43	---	6.64	311	95.1
XSECTION 70	RUNOFF	.31	.71	---	6.04	110	354.8
STRUCTURE 70	ADDHYD	3.58	.46	---	6.61	337	94.1
XSECTION 187	REACH	3.58	.46	---	6.70	336	93.9
XSECTION 87	RUNOFF	.04	.54	---	5.94	10	250.0
STRUCTURE 87	ADDHYD	3.62	.46	---	6.70	338	93.4
XSECTION 72	RUNOFF	.25	.50	---	5.97	56	224.0
XSECTION 169	REACH	.25	.50	---	6.12	51	204.0
XSECTION 69	RUNOFF	.25	.71	---	6.30	61	244.0
STRUCTURE 69	ADDHYD	.50	.61	---	6.19	107	214.0
XSECTION 186	REACH	.50	.61	---	6.30	105	210.0
XSECTION 86	RUNOFF	.05	.71	---	6.04	17	340.0
STRUCTURE 87	ADDHYD	.55	.62	---	6.27	116	210.9
STRUCTURE 87	ADDHYD	4.17	.48	---	6.33	424	101.7
XSECTION 163	REACH	4.17	.48	---	6.77	405	97.1
XSECTION 63	RUNOFF	.16	.62	---	6.08	44	275.0
STRUCTURE 63	ADDHYD	4.33	.48	---	6.73	416	96.1
XSECTION 160	REACH	4.33	.48	---	6.96	405	93.5
XSECTION 60	RUNOFF	.15	.58	---	6.07	38	253.3
STRUCTURE 60	ADDHYD	4.48	.49	---	6.95	412	92.0
XSECTION 59	RUNOFF	.16	1.32	---	6.02	138	862.5
STRUCTURE 60	ADDHYD	4.64	.52	---	6.94	425	91.6
XSECTION 68	RUNOFF	.22	.71	---	6.20	60	272.7

1

TR20 ----- SCS --
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 43

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE	1	STORM	3				

XSECTION 167	REACH	.22	.71	---	6.42	52	236.4
XSECTION 67	RUNOFF	.27	1.26	---	6.13	183	677.8
STRUCTURE 67	ADDHYD	.49	1.01	---	6.17	220	449.0
XSECTION 164	REACH	.49	1.01	---	6.30	213	434.7
XSECTION 64	RUNOFF	.25	1.26	---	6.01	204	816.0
STRUCTURE 64	ADDHYD	.74	1.09	---	6.10	355	479.7
XSECTION 159	REACH	.74	1.09	---	6.23	341	460.8
STRUCTURE 60	ADDHYD	5.38	.60	---	6.32	634	117.8
XSECTION 151	REACH	5.38	.60	---	6.72	605	112.5
STRUCTURE 94	RESVOR	5.38	.59	6.92	8.08	292	54.3
XSECTION 51	RUNOFF	.15	.71	---	6.05	51	340.0
STRUCTURE 51	ADDHYD	5.53	.60	---	8.07	297	53.7
XSECTION 49	RUNOFF	.10	.85	---	6.03	46	460.0
STRUCTURE 51	ADDHYD	5.63	.60	---	8.06	301	53.5
XSECTION 52	RUNOFF	.19	1.26	---	6.17	121	636.8
STRUCTURE 51	ADDHYD	5.82	.62	---	8.06	311	53.4
XSECTION 65	RUNOFF	.10	1.26	---	5.98	83	830.0
XSECTION 158	REACH	.10	1.26	---	6.15	71	710.0
XSECTION 58	RUNOFF	.17	1.87	---	5.98	241	1417.6
STRUCTURE 58	ADDHYD	.27	1.64	---	6.02	306	1133.3
XSECTION 152	REACH	.27	1.64	---	6.24	276	1022.2
STRUCTURE 93	RESVOR	.27	1.63	4.58	6.98	43	159.3
STRUCTURE 51	ADDHYD	6.09	.67	---	8.03	344	56.5
XSECTION 62	RUNOFF	.25	1.32	---	6.22	158	632.0
XSECTION 161	REACH	.25	1.32	---	6.40	145	580.0
XSECTION 61	RUNOFF	.13	.62	---	6.18	30	230.8
STRUCTURE 61	ADDHYD	.38	1.08	---	6.37	170	447.4
XSECTION 150	REACH	.38	1.08	---	6.53	160	421.1
XSECTION 50	RUNOFF	.13	1.26	---	6.19	80	615.4
STRUCTURE 50	ADDHYD	.51	1.13	---	6.44	213	417.6

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 44

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	3			
STRUCTURE 95	RESVOR	.51	.79	4.01	10.54F	10F	19.6
XSECTION 149	REACH	.51	.78	---	10.87F	10F	19.6
STRUCTURE 51	ADDHYD	6.60	.67	---	8.03	352	53.3
XSECTION 148	REACH	6.60	.67	---	8.20	350	53.0
XSECTION 48	RUNOFF	.15	.62	---	5.97	46	306.7
STRUCTURE 48	ADDHYD	6.75	.67	---	8.16	354	52.4
XSECTION 141	REACH	6.75	.67	3.68	8.33	352	52.1
XSECTION 40	RUNOFF	.30	.90	---	6.18	120	400.0
STRUCTURE 41	ADDHYD	7.05	.68	---	8.29	363	51.5
XSECTION 141	RUNOFF	.04	.34	---	6.02T	4T	100.0
STRUCTURE 41	ADDHYD	7.09	.68	---	8.29	364	51.3
XSECTION 141	REACH	7.09	.68	3.73	8.29	364	51.3
XSECTION 139	RUNOFF	.14	.76	---	6.02	55	392.9
STRUCTURE 85	ADDHYD	7.23	.68	---	8.26	367	50.8
XSECTION 137	REACH	7.23	.68	2.40	8.43	365	50.5
XSECTION 137	RUNOFF	.13	.62	---	6.06	35	269.2
STRUCTURE 37	ADDHYD	7.35	.68	---	8.42	368	50.1
XSECTION 66	RUNOFF	.31	1.39	---	6.07	264	851.6
XSECTION 157	REACH	.31	1.39	---	6.18	259	835.5
XSECTION 57	RUNOFF	.16	1.87	---	6.03	218	1362.5
STRUCTURE 57	ADDHYD	.47	1.56	---	6.09	454	966.0
XSECTION 154	REACH	.47	1.56	---	6.22	434	923.4
XSECTION 55	RUNOFF	.25	1.32	---	6.08	194	776.0
STRUCTURE 54	ADDHYD	.72	1.48	---	6.18	609	845.8
XSECTION 56	RUNOFF	.15	1.13	---	5.96	109	726.7
XSECTION 155	REACH	.15	1.13	---	6.13	97	646.7
STRUCTURE 54	ADDHYD	.87	1.42	---	6.17	704	809.2
XSECTION 54	RUNOFF	.25	1.87	---	6.02	344	1376.0
STRUCTURE 54	ADDHYD	1.12	1.52	---	6.11	1002	894.6
STRUCTURE 92	RESVOR	1.12	1.37	4.83	8.26T	57T	50.9

