

Bound Reports

1720

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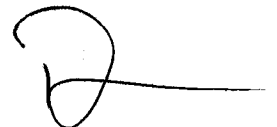
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4-069-0326 RM3-ERP

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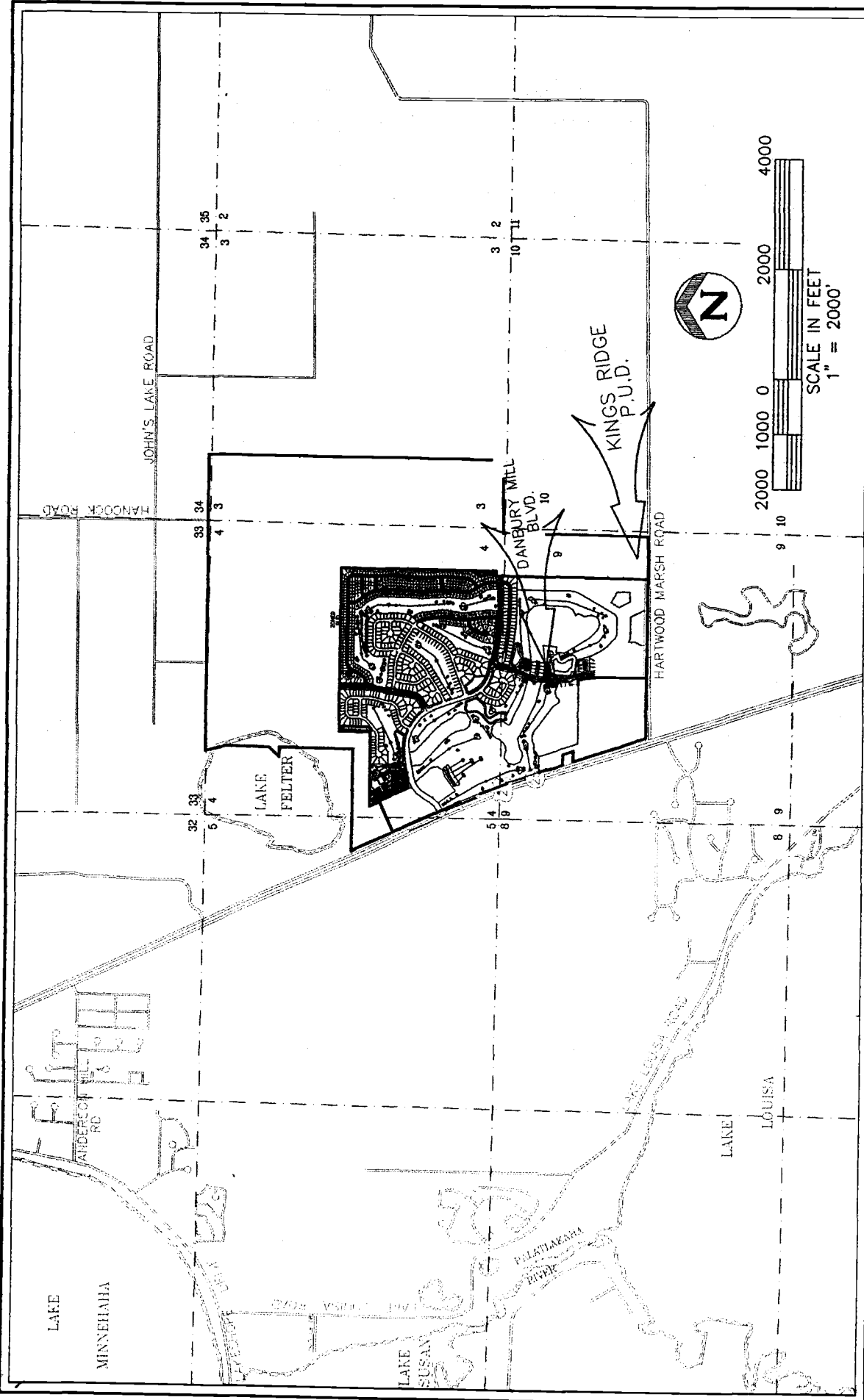
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1



VICINITY MAP

**DANBURY MILL BOULEVARD @ KINGS RIDGE
PROJECT SUMMARY**

Danbury Mill Boulevard is 1,767 Linear Feet of road with the associated stormwater collection and conveyance system. This project lies within the Kings Ridge Planned Unit Development for which a master stormwater plan has been previously permitted and constructed as part of Kings Ridge Phase IV to which a St. Johns individual permit was issued. Permit No. 4-069-0326M-ERP. The developed site condition summary shows that the actual curve number to date including this project is lower than the curve numbers assumed for build-out within these stormwater calculations permitted under the above referenced project.

**DANBURY MILL BOULEVARD @ KINGS RIDGE
DEVELOPED SITE CONDITION**

Project Area = 2.27 Ac.
 Impervious Area = 1.23 Ac. (54.29%)
 CN = 54.29% x 98 (Impervious)
 = 45.71% x 39 (Grass Good Condition 'A' Soils)
 Weighted CN = 71

Project within Previously Permitted Basins

1-O, 3-A

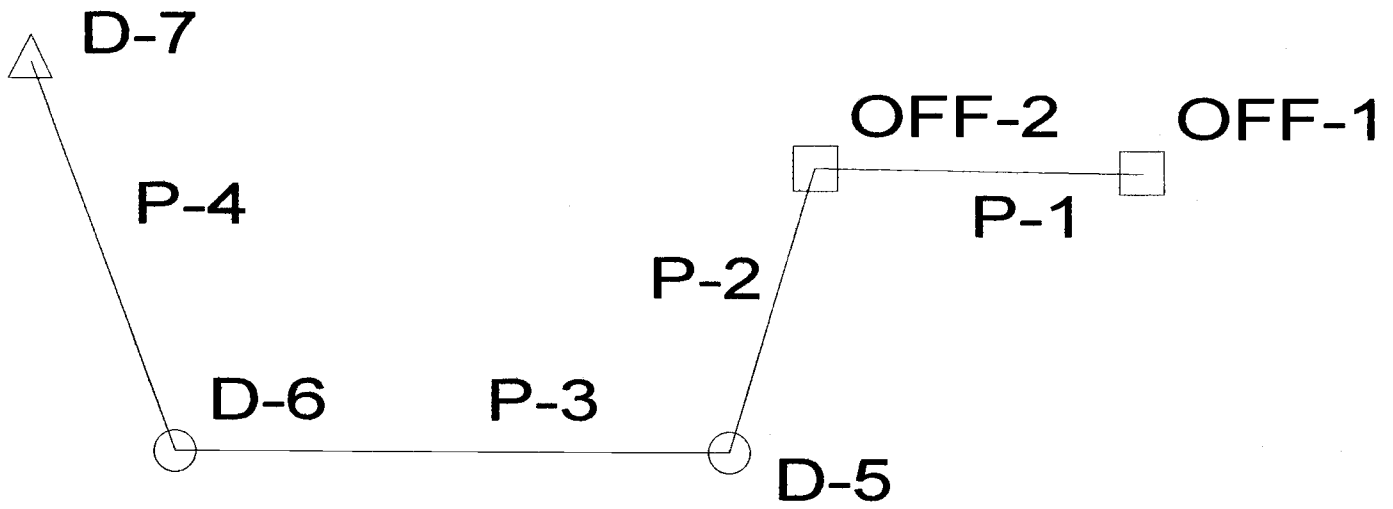
BASIN SUMMARY

BASIN	AREA (Ac)	CN (Permitted)	CN (Actual) including this page	BASIN STATUS
1-O	0.87	68	64	65% Complete
3-A	1.40	78	71	68% Complete

STORM SEWER TABULATIONS

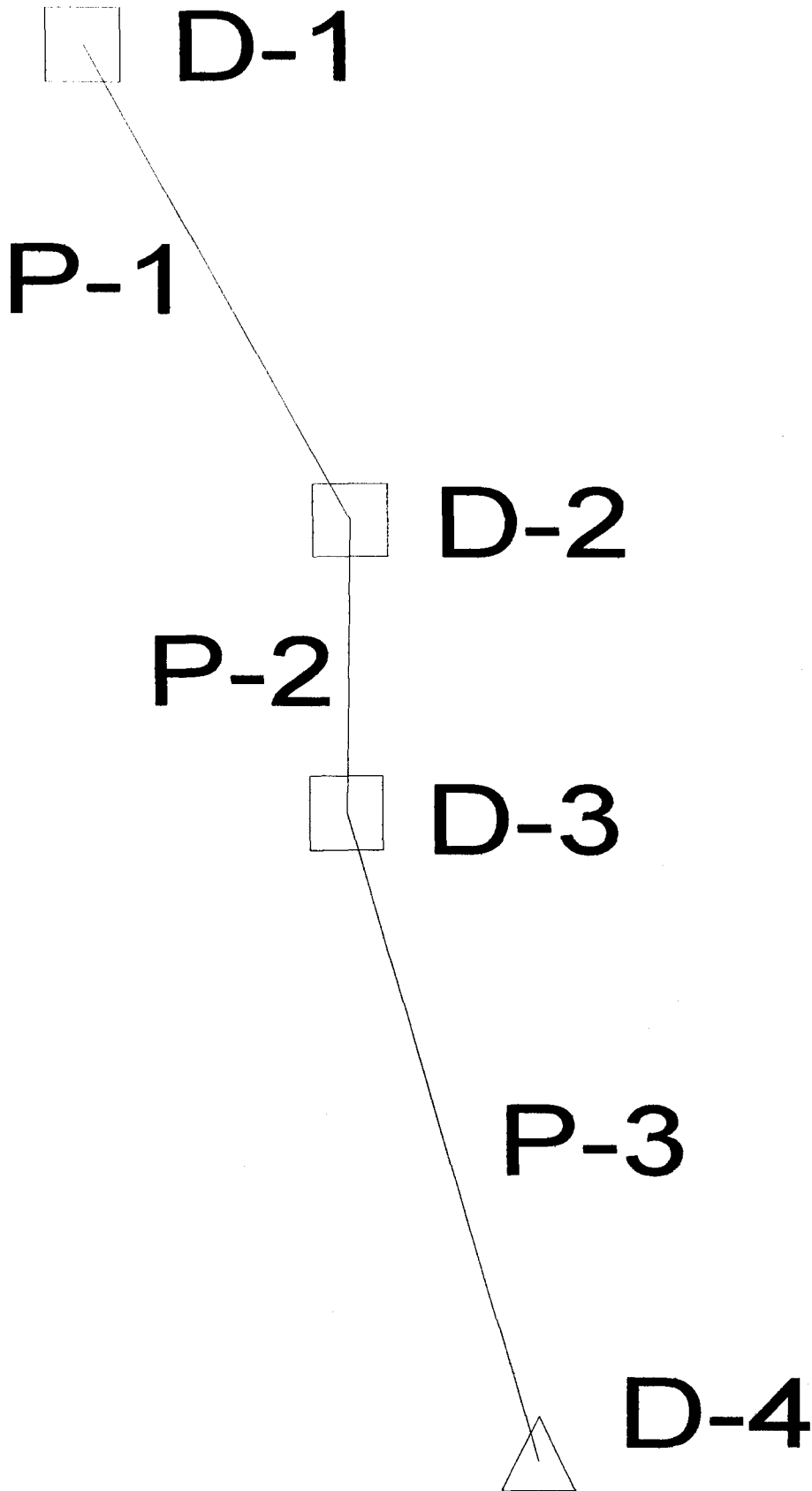
Structures D-12 through D-14 and D-119 through D-123 are part of pond reach as previously calculated. See Kings Ridge Phase IV Storm Calculations in back of book.

Structures D-1 through D-11 and D-15 through 19 can be found on the following pages.



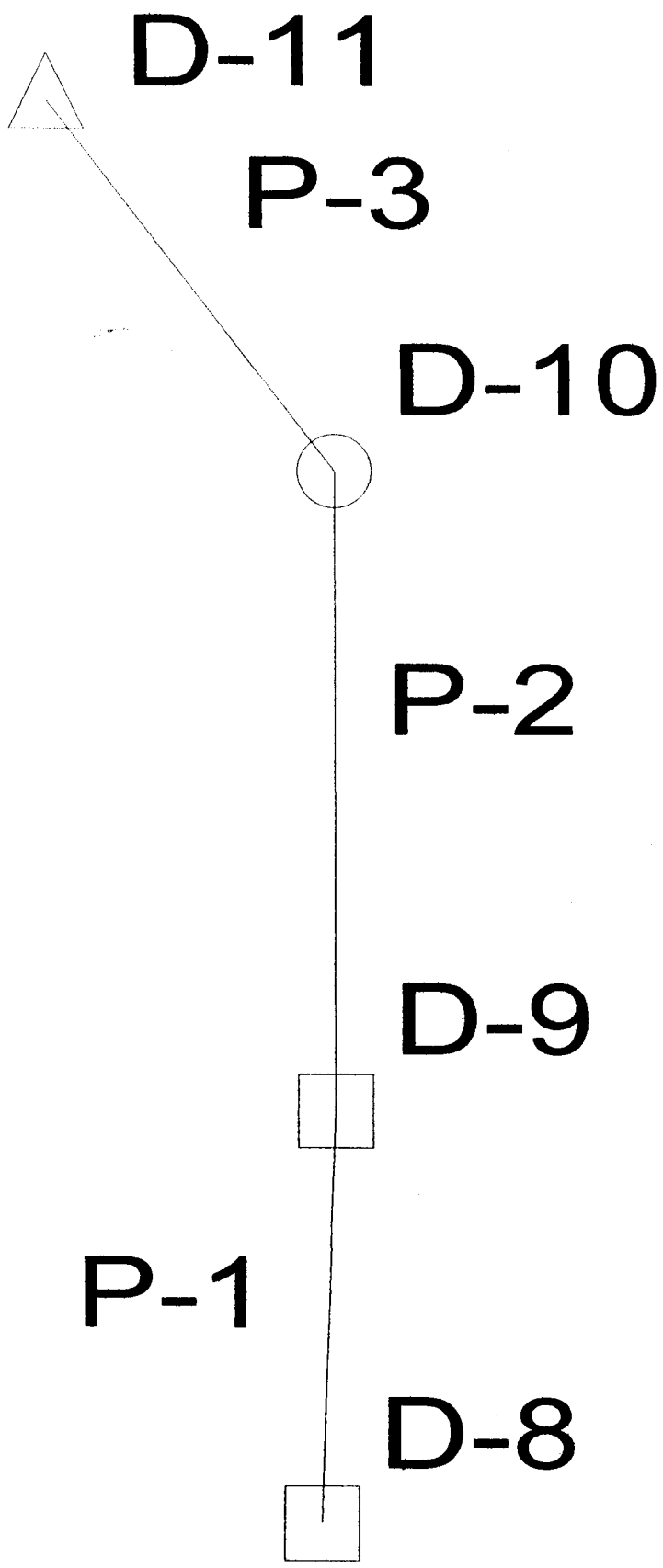
DOT Report

Pipe	-Node- Upstream Downstream	Inlet Area (acres)	Inlet CA (acres)	Total CA (acres)	-Ground- Upstream Downstream (ft)	-HGL- Upstream Downstream (ft)	-Slope- Energy Constructed (ft/ft)	-Section- Discharge Capacity (cfs)	-Section- Shape Size	Length (ft)	Average Velocity (ft/s)	Description
P-1	OFF-1	0.55	0.40	0.40	180.50	177.72	0.000770	2.91	Circular	36.00	1.65	
	OFF-2				180.50	177.69	0.005000	7.43	18 inch			
P-2	OFF-2	0.55	0.40	0.79	180.50	177.50	0.001324	24.27	Circular	50.00	3.43	
	D-5				179.81	177.44	0.005000	47.16	36 inch			
P-3	D-5	N/A	N/A	0.79	179.81	177.33	0.001320	24.23	Circular	300.00	3.43	
	D-6				178.31	176.93	0.005000	47.16	36 inch			
P-4	D-6	N/A	N/A	0.79	178.31	176.83	0.001295	24.00	Circular	120.00	3.40	
	D-7				180.00	176.67	0.005000	47.16	36 inch			



DOT Report

Pipe	-Node- Upstream Downstream	Inlet Area (acres)	Inlet CA (acres)	Total CA (acres)	-Ground- Upstream Downstream (ft)	-HGL- Upstream Downstream (ft)	-Slope- Energy Constructed (ft/ft)	-Section- Discharge Capacity (cfs)	-Section- Shape Size	Length (ft)	Average Velocity (ft/s)	Description
P-1	D-1	0.00	0.00	0.00	176.00	175.34	0.003098	56.00	Circular	72.00	5.82	
	D-2				177.35	175.12	0.005000	71.14	42 inch			
P-2	D-2	0.43	0.31	0.31	177.35	174.55	0.003354	58.27	Circular	36.00	6.06	
	D-3				177.35	174.43	0.005000	71.14	42 inch			
P-3	D-3	0.43	0.31	0.62	177.35	173.79	0.003377	60.52	Circular	92.00	6.35	
	D-4				178.00	173.50	0.005000	71.14	42 inch			



DOT Report

Pipe	-Node- Upstream Downstream	Inlet Area (acres)	Inlet CA (acres)	Total CA (acres)	-Ground- Upstream Downstream (ft)	-HGL- Upstream Downstream (ft)	-Slope- Energy Constructed (ft/ft)	-Section- Discharge Capacity (cfs)	-Section- Shape Size	Length (ft)	Average Velocity (ft/s)	Description
P-1	D-8	0.70	0.50	0.50	168.41	167.12	0.001247	3.71	Circular	36.00	2.10	
	D-9				168.41	167.08	0.003972	6.62	18 inch			
P-2	D-9	0.70	0.50	1.01	168.41	166.81	0.004909	7.36	Circular	239.00	4.16	
	D-10				173.00	165.64	0.004017	6.66	18 inch			
P-3	D-10	N/A	N/A	1.01	173.00	165.48	0.004653	7.16	Circular	104.00	4.05	
	D-11				170.00	165.00	0.004038	6.68	18 inch			