1
 TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 45

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	3			
XSECTION 153	REACH	1.12	1.37	---	8.40T	56T	50.0
XSECTION 53	RUNOFF	.17	.66	---	6.06	52	305.9
STRUCTURE 53	ADDHYD	1.29	1.27	---	6.15T	65T	50.4
XSECTION 147	REACH	1.29	1.27	---	7.26T	62T	48.1
XSECTION 47	RUNOFF	.26	.66	---	6.09	77	296.2
STRUCTURE 47	ADDHYD	1.55	1.17	---	6.16	127	81.9
XSECTION 142	REACH	1.55	1.17	1.56	6.48	98	63.2
XSECTION 42	RUNOFF	.20	1.01	---	6.02	119	595.0
STRUCTURE 42	ADDHYD	1.75	1.15	---	6.11	170	97.1
XSECTION 142	RUNOFF	.13	.50	---	6.06	26	200.0
STRUCTURE 42	ADDHYD	1.88	1.10	---	6.10	196	104.3
XSECTION 45	RUNOFF	.24	1.32	---	6.02	209	870.8
XSECTION 46	RUNOFF	.23	.71	---	6.08	75	326.1
STRUCTURE 45	ADDHYD	.47	1.02	---	6.03	283	602.1
STRUCTURE 42	ADDHYD	2.35	1.09	---	6.06	475	202.1
XSECTION 142	REACH	2.35	1.09	3.19	6.14	473	201.3
XSECTION 140	RUNOFF	.09	.54	---	6.06	20	222.2
XSECTION 143	RUNOFF	.13	1.13	---	6.05	89	684.6
STRUCTURE 43	ADDHYD	.22	.90	---	6.05	109	495.5
STRUCTURE 43	ADDHYD	2.57	1.07	---	6.13	575	223.7
XSECTION 136	REACH	2.57	1.07	2.81	6.23	564	219.5
XSECTION 136	RUNOFF	.21	1.07	---	6.09	124	590.5
STRUCTURE 37	ADDHYD	2.78	1.07	---	6.20	673	242.1
STRUCTURE 37	ADDHYD	10.14	.79	---	6.24	997	98.3
XSECTION 129	REACH	10.14	.79	---	6.43	887	87.5
XSECTION 27	RUNOFF	.16	1.26	---	5.96	135	843.8
STRUCTURE 29	ADDHYD	10.30	.79	---	6.43	909	88.3
XSECTION 38	RUNOFF	.32	.75	---	6.16	102	318.8
XSECTION 128	REACH	.32	.75	---	6.26	100	312.5
XSECTION 28	RUNOFF	.17	1.32	---	5.94	158	929.4

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 46

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
	ALTERNATE	1	STORM	3			
STRUCTURE 28	ADDHYD	.49	.95	---	6.03	222	453.1
XSECTION 127	REACH	.49	.95	---	6.12	214	436.7
STRUCTURE 29	ADDHYD	10.79	.80	---	6.40	1039	96.3
XSECTION 29	RUNOFF	.23	.96	---	5.97	132	573.9
XSECTION 29	ADDHYD	11.02	.80	---	6.39	1067	96.8
XSECTION 184	REACH	11.02	.80	---	6.47	1067	96.8
XSECTION 84	RUNOFF	.04	1.32	---	5.89	37	925.0
STRUCTURE 30	ADDHYD	11.06	.81	---	6.47	1072	96.9
XSECTION 30	RUNOFF	.10	1.07	---	6.15	52	520.0
STRUCTURE 30	ADDHYD	11.16	.81	---	6.46	1103	98.8
XSECTION 31	RUNOFF	.21	1.79	---	6.22	200	952.4
STRUCTURE 30	ADDHYD	11.37	.83	---	6.40	1255	110.4
XSECTION 145	RUNOFF	.05	1.26	---	6.06	41	820.0
XSECTION 135	REACH	.05	1.26	1.01	6.16	40	800.0
XSECTION 135	RUNOFF	.09	.71	---	6.07	29	322.2
STRUCTURE 45	ADDHYD	.14	.92	---	6.12	68	485.7
XSECTION 135	REACH	.14	.92	1.28	6.23	67	478.6
XSECTION 185	RUNOFF	.06	1.07	---	6.07	35	583.3
STRUCTURE 35	ADDHYD	.20	.96	---	6.17	96	480.0
XSECTION 35	RUNOFF	.03	1.26	---	6.08	23	766.7
STRUCTURE 35	ADDHYD	.23	1.00	---	6.15	119	517.4
XSECTION 130	REACH	.23	1.00	---	6.32	108	469.6
XSECTION 144	RUNOFF	.09	1.26	---	6.09	65	722.2
XSECTION 134	REACH	.09	1.26	1.25	6.19	65	722.2
XSECTION 134	RUNOFF	.11	.80	---	6.11	40	363.6
STRUCTURE 34	ADDHYD	.20	1.01	---	6.16	103	515.0
XSECTION 134	REACH	.20	1.01	1.59	6.25	103	515.0
XSECTION 184	RUNOFF	.01	1.47	---	5.96	14	1400.0
XSECTION 186	RUNOFF	.01	1.78	---	5.95	12	1200.0
STRUCTURE 2	ADDHYD	.02	1.60	---	5.96	26	1300.0

1
 TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 47

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	3				
STRUCTURE 2	ADDHYD	.22	1.07	---	6.18	112	509.1
XSECTION 130	REACH	.22	1.07	---	6.38	103	468.2
STRUCTURE 30	ADDHYD	.45	1.04	---	6.34	209	464.4
XSECTION 100	RUNOFF	.03	1.47	---	6.06	26	866.7
XSECTION 101	RUNOFF	.09	1.26	---	6.01	72	800.0
STRUCTURE 10	ADDHYD	.12	1.31	---	6.02	99	825.0
XSECTION 101	REACH	.12	1.31	1.54	6.13	95	791.7
XSECTION 102	RUNOFF	.09	1.47	---	6.01	94	1044.4
STRUCTURE 1	ADDHYD	.21	1.38	---	6.06	184	876.2
XSECTION 101	REACH	.21	1.38	2.09	6.06	184	876.2
XSECTION 33	RUNOFF	.14	1.62	---	6.01	161	1150.0
STRUCTURE 33	ADDHYD	.35	1.47	---	6.03	345	985.7
XSECTION 32	RUNOFF	.11	2.06	---	6.14	139	1263.6
STRUCTURE 33	ADDHYD	.46	1.61	---	6.06	477	1037.0
XSECTION 131	REACH	.46	1.61	---	6.20	438	952.2
STRUCTURE 30	ADDHYD	.91	1.33	---	6.23	630	692.3
STRUCTURE 30	ADDHYD	12.28	.86	---	6.27	1865	151.9
XSECTION 125	REACH	12.28	.86	---	6.27	1865	151.9
XSECTION 26	RUNOFF	.19	1.26	---	5.96	161	847.4
STRUCTURE 25	ADDHYD	12.47	.87	---	6.25	1909	153.1
XSECTION 25	RUNOFF	.04	1.07	---	5.93	29	725.0
STRUCTURE 25	ADDHYD	12.51	.87	---	6.25	1914	153.0
XSECTION 24	RUNOFF	.19	1.87	---	5.97	274	1442.1
STRUCTURE 25	ADDHYD	12.70	.88	---	6.20	2007	158.0
XSECTION 120	REACH	12.70	.88	---	6.29	2004	157.8
XSECTION 22	RUNOFF	.13	1.62	---	5.93	162	1246.2
STRUCTURE 20	ADDHYD	12.83	.89	---	6.28	2025	157.8
XSECTION 20	RUNOFF	.09	.90	---	5.95	49	544.4
STRUCTURE 20	ADDHYD	12.92	.89	---	6.28	2037	157.7
XSECTION 21	RUNOFF	.12	1.32	---	5.94	113	941.7

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 48

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE		1	STORM	3			
STRUCTURE 20	ADDHYD	13.04	.90	---	6.27	2054	157.5
XSECTION 19	RUNOFF	.17	1.26	---	6.00	140	823.5
STRUCTURE 20	ADDHYD	13.21	.90	---	6.24	2116	160.2
XSECTION 83	RUNOFF	.11	1.70	---	5.96	140	1272.7
STRUCTURE 20	ADDHYD	13.32	.91	---	6.19	2169	162.8
XSECTION 23	RUNOFF	.28	1.87	---	6.03	382	1364.3
XSECTION 183	REACH	.28	1.87	---	6.12	376	1342.9
STRUCTURE 20	ADDHYD	13.60	.93	---	6.16	2537	186.5
STRUCTURE 98	RESVOR	13.60	.92	4.75	6.71	1623	119.3
XSECTION 113	REACH	13.60	.92	---	6.91	1573	115.7
XSECTION 13	RUNOFF	.24	1.07	---	6.01	156	650.0
STRUCTURE 13	ADDHYD	13.84	.93	---	6.91	1589	114.8
XSECTION 14	RUNOFF	.07	1.32	---	5.96	64	914.3
STRUCTURE 13	ADDHYD	13.91	.93	---	6.91	1595	114.7
XSECTION 15	RUNOFF	.17	1.19	---	6.02	129	758.8
STRUCTURE 13	ADDHYD	14.08	.93	---	6.91	1608	114.2
XSECTION 16	RUNOFF	.21	1.13	---	6.03	145	690.5
XSECTION 115	REACH	.21	1.13	---	6.13	143	681.0
STRUCTURE 13	ADDHYD	14.29	.93	---	6.90	1626	113.8
XSECTION 18	RUNOFF	.13	1.39	---	5.96	127	976.9
XSECTION 17	RUNOFF	.17	1.26	---	6.01	138	811.8
STRUCTURE 18	ADDHYD	.30	1.32	---	5.99	264	880.0
XSECTION 114	REACH	.30	1.32	---	6.08	263	876.7
STRUCTURE 13	ADDHYD	14.59	.94	---	6.89	1652	113.2
XSECTION 106	REACH	14.59	.94	---	7.00	1649	113.0
XSECTION 6	RUNOFF	.13	1.01	---	6.04	75	576.9
STRUCTURE 6	ADDHYD	14.72	.94	---	6.99	1658	112.6
XSECTION 5	RUNOFF	.15	1.19	---	5.98	116	773.3
STRUCTURE 6	ADDHYD	14.87	.95	---	6.99	1669	112.2
XSECTION 7	RUNOFF	.19	1.87	---	6.13	219	1152.6

1

TR20 ----- SCS -
 RIDGVIEW REVISED MDDP BASINS INC 100A SKY SOX POND OUTLET: SIX 5x10 VERSION
 08/14/98 24 HR TYPE IIA STORM (100, 10 & 5 YR, AMC=2) FILE NAME: RV_REV2.04TEST
 12:22:26 SUMMARY, JOB NO. 1 PAGE 49

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 3							
STRUCTURE 6	ADDHYD	15.06	.96	---	6.98	1698	112.7
XSECTION 11	RUNOFF	.16	1.70	---	6.03	191	1193.8
XSECTION 12	RUNOFF	.13	1.87	---	6.01	181	1392.3
STRUCTURE 11	ADDHYD	.29	1.78	---	6.02	374	1289.7
XSECTION 107	REACH	.29	1.78	---	6.13	362	1248.3
STRUCTURE 6	ADDHYD	15.35	.97	---	6.96	1730	112.7
STRUCTURE 97	RESVOR	15.35	.97	5.55	7.42	1459	95.0
XSECTION 104	REACH	15.35	.96	---	7.51	1457	94.9
XSECTION 4	RUNOFF	.19	1.32	---	5.97	172	905.3
STRUCTURE 4	ADDHYD	15.54	.97	---	7.51	1466	94.3
XSECTION 8	RUNOFF	.20	1.70	---	6.05	231	1155.0
STRUCTURE 8	ADDHYD	15.74	.98	---	7.51	1478	93.9
XSECTION 10	RUNOFF	.14	1.26	---	5.94	121	864.3
XSECTION 109	REACH	.14	1.26	---	6.04	119	850.0
XSECTION 9	RUNOFF	.25	1.39	---	5.94	251	1004.0
STRUCTURE 9	ADDHYD	.39	1.34	---	5.95	365	935.9
XSECTION 108	REACH	.39	1.34	---	6.06	357	915.4
STRUCTURE 99	ADDHYD	16.13	.99	---	7.51	1497	92.8

END OF 1 JOBS IN THIS RUN

SCS TR-20, VERSION 2.04TEST
 RIDGVIEW FILES

INPUT = RV_REVC2.DAT , GIVEN DATA FILE
 OUTPUT = RV_REVC2.OUT , DATED 08/14/98,12:22:26

FILES GENERATED - DATED 08/14/98,12:22:26

FILE RV_REVC2.TMG CONTAINS MESSAGE + WARNING INFORMATION

TOTAL NUMBER OF WARNINGS = 54, MESSAGES = 0

*** TR-20 RUN COMPLETED ***

APPENDIX C
Preliminary Storage Volume Calculations

**RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
DETENTION POND ANALYSIS**

URS Greiner Project No. 6742271 12-Feb-98

TR20 RUNS: RV_REV1.DAT, RV_REVB1.DAT IMPROVED STAGE-STORAGE DISCHARGE CURVE
AT SKY SOX POND, NO POND AT STETSON HILLS BLVD

DBPS PROPOSED POND (approximation) AT SKY SOX

Length* 1200 ft, Width* 700 ft, * from DBPS Plans sheets
Sides z= 4 :1 minimum City standard Outlet: Height Width
Number: 8 10
3 RCBCs