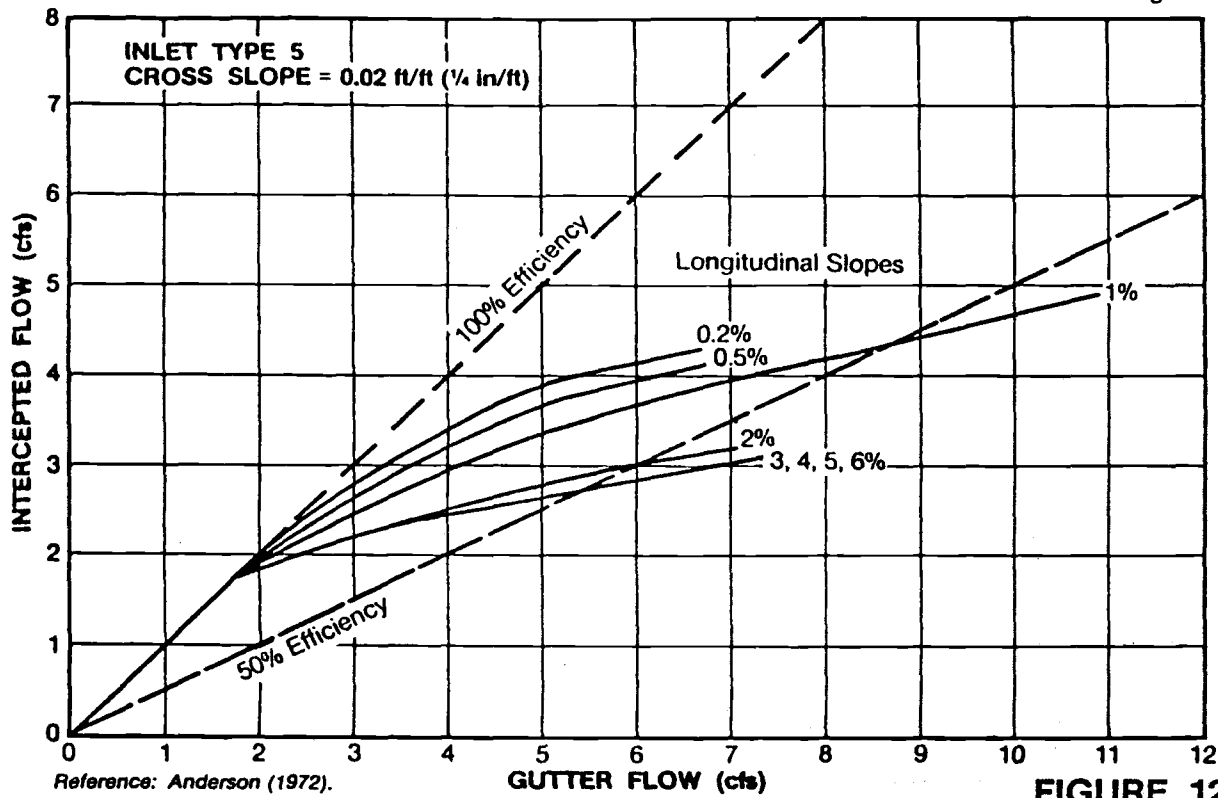


FIGURE 12-13
Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.02 ft/ft Cross Slope (1/4 in/ft)

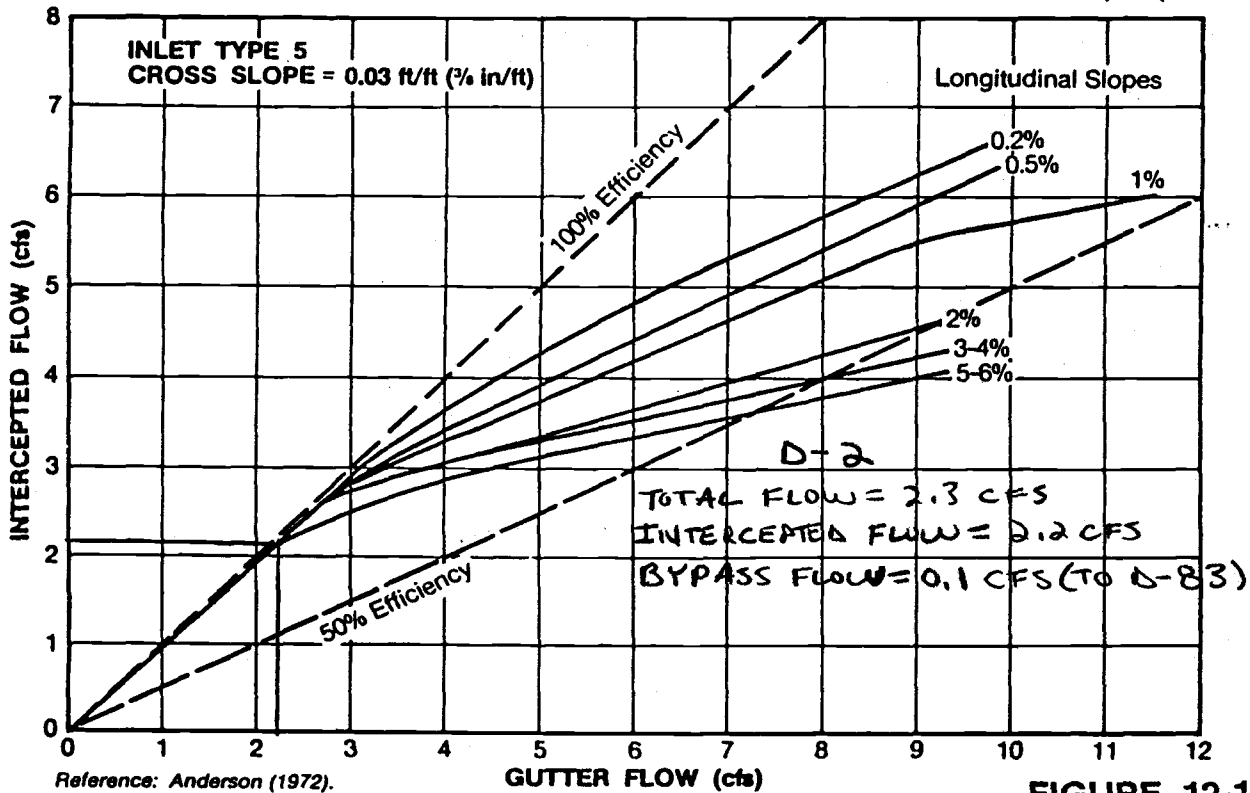


FIGURE 12-14
Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.03 ft/ft Cross Slope (3/8 in/ft)

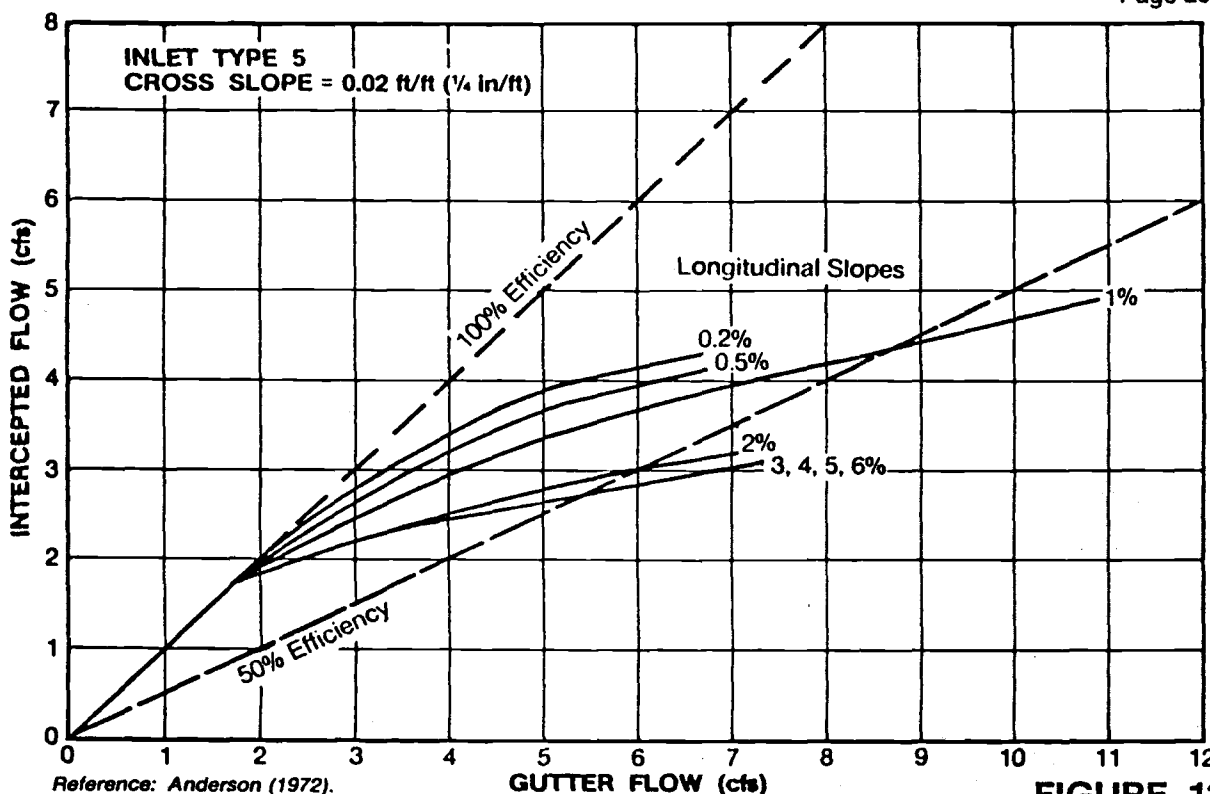


FIGURE 12-13

Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.02 ft/ft Cross Slope (1/4 in/ft)

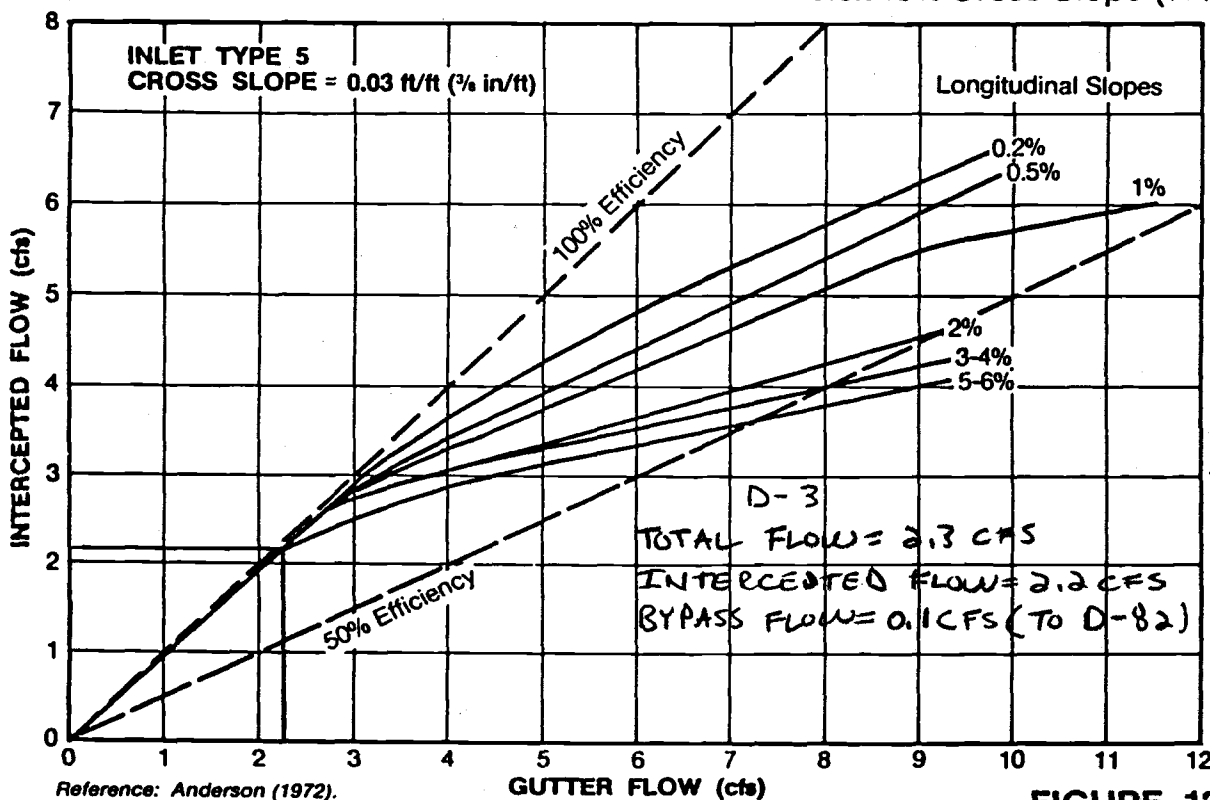


FIGURE 12-14

Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.03 ft/ft Cross Slope (3/8 in/ft)

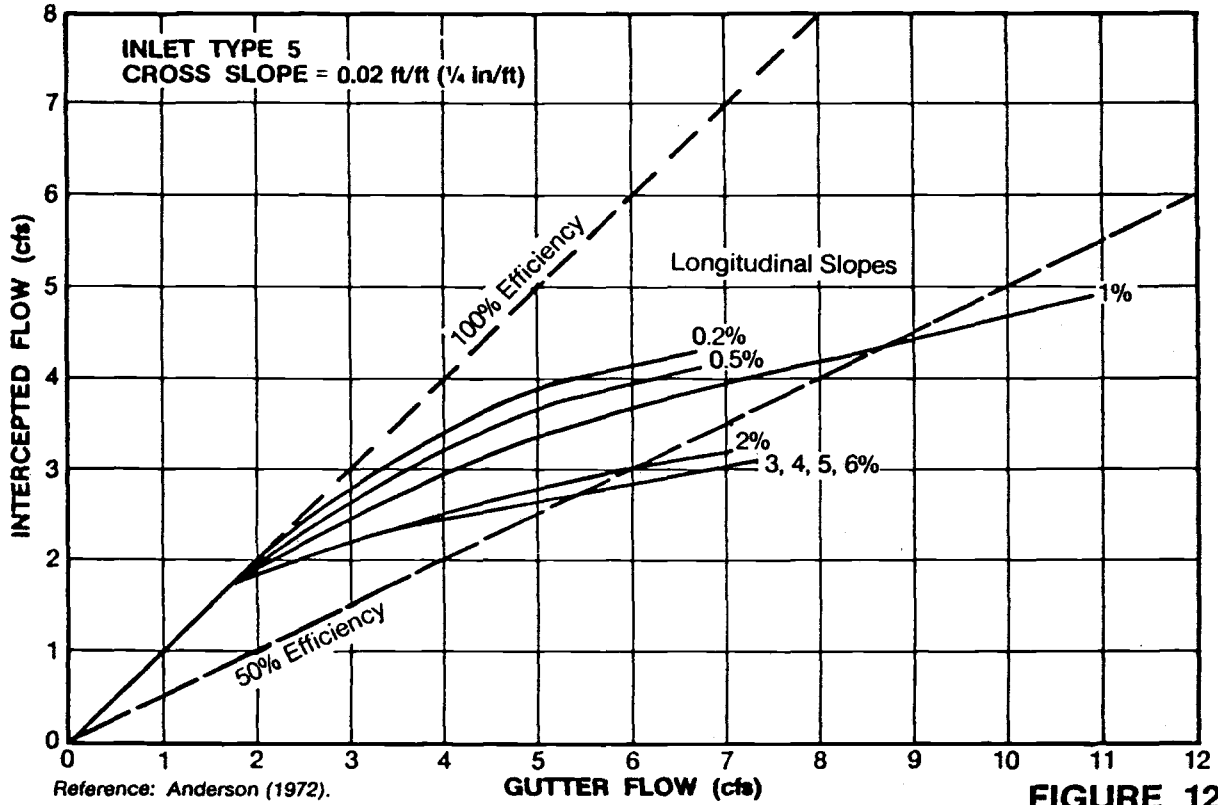


FIGURE 12-13

Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.02 ft/ft Cross Slope (1/4 in/ft)

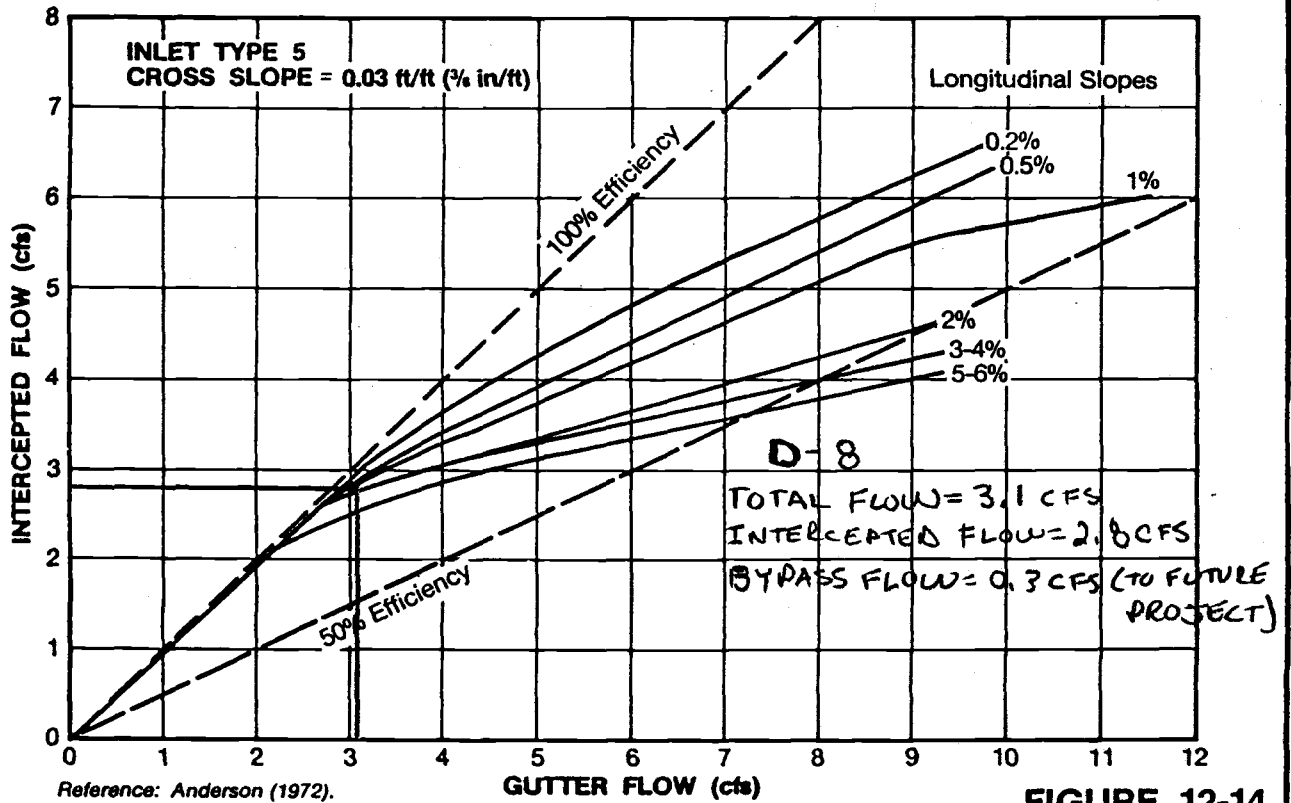


FIGURE 12-14

Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.03 ft/ft Cross Slope (3/8 in/ft)

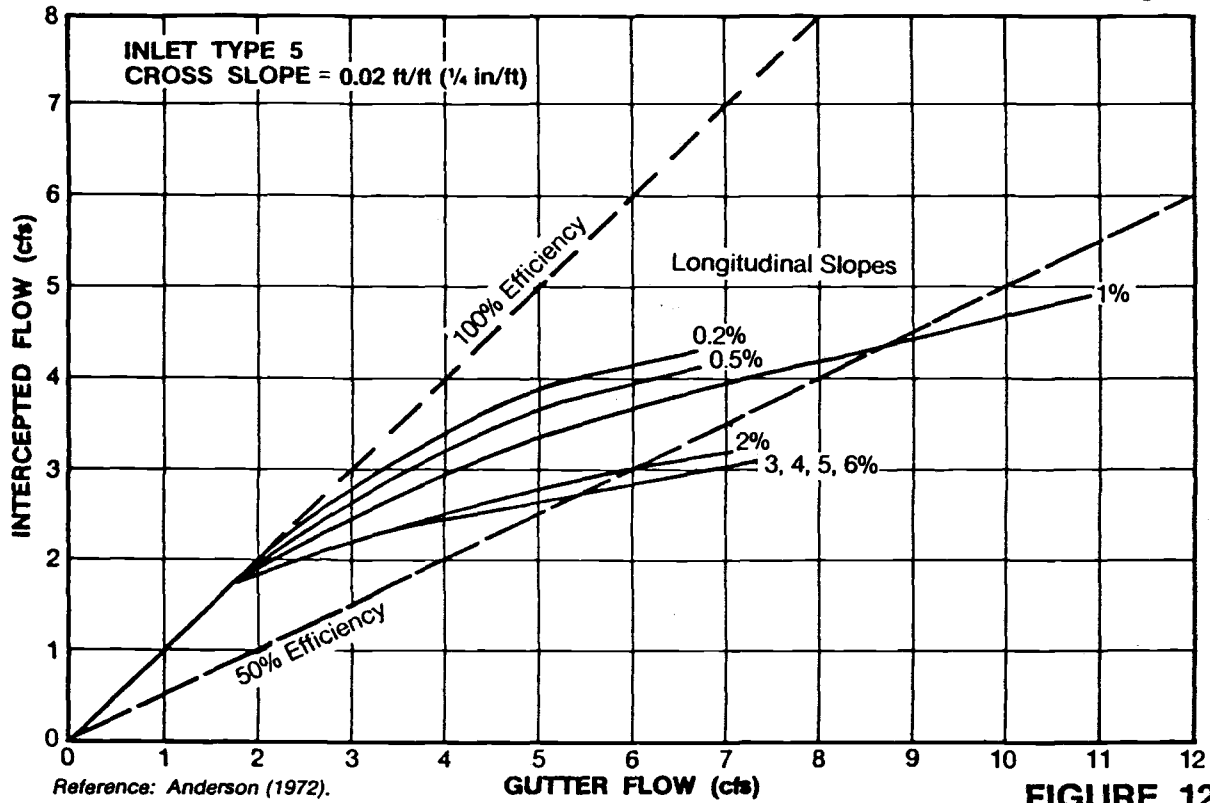


FIGURE 12-13
Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.02 ft/ft Cross Slope (1/4 in/ft)

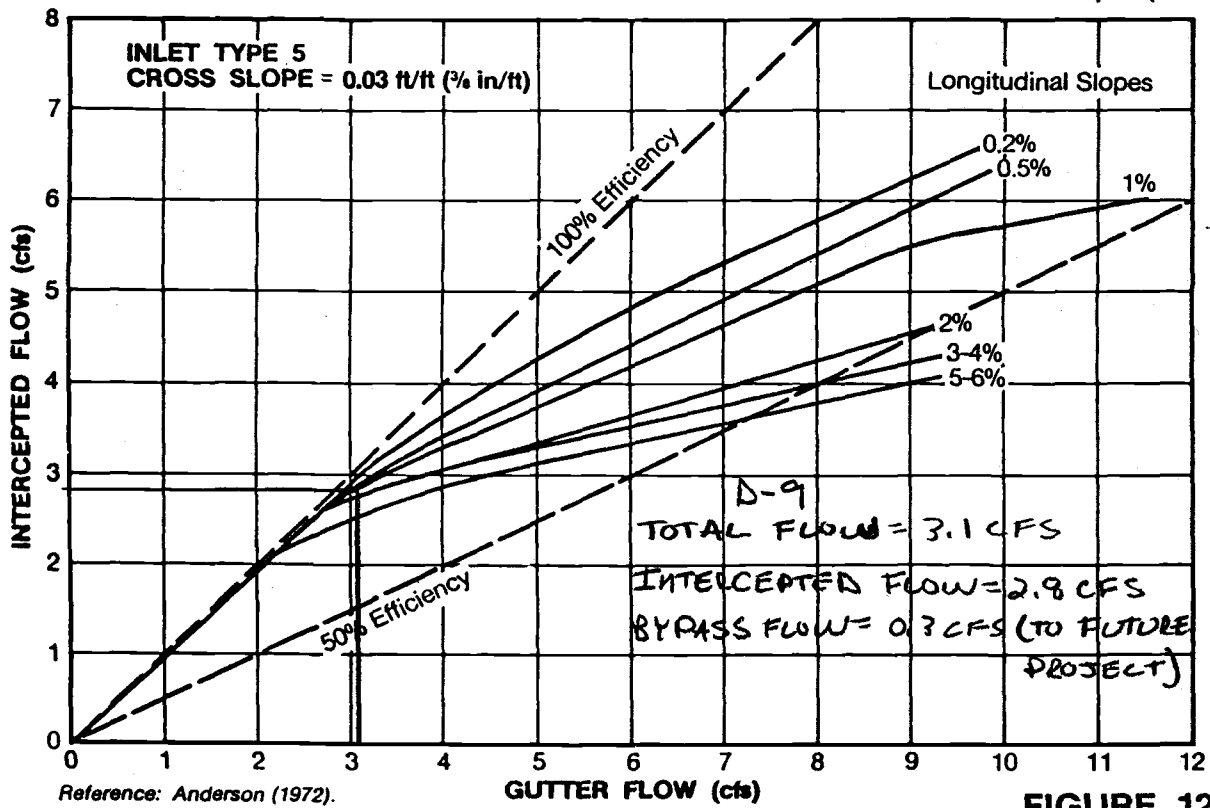
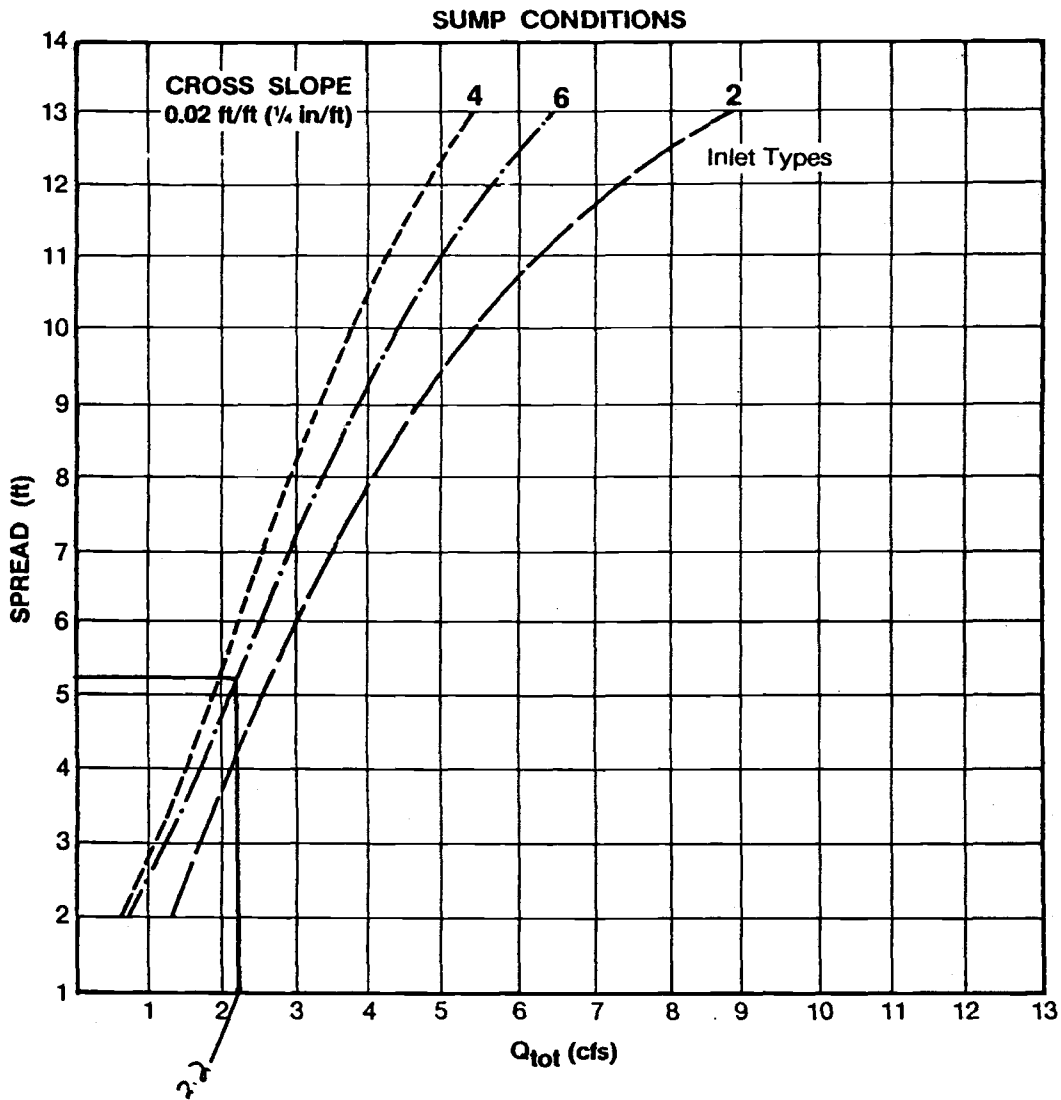


FIGURE 12-14
Type 5 Curb-Opening Inlet Capacity Chart for Continuous Grade and 0.03 ft/ft Cross Slope (3/8 in/ft)



Reference: Anderson (1972).

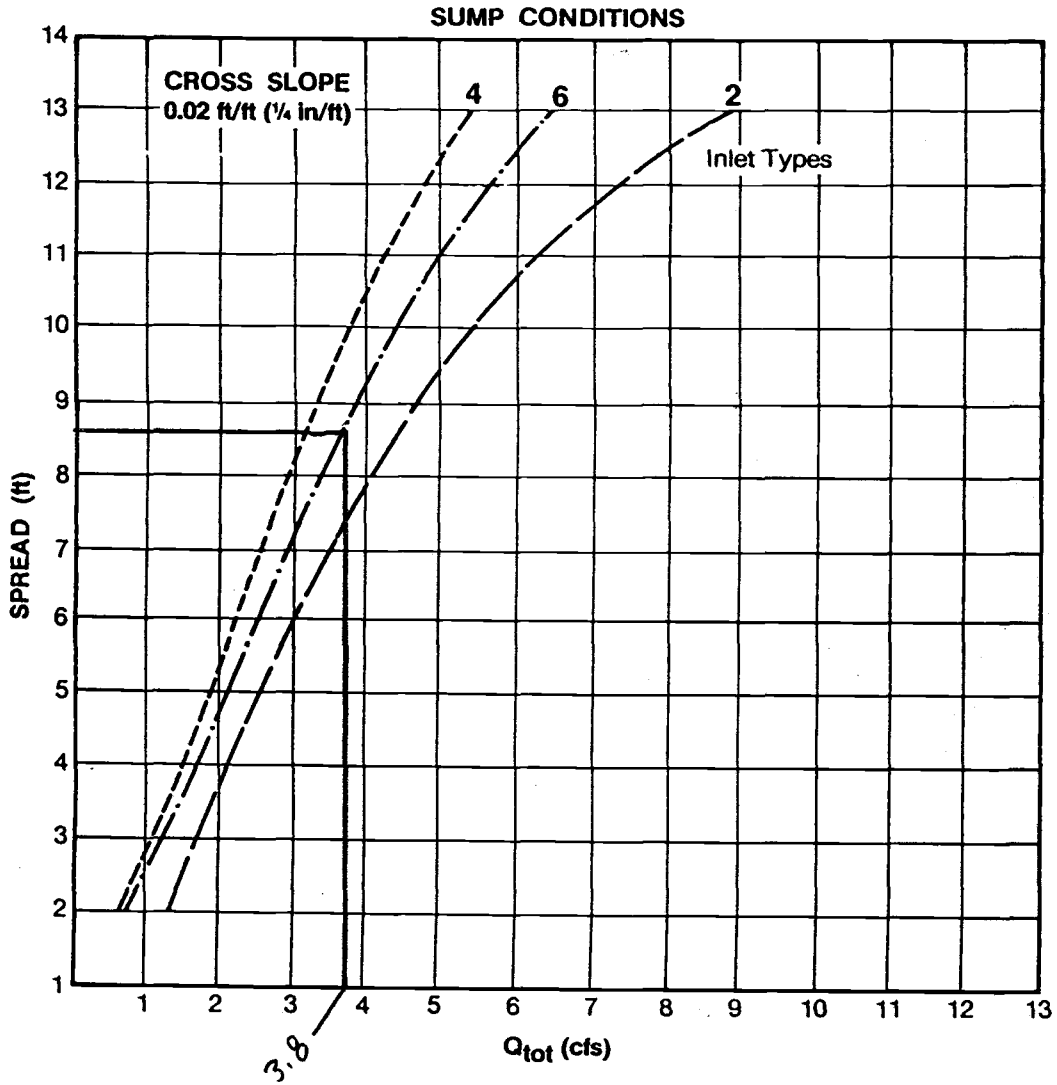
D-82 (ALLOWABLE SPREAD = 1.5'(CURB) + 5'(BIKE LANE) + 12'(LANE) = 18.5')

TOTAL FLOW = $Q_{TOT} = 2.1 \text{ CFS} + .1 \text{ CFS (UDSTREAM)} = 2.2 \text{ CFS}$

SPREAD = 5.2 FC

DESIGN OK

FIGURE 12-21
Sump Conditions Spread Versus the Total Flow to Inlet Types 2, 4, and 6 for 0.02 ft/ft Cross Slope (1/4 in/ft)



D-83 (ALLOWABLE SPREAD=18.5')

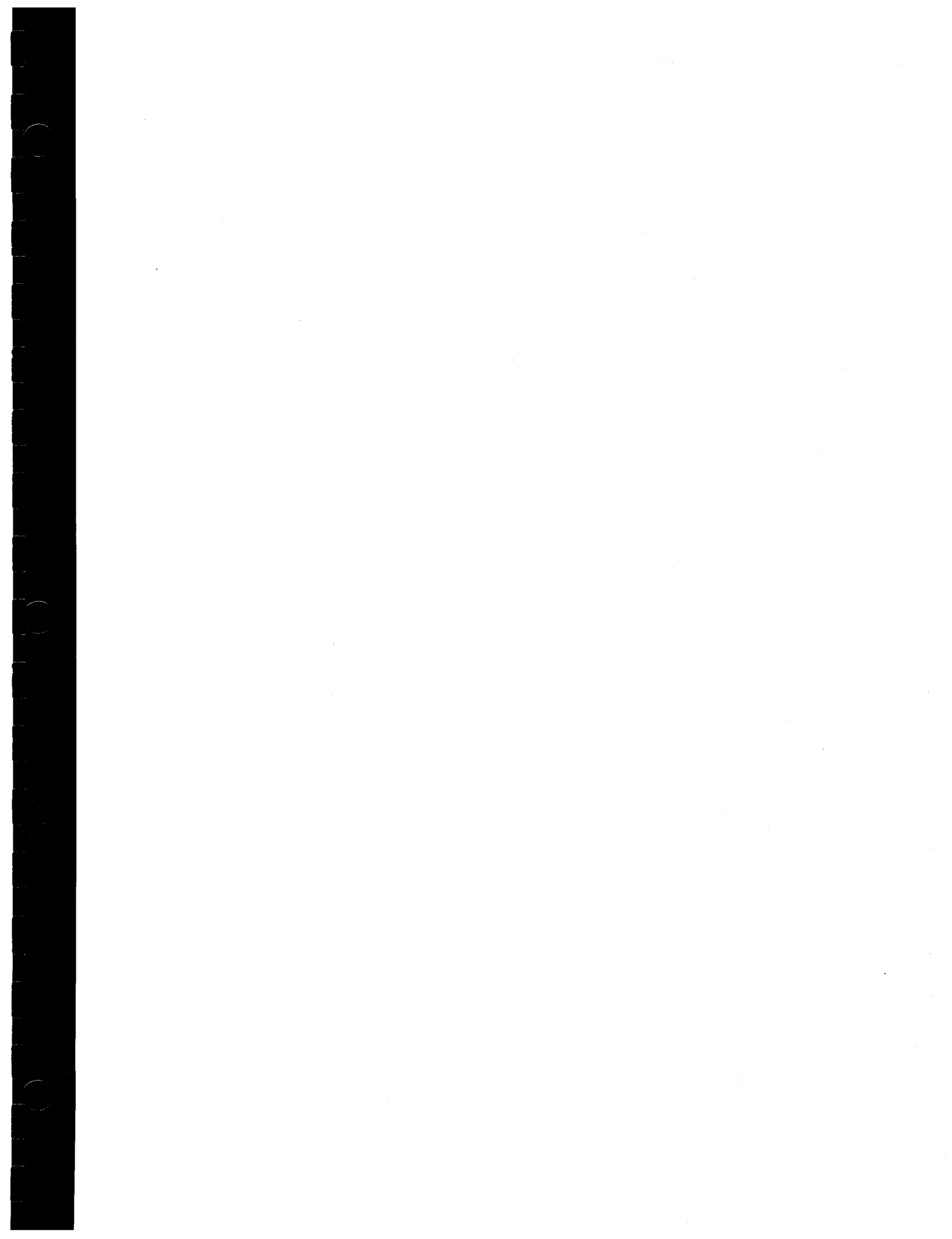
TOTAL FLOW = $Q_{TOT} = 3.7 \text{ CFS} + 1.1 \text{ CFS (UPSTREAM)}$
 = 3.8 CFS

SPREAD = 8.7'

DESIGN OK

Reference: Anderson (1972).

FIGURE 12-21
 Sump Conditions Spread Versus the Total Flow to Inlet Types 2, 4, and 6 for
 0.02 ft/ft Cross Slope (1/4 in/ft)



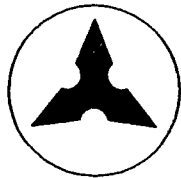
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KINGS RIDGE
A PLANNED UNIT DEVELOPMENT

PHASE IV

STORMWATER
MANAGEMENT DATA

JUNE 1996



FARNER
BARLEY
AND ASSOCIATES, INC.