Depth (ft)	EL Difference (ft)	Area (sq. ft)	Area (Ac)	Incremental Volume (cu.ft)	Cumulative Volume (cu ft)	Cumulative Volume (Ac.ft)	Q/b	Discharge (cfs)
0		840,000		-				
1	1	855,264	19.63	847,632	847,632	19.46	0	
2	1	870,656	19.99	862,960	1,710,592	39.27	3	90
4	2	901,824	20.70	1,772,480	3,483,072	79.96	9	270
6	2	933,504	21.43	1,835,328	5,318,400	122.09	25	750
8	2	965,696	22.17	1,899,200	7,217,600	165.69	45	1350
10	2	998,400	22.92	1,964,096	9,181,696	210.78	65	1950
15	5	1,082,400	24.85	5,202,000	14,383,696	330.20	85	2550
20	5	1,169,600	26.85	5,630,000	20,013,696	459.45	130	3900
							155	4650

RV_REV1 INTERPOLATION: DEPTH = 13.92 FT
STORAGE = 304.41 AC-FT

RV_REVB1* INTERPOLATION: DEPTH = 13.88 FT
STORAGE = 303.45 AC-FT

RV_REVB1 INCORPORATES CHANGES TO PROPOSED LAND USES
MADE FEB 4/98 (COMMERCIAL TO OFFICE)

**RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
DETENTION POND ANALYSIS**

URS Greiner Project No. 6742271 12-Feb-98

TR20 RUN: RV_REV2.DAT, RV_REVB2/DAT IMPROVED STAGE-STORAGE DISCHARGE CURVE
AT SKY SOX POND, NO POND AT STETSON HILLS BLVD

DBPS PROPOSED POND (approximation) AT SKY SOX

Length* 1200 ft, Width* 700 ft, * from DBPS Plans sheets
Sides z= 4 :1 mimimum City standard Outlet: Height Width
Number: 8 10
5 RCBCs

Depth (ft)	EL Difference (ft)	Area (sq. ft)	Area (Ac)	Incremental Volume (cu.ft)	Cumulative Volume (cu ft)	Cumulative Volume (Ac.ft)	Q/b	Discharge (cfs)
0		840,000		-			0	
1	1	855,264	19.63	847,632	847,632	19.46	3	150
2	1	870,656	19.99	862,960	1,710,592	39.27	9	450
4	2	901,824	20.70	1,772,480	3,483,072	79.96	25	1250
6	2	933,504	21.43	1,835,328	5,318,400	122.09	45	2250
8	2	965,696	22.17	1,899,200	7,217,600	165.69	65	3250
10	2	998,400	22.92	1,964,096	9,181,696	210.78	85	4250
15	5	1,082,400	24.85	5,202,000	14,383,696	330.20	130	6500
20	5	1,169,600	26.85	5,630,000	20,013,696	459.45	155	7750

RV_REV2 INTERPOLATION: DEPTH = 11.18 FT
STORAGE = 238.97 AC-FT

RV_REVB2 INTERPOLATION: DEPTH = 11.13 FT
STORAGE = 237.77 AC-FT

RV_REVB2 INCORPORATES CHANGES TO PROPOSED LAND USES
MADE FEB 4/98 (COMMERCIAL TO OFFICE)

RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
 DETENTION POND ANALYSIS

URS Greiner Project No. 6742271 12-Feb-98

TR20 RUN: RV_REVB3.DAT IMPROVED STAGE-STORAGE DISCHARGE CURVE AT SKY SOX POND
 NO POND AT STETSON HILLS BLVD
 REVISED LAND USES IN WESTERN PORTION OF STETSON HILLS

DBPS PROPOSED POND (approximation) AT SKY SOX

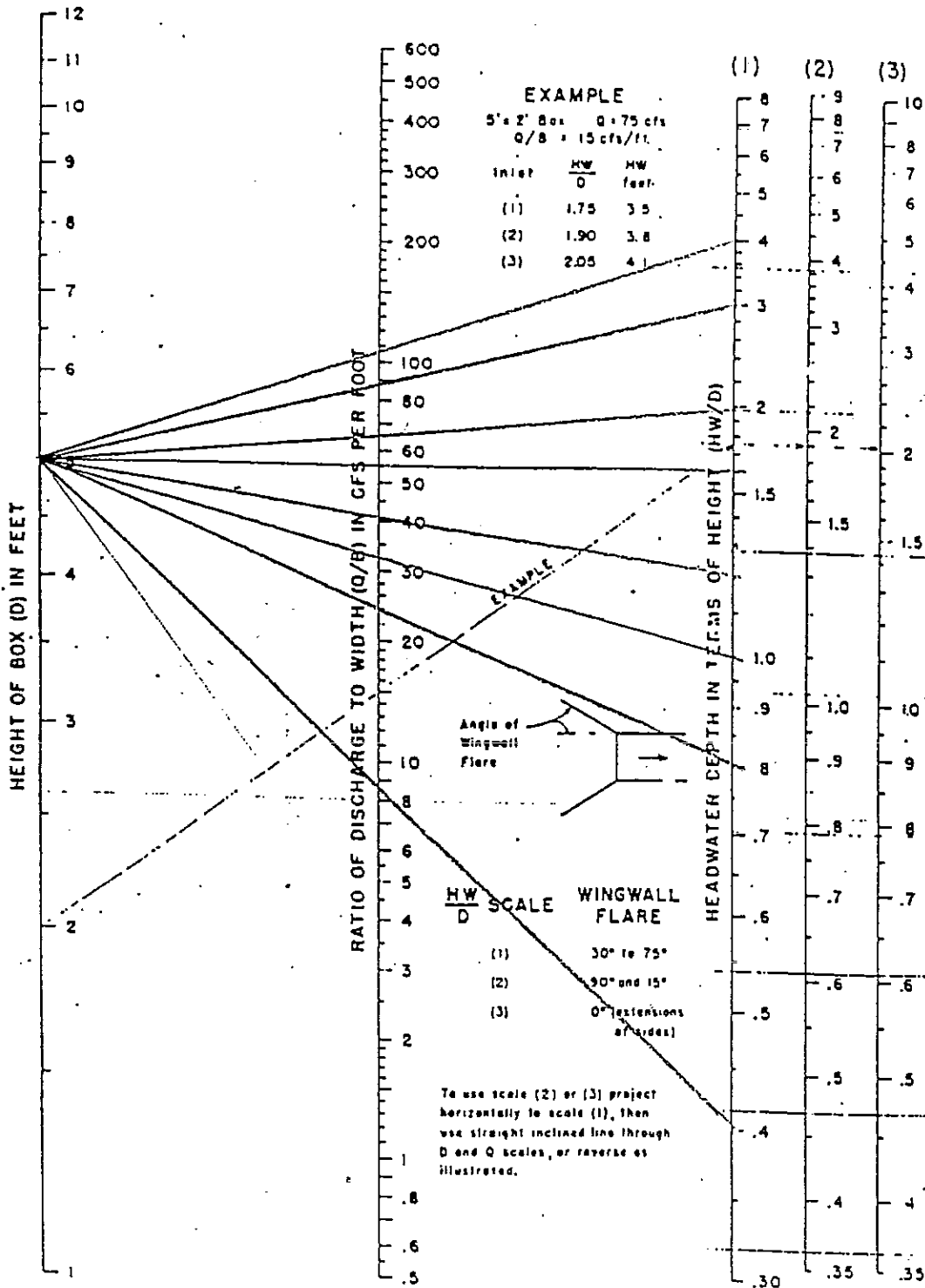
Length* 1200 ft, Width* 700 ft, * from DBPS Plans sheets
 Sides z= 4 :1 mimumum City standard Outlet: Height Width
 Number: 5 10
 6 RCBCs