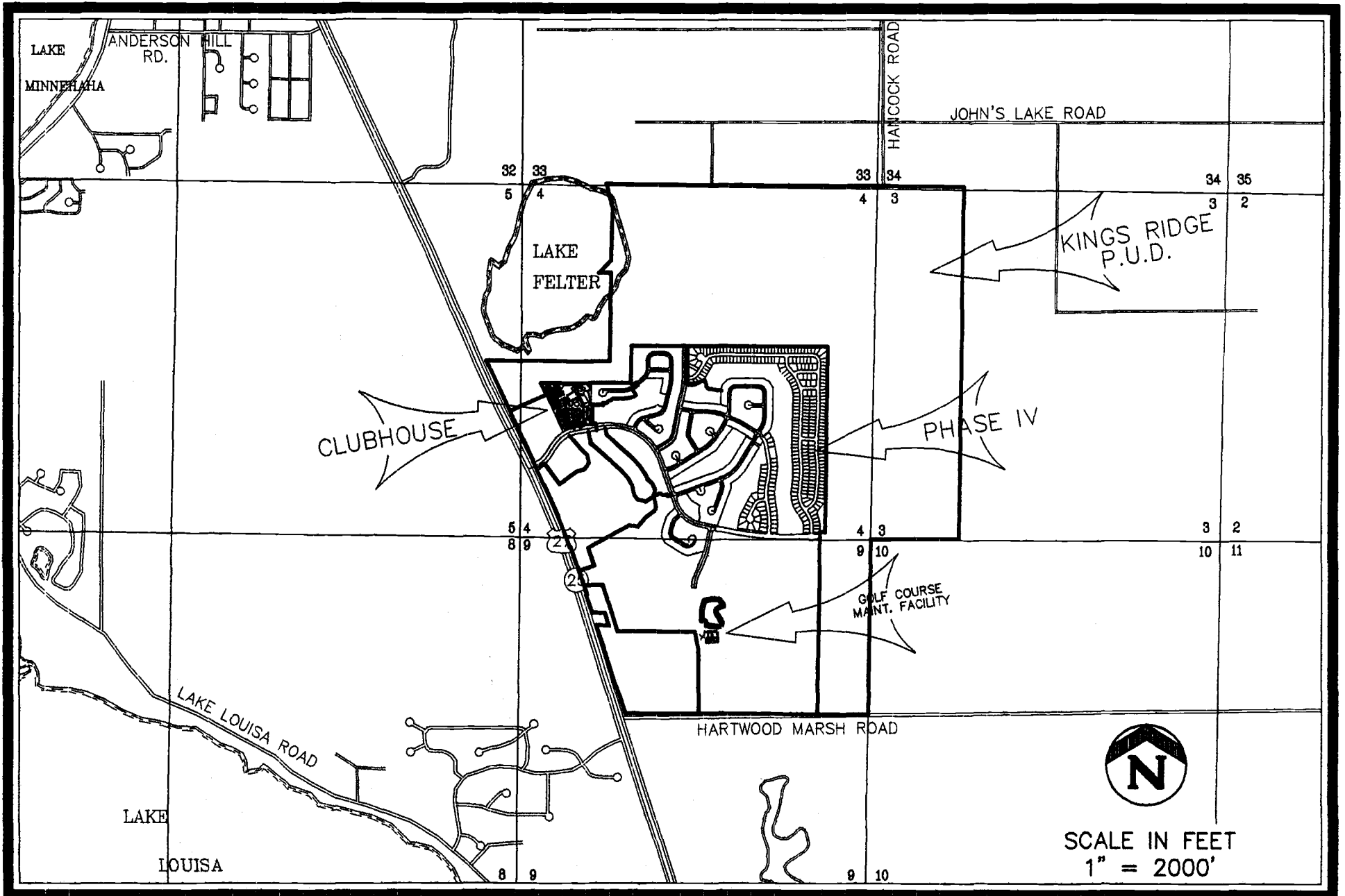
▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481

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GENERAL LOCATION MAP

LEGAL DESCRIPTION

Parcel 1

The Southwest 1/4 of the Southwest 1/4 and the North 3/4 of the West 1/4, Section 3, Township 23 South, Range 26 East. ALSO, the East 1/2 of the Northeast 1/4; Southwest 1/4 of Northeast 1/4; Southeast 1/4 of Northwest 1/4; all of Southeast 1/4; that part of the Southwest 1/4 lying East of U.S. Highway 27, all in Section 4 Township 23 South, Range 26 East, LESS that part of: the Southwest 1/4 of the Southwest 1/4 and the Southwest 1/4 of the Northwest 1/4 of the Southwest 1/4 of Section 4 and the East 1/2 of the Northeast 1/4 of the Southeast 1/4 of Section 5, Township 23 South, Range 26 East, all Easterly of State Road 25, lying Easterly of the survey line of State Road 25, Section 11200, and within the limits as noted: (1) 105 feet Southerly of Station 1521+00; (2) 110 feet from Station 1521+00 to Station 1526+00; (3) 100 feet from Station 1526+00 to Station 1530+00; (4) 105 feet from Station 1530+00 to Station 1536+00; and (5) 100 feet from Station 1536+00 to Station 1546+00, said survey line being described and said Stations being located as follows:

Commence at a point on the South Boundary of Section 4, Township 23 South, Range 26 East, located 4695.36 feet Westerly of the Southeast corner of said Section 4, said point being on a curve, concave to the Westerly, having a radius of 11,491.20 feet; thence from a tangent bearing of S23°20'38"E, run Southerly 99.80 feet along said survey line through a central angle of 00°29'51" to the point of beginning of this part of said survey at Station 1517+00; thence from a tangent bearing of N22°50'47"W, run Northerly 400 feet along said curve through a central angle of 01°59'40" to Station 1521+00; thence continue Northerly 406.34 feet along said curve through a central angle of 02°01'34" to the end of said curve; thence N26°52'00"W, 93.66 feet to Station 1526+00; thence continue N26°52'00"W 400 feet to Station 1530+00; thence continue N26°52'00"W 228.31 feet to a point on the East boundary of Section 5, of above Township and Range, located 1300.17 feet Northerly of the Southeast corner of said Section 5; thence continue N26°52'00"W 371.69 feet to station 1536+00; thence continue N26°52'00"W 1000 feet to Station 1546+00; thence continue N26°52'00"W 3040.06 feet to a point on the North boundary of said Section 5 located 1897.04 feet Westerly of the Northeast corner of said Section 5; Containing 43,865 square feet (1.007 acres), more or less, exclusive of existing road Rights-of-Way.

ALSO, that part of the East 1/2 of the Southeast 1/4 of Section 5, Township 23 South, Range 26 East lying East of U.S. Highway 27.

ALSO, Begin at the Northeast corner of Section 9, Township 23 South, Range 26 East, Lake County, Florida, run thence West along the North line of said Section 9 a distance of 2,407.9 feet, more or less, to a point 253.5 feet East of the North one-quarter corner of said Section, run thence Southerly 2,624.2 feet, more or less, to a point on the South line of the Northeast quarter of said Section, said point being 230.6 feet East of the center of said Section 9, thence run East along the South line of the Northeast one-quarter of said Section 9, a distance of 2,403.6 feet, more or less, to the East one-quarter corner of said Section 9, run thence North 2,631.8 feet more or less, to the point of beginning, containing 145.4 acres, more or less.

LESS:

All that certain parcel of land lying and being situate in Section 9, Township 23 South, Range 26 East, Lake County, Florida, being more fully and particularly described as follows:

Beginning at a point on the East-West 1/4 Section line of said Section 9, said point being situate on said line S89°14'22"W, a distance of 1714.63 feet from the East 1/4 section corner of said Section 9, proceed thence on said line S89°14'22"W, a distance of 688.97 feet; thence N00°00'42"E, a distance of 1.02 feet; thence N89°14'43"E, a distance of 591.43 feet; thence N89°50'18"E, a distance of 97.43 feet to the Point of Beginning, containing 0.014 acres, more or less, all in Lake County, Florida.

AND

Parcel 2

Tracts 7 and 8 of Section 4, Township 23 South, Range 26 East, according to the plat of Monte Vista Park Farms, duly recorded in Plat Book 2, Page 27, Public Records of Lake County, Florida.

Tract 5 of Monte Vista Park Farms, in Section 4, Township 23 South, Range 26 East, as recorded in Public Records of Lake County, Florida.

Tract 6 of Section 4, Township 23 South, Range 26 East, Tallahassee Meridian, according to the plat of Monte Vista Park Farms filed on February 13, 1914, and recorded in Plat Book 2, Page 27, Public Records of Lake County, Florida.

AND

Parcel 3

That part of the North 1/2 of Section 9, Township 23 South, Range 26 East, lying East of the Right-of-Way of State Road #25 (Federal Road #27) except the following plot.

Beginning at the point of intersection of the East line of the Right-of-Way of said highway, said highway being Project No. 175-G, with the South line of the Northwest 1/4 of the Northwest 1/4 of Section 9, Township 23 South, Range 26 East, run thence East 200 feet to a stake; thence in a Northerly direction parallel with the East line of the Right-of-Way of said highway 200 feet to a stake; thence West 200 feet to the East line of the Right-of-Way of said highway; thence Southerly with the said East line of the Right-of-Way of said highway to the point of beginning.

LESS:

Begin at the Northeast corner of Section 9, Township 23 South, Range 26 East, Lake County, Florida, run thence West along the North line of said Section 9 a distance of 2,407.9 feet, more or less, to a point 253.5 feet East of the North one-quarter corner of said Section, run thence Southerly 2,624.2 feet, more or less, to a point on the South line of the Northeast quarter of said Section, said point being 230.6 feet East of the center of said Section 9, thence run East along the South line of the Northeast one-quarter of said Section 9, a distance of 2,403.6 feet, more or less, to the East one-quarter corner of said Section 9, run thence North 2,631.8 feet more or less, to the point of beginning, containing 145.4 acres, more or less.

AND

Parcel 4

The Northwest quarter of the Northeast quarter of Section 4, Township 23 South, Range 26 East, Lake County, Florida.

CONTAINING 968.443 AC. MORE OR LESS.

**KINGS RIDGE
A PLANNED UNIT DEVELOPMENT
PHASE IV**

SCOPE OF PROJECT:

An MSSW 40C-42 permit (No.42-069-1062N) was issued by the St. Johns River Water Management District on June 28, 1995, for the Phase One portion of the project, and a MSSW 40C-40 permit (No. 40-069-0196) was issued by the District on October 11, 1995, for the Phase Two portion of the project and an MSSW 40C-4 Permit (No.4-069-0326-ERP) on February 13, 1996 for the Phase III portion of the project. All phases are currently under construction. The Phase IV construction permit application is for the construction of a residential subdivision with a total of 304 lots, roadway extensions, a golf course maintenance facility, recreation center/clubhouse and related drainage facilities. Also covered under this permit application is the proposed total buildout drainage calculations

BASIS OF ANALYSIS:

A. Runoff Curve Numbers

United States Department of Agriculture Soil Conservation Service (SCS) Runoff Curve Numbers (CN), were developed considering soil types, land use and water table elevations. The soil types within the Phase IV portion of the project are composed of Astatula sand (AtB) (AtD) (AtF) and Lake sand (LaD), both of these soils groups are hydrologic soils type "A" soils. Tables of pre and post-development curve numbers used in the analysis are listed below. A soils map is provided in this report.

**PRE-DEVELOPMENT
LAND USE/CN**

LAND USE	SOIL TYPE	CN*
PASTURE	A	39
COMMERCIAL	A	89
IMPERVIOUS AREAS (ROADWAYS & PAVEMENT)	A	98

**POST-DEVELOPMENT
LAND USE/CN**

LAND USE	SOIL TYPE	CN*
RESIDENTIAL 1/8 ACRE (TOWN HOUSES)	A	77
OPEN SPACE (GOLF COURSE/ RECREATION)	A	39
IMPERVIOUS AREAS (ROADWAYS, PAVEMENT & RETENTION AREAS)	A	98
COMMERCIAL	A	89

* Refer to the United States Department of Agriculture Soil Conservation Service Runoff Curve Numbers.

B. Rainfall Intensity Amounts

The 25-year/96-hour and 25-year/24-hour rainfall intensity amount was used to develop retention volumes in this Stormwater Management Plan. The rainfall intensity amount was obtained from the Florida Department of Transportation Drainage Manual Volume 2A, Figure 5-15. As interpreted from the curves, the total rainfall amount for the 25-year/96-hour storm event is 11.4 inches and 8.4 inches for the 25-year/24-hour storm event.

C. Design Criteria

Adopted Level of Service

St. Johns River Water Management District and City of Clermont

For water quality, systems shall be required to meet the design and performance standards established by the St. Johns River Water Management District and the City of Clermont. The requirements are to provide percolation of the runoff from one inch of rainfall or 1.25 inches of runoff from the impervious area, whichever is greater, for systems which serve an area with less than 40% impervious surface and that contain only U.S. Department of Agriculture Soil Conservation Service (S.C.S.) Hydroglogic Group "A" Soils, or treatment of the first inch of runoff for areas exceeding 40% impervious. The required water quality volume must be recovered within seventy-two (72) hours following the storm event assuming average antecedent moisture conditions. 40C-42.026(4);(4c), F.A.C.

Water quantity shall be provided, as a minimum, to retain the difference in pre-developed and post-developed runoff "volume" for a 25-year 96-hour design storm for landlocked drainage basins and the difference in pre-developed and post-developed runoff "rate" for a 25-year 24-hour design storm for landlocked drainage basins.

D. Pre-development Hydrology

The area generating runoff for this Phase IV portion of the project including off-site contributing areas drain partially to a landlocked depression located on-site and adjacent to U.S. Highway 441/27 and partially to a land locked drainage basin off-site.

E. Post-Development Hydrology

Level of Service After Project Buildout

The level of service at buildout shall be such that the majority of the stormwater runoff generated by the 25-year 96-hour storm event will be retained on-site within retention areas in each developed sub-basin. The areas that will discharge off-site will retain the difference in pre-developed and post-developed runoff "rate" and "volume" for a 25-year 24-hour and a 25-year 96-hour design storm, respectively, exceeding the requirements of the St. Johns River Water Management District and the City of Clermont. The following tables summaries the post-development curve numbers for each basin:

BASIN NO. 1
POST-DEVELOPED SUMMARY

**POST DEVELOPMENT
WATERSHED DATA TABLE
BASIN NO. 1**

BASIN NO.	DRAINAGE AREA (AC.)	LAND USES	WEIGHTED C.N.
1-A	74.16	COMMERCIAL, RECREATION/ OPEN SPACE, RETENTION	86
1-B	22.13	RESIDENTIAL, RECREATION/ OPEN SPACE	62
1-C	11.79	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	67
1-D	4.97	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	69
1-E	6.73	RESIDENTIAL, RETENTION	80
1-F	19.82	RESIDENTIAL, RECREATION/ OPEN SPACE	66
1-G	33.08	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	75
1-H	23.98	RESIDENTIAL, RECREATION/ OPEN SPACE	65
1-I	23.50	RESIDENTIAL, RECREATION/ OPEN SPACE	64
1-J	15.29	RESIDENTIAL, RETENTION	79
1-K	22.62	RESIDENTIAL, RETENTION, RECREATION/ OPEN SPACE	71

**POST DEVELOPMENT
WATERSHED DATA TABLE
BASIN NO. 1
(CONT.)**

BASIN NO.	DRAINAGE AREA (AC.)	LAND USES	WEIGHTED C.N.
1-L	41.12	RESIDENTIAL, RETENTION, RECREATION/ OPEN SPACE	65
1-M	2.67	RECREATION, OPEN SPACE, RETENTION	69
1-M2	9.59	RESIDENTIAL, RETENTION	78
1-M3	57.00	RESIDENTIAL, RETENTION	79
1-N	21.05	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	80
1-O	14.73	RECREATION/ OPEN SPACE, RETENTION	68
1-P	17.83	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	71
1-Q	23.87	RECREATION/ OPEN SPACE, RESIDENTIAL COMMERCIAL	66
1-DOT	14.22	U.S. HIGHWAY 441/27	55
1-OFF	69.10	UNDEVELOPED OPEN SPACE	39

**POST DEVELOPMENT
 RUNOFF VOLUMES AND 25YEAR/96HOUR
 FLOOD ELEVATIONS
 BASIN NO. 1**

BASIN NO.	25YR-96HR RUNOFF VOL. (AC.-FT.)	POND BOTTOM	POND TOP OF BANK	25YR-96HR FLOOD ELEVATION
1-A	59.64	122.00	140.00	139.20
1-B	11.71	---	---	---
1-C	6.94	151.00	159.00	157.72
1-D	3.04	146.00	165.00	162.90
1-E	4.97	176.00	184.00	181.44
1-F	11.44	---	---	---
1-G	22.56	221.00	229.00	228.52
1-H	13.56	---	---	---
1-I	12.99	---	---	---
1-J	11.13	142.00	150.00	149.81
1-K	14.39	139.00	147.00	146.43
1-L	23.22	176.00	184.00	183.73
1-M	1.64	182.00	190.00	185.06
1-M2	6.87	187.00	193.00	190.62
1-M3	41.45	212.00	220.00	218.43
1-N	15.55	169.00	180.00	179.34
1-O	8.85	172.00	180.00	179.11
1-OA	---	170.00	178.00	174.59
1-P	11.35	162.00	170.00	167.17
1-Q	13.78	---	---	---
1-DOT	6.29	---	---	---
1-OFF	16.47	---	---	---

**POST DEVELOPMENT
WATER QUALITY REQUIREMENTS AND RECOVERY
BASIN NO. 1**

RETENTION POND #	CONTRIBUTING DRAINAGE BASINS	REQUIRED WATER QUALITY VOLUME (AC.FT)	RECOVERY TIME (DAYS)
#1-A	#1-A, #1-B, #1-Q, #1-DOT, #1-OFF	16.96	0.0962
#1-C	#1-C, #1-F	2.63	0.3445
#1-D	#1-D	0.41	0.0795
#1-E	#1-E	0.56	0.0815
#1-G	#1-G	2.76	0.2257
#1-J	#1-J, #1-H, #1-I	3.16	0.3005
#1-K	#1-H, #1-I, #1-J, #1-K	3.96	0.2303
#1-L	#1-L, #1-M, #1-M2	3.58	0.4592
#1-M	#1-M, #1-M2	0.125	0.0682
#1-M2	#1-M2	0.48	0.1191
#1-M3	#1-M3	4.75	0.0853
#1-N	#1-L, #1-M, #1-M2, #1-N	2.02	0.3324
#1-O	#1-O	1.23	0.1151
#1-P	#1-P	1.49	0.2451

**POST DEVELOPMENT
25YR-96HR WATER QUANTITY RECOVERY
BASIN NO. 1**

RETENTION POND NO.	25YR-96HR RUNOFF VOLUME (AC.FT.)	RECOVERY TIME (DAYS)
#1-A	240.93	4.3903
#1-C	3.80	0.4116
#1-D	6.00	1.3282
#1-E	2.02	0.2940
#1-G	5.30	0.3082
#1-J	3.17	0.3005
#1-K	9.78	0.5694
#1-L	3.58	0.4592
#1-M	0.125	0.0682
#1-M2	0.48	0.1191
#1-M3	25.20	1.2134
#1-N	6.07	1.5301
#1-O	3.59	0.2793
#1-OA	0.96	0.2982
#1-P	1.86	0.2829

BASIN NO. 3
PRE AND POST DEVELOPED SUMMARY

**PRE DEVELOPMENT
WATERSHED DATA TABLE
BASIN NO. 3-A & 1-B**

BASIN NO.	DRAINAGE AREA (AC.)	LAND USES	WEIGHTED C.N.
3-A	138.00	UNDEVELOPED OPEN SPACE	39
1-B	91.60	UNDEVELOPED OPEN SPACE, DEPRESSIONAL AREA/ RETENTION	42

**POST DEVELOPMENT
WATERSHED DATA TABLE
BASIN NO. 3**

BASIN NO.	DRAINAGE AREA (AC.)	LAND USES	WEIGHTED C.N.
3-A	9.33	RESIDENTIAL, COMMERCIAL RECREATION/ OPEN SPACE, RETENTION	78
3-A2	5.72	RECREATION/ OPEN SPACE, RETENTION	74
3-B	27.98	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	61
3-C	8.30	RESIDENTIAL, RETENTION	80
3-D	21.21	RESIDENTIAL, RETENTION	79
3-E	17.40	UNDEVELOPED OPEN SPACE	39
3-W	34.90	UNDEVELOPED OPEN SPACE	39

25 YEAR - 24 HOUR
PRE-DEVELOPED RUNOFF AND DISCHARGE RATE
FOR BASIN NO. 3-A & I-B

BASIN NO.	RUNOFF OR DISCHARGE RATE (C.F.S.)	PEAK TIME (HRS.)
3-A	49.93	12.25
1-B	0	---
TOTAL PRE-DEVELOPED RUNOFF & DISCHARGE RATE OFFSITE		49.93 C.F.S.