Depth (ft)	EL Difference (ft)	Area (sq. ft)	Area (Ac)	Incremental Volume (cu.ft)	Cumulative Volume (cu ft)	Cumulative Volume (Ac.ft)	Q/b	Discharge (cfs)
0		840,000		-			0	
1	1	855,264	19.63	847,632	847,632	19.46	3.5	210
2	1	870,656	19.99	862,960	1,710,592	39.27	8.5	510
4	2	901,824	20.70	1,772,480	3,483,072	79.96	24	1440
6	2	933,504	21.43	1,835,328	5,318,400	122.09	40	2400
8	2	965,696	22.17	1,899,200	7,217,600	165.69	55	3300
10	2	998,400	22.92	1,964,096	9,181,696	210.78	65	3900
15	5	1,082,400	24.85	5,202,000	14,383,696	330.20	89	5340
20	5	1,169,600	26.85	5,630,000	20,013,696	459.45	108	6480

RV_REVB3 INTERPOLATION: DEPTH = 11.51 FT
 STORAGE = 246.85 AC-FT

RV_REVB3 INCORPORATES CHANGES TO PROPOSED LAND USES
 MADE FEB 4/98 (COMMERCIAL TO OFFICE)

CHART I



HEADWATER DEPTH FOR BOX CULVERTS WITH INLET CONTROL

APPENDIX D
Hydrology Model Comparison

RIDGEVIEW MASTER DEVELOPMENT DRAINAGE PLAN
 HYDROLOGY MODEL COMPARISON
 URS Greiner Project No. 6742271

DESIGN POINT DESCRIPTION	DBPS TABLE VII-1			KIOWA FILE: FUALTC.DAT			URS FILE: RV_REVC2.DAT		
	DESIGN POINT	DESIGN FLOW (cfs)	AREA (sq.mi.)	DESIGN POINT	DESIGN FLOW (cfs)	AREA (sq.mi.)	DESIGN POINT	DESIGN FLOW (cfs)	AREA (sq.mi.)
DUBLIN BLVD	141	2470	6.75	141	2397	6.75	141	2451	7.09
STETSON HILLS BLVD	37	3270	10	37	3087	9.98	37	3277	10.14
				35	902	0.58	35	6	0.23
BARNES RD	29	3600	10.6	29	3667	10.86	29	3710	11.02
				30	6049	12.19	30	5830	12.28
INFLOW @ SKY SOX POND	20	8540	13.1	20	8429	13.51	20	8036	13.60
P2 OUTFLOW	113	4680		98	4849	13.51	98	4797	13.60

APPENDIX E
Calculation of Drainage Surcharge Fee

Kiowa Engineering Corporation

March 10, 1998

Ms. Adrienne Robberson
URS/Greiner
8415 Explorer Drive #110
Colorado Springs, Colorado 80920

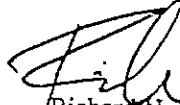
RE: Ridgeview Master Development Drainage, Colorado Springs, Colorado (Kiowa Project No. 98.04)

Dear Adrienne:

Kiowa has completed a revision to the hydrologic analysis for the above referenced project. The curve-numbers and development phasing plan provided by you on March 5, 1998 was used to revise the TR20 runs. The attached graph summarizes the results. Based upon the analysis, the increase in runoff necessary to warrant the construction of the Sand Creek No. 2 detention basin will occur in approximately 12 to 14 years. This analysis does assume concurrent development within the Stetson Hills property.

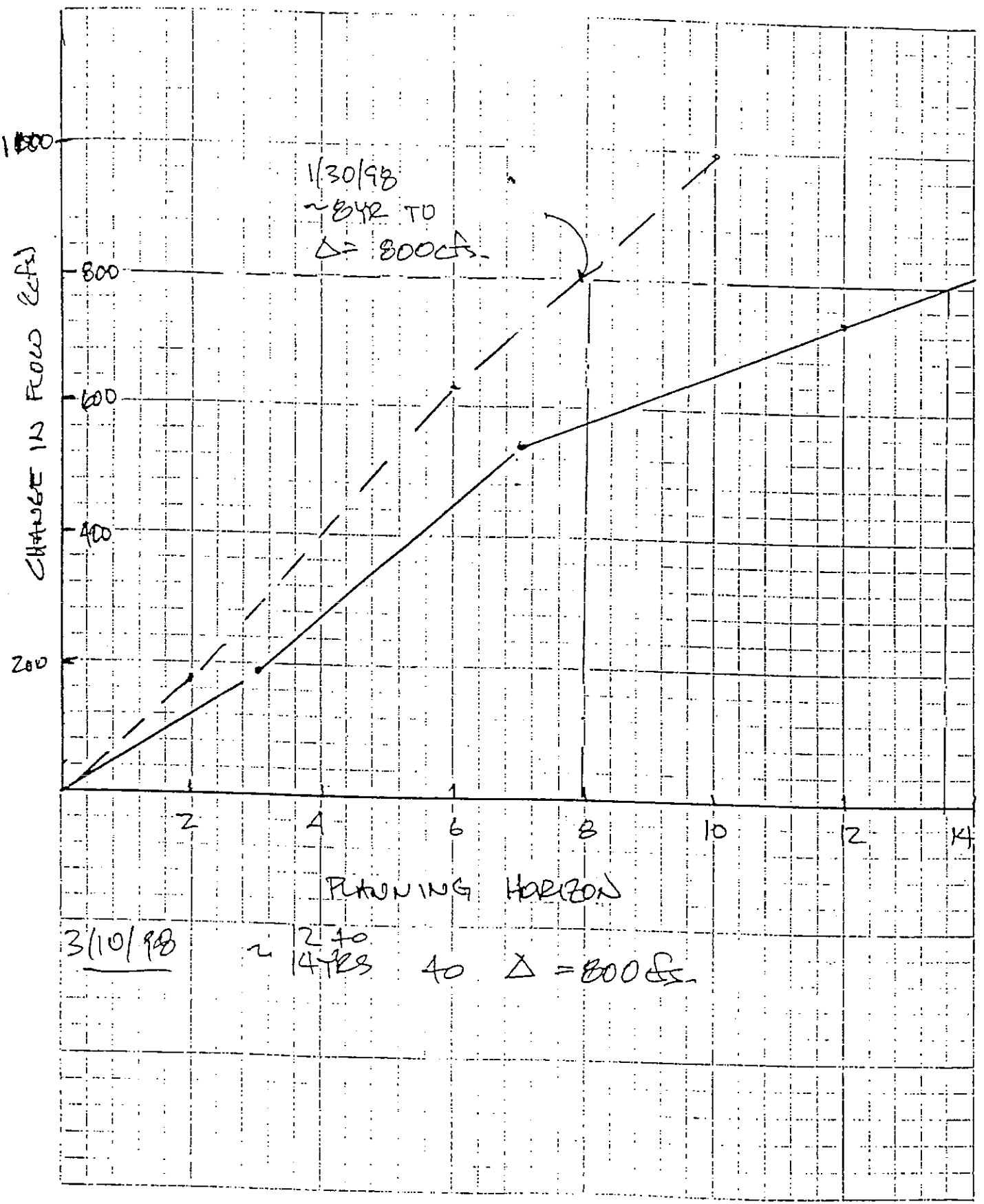
Please let me know if you have any questions.

Sincerely yours,
KIOWA ENGINEERING CORPORATION



Richard N. Wray, P.E.
Principal

RNW/rnw
0310rnw1.doc



URS
CONSULTANTS, INC.

URS JOB NO. 16742271 PAGE OF
DATE 8/11/98 BY ALR CHECKED BY (date)
CLIENT RDS
PROJECT RIDGEMOUNT MDDO

SUBJECT POND #2 SURPRISE CALCS - POND 2 COST EST

PURPOSE: REVISE COST EST FOR POND #2 BASED ON BID FOR CONSTRUCTION OF S.O. POND #1, PRORATED ON A PER AC FT BASIS.

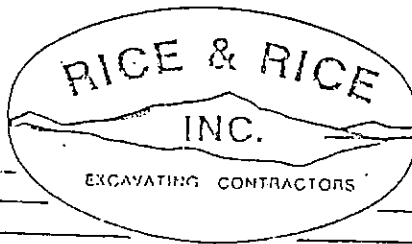
REFERENCE: FULL PRICE BID ESTIMATE FOR S.O. #1 AUG 13/98
 $\$1,753,355 = \$1,896,104$ in 1998 @ 24% p.a.

- POND #1 DESIGN QUANTITY \Rightarrow 243 AC FT PER STEPHEN WATSON
KIDWA ENG (8/11/98 phone call)

NOTE: LESS EXCAVATION MAY BE REQUIRED FOR POND #2
RICH FEELS THE DBPS ESTIMATE IS STILL A GOOD NUMBER FOR

SOLUTION: POND #1 = $1,896,104$ FOR 243 AC FT \Rightarrow $\$7803/AC FT$
POND #2 SIZE PER MDDP CALCS (rv-ponds.xls) = 240 AC FT
 \therefore POND #2 ANTICIPATED COST = $\$1,872,720$.

8150 RICE LANE
FOUNTAIN, CO 80817



Attachment 3
Construction Estimate

PHONE (719) 392-5311
FAX (719) 392-5127

August 13, 1996

To: Mallon Development
50 H Mount View Lane
Colorado Springs, CO 80907
Attn: Mike Mallon

AUG 16 1996

AUG 16 1996

Re: Bid Estimate for Sand Creek Detention Basin #1

Dear Mike,

The following is our preliminary bid for Sand Creek Detention Basin Number One. This budget is based upon unapproved plans by Kiowa Engineering and is good for 90 days.

Strip/Stockpile 4" - 24,000 cy X \$.80/cy	= \$ 19,200.00
Cut/Fill - 120,000 cy X \$ 1.00/cy	= \$ 120,00.00
Cut/Excess (stockpiled) - 427,000 cy X \$.85/cy	= \$ 362,950.00
Box Culvert Extension - Excavation 900 cy X \$ 3.00/cy	= \$ 2,700.00
Backfill 100 cy X \$ 5.00/cy	= \$ 500.00
Concrete Drop Structures (4 EA) - 220 cy X \$ 270.00/cy * per Rich Ray at Kiowa Engineering	= \$ 59,400.00
No Check Structures - * per Rich Ray at Kiowa	
Riprap at Drop Structures (grouted) - Excavation 2500 cy X \$ 3.00/cy	= \$ 7,500.00
Grouted Type H 2800 TN X \$ 37.00/TN	= \$ 103,600.00
Bedding 600 TN X \$ 10.00/TN	= \$ 6,000.00
Mirafi 4 Rolls X \$ 470.00/Roll	= \$ 1,880.00



Riprap Banks (non-grouted) Sta 12+00 to 26+00 -		
* per Rich Ray at Kiowa		
Excavation 5600 cy X \$ 3.00/cy	= \$	16,800.00
Riprap 5200 TN X \$ 22.00/TN	= \$	114,400.00
Sand (on-site) 960 cy X \$ 4.00/cy	= \$	3,840.00
Mirafi 14 Rolls X \$ 470.00/Roll	= \$	6,580.00
Cover Bank Riprap -		
Wash in Sand in Voids 1600 cy X \$ 4.50/cy	= \$	7,200.00
Topsoil in Riprap 2000 cy X \$ 2.00/cy	= \$	4,000.00
Seeding on Topsoil 2 AC X \$ 600.00/AC	= \$	1,200.00
Netting 5000 sy X \$ 1.25/sy	= \$	6,250.00
Soil Cement Drop Structure (Station 6) -		
Excavation 1350 cy X \$ 3.00/cy	= \$	4,050.00
Soil Cement 1100 cy X \$ 20.00/cy	= \$	22,000.00
Backfill 250 cy X \$ 5.00/cy	= \$	1,250.00
Soil Cement Drop Structures w/Riprap Inside (non-grouted) -		
Excavation 2500 cy X \$ 3.00/cy	= \$	7,500.00
Riprap 1400 TN X \$ 22.00/TN	= \$	30,800.00
Gravel 300 TN X \$ 12.00/TN	= \$	3,600.00
Soil Cement 2800 cy X \$ 20.00/cy	= \$	56,000.00
Soil Cement Banks and Road -		
Banks 2' & Road 3' 25,200 cy X \$ 20.00/cy	= \$	504,000.00
Topsoil 5500 cy X \$ 2.00/cy	= \$	11,000.00
Seed 7 AC X \$ 700.00/AC	= \$	4,900.00
Erosion Mat 22800 sy X \$ 1.25/sy	= \$	28,500.00
* if necessary		
Box Culvert -		
Concrete 720 cy X \$ 275.00/cy	= \$	198,000.00
Pipe & Outlet Structures -		
36" RCP 453 LF X \$ 40.00/LF	= \$	18,120.00
60" RCP 125 LF X \$ 78.00/LF	= \$	9,750.00
Riprap 55 TN X \$ 22.00/TN	= \$	1,210.00
Bedding 20 TN X \$ 10.00/TN	= \$	200.00
60" Flap Gates -		
1 LS	= \$	2,375.00
Trash Rack -		
2 EA X \$ 1,200.00/EA	= \$	2,200.00
36" Box Inlet -		
1 LS	= \$	4,100.00
Total Proposal	= \$	<u>1,753,055.00</u>