25 YEAR - 24 HOUR
POST-DEVELOPED RUNOFF AND DISCHARGE RATE
FOR BASIN NO. 3-A

BASIN NO.	RUNOFF OR DISCHARGE RATE (C.F.S.)	PEAK TIME (HRS.)
3-D	23.70	13.18
3-E	3.94	13.18
3-W	7.43	13.18
TOTAL POST-DEVELOPED RUNOFF & DISCHARGE RATE OFFSITE		35.07 C.F.S.

25 YEAR - 96 HOUR
PRE-DEVELOPED RUNOFF AND DISCHARGE VOLUMES
FOR BASIN NO. 3-A & 1-B

BASIN NO.	RUNOFF VOLUME (IN.)	BASIN ACREAGE (ACRES)	RUNOFF VOLUME (AC-FT)	AVAILABLE STORAGE CAPACITY (AC-FT)	RUNOFF OR DISCHARGE VOLUME (AC-FT)
3-A	2.86	138.00	32.89	---	32.89
1-B	3.32	91.60	25.34	17.75	7.59
TOTAL PRE-DEVELOPED RUNOFF & DISCHARGE VOLUME OFF-SITE					40.48 (AC-FT)

25 YEAR - 96 HOUR
 POST-DEVELOPED RUNOFF AND DISCHARGE VOLUMES
 FOR BASIN NO. 3-A

BASIN NO.	RUNOFF VOLUME (IN.)	BASIN ACREAGE (ACRES)	RUNOFF VOLUME (AC-FT)	AVAILABLE STORAGE CAPACITY (AC-FT)	RUNOFF OR DISCHARGE VOLUME (AC-FT)
3-A	8.60	9.33	6.69	4.03	2.66
3-A2	8.05	5.720	3.84	5.97	0
3-B	6.20	27.98	14.46	2.21	12.25
3-C	8.86	8.30	6.13	4.84	1.29
3-D	8.73	21.21	15.43	7.76	7.67
3-E	2.86	17.40	4.15	---	4.15
3-W	2.86	34.90	8.32	---	8.32
	TOTAL POST-DEVELOPED RUNOFF & DISCHARGE VOLUME OFF-SITE				36.34 (AC-FT)

**POST DEVELOPMENT
RUNOFF VOLUMES AND 25YEAR/96HOUR
FLOOD ELEVATIONS
BASIN NO. 3**

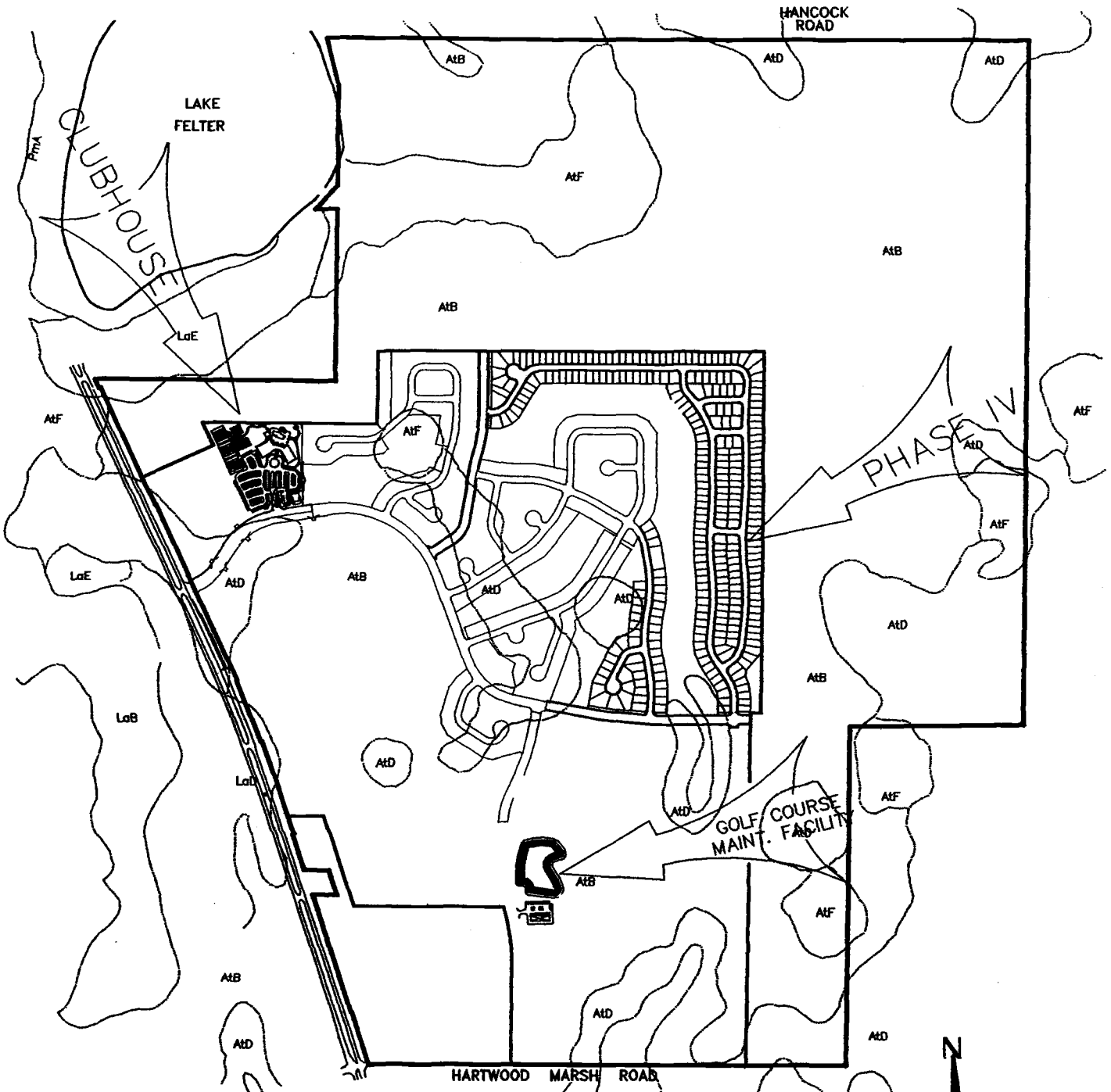
BASIN NO.	25YR-96HR RUNOFF VOL. (AC.-FT.)	POND BOTTOM	POND TOP OF BANK	25YR-96HR FLOOD FLOOD ELEV.
3-A	6.69	162.00	170.00	168.26
3-A2	3.84	164.00	175.00	173.32
3-B	14.46	130.00	138.00	136.99
3-C	6.13	133.00	141.00	139.06
3-D	15.43	114.00	122.00	121.63
3-E	4.15	---	---	---
3-W	8.32	---	---	---

**POST DEVELOPMENT
WATER QUALITY REQUIREMENTS AND RECOVERY
BASIN NO. 3**

RETENTION POND #	CONTRIBUTING DRAINAGE BASINS	REQUIRED WATER QUALITY VOLUME (AC.FT)	RECOVERY TIME (DAYS)
#3-A	#3-A	0.78	0.2129
#3-A2	#3-A2	0.48	0.0863
#3-B	#3-B	2.21	0.8950
#3-C	#3-C	0.69	0.0734
#3-D	#3-D, #3-B	1.89	0.1360

**POST DEVELOPMENT
25YR-96HR WATER QUANTITY RECOVERY
BASIN NO. 3**

RETENTION POND NO.	25YR-96HR RUNOFF VOLUME (AC.FT.)	RECOVERY TIME (DAYS)
#3-A	4.03	0.8819
#3-A2	3.85	0.6923
#3-B	2.21	0.8479
#3-C	4.84	0.8507
#3-D	7.76	1.8412



SOILS LEGEND

AtB	- ASTATULA SAND, DARK SURFACE, 0-5% SLOPES
AtD	- ASTATULA SAND, DARK SURFACE, 5-12% SLOPES
AtF	- ASTATULA SAND, DARK SURFACE, 12-40% SLOPES
LaD	- LAKE SAND, 5-12% SLOPES
LaE	- LAKE SAND, 12-22% SLOPES
PmA	- PLACID & MYAKKA SANDS, 0-2% SLOPES

NOTE: SOIL INFORMATION OBTAINED FROM U.S.D.A. SOIL CONSERVATION SERVICE.

SOILS MAP

BASIN 1
POST DEVELOPED
CURVE NUMBER COMPUTATIONS

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: POST-DEVELOPED CONDITIONS
 Subarea : 1-B

User: TWL Date: 04-24-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	8.53(39)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	13.6(77)	-	-	-
Total Area (by Hydrologic Soil Group)	22.1			
	====			

UBAREA: 1-B TOTAL DRAINAGE AREA: 22.13 Acres WEIGHTED CURVE NUMBER: 62

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-01-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subarea: POST-DEVELOPED CONDITIONS

Subarea : 1-C

COVER DESCRIPTION

Hydrologic Soil Group

A B C D
Acres (CN)

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%

4.00(39)

-

-

-

Impervious Areas

Paved parking lots, roofs, driveways

1.58(98)

-

-

-

Residential districts Avg % imperv
(by average lot size)

1/8 acre (town houses)

65

6.21(77)

-

-

-

Total Area (by Hydrologic Soil Group)

11.7

====

SUBAREA: 1-C

TOTAL DRAINAGE AREA: 11.79 Acres

WEIGHTED CURVE NUMBER: 67

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: POST-DEVELOPED CONDITIONS
 Subarea : 1-D

User: TWL Date: 04-24-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	1.99(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	1.75(98)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	1.23(77)	-	-	-
Total Area (by Hydrologic Soil Group)	4.97			
	====			

SUBAREA: 1-D TOTAL DRAINAGE AREA: 4.97 Acres WEIGHTED CURVE NUMBER: 69

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County: LAKE State: FL
 Subtitle: POST-DEVELOPED CONDITIONS
 Subarea : 1-F

User: TWL Date: 04-24-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	5.92(39)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	13.9(77)	-	-	-
Total Area (by Hydrologic Soil Group)	19.8			
	====			

 SUBAREA: 1-F TOTAL DRAINAGE AREA: 19.82 Acres WEIGHTED CURVE NUMBER:66

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-01-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-G

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	2.83(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	1.65(98)	-	-	-
Residential districts	Avg % imperv			
(by average lot size)				
1/8 acre (town houses)	65	28.6(77)	-	-
Total Area (by Hydrologic Soil Group)	33.0			
	====			

SUBAREA: 1-G TOTAL DRAINAGE AREA: 33.08 Acres WEIGHTED CURVE NUMBER: 75

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: POST-DEVELOPED CONDITIONS
 Subarea : 1-H

User: TWL Date: 04-24-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	7.48(39)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	16.5(77)	-	-	-
Total Area (by Hydrologic Soil Group)	23.9			
	====			

 SUBAREA: 1-H TOTAL DRAINAGE AREA: 23.98 Acres WEIGHTED CURVE NUMBER:65

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County: LAKE State: FL
 Subtitle: POST-DEVELOPED CONDITIONS
 Subarea : 1-J

User: TWL Date: 04-24-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Impervious Areas				
Paved parking lots, roofs, driveways	1.29(98)	-	-	-
Residential districts	Avg % imperv			
(by average lot size)				
1/8 acre (town houses)	65	14.0(77)	-	-

Total Area (by Hydrologic Soil Group) 15.2
 =====

SUBAREA: 1-J TOTAL DRAINAGE AREA: 15.29 Acres WEIGHTED CURVE NUMBER:79

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subarea : 1-K

Subarea : 1-K

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	5.69(39)	-	-	-
-----------------------------------	----------	---	---	---

Impervious Areas

Paved parking lots, roofs, driveways	3.73(98)	-	-	-
--------------------------------------	----------	---	---	---

Residential districts Avg % imperv
(by average lot size)

1/8 acre (town houses) 65	13.2(77)	-	-	-
---------------------------	----------	---	---	---

Total Area (by Hydrologic Soil Group) 22.6
=====

SUBAREA: 1-K TOTAL DRAINAGE AREA: 22.62 Acres WEIGHTED CURVE NUMBER:71

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-07-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-L

COVER DESCRIPTION

Hydrologic Soil Group

A B C D
Acres (CN)

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%

13.1(39)

-

-

-

Impervious Areas

Paved parking lots, roofs, driveways

1.12(98)

-

-

-

Residential districts Avg % imperv
(by average lot size)

1/8 acre (town houses)

65

26.9(77)

-

-

-

Total Area (by Hydrologic Soil Group)

41.1

====

SUBAREA: 1-L

TOTAL DRAINAGE AREA: 41.12 Acres

WEIGHTED CURVE NUMBER: 65

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE

State: FL

User: TWL
 Checked: _____

Date: 04-30-96
 Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-M

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	0.74(39)	-	-	-
-----------------------------------	----------	---	---	---

Impervious Areas

Paved parking lots, roofs, driveways	0.28(98)	-	-	-
--------------------------------------	----------	---	---	---

Residential districts Avg % imperv
 (by average lot size)

1/8 acre (town houses) 65	1.65(77)	-	-	-
--------------------------------	----------	---	---	---

Total Area (by Hydrologic Soil Group) 2.67

=====

UBAREA: 1-M TOTAL DRAINAGE AREA: 2.67 Acres WEIGHTED CURVE NUMBER:69

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 04-30-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-M2

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Impervious Areas				
Paved parking lots, roofs, driveways	0.52(98)	-	-	-
Residential districts	Avg % imperv			
(by average lot size)				
1/8 acre (town houses)	65	9.07(77)	-	-

Total Area (by Hydrologic Soil Group) 9.59
=====

SUBAREA: 1-M2 TOTAL DRAINAGE AREA: 9.59 Acres WEIGHTED CURVE NUMBER:78

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-07-96

County: LAKE State: FL

Checked: _____

Date: _____

Subarea : 1-M3

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Impervious Areas				
Paved parking lots, roofs, driveways	5.0(98)	-	-	-
Residential districts				
(by average lot size)				
1/8 acre (town houses)	65	52(77)	-	-
Total Area (by Hydrologic Soil Group)	57			
	====			

SUBAREA: 1-M3 TOTAL DRAINAGE AREA: 57 Acres WEIGHTED CURVE NUMBER: 79

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-N

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres, (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	1.24(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	4.91(98)	-	-	-
Residential districts	Avg % imperv			
(by average lot size)				
1/8 acre (town houses)	65	14.9(77)	-	-
Total Area (by Hydrologic Soil Group)	21.0			
	====			

SUBAREA: 1-N TOTAL DRAINAGE AREA: 21.05 Acres WEIGHTED CURVE NUMBER: 80

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 04-30-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-0

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	4.23(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	1.29(98)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	9.21(77)	-	-	-
Total Area (by Hydrologic Soil Group)	14.7			
	====			

UBAREA: 1-0 TOTAL DRAINAGE AREA: 14.73 Acres WEIGHTED CURVE NUMBER:68

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-01-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subarea: 1-P
 Subtitle: POST-DEVELOPED CONDITIONS

COVER DESCRIPTION

Hydrologic Soil Group
 A B C D
 Acres (CN)

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%

3.53(39)

-

-

-

Impervious Areas

Paved parking lots, roofs, driveways

0.90(98)

-

-

-

Residential districts Avg % imperv

(by average lot size)

1/8 acre (town houses)

65

13.4(77)

-

-

-

Total Area (by Hydrologic Soil Group)

17.8

====

SUBAREA: 1-P

TOTAL DRAINAGE AREA: 17.83 Acres

WEIGHTED CURVE NUMBER: 71

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 05-01-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-Q

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	8.16(39)	-	-	-
Urban Districts	Avg % imperv			
Commercial & business	85	4.41(89)	-	-
Residential districts	Avg % imperv			
(by average lot size)				
1/8 acre (town houses)	65	11.3(77)	-	-
Total Area (by Hydrologic Soil Group)	23.8			
	=====			

SUBAREA: 1-Q TOTAL DRAINAGE AREA: 23.87 Acres WEIGHTED CURVE NUMBER:66

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County: LAKE State: FL User: TWL Date: 04-25-96
 Subtitle: POST-DEVELOPED CONDITIONS Checked: _____ Date: _____
 Subarea : 1-DOT

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	10.3(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	3.92(98)	-	-	-
Total Area (by Hydrologic Soil Group)	14.2			
	====			

SUBAREA: 1-DOT TOTAL DRAINAGE AREA: 14.22 Acres WEIGHTED CURVE NUMBER: 55

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

Subarea : 1-OFF

COVER DESCRIPTION

Hydrologic Soil Group

A B C D
Acres (CN)

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	69.1(39)	-	-	-
-----------------------------------	----------	---	---	---

Total Area (by Hydrologic Soil Group)	69.1			
	====			

SUBAREA: 1-OFF TOTAL DRAINAGE AREA: 69.1 Acres WEIGHTED CURVE NUMBER:39

BASIN NO. 1
TIME OF CONCENTRATION CALCULATIONS

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST DEVELOPED CONDITIONS

----- Subarea #1 - 1-A -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.015	F					0.388
Shallow Concent'd		600	.0433	U					0.050
									Time of Concentration = 0.44*
									=====

----- Subarea #2 - 1-B -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	40	.01	F					0.126
Shallow Concent'd		80	.01	U					0.014
Shallow Concent'd		950	.050	P					0.058
									Time of Concentration = 0.20*
									=====

----- Subarea #3 - 1-C -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.025	F					0.316
Shallow Concent'd		500	.028	U					0.051
Shallow Concent'd		200	.018	P					0.020
									Time of Concentration = 0.39*
									=====

----- Subarea #4 - 1-D -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.03	F					0.097
Shallow Concent'd		300	.0400	U					0.026
									Time of Concentration = 0.12*
									=====

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST DEVELOPED CONDITIONS

----- Subarea #5 - 1-E -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		100	.015	U					0.014
Shallow Concent'd		660	.028	P					0.054
									Time of Concentration = 0.20*
									=====

----- Subarea #6 - 1-F -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		700	.0114	U					0.113
Shallow Concent'd		400	.0275	U					0.042
									Time of Concentration = 0.38*
									=====

----- Subarea #7 - 1-G -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.03	F					0.294
Shallow Concent'd		800	.0263	P					0.067
Shallow Concent'd		800	.0162	P					0.086
									Time of Concentration = 0.45*
									=====

----- Subarea #8 - 1-H -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		700	.020	U					0.085
Shallow Concent'd		800	.0688	U					0.053
									Time of Concentration = 0.27*
									=====

----- Subarea #9 - 1-I -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		700	.050	U					0.054
Shallow Concent'd		500	.026	U					0.053
									Time of Concentration = 0.33*
									=====