Respectfully Submitted,

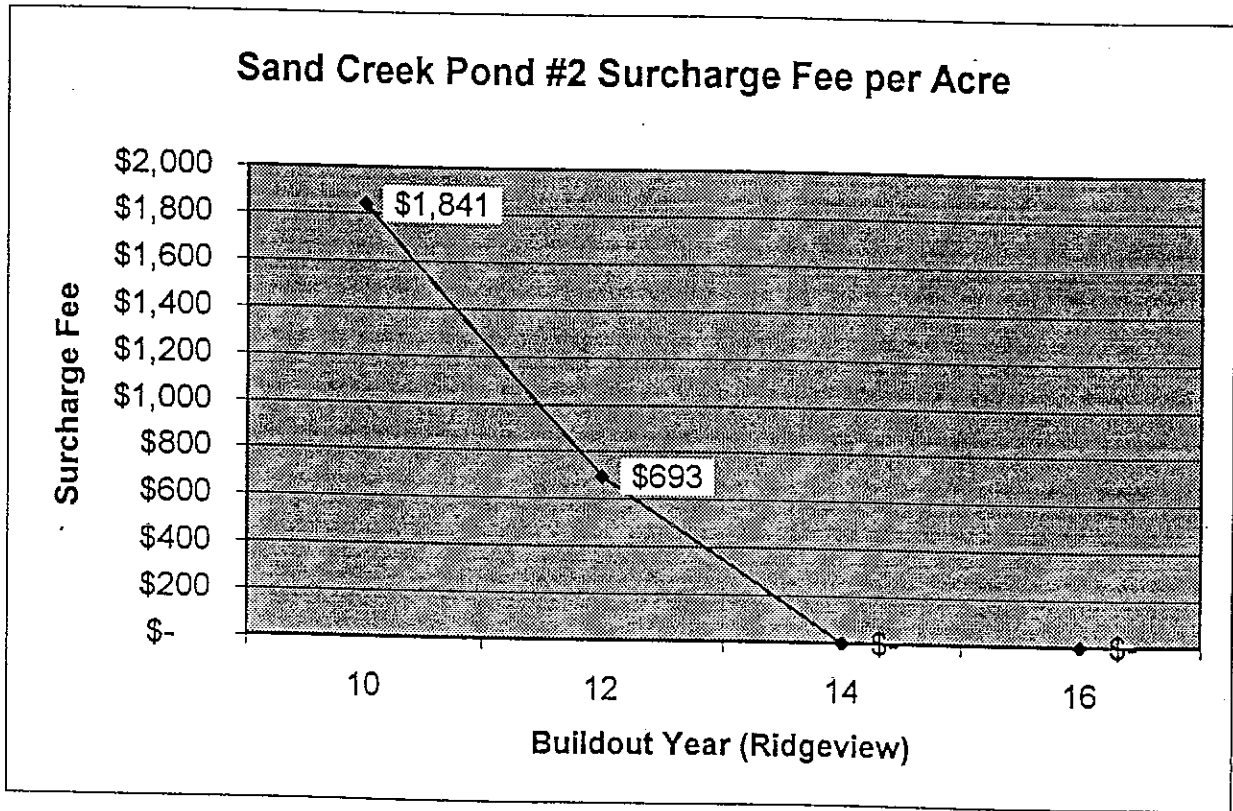
Robert H. Levstik
 Robert H. Levstik
 RR2154

**RIDGEVIEW DEVELOPMENT MDDP
POND SURCHARGE FEES
URS Greiner Job No. 6742271**

20-Year Buildout
Year Pond Required vs. Surcharge Fee

Surcharge Fee

Year	Buildout Year	Area (Ac) Developed	Surcharge per Acre
2008	10	468	\$ 1,841
2010	12	561	\$ 693
2012	14	680	\$ -
2014	16	800	\$ -



**RIDGEVIEW DEVELOPMENT MDDP
POND SURCHARGE FEES
URS Greiner Job No. 6742271**

29-Sep-98

- REFERENCES:** - SAND CREEK DBPS, KIOWA ENGINEERING, MARCH 1996
 - MATERIALS FROM KIOWA INDICATE POND CONSTRUCTION WILL BE REQUIRED AT APPROXIMATELY YEAR 12
 - BID ESTIMATE FOR CONSTRUCTION OF SAND CREEK POND #1, PRORATED

- ASSUMPTIONS:** - PARK DEDICATION / LAND VALUE (1998 MAX) \$32,000 per Ac
 - FLOODPLAIN LAND ACQUISITION FEE \$0.15 per sf
 - POND FEE (1998 SCHEDULE) \$ 1,331 per Ac
 - LAND FEE (1998 SCHEDULE) \$ 335 per Ac
 - POND FEES COLLECTED OUTSIDE OF RIDGEVIEW PRIOR TO YEAR 6 (2004) ARE NOT AVAILABLE FOR POND #2
 - DEVELOPMENT RATE WAS ASSUMED AS 95 Ac/yr WITHIN THE CITY LIMITS IN THE SAND CREEK DRAINAGE BASIN (BASED ON 55% OF BAMBERGER'S DEVELOPMENT RATE AS USED IN THE SPRINGS RANCH SURCHARGE CALCS, REDUCED TO ACCOUNT FOR 30% STREET AREA, 15% PARKS & SCHOOL)
 - THE FOLLOWING IS AN APPROXIMATE BREAKDOWN OF DEVELOPMENT PHASING WITHIN RIDGEVIEW
- | | |
|-------------|--------------------|
| YEARS 1-3 | 141 Ac |
| YEARS 4-12 | 420 Ac |
| YEARS 13-20 | 477 Ac (REMAINDER) |
| | 1038 Ac (TOTAL) |

CALCULATIONS

COSTS:	COST OF POND =	\$ 1,872,720 (See p. 3)
	LAND COST OF POND =	\$ 400,703 (See p. 3)
	TOTAL COST OF POND =	\$ 2,273,423

FEES:		10 (2008)	12 (2010)	14 (2012)	16 (2014)	
TOTAL ACRES (RIDGEVIEW)		468	561	680	800	Acres
RIDGEVIEW POND FEES	\$	622,464	746,691	905,413	1,064,135	
RIDGEVIEW LAND FEES	\$	156,668	187,935	227,884	267,833	
TOTAL RIDGEVIEW FEES	\$	779,133	934,626	1,133,297	1,331,967	
NON-RIDGEVIEW CONTRIBUTING AREA		380	570	760	950	Acres
NON-RIDGEVIEW POND FEES	\$	505,780	758,670	1,011,560	1,264,450	
NON-RIDGEVIEW LAND FEES	\$	127,300	190,950	254,600	318,250	
TOTAL NON-RIDGEVIEW FEES	\$	633,080	949,620	1,266,160	1,582,700	
TOTAL FEES COLLECTED:	\$	1,412,593	1,884,816	2,400,217	2,915,617	
DIFFERENCE: (POND COST - FEES)	\$	860,831	388,607	(126,793)	(642,194)	
REQUIRED SURCHARGE FEE	\$	1,841	693	-	-	per Acre

RIDGEVIEW DEVELOPMENT MDDP
POND SURCHARGE FEES - ESTIMATE OF POND CONSTRUCTION COST
 URS Greiner Job No. 6742271 29-Sep-98

REFERENCE: Bid Estimate for the construction of Sand Creek Detention Basin #1
 by Rice & Rice Inc., dated August 16, 1996

Projected Cost (1996 \$)	\$ 1,753,055
Projected Cost (1998 \$)	\$ 1,896,129

Acre-footage of Pond #1	243 Ac-ft
Projected acre-footage of Pond #2	240 Ac-ft

Projected Cost of Pond #2 (1998 \$) \$ 1,872,720

From Sand Creek DBPS, March 1996 by Kiowa Engineering

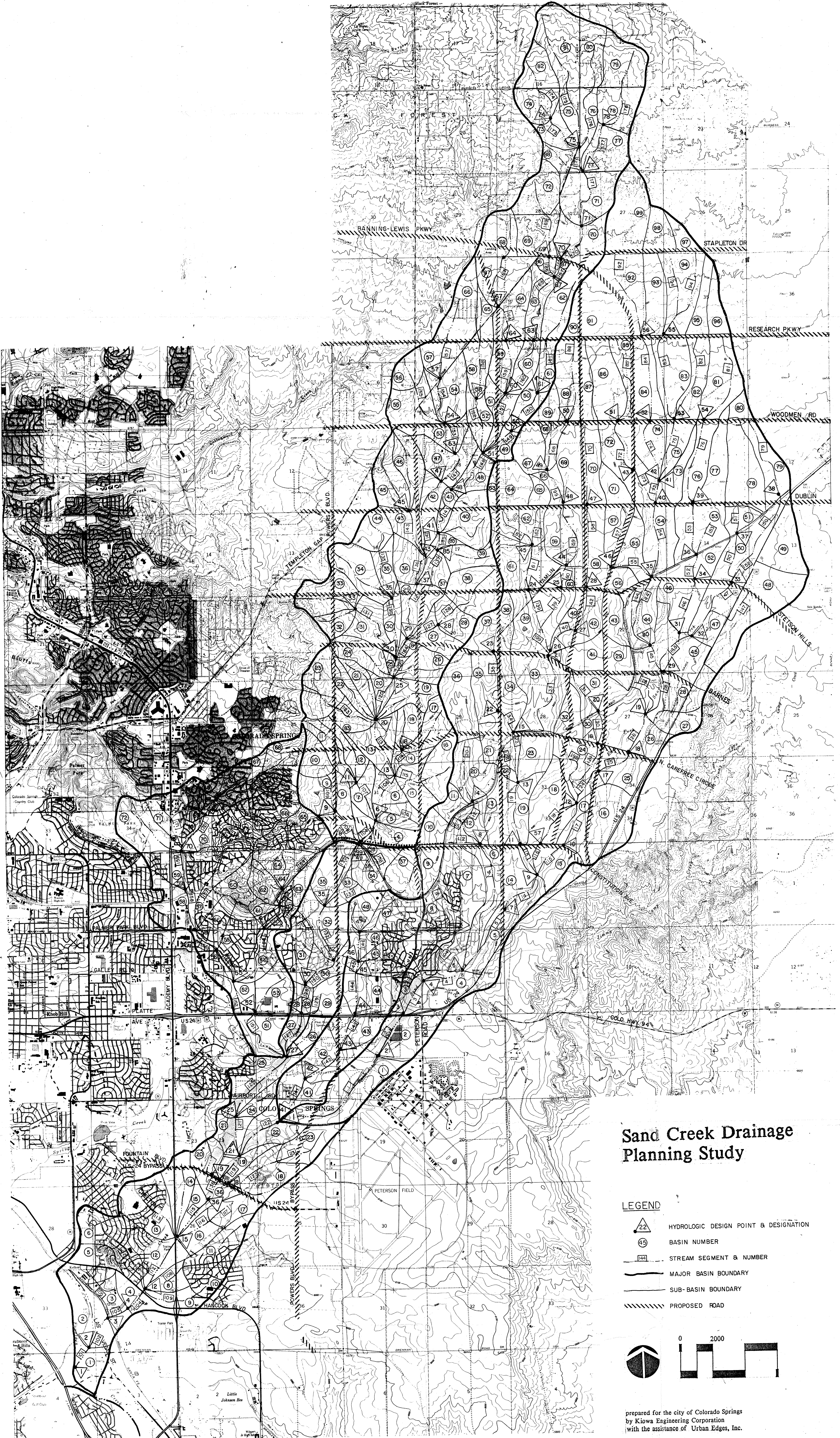
Total Area is approximately	24.3 Ac
Flood Plain area is approximately	14.8 Ac
Remaining Area is therefore	9.5 Ac

Estimated cost of land in Flood Plain	\$0.15 per sf ->	\$ 6,534.00 per Ac
Estimated cost of remaining land	\$ 32,000 per Ac	

Projected Cost of Land for Pond #2 \$ 400,703







TOTAL PROJECTED COST OF POND #2 \$ 2,273,423

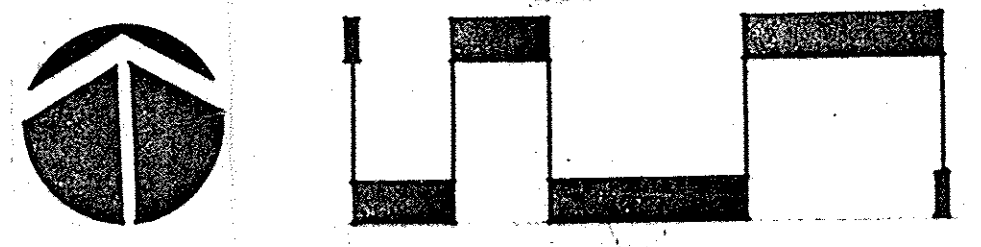
DRAINAGE BASIN DATA AND PEAK FLOW RATES SHOWN ON THIS DRAWING REPRESENTS THE BASELINE HYDROLOGIC CONDITION, AND DOES NOT REFLECT CHANGES TO THE HYDROLOGY BECAUSE OF THE CHANNEL AND DETENTION BASIN FACILITIES PRESENTED ON THE PRELIMINARY DESIGN PLANS. FOR PEAK DISCHARGE DATA ASSOCIATED WITH THE RECOMMENDED ALTERNATIVE PLAN, REFER TO SECTION VII OF THIS REPORT. PEAK DISCHARGE DATA FOR THE PROPOSED DRAINAGEWAY IMPROVEMENTS WILL HAVE TO BE VERIFIED DURING FINAL DESIGN STAGES.



Sand Creek Drainage Planning Study

LEGEND

-  HYDROLOGIC DESIGN POINT & DESIGNATION
-  BASIN NUMBER
-  STREAM SEGMENT & NUMBER
-  MAJOR BASIN BOUNDARY
-  SUB-BASIN BOUNDARY
-  PROPOSED ROAD



prepared for the city of Colorado Springs
by Kiowa Engineering Corporation
with the assistance of Urban Edges, Inc.