Project : KINGS RIDGE

County : LAKE

Subtitle: POST DEVELOPED CONDITIONS

State: FL

User: TWL

Checked: _____

Date: 04-25-96

Date: _____

----- Subarea #10 - 1-J -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	40	.015	F					0.107
Shallow Concent'd		50	.015	U					0.007
Shallow Concent'd		800	.015	P					0.089

Time of Concentration = 0.20*
=====

--- Sheet Flow Surface Codes ---

- | | | |
|--------------------------|------------------|------------------------------|
| A Smooth Surface | F Grass, Dense | --- Shallow Concentrated --- |
| B Fallow (No Res.) | G Grass, Burmuda | --- Surface Codes --- |
| C Cultivated < 20 % Res. | H Woods, Light | P Paved |
| D Cultivated > 20 % Res. | I Woods, Dense | U Unpaved |
| E Grass-Range, Short | | |

Project : KINGS RIDGE

User: TWL

Date: 04-25-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST DEVELOPED CONDITIONS

----- Subarea #1 - 1-K -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		350	.0371	U					0.031
Shallow Concent'd		350	.0600	U					0.025
Time of Concentration = 0.28*									=====

----- Subarea #2 - 1-L -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.030	F					0.169
Shallow Concent'd		1200	.0183	U					0.153
Shallow Concent'd		600	.0383	U					0.053
Time of Concentration = 0.37*									=====

----- Subarea #3 - 1-M -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		200	.015	U					0.028
Time of Concentration = 0.16*									=====

----- Subarea #4 - 1-M2 -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		50	.015	U					0.007
Shallow Concent'd		900	.020	P					0.087
Time of Concentration = 0.22*									=====

Project : KINGS RIDGE
 County : LAKE
 Subtitle: POST DEVELOPED CONDITIONS

State: FL

User: TWL
 Checked: _____

Date: 04-25-96
 Date: _____

----- Subarea #5 - 1-M3 -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		500	.050	P					0.031
Shallow Concent'd		450	.020	P					0.043
									Time of Concentration = 0.30*
									=====

----- Subarea #6 - 1-N -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		300	.020	P					0.029
Shallow Concent'd		200	.015	U					0.028
									Time of Concentration = 0.18*
									=====

----- Subarea #7 - 1-O -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		400	.010	P					0.055
Shallow Concent'd		200	.015	U					0.028
									Time of Concentration = 0.21*
									=====

----- Subarea #8 - 1-P -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		500	.018	U					0.064
									Time of Concentration = 0.29*
									=====

----- Subarea #9 - 1-Q -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		500	.024	U					0.056
Shallow Concent'd		700	.0214	U					0.082
									Time of Concentration = 0.27*
									=====

Project : KINGS RIDGE

User: TWL

Date: 05-01-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST-DEVELOPED CONDITIONS

----- Subarea #1 - 1-OFF -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	300	.050	F					0.331
Shallow Concent'd		800	.0500	U					0.062
									Time of Concentration = 0.39*
									=====

----- Subarea #2 - 1-DOT -----

Flow Type	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Shallow Concent'd	1600	.012	U					0.251
								Time of Concentration = 0.25*
								=====

--- Sheet Flow Surface Codes ---

- A Smooth Surface
- B Fallow (No Res.)
- C Cultivated < 20 % Res.
- D Cultivated > 20 % Res.
- E Grass-Range, Short
- F Grass, Dense
- G Grass, Burmuda
- H Woods, Light
- I Woods, Dense

- Shallow Concentrated ---
 --- Surface Codes ---
 P Paved
 U Unpaved

BASIN NO. 1
25YR/96HR POST-DEVELOPED
RUN-OFF HYDROGRAPH INPUT
DATA WITH BASIN SUMMARY

KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

***** Basin Summary - KINGS *****

Basin Name:	1-A	1-B	1-C	1-D	1-E
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-A	1-B	1-C	1-D	1-E
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	13.20	6.00	11.70	5.00	6.00
Comp Time Inc (sec):	13.20	6.00	11.70	5.00	6.00
Rainfall File:	SJRWND96	SJRWND96	SJRWND96	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	26.40	12.00	23.40	10.00	12.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	74.16	22.13	11.79	4.97	6.73
Curve Number:	86.00	62.00	67.00	69.00	80.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.84	59.90	59.86	59.92	59.90
Flow Max (cfs):	265.80	85.40	36.11	22.81	33.82
Runoff Volume (in):	9.65	6.35	7.07	7.35	8.87
Runoff Volume (cf):	2598125	510049	302507	132623	216604

Basin Name:	1-F	1-G	1-H	1-I	1-J
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-F	1-G	1-H	1-I	1-J
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	11.40	13.50	8.10	9.90	6.00
Comp Time Inc (sec):	11.40	13.50	8.10	9.90	6.00
Rainfall File:	SJRWND96	SJRWND96	SJRWND96	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	22.80	27.00	16.20	19.80	12.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	19.82	33.08	23.98	23.50	15.29
Curve Number:	66.00	75.00	65.00	64.00	79.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.85	59.85	59.94	59.89	59.90
Flow Max (cfs):	60.46	104.34	83.36	74.21	76.08
Runoff Volume (in):	6.93	8.18	6.78	6.63	8.73
Runoff Volume (cf):	498286	982600	590501	565926	484676

Basin Name:	1-K	1-L	1-M	1-M2	1-M3
-------------	-----	-----	-----	------	------

KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

***** Basin Summary - KINGS *****

Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-K	1-L	1-M	1-M2	1-M3
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	8.40	11.10	5.00	6.60	9.00
Comp Time Inc (sec):	8.40	11.10	5.00	6.60	9.00
Rainfall File:	SJRWND96	SJRWND96	SJRWND96	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	16.80	22.20	10.00	13.20	18.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	22.62	41.12	2.67	9.59	57.00
Curve Number:	71.00	65.00	69.00	78.00	79.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.92	59.94	59.92	59.84	59.85
Flow Max (cfs):	86.91	123.32	12.25	43.96	241.16
Runoff Volume (in):	7.63	6.78	7.35	8.59	8.73
Runoff Volume (cf):	626621	1011554	71248	299177	1805373

Basin Name:	1-M	1-O	1-P	1-Q	1-DOT
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-M	1-O	1-P	1-Q	1-A
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	5.40	6.30	8.70	8.10	7.50
Comp Time Inc (sec):	5.40	6.30	8.70	8.10	7.50
Rainfall File:	SJRWND96	SJRWND96	SJRWND96	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	OPPOSITE
Time of Conc. (min):	10.80	12.60	17.40	16.20	15.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	21.05	14.73	17.83	23.87	14.22
Curve Number:	80.00	68.00	71.00	66.00	55.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.85	59.85	59.88	59.94	59.88
Flow Max (cfs):	104.49	59.78	68.26	84.49	42.57
Runoff Volume (in):	8.86	7.21	7.64	6.93	5.31
Runoff Volume (cf):	677273	385623	494194	600240	274205

Basin Name:	1-OFF
Group Name:	BASE
Node Name:	1-A

KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

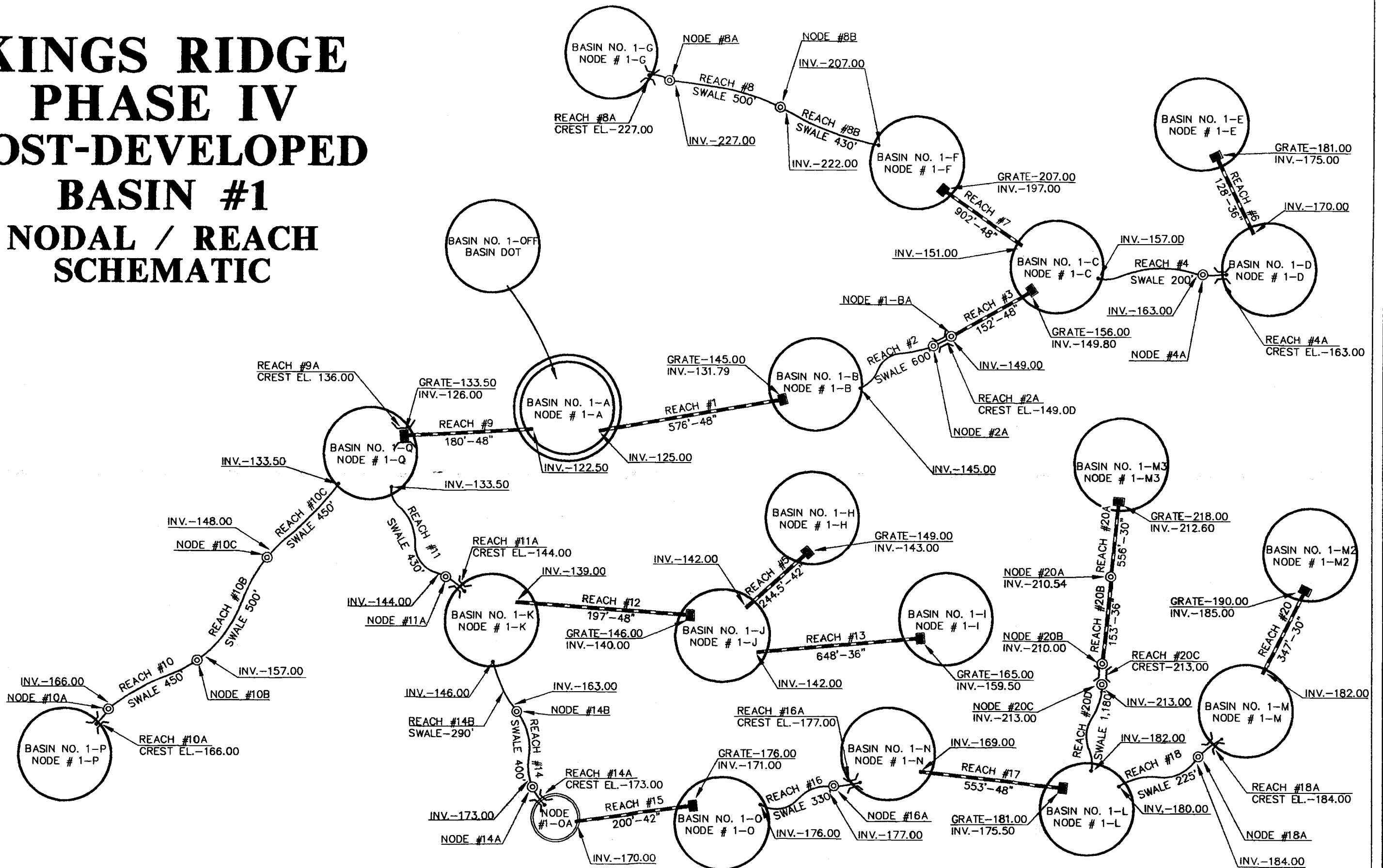
***** Basin Summary - KINGS *****

Hydrograph Type: SB

Spec Time Inc (sec): 11.70
Comp Time Inc (sec): 11.70
Rainfall File: SJRWND96
Rainfall Amount (in): 11.40
Storm Duration (hr): 96.00
Status: OFFSITE
Time of Conc. (min): 23.40
Lag Time (hr): 0.00
Area (acres): 69.10
Curve Number: 39.00
DCIA (%): 0.00

Time Max (hrs): 59.86
Flow Max (cfs): 79.25
Runoff Volume (in): 2.86
Runoff Volume (cf): 717290

KINGS RIDGE PHASE IV POST-DEVELOPED BASIN #1 NODAL / REACH SCHEMATIC



BASIN NO. 1
STAGE STORAGE CALCULATIONS

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No 1-A

RETENTION POND # 1-A

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
122.0	0.10	0
123.0	0.52	0.31
124.0	2.09	1.615
125.0	5.62	5.470
126.0	9.52	13.040
127.0	10.43	23.015
128.0	11.11	33.785
129.0	11.81	45.245
130.0	12.59	57.445
131.0	13.49	70.485
132.0	14.60	84.530
133.0	15.81	99.735
134.0	19.95	117.615
135.0	21.76	138.470

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-A

RETENTION POND # 1-A

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-ft.)</u>
136.0	23.35	161.025
137.0	24.35	184.875
138.0	25.28	209.69
139.0	26.52	235.59
140.0	27.90	262.80

FARNER, BARLEY & ASSOCIATES, INC.
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350 North Sinclair Avenue
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(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-C

RETENTION POND # 1-C

<u>STAGE (FT.)</u>	<u>AREA (AC.)</u>	<u>STORAGE (Ac.-FT.)</u>
151.0	0.48	0
152.0	0.59	0.535
153.0	0.70	1.180
154.0	0.81	1.935
155.0	0.93	2.805
156.0	1.05	3.795
157.0	1.17	4.905
158.0	1.37	6.175
159.0	1.58	7.650

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-D
RETENTION POND # 1-D

<u>STAGE (FT.)</u>	<u>AREA (AC.)</u>	<u>STORAGE (AC.-FT.)</u>
146.00	0.011	0
150.0	0.122	0.266
155.0	0.316	1.361
160.00	0.617	3.694
165.00	1.221	8.289

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-E

RETENTION POND # 1-E

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
176.0	0.17	0
177.0	0.26	0.215
178.0	0.35	0.520
179.0	0.45	0.920
180.0	0.55	1.42
181.0	0.65	2.02
182.0	0.75	2.72
183.0	0.86	3.525
184.0	0.96	4.435

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-G

RETENTION POND = 1-G

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.- Ft.)</u>
221.00	0.45	0
222.00	0.58	0.515
223.00	0.73	1.170
224.00	0.88	1.975
225.00	1.03	2.930
226.00	1.18	4.035
227.00	1.34	5.295
228.00	1.49	6.710
229.00	1.65	8.280

JOB KINGS RIDGE

FARNER, BARLEY & ASSOCIATES, INC.

Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

SHEET NO. _____ OF _____

CALCULATED BY TWL DATE _____

CHECKED BY _____ DATE _____

SCALE _____

BASIN No. 1-J

RETENTION POND # 1-J

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
142.0	0.64	0
143.0	0.71	0.675
144.0	0.79	1.425
145.0	0.87	2.255
146.0	0.95	3.165
147.0	1.03	4.155
148.0	1.11	5.225
149.0	1.20	6.380
150.0	1.29	7.625

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-K

RETENTION POND #1-K

STAGE (FT.)

AREA (Ac.)

STORAGE (Ac.-FT.)

139.00

1.48

0

140.00

1.67

1.575

141.00

1.86

3.340

142.00

2.05

5.295

143.00

2.24

7.440

144.00

2.44

9.780

145.00

2.64

12.320

146.00

2.84

15.060

147.00

3.05

18.005

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SCALE _____

BASIN No. 1-L

RETENTION POND # 1-L

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
176.00	0.54	0
177.00	0.61	0.575
178.00	0.68	1.220
179.00	0.75	1.935
180.00	0.82	2.720
181.00	0.90	3.580
182.00	0.98	4.520
183.00	1.06	5.540
184.00	1.14	6.640

JOB KINGS RIDGE

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SHEET NO. _____ OF _____

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SCALE _____

BASIN No. 1-M

RETENTION POND # 1-M

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac-Ft.)</u>
182.00	0.03	0.03
183.00	0.06	0.045
184.00	0.10	0.125
185.00	0.14	0.245
186.00	0.18	0.405
187.00	0.23	0.610
188.00	0.28	0.865
189.00	0.34	1.175
190.00	0.39	1.540

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CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-M2

RETENTION POND # 1-M2

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
187.00	0.07	0
188.00	0.13	0.10
189.00	0.19	0.26
190.00	0.25	0.48
191.00	0.32	0.77
192.00	0.39	1.13
193.00	0.46	1.56

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SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-M3

RETENTION POND # 1-M3

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
212.00	3.77	0
213.00	3.91	3.84
214.00	4.05	7.82
215.00	4.19	11.94
216.00	4.34	16.21
217.00	4.49	20.63
218.00	4.64	25.20
219.00	4.79	29.92
220.00	4.95	34.79

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-N

RETENTION POND # 1-N

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
169.00	0.48	0
170.00	0.55	0.515
171.00	0.61	1.095
172.00	0.68	1.740
173.00	0.75	2.455
174.00	0.83	3.245
175.00	0.90	4.110
176.00	0.98	5.050
177.00	1.06	6.070
178.00	2.77	7.985
179.00	3.28	11.010
180.00	4.91	15.105

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-0

RETENTION POND # 1-0

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.- Ft.)</u>
172.00	0.72	0
173.00	0.81	0.77
174.00	0.89	1.62
175.00	0.98	2.56
176.00	1.07	3.59
177.00	1.16	4.71
178.00	1.25	5.92
179.00	1.35	7.22
180.00	1.45	8.62

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-0A

RETENTION POND # 1-0A

<u>STAGE (FT.)</u>	<u>AREA (AC.)</u>	<u>STORAGE (Ac.-FT.)</u>
170.00	0.25	0
171.00	0.30	0.275
172.00	0.34	0.535
173.00	0.39	0.960
174.00	0.45	1.380
175.00	0.50	1.855
176.00	0.56	2.385
177.00	0.62	2.975
178.00	0.68	3.625

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 1-P

RETENTION POND # 1-P

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
162.00	0.33	0
163.00	0.40	0.365
164.00	0.46	0.795
165.00	0.53	1.290
166.00	0.60	1.855
167.00	0.67	2.490
168.00	0.75	3.200
169.00	0.83	3.990
170.00	0.90	4.855

BASIN NO. 1
25YR/96HR POST-DEVELOPED
STORM ROUTING INPUT DATA

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-A Base Flow(cfs): 0 Init Stage(ft): 122
Group: BASE Length(ft): 0 Warn Stage(ft): 140
Comment:

Stage(ft)	Area(ac)
122	0.1
124	2.09
126	9.52
128	11.11
130	12.59
132	14.6
134	19.95
136	23.35
138	25.28
140	27.9

-----Class: Node-----

Name: 1-B Base Flow(cfs): 0 Init Stage(ft): 145
Group: BASE Length(ft): 0 Warn Stage(ft): 147
Comment:

Stage(ft)	Area(ac)
145	0.039
146	0.09
147	0.182

-----Class: Node-----

Name: 1-BA Base Flow(cfs): 0 Init Stage(ft): 149
Group: BASE Length(ft): 0 Warn Stage(ft): 151
Comment:

Stage(ft)	Area(ac)
149	0.01
150	0.01
151	0.01

-----Class: Node-----

Name: 1-C Base Flow(cfs): 0 Init Stage(ft): 151
Group: BASE Length(ft): 0 Warn Stage(ft): 159
Comment:

Stage(ft)	Area(ac)
151	0.48
152	0.59
153	0.7
154	0.81
155	0.93
156	1.05
157	1.17
158	1.37
159	1.58

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-D Base Flow(cfs): 0 Init Stage(ft): 146
Group: BASE Length(ft): 0 Warn Stage(ft): 165
Comment:

Stage(ft)	Area(ac)
146	0.011
150	0.122
155	0.316
160	0.617
165	1.221

-----Class: Node-----

Name: 1-E Base Flow(cfs): 0 Init Stage(ft): 176
Group: BASE Length(ft): 0 Warn Stage(ft): 184
Comment:

Stage(ft)	Area(ac)
176	0.17
177	0.26
178	0.35
179	0.45
180	0.55
181	0.65
182	0.75
183	0.86
184	0.96

-----Class: Node-----

Name: 1-P Base Flow(cfs): 0 Init Stage(ft): 207
Group: BASE Length(ft): 0 Warn Stage(ft): 210
Comment:

Stage(ft)	Area(ac)
207	0.011
208	0.013
209	0.032
210	0.05

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-G Base Flow(cfs): 0 Init Stage(ft): 221
Group: BASE Length(ft): 0 Warn Stage(ft): 229
Comment:

Stage(ft)	Area(ac)
221	0.45
222	0.58
223	0.73
224	0.88
225	1.03
226	1.18
227	1.34
228	1.49
229	1.65

-----Class: Node-----

Name: 1-H Base Flow(cfs): 0 Init Stage(ft): 149
Group: BASE Length(ft): 0 Warn Stage(ft): 152.5
Comment:

Stage(ft)	Area(ac)
149	0.008
150	0.009
151	0.03
152.5	0.1

-----Class: Node-----

Name: 1-I Base Flow(cfs): 0 Init Stage(ft): 165
Group: BASE Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft)	Area(ac)
165	0.06
166	0.08
167	0.1
168	0.13
169	0.19
170	0.24

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-J Base Flow(cfs): 0 Init Stage(ft): 142
Group: BASE Length(ft): 0 Warn Stage(ft): 150
Comment:

Stage(ft)	Area(ac)
142	0.64
143	0.71
144	0.79
145	0.87
146	0.95
147	1.03
148	1.11
149	1.2
150	1.29

-----Class: Node-----

Name: 1-K Base Flow(cfs): 0 Init Stage(ft): 139
Group: BASE Length(ft): 0 Warn Stage(ft): 147
Comment:

Stage(ft)	Area(ac)
139	1.48
140	1.67
141	1.86
142	2.05
143	2.24
144	2.44
145	2.64
146	2.84
147	3.05

-----Class: Node-----

Name: 1-L Base Flow(cfs): 0 Init Stage(ft): 176
Group: BASE Length(ft): 0 Warn Stage(ft): 184
Comment:

Stage(ft)	Area(ac)
176	0.54
177	0.61
178	0.68
179	0.75
180	0.82
181	0.9
182	0.98
183	1.06
184	1.14

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-M Base Flow(cfs): 0 Init Stage(ft): 182
Group: BASE Length(ft): 0 Warn Stage(ft): 190
Comment:

Stage(ft)	Area(ac)
182	0.03
183	0.06
184	0.1
185	0.14
186	0.18
187	0.23
188	0.28
189	0.34
190	0.39

-----Class: Node-----

Name: 1-M2 Base Flow(cfs): 0 Init Stage(ft): 187
Group: BASE Length(ft): 0 Warn Stage(ft): 193
Comment:

Stage(ft)	Area(ac)
187	0.07
188	0.13
189	0.19
190	0.25
191	0.32
192	0.39
193	0.46

-----Class: Node-----

Name: 1-M3 Base Flow(cfs): 0 Init Stage(ft): 212
Group: BASE Length(ft): 0 Warn Stage(ft): 220
Comment:

Stage(ft)	Area(ac)
212	3.77
213	3.91
214	4.05
215	4.19
216	4.34
217	4.49
218	4.64
219	4.79
220	4.95

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 1-N Base Flow(cfs): 0 Init Stage(ft): 169
Group: BASE Length(ft): 0 Warn Stage(ft): 180
Comment:

Stage(ft)	Area(ac)
169	0.48
171	0.61
172	0.68
173	0.75
174	0.83
175	0.9
177	1.06
178	2.77
179	3.28
180	4.91

-----Class: Node-----

Name: 1-O Base Flow(cfs): 0 Init Stage(ft): 172
Group: BASE Length(ft): 0 Warn Stage(ft): 180
Comment:

Stage(ft)	Area(ac)
172	0.72
173	0.81
174	0.89
175	0.98
176	1.07
177	1.16
178	1.25
179	1.35
180	1.45

-----Class: Node-----

Name: 1-OA Base Flow(cfs): 0 Init Stage(ft): 170
Group: BASE Length(ft): 0 Warn Stage(ft): 178
Comment:

Stage(ft)	Area(ac)
170	0.25
171	0.3
172	0.34
173	0.39
174	0.45
175	0.5
176	0.56
177	0.62
178	0.68

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----
Name: 1-P Base Flow(cfs): 0 Init Stage(ft): 162
Group: BASE Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft)	Area(ac)
162	0.33
163	0.4
164	0.46
165	0.53
166	0.6
167	0.67
168	0.75
169	0.83
170	0.9

-----Class: Node-----
Name: 1-Q Base Flow(cfs): 0 Init Stage(ft): 133.5
Group: BASE Length(ft): 0 Warn Stage(ft): 140
Comment:

Stage(ft)	Area(ac)
133.5	0.01
134	0.015
135	0.018
136	0.02

-----Class: Node-----
Name: 10A Base Flow(cfs): 0 Init Stage(ft): 166
Group: BASE Length(ft): 0 Warn Stage(ft): 173
Comment:

Stage(ft)	Area(ac)
168	0
173	0

-----Class: Node-----
Name: 10B Base Flow(cfs): 0 Init Stage(ft): 157
Group: BASE Length(ft): 0 Warn Stage(ft): 164
Comment:

Stage(ft)	Area(ac)
159	0
164	0

-----Class: Node-----
Name: 10C Base Flow(cfs): 0 Init Stage(ft): 148
Group: BASE Length(ft): 0 Warn Stage(ft): 155
Comment:

Stage(ft)	Area(ac)
150	0
155	0

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----
Name: 11A Base Flow(cfs): 0 Init Stage(ft): 144
Group: BASE Length(ft): 0 Warn Stage(ft): 152
Comment:

Stage(ft) Area(ac)
147 0
152 0

-----Class: Node-----
Name: 14A Base Flow(cfs): 0 Init Stage(ft): 173
Group: BASE Length(ft): 0 Warn Stage(ft): 181
Comment:

Stage(ft) Area(ac)
176 0
181 0

-----Class: Node-----
Name: 14B Base Flow(cfs): 0 Init Stage(ft): 163
Group: BASE Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft) Area(ac)
165 0
170 0

-----Class: Node-----
Name: 16A Base Flow(cfs): 0 Init Stage(ft): 177
Group: BASE Length(ft): 0 Warn Stage(ft): 184
Comment:

Stage(ft) Area(ac)
179 0
184 0

-----Class: Node-----
Name: 18A Base Flow(cfs): 0 Init Stage(ft): 184
Group: BASE Length(ft): 0 Warn Stage(ft): 193
Comment:

Stage(ft) Area(ac)
184 0.01
193 0.01

-----Class: Node-----
Name: 20A Base Flow(cfs): 0 Init Stage(ft): 210.54
Group: BASE Length(ft): 0 Warn Stage(ft): 216.5
Comment:

Stage(ft) Area(ac) [Manhole, Plat Floor]

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 20B Base Flow(cfs): 0 Init Stage(ft): 210
Group: BASE Length(ft): 0 Warn Stage(ft): 216
Comment:

Stage(ft)	Area(ac)
210	0.01
213	0.015
216	0.02

-----Class: Node-----

Name: 20C Base Flow(cfs): 0 Init Stage(ft): 213
Group: BASE Length(ft): 0 Warn Stage(ft): 215
Comment:

Stage(ft)	Area(ac)
215	0
220	0

-----Class: Node-----

Name: 2A Base Flow(cfs): 0 Init Stage(ft): 149
Group: BASE Length(ft): 0 Warn Stage(ft): 156
Comment:

Stage(ft)	Area(ac)
151	0
156	0

-----Class: Node-----

Name: 4A Base Flow(cfs): 0 Init Stage(ft): 163
Group: BASE Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft)	Area(ac)
165	0
170	0

-----Class: Node-----

Name: 8A Base Flow(cfs): 0 Init Stage(ft): 227
Group: BASE Length(ft): 0 Warn Stage(ft): 234
Comment:

Stage(ft)	Area(ac)
229	0
234	0

-----Class: Node-----

Name: 8B Base Flow(cfs): 0 Init Stage(ft): 222
Group: BASE Length(ft): 0 Warn Stage(ft): 229
Comment:

Stage(ft)	Area(ac)
224	0
229	0

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 1-A Node: 1-A Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 13.2 Concentration Time(min): 26.4
Area(ac): 74.16 DCIA(%): 0
Curve #: 86

BASIN NO. 1-A POST-DEVELOPED

-----Class: Basin-----

Basin: 1-B Node: 1-B Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6 Concentration Time(min): 12
Area(ac): 22.13 DCIA(%): 0
Curve #: 62

BASIN NO. 1-B POST-DEVELOPED

-----Class: Basin-----

Basin: 1-C Node: 1-C Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 11.7 Concentration Time(min): 23.4
Area(ac): 11.79 DCIA(%): 0
Curve #: 67

BASIN NO. 1-C POST-DEVELOPED

-----Class: Basin-----

Basin: 1-D Node: 1-D Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 5 Concentration Time(min): 10
Area(ac): 4.97 DCIA(%): 0
Curve #: 69

BASIN NO. 1-D POST DEVELOPED

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 1-DOT Node: 1-A Status: Off Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 7.5 Concentration Time(min): 15
Area(ac): 14.22 DCIA(%): 0
Curve #: 55

BASIN NO. 1-DOT

-----Class: Basin-----

Basin: 1-E Node: 1-E Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6 Concentration Time(min): 12
Area(ac): 6.73 DCIA(%): 0
Curve #: 80

BASIN NO. 1-E POST-DEVELOPED

-----Class: Basin-----

Basin: 1-F Node: 1-F Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 11.4 Concentration Time(min): 22.8
Area(ac): 19.82 DCIA(%): 0
Curve #: 66

BASIN NO. 1-F POST-DEVELOPED

-----Class: Basin-----

Basin: 1-G Node: 1-G Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 13.5 Concentration Time(min): 27
Area(ac): 33.08 DCIA(%): 0
Curve #: 75

BASIN NO. 1-G POST-DEVELOPED

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 1-H Node: 1-H Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 8.1 Concentration Time(min): 16.2
Area(ac): 23.98 DCIA(%): 0
Curve #: 65

BASIN NO. 1-H POST-DEVELOPED

-----Class: Basin-----

Basin: 1-I Node: 1-I Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 9.9 Concentration Time(min): 19.8
Area(ac): 23.5 DCIA(%): 0
Curve #: 64

BASIN NO. 1-I POST-DEVELOPED

-----Class: Basin-----

Basin: 1-J Node: 1-J Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6 Concentration Time(min): 12
Area(ac): 15.29 DCIA(%): 0
Curve #: 79

BASIN NO. 1-J POST-DEVELOPED

-----Class: Basin-----

Basin: 1-K Node: 1-K Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 8.4 Concentration Time(min): 16.8
Area(ac): 22.62 DCIA(%): 0
Curve #: 71

BASIN NO. 1-K POST-DEVELOPED

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 1-L Node: 1-L Status: On Site Type: Santa Barbara
Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 11.1 Concentration Time(min): 22.2
 Area(ac): 41.12 DCIA(%): 0
 Curve #: 65

BASIN NO. 1-L POST-DEVELOPED

-----Class: Basin-----

Basin: 1-M Node: 1-M Status: On Site Type: Santa Barbara
Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 5 Concentration Time(min): 10
 Area(ac): 2.67 DCIA(%): 0
 Curve #: 69

BASIN NO. 1-M POST-DEVELOPED

-----Class: Basin-----

Basin: 1-M2 Node: 1-M2 Status: On Site Type: Santa Barbara
Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6.6 Concentration Time(min): 13.2
 Area(ac): 9.59 DCIA(%): 0
 Curve #: 78

BASIN NO. 1-M2 POST-DEVELOPED

-----Class: Basin-----

Basin: 1-M3 Node: 1-M3 Status: On Site Type: Santa Barbara
Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 9 Concentration Time(min): 18
 Area(ac): 57 DCIA(%): 0
 Curve #: 79

BASIN NO. 1-M3 POST-DEVELOPED

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 1-N Node: 1-N Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 5.4 Concentration Time(min): 10.8
Area(ac): 21.05 DCIA(%): 0
Curve #: 80

BASIN NO. 1-N POST DEVELOPED

-----Class: Basin-----

Basin: 1-0 Node: 1-0 Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6.3 Concentration Time(min): 12.6
Area(ac): 14.73 DCIA(%): 0
Curve #: 68

BASIN NO. 1-0 POST-DEVELOPED

-----Class: Basin-----

Basin: 1-OFF Node: 1-A Status: Off Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 11.7 Concentration Time(min): 23.4
Area(ac): 69.1 DCIA(%): 0
Curve #: 39

BASIN NO. 1-OFF

-----Class: Basin-----

Basin: 1-P Node: 1-P Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 8.7 Concentration Time(min): 17.4
Area(ac): 17.83 DCIA(%): 0
Curve #: 71

BASIN NO. 1-P POST-DEVELOPED

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Basin-----
 Basin: 1-Q Node: 1-Q Status: On Site Type: Santa Barbara
 Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
 Rainfall Amount(in): 11.4 Lag Time(hrs): 0
 Time Increment(min): 8.1 Concentration Time(min): 16.2
 Area(ac): 23.87 DCIA(%): 0
 Curve #: 66

BASIN NO. 1-Q POST-DEVELOPED

-----Class: Pipe-----

Name: 20B	From Node: 20A	Length(ft): 153
Group: BASE	To Node: 20B	Count: 1
UPSTREAM	DOWNSTREAM	Equation: Average K
Geometry: Circular	Circular	Flow: Both
Span(in): 36	36	Entrance Loss Coef: 0.5
Rise(in): 36	36	Exit Loss Coef: 0.5
Invert(ft): 210.54	210	Bend Loss Coef: 0.7
Manning's N: 0.012	0.012	Outlet Cntrl Spec: Use dc or tw
Top Clip(in): 0	0	Inlet Cntrl Spec: Use dn
Bottom Clip(in): 0	0	Stabilizer Option: None
App XSec Nm:		
App XSec El(ft): 0	0	

Upstream PHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall 1 1

Downstream PHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall 1 1

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 10 From Node: 10A Length(ft): 450
 Group: BASE To Node: 10B Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	166	157	Flow: Both
TOB(ft):	168	159	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 10B From Node: 10B Length(ft): 500
 Group: BASE To Node: 10C Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	157	148	Flow: Both
TOB(ft):	159	150	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 10C Prom Node: 10C Length(ft): 450
 Group: BASE To Node: 1-Q Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	148	133.5	Flow: Both
TOB(ft):	150	135.5	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 11 Prom Node: 11A Length(ft): 430
 Group: BASE To Node: 1-Q Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	144	133.5	Flow: Both
TOB(ft):	147	135.5	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 14 From Node: 14A Length(ft): 400
 Group: BASE To Node: 14B Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	173	163	Flow: Both
TOB(ft):	176	165	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 14B From Node: 14B Length(ft): 290
 Group: BASE To Node: 1-K Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	163	146	Flow: Both
TOB(ft):	165	148	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 16 From Node: 16A Length(ft): 330
 Group: BASB To Node: 1-0 Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	177	176	Flow: Both
TOB(ft):	179	178	Eddy Contraction Coef: 0
Manning's N:	0.03	0.03	Eddy Expansion Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Control Spec: Use dc or tw
AxEl1(ft):			Inlet Control Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxEl2(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 18 From Node: 18A Length(ft): 225
 Group: BASB To Node: 1-L Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	184	180	Flow: Both
TOB(ft):	188	182	Eddy Contraction Coef: 0
Manning's N:	0.03	0.03	Eddy Expansion Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Control Spec: Use dc or tw
AxEl1(ft):			Inlet Control Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxEl2(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 2 From Node: 2A Length(ft): 600
 Group: BASE To Node: 1-B Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	149	145	Flow: Both
TOB(ft):	151	147	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 20D From Node: 20C Length(ft): 1180
 Group: BASE To Node: 1-L Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	213	182	Flow: Both
TOB(ft):	215	184	Eddy Contrac Coef: 0
Manning's N:	0.03	0.03	Eddy Expans Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Cntrl Spec: Use dc or tw
AxB11(ft):			Inlet Cntrl Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 4 From Node: 4A Length(ft): 200
 Group: BASE To Node: 1-C Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	163	157	Flow: Both
TOB(ft):	165	159	Eddy Contraction Coef: 0
Manning's N:	0.03	0.03	Eddy Expansion Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Control Spec: Use dc or tw
AxB11(ft):			Inlet Control Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Channel-----

Name: 8 From Node: 8A Length(ft): 500
 Group: BASE To Node: 8B Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	227	222	Flow: Both
TOB(ft):	229	225	Eddy Contraction Coef: 0
Manning's N:	0.03	0.03	Eddy Expansion Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Control Spec: Use dc or tw
AxB11(ft):			Inlet Control Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Channel-----

Name: 8B From Node: 8B Length(ft): 430
 Group: BASE To Node: 1-P Count: 1

	UPSTREAM	DOWNSTREAM	
Geometry:	Trapezoidal	Trapezoidal	Equation: Aver Conveyance
Invert(ft):	222	207	Flow: Both
TOB(ft):	224	209	Eddy Contract Coef: 0
Manning's N: 0.03		0.03	Eddy Expansion Coef: 0
TClip(ft):	0	0	Entrance Loss Coef: 0
BClip(ft):	0	0	Exit Loss Coef: 0
Main Xsec:			Outlet Control Spec: Use dc or tw
AxB11(ft):			Inlet Control Spec: Use dn
Aux Xsec1:			Stabilizer Option: None
AxB12(ft):			
Aux Xsec2:			
TWidth(ft):			
Depth(ft):			
BWidth(ft):	15	15	
LSdSlp(h/v):	6	6	
RSdSlp(h/v):	6	6	

-----Class: Weir-----

Name: 10A From Node: 1-P
 Group: BASE To Node: 10A
 Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
 Left Side Slope(h/v): 6
 Right Side Slope(h/v): 6
 Invert(ft): 166
 Control Elev(ft): 166
 Structure Opening(ft): 4 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
 Weir Discharge Coef: 2.8
 Orifice Discharge Coef: 0.6

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 11A From Node: 1-K
Group: BASE To Node: 11A
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 144
Control Elev(ft): 144
Structure Opening(ft): 4
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

-----Class: Weir-----

Name: 14A From Node: 1-0A
Group: BASE To Node: 14A
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 173
Control Elev(ft): 173
Structure Opening(ft): 4
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 16A From Node: 1-N
Group: BASE To Node: 16A
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
 Invert(ft): 177
Control Elev(ft): 177
Structure Opening(ft): 4 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

-----Class: Weir-----

Name: 18A From Node: 1-N
Group: BASE To Node: 18A
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
 Invert(ft): 184
Control Elev(ft): 184
Structure Opening(ft): 4 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 20C From Node: 20B
Group: BASE To Node: 20C
Count: 1

Type: Mavis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
 Invert(ft): 213
Control Elev(ft): 213
Structure Opening(ft): 4 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

-----Class: Weir-----

Name: 2A From Node: 1-BA
Group: BASE To Node: 2A
Count: 1

Type: Mavis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
 Invert(ft): 149
Control Elev(ft): 149
Structure Opening(ft): 4 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 4A From Node: 1-D
Group: BASE To Node: 4A
Count: 1

Type: Mavis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 163
Control Elev(ft): 163
Structure Opening(ft): 4
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

-----Class: Weir-----

Name: 8A From Node: 1-G
Group: BASE To Node: 8A
Count: 1

Type: Mavis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 227
Control Elev(ft): 227
Structure Opening(ft): 4
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 9A From Node: 1-Q
 Group: BASE To Node: 1-A
 Count: 1

Type: Mavis Flow: Both Geometry: Rectangular

Span(in): 1800
 Rise(in): 48
 Invert(ft): 136
 Control Elev(ft): 136

TABLE

Bottom Clip(in): 0
 Top Clip(in): 0
 Weir Discharge Coef: 2.8
 Orifice Discharge Coef: 0.6

-----Class: Drop Structure-----

Name: 1 From Node: 1-B Length(ft): 576
 Group: BASE To Node: 1-A Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
 Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	131.79	125
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
 Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3
 Downstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

*** Weir 1 of 1 for Drop Structure 1 *** (TABLE)

Count: 1 Bottom Clip(in): 0
 Type: Horiz Top Clip(in): 0
 Flow: Both Weir Discharge Coef: 3.2
 Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 145
 Rise(in): 72 Control Elev(ft): 145

-----Class: Drop Structure-----

Name: 12 From Node: 1-J Length(ft): 197
 Group: BASE To Node: 1-K Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
 Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	140	139
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
 Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3
 Downstream FHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 12 *** (TABLE)

Count: 1 Bottom Clip(in): 0
 Type: Horiz Top Clip(in): 0
 Flow: Both Weir Discharge Coef: 3.2
 Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 146
 Rise(in): 72 Control Elev(ft): 146

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 15 From Node: 1-0 Length(ft): 200
Group: BASE To Node: 1-0A Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	42	42
Rise(in):	42	42
Invert(ft):	171	170
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 15 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 176
Rise(in): 72 Control Elev(ft): 176

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 17 From Node: 1-L Length(ft): 553
Group: BASE To Node: 1-N Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	175.5	169
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 17 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 181
Rise(in): 72 Control Elev(ft): 181

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 20 From Node: 1-M2 Length(ft): 347
Group: BASE To Node: 1-M Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	30	30
Rise(in):	30	30
Invert(ft):	185	182
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 20 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 190
Rise(in): 72 Control Elev(ft): 190

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 20A From Node: 1-M3 Length(ft): 556
Group: BASE To Node: 20A Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	30	30
Rise(in):	30	30
Invert(ft):	212.6	210.54
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream PHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 20A *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 218
Rise(in): 72 Control Elev(ft): 218

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 3 From Node: 1-C Length(ft): 152
 Group: BASE To Node: 1-BA Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
 Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	149.8	149
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
 Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3
 Downstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 3 *** [TABLE]

Count: 1 Bottom Clip(in): 0
 Type: Horiz Top Clip(in): 0
 Flow: Both Weir Discharge Coef: 3.2
 Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 156
 Rise(in): 72 Control Elev(ft): 156

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 5 Prom Node: 1-H Length(ft): 244.5
Group: BASE To Node: 1-J Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	42	42
Rise(in):	42	42
Invert(ft):	143	142
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 5 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 149
Rise(in): 72 Control Elev(ft): 149

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 6 From Node: 1-B Length(ft): 128
Group: BASE To Node: 1-D Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	36	36
Rise(in):	36	36
Invert(ft):	175	170
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 6 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 181
Rise(in): 72 Control Elev(ft): 181

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 7 From Node: 1-F Length(ft): 902
Group: BASE To Node: 1-C Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	197	151
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3
Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 7 *** [TABLE]

Count: 1 Bottom Clip(in): 0
Type: Horiz Top Clip(in): 0
Flow: Both Weir Discharge Coef: 3.2
Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 207
Rise(in): 72 Control Elev(ft): 207

KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Drop Structure-----

Name: 9 From Node: 1-Q Length(ft): 180
 Group: BASE To Node: 1-A Count: 1

Outlet Cntrl Spec: Use dc or tw Inlet Cntrl Spec: Use dn
 Upstream Geometry: Circular Downstream Geometry: Circular

	UPSTREAM	DOWNSTREAM
Span(in):	48	48
Rise(in):	48	48
Invert(ft):	126	122.5
Manning's N:	0.012	0.012
Top Clip(in):	0	0
Bottom Clip(in):	0	0

Entrance Loss Coef: 0.2 Flow: Both
 Exit Loss Coef: 0.5 Equation: Aver Conveyance

Upstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3
 Downstream PHWA Inlet Edge Description:
 Circular Concrete: Groove end projecting 1 3

*** Weir 1 of 1 for Drop Structure 9 *** [TABLE]

Count: 1 Bottom Clip(in): 0
 Type: Horiz Top Clip(in): 0
 Flow: Both Weir Discharge Coef: 3.2
 Geometry: Rectangular Orifice Discharge Coef: 0.6

Span(in): 78 Invert(ft): 133.5
 Rise(in): 72 Control Elev(ft): 133.5

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KINGS RIDGE PHASE 4 BASIN NO. 1 POST DEVELOPED

***** Input Report *****

-----Class: Simulation-----

C:\ICPR2\KINGS4\KINGS

Execution: Both

Header: KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

-----HYDRAULICS-----HYDROLOGY-----

Max Delta Z (ft): 0.1

Delta Z Factor: 0.01

Override Defaults: No

Time Step Optimizer: 10

Drop Structure Optimizer: 10

Sim Start Time(hrs): 0

Sim End Time(hrs): 125

Min Calc Time(sec): 0.5

Max Calc Time(sec): 60

To Hour: PInc(min):

125 15

To Hour: PInc(min):

96 15

-----GROUP SELECTIONS-----

+ BASE [05/14/96]

BASIN NO. 1
POST DEVELOPED BASIN SUMMARY

KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

***** Node Maximum Conditions - KINGS *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
1-A	BASE	125.00	139.20	140.00	0.0010	1169426.75	60.03	791.15	0.00	0.00
1-B	BASE	60.05	146.88	147.00	0.0006	18090.89	60.00	208.73	60.05	205.53
1-BA	BASE	60.27	150.95	151.00	0.0010	435.60	60.27	147.16	60.27	147.16
1-C	BASE	60.27	157.72	159.00	0.0007	57280.51	60.04	165.17	60.27	147.16
1-D	BASE	125.00	162.90	165.00	0.0013	42150.75	60.04	39.78	0.00	0.00
1-E	BASE	60.10	181.44	184.00	0.0005	30221.25	60.00	29.37	60.10	23.18
1-F	BASE	60.08	208.41	210.00	0.0009	5896.91	60.07	133.80	60.08	133.74
1-G	BASE	60.15	228.52	229.00	0.0009	68502.94	60.00	98.46	60.15	85.06
1-H	BASE	60.04	151.59	152.50	0.0012	2515.33	60.00	76.16	59.93	72.84
1-I	BASE	60.00	165.90	170.00	0.0004	3393.97	60.00	67.94	60.00	67.82
1-J	BASE	60.24	149.81	150.00	0.0010	55435.63	60.00	206.65	60.15	130.12
1-K	BASE	60.63	146.43	147.00	0.0009	130958.57	60.30	260.67	60.63	237.33
1-L	BASE	60.27	183.73	184.00	0.0010	54360.22	60.00	165.04	60.26	109.38
1-M	BASE	59.94	185.06	190.00	0.0010	6201.81	59.90	49.51	59.94	49.50
1-M2	BASE	59.90	190.62	193.00	0.0010	12778.08	59.75	39.30	59.90	38.98
1-M3	BASE	61.64	218.43	220.00	0.0006	204960.20	60.00	220.56	61.64	22.95
1-N	BASE	60.96	179.34	180.00	0.0012	166986.24	59.82	197.79	60.25	146.82
1-O	BASE	61.01	179.11	180.00	0.0011	67463.21	60.19	176.67	61.01	105.86
1-OA	BASE	61.06	174.59	178.00	0.0030	20876.21	61.01	105.86	61.06	105.85
1-P	BASE	60.02	167.17	170.00	0.0007	29779.16	60.00	61.58	60.02	59.80
1-Q	BASE	125.00	139.20	140.00	0.0019	30310.97	60.46	295.77	60.47	295.31
10A	BASE	60.03	166.67	173.00	0.0003	5180.60	60.02	59.80	60.03	59.76
10B	BASE	60.04	157.69	164.00	0.0003	10991.34	60.03	59.76	60.04	59.60
10C	BASE	60.06	148.58	155.00	0.0002	10761.32	60.04	59.60	60.06	59.50
11A	BASE	60.63	145.34	152.00	0.0007	6686.28	60.63	237.33	60.63	237.32
14A	BASE	61.06	173.86	181.00	0.0015	5072.10	61.06	105.85	61.06	105.85
14B	BASE	61.07	163.68	170.00	0.0012	8433.10	61.06	105.85	61.07	105.85
16A	BASE	61.00	179.17	184.00	0.0010	7240.93	60.25	146.82	60.25	146.62
18A	BASE	59.94	184.62	193.00	-0.0010	2962.53	59.94	49.50	59.94	49.49
20A	BASE	61.65	214.03	216.50	0.0129	11.48	61.64	22.95	61.64	22.97
20B	BASE	61.65	213.67	216.00	0.0060	713.23	61.64	22.97	61.65	22.95
20C	BASE	61.68	213.36	215.00	0.0005	11385.85	61.65	22.95	61.68	22.94
2A	BASE	60.52	150.24	156.00	0.0006	9302.00	60.27	147.16	60.28	147.13
4A	BASE	0.00	163.00	170.00	-0.0000	0.00	0.00	0.00	59.81	0.00
8A	BASE	60.16	228.07	234.00	0.0004	6821.74	60.15	85.06	60.16	85.02
8B	BASE	60.18	222.70	229.00	0.0002	11561.54	60.16	85.02	60.18	84.97

BASIN 1
WATER QUALITY REQUIREMENTS
AND RECOVERY ANALYSIS

WATER QUALITY REQUIREMENTS

* PROVIDE PERCOLATION OF THE RUNOFF FROM ONE INCH OF RAINFALL FROM THE CONTRIBUTING DRAINAGE AREA WITHIN 72 HOURS, (LESS THAN 40% IMP.) OR ONE INCH OF RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA. *

RETENTION POND #1-A

CONTRIBUTING DRAINAGE BASINS - #1-A (74.16 Ac.)

#1-B (22.13 Ac.) #1-Q (23.87 Ac.) #1-DOT (14.22 Ac.)

#1-OFF (69.10 Ac.)

TOTAL = 203.48 Ac.

RESIDENTIAL AREA = 35.30 Ac. (65% IMP.) = 22.95 Ac.

COMMERCIAL AREA = 30.01 Ac. (85% IMP.) = 25.51 Ac.

IMPERVIOUS AREA = 35.12 Ac.

(RETENTION, ROADS | PUMT.)

TOTAL IMPERVIOUS = 83.58 Ac. (41.08%)

TOTAL PERVIOUS = 119.90 Ac. (58.92%)

TOTAL = 203.48 Ac. (100%)

VOLUME REQ. = 1" x 203.48 Ac. = 16.96 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-A
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	880.00
Equivalent Pond Width, [W] (ft):	900.00
Pond Bottom Elevation, [PB] (ft above datum):	122.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	90.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	14.50
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	9.70
Runoff Volume, [V] (cubic feet)	738777.63
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0962
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	738777.63

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0962
Total Recovered Volume, [V] (ft ³):	738777.63

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND # 1-C

CONTRIBUTING DRAINAGE BASINS - # 1-C (11.79 Ac.)

1-F (19.82 Ac.)

TOTAL = 31.61 Ac.

RESIDENTIAL AREA = 20.11 Ac. (65% Imp.) = 13.07 Ac.

IMPERVIOUS AREA = 1.58 Ac.
(ROADS / PAVEMENT, RETENTION)

TOTAL IMPERVIOUS = 14.65 Ac. (46.35%)

TOTAL PERVIOUS = 16.96 Ac. (53.65%)

TOTAL = 31.61 Ac. (100%)

VOLUME REQ. = 1" x 31.61 Ac. = 2.63 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-C
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	500.00
Equivalent Pond Width, [W] (ft):	50.00
Pond Bottom Elevation, [PB] (ft above datum):	151.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	114562.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.3445
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	114562.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.3445
Total Recovered Volume, [V] (ft ³):	114562.80

RETENTION POND #1-D

CONTRIBUTING DRAINAGE BASIN - #1-D (4.97 Ac.)

TOTAL = 4.97 Ac.

RESIDENTIAL AREA = 1.23 Ac. (65% imp.) = 0.80 Ac.

IMPERVIOUS AREA = 1.75 Ac.
(ROADS/PAVEMENT, RETENTION)

TOTAL IMPERVIOUS = 2.55 Ac. (51.31%)

TOTAL PERVIOUS = 2.42 Ac. (48.69%)

TOTAL = 4.97 Ac. (100%)

VOLUME REQ. = 1" x 4.97 Ac. = 0.41 Ac.- Ft.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-D
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	130.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	146.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	17859.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0795
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	17859.60

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0795
Total Recovered Volume, [V] (ft ³):	17859.60

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CALCULATED BY TWL DATE _____
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RETENTION POND # 1-E

CONTRIBUTING DRAINAGE BASIN - # 1-E (6.73 Ac.)

TOTAL = 6.73 Ac.

RESIDENTIAL AREA = 5.77 Ac. (65% imp.) = 3.75 Ac.

IMPERVIOUS AREA = 0.96 Ac.
(ROADS / PAVEMENT, RETENTION)

TOTAL IMPERVIOUS = 4.71 Ac. (69.99%)

TOTAL PERVIOUS = 2.02 Ac. (30.01%)

TOTAL = 6.73 Ac. (100%)

VOLUME REQ. = 1" x 6.73 Ac. = 0.56 Ac./FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-E
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	500.00
Equivalent Pond Width, [W] (ft):	45.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	24393.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0815
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	24393.60

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0815
Total Recovered Volume, [V] (ft ³):	24393.60

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JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND #1-G

CONTRIBUTING DRAINAGE BASIN - #1-G (33.08 Ac.)

RESIDENTIAL AREA = 28.6 Ac. (65% Imp.) = 18.59 Ac.

IMPERVIOUS AREA = 1.65 Ac.

TOTAL IMPERVIOUS = 20.24 Ac. (61.2%)

TOTAL PERVIOUS = 12.84 Ac. (38.8%)

TOTAL = 33.08 Ac. (100%)

VOLUME REQ. = 1" x 33.08 Ac. = 2.76 Ac.-Ft.

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And Robert D. Casper

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-G
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	550.00
Equivalent Pond Width, [W] (ft):	70.00
Pond Bottom Elevation, [PB] (ft above datum):	221.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	211.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	120225.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	115500.01

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0002
Recovered Volume From Saturated Flow, [V2] (ft ³):	4725.59
Maximum Radius Of Influence, [R] (ft):	2.53
Maximum Driving Head, [Hmax] (ft):	10.123
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.2257
Total Recovered Volume, [V] (ft ³):	120225.60

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND # 1-J & # 1-K

CONTRIBUTING DRAINAGE BASINS - # 1-H (23.98 Ac.)
1-I (23.50 Ac.) # 1-J (15.29 Ac.) # 1-K (22.62 Ac.)

TOTAL = 85.39 Ac.

RESIDENTIAL AREA = 59.40 Ac. (65% Imp.) 38.61 Ac.

IMPERVIOUS AREA = 5.02 Ac.
(RETENTION)

TOTAL IMPERVIOUS = 43.63 Ac. (51.09%)

TOTAL PERVIOUS = 41.76 Ac. (48.91%)

TOTAL = 85.39 Ac. (100%)

VOLUME REQ. = 1" x 85.39 Ac. = 7.12 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-J
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	300.00
Equivalent Pond Width, [W] (ft):	115.00
Pond Bottom Elevation, [PB] (ft above datum):	142.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	106.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	137867.41
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.3005
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	137867.41

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.3005
Total Recovered Volume, [V] (ft ³):	137867.41

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-K
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	750.00
Equivalent Pond Width, [W] (ft):	75.00
Pond Bottom Elevation, [PB] (ft above datum):	139.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	106.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	172279.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2303
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	172279.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.2303
Total Recovered Volume, [V] (ft ³):	172279.80

FARNER, BARLEY & ASSOCIATES, INC.

Engineers & Land Surveyors

350 North Sinclair Avenue

Tavares, Florida 32778

(352) 343-8481

JOB KINGS RIDGE

SHEET NO. _____

OF _____

CALCULATED BY TWL

DATE _____

CHECKED BY _____

DATE _____

SCALE _____

RETENTION PONDS # 1-M2, # 1-M, # 1-L & # 1-N
CONTRIBUTING DRAINAGE BASINS - # 1-M2 (9.59 Ac.),
1-M (2.67 Ac.), # 1-L (41.12 Ac.) & # 1-N (21.05 Ac.)

TOTAL = 74.43 Ac.

RESIDENTIAL AREA = 52.52 Ac. (65% imp.) = 34.14 Ac.

IMPERVIOUS AREA = 6.83 Ac.
(RETENTION, ROADS/PVMT.)

TOTAL IMPERVIOUS = 40.97 Ac. (55.05%)

TOTAL PERVIOUS = 33.46 Ac. (44.95%)

TOTAL = 74.43 Ac. (100%)

VOLUME REQ. = 1" x 74.43 Ac. = 6.20 Ac.-Ft.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-L
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	240.00
Equivalent Pond Width, [W] (ft):	90.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	166.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	155944.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	64800.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.2337
Recovered Volume From Saturated Flow, [V2] (ft ³):	91144.80
Maximum Radius Of Influence, [R] (ft):	74.47
Maximum Driving Head, [Hmax] (ft):	14.220
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.4592
Total Recovered Volume, [V] (ft ³):	155944.80

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	30.00
Pond Bottom Elevation, [PB] (ft above datum):	182.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	172.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	5445.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0682
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	5445.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0682
Total Recovered Volume, [V] (ft ³):	5445.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M2
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	330.00
Equivalent Pond Width, [W] (ft):	40.00
Pond Bottom Elevation, [PB] (ft above datum):	187.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	177.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	20908.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1191
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	20908.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1191
Total Recovered Volume, [V] (ft ³):	20908.80

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-N
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	150.00
Equivalent Pond Width, [W] (ft):	100.00
Pond Bottom Elevation, [PB] (ft above datum):	169.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	159.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	87773.40
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	45000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.1069
Recovered Volume From Saturated Flow, [V2] (ft ³):	42773.40
Maximum Radius Of Influence, [R] (ft):	47.56
Maximum Driving Head, [Hmax] (ft):	12.852
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.3324
Total Recovered Volume, [V] (ft ³):	87773.40

RETENTION POND #1-M3

CONTRIBUTING DRAINAGE BASIN - #1-M3 (57.0 Ac.)

TOTAL = 57.0 Ac.

RESIDENTIAL AREA = 52.0 Ac. (65% imp.) = 33.8 Ac.

(IMPERVIOUS AREA = 5.0 Ac.
RETENTION)

TOTAL IMPERVIOUS = 38.8 Ac. (68.07%)

TOTAL PERVIOUS = 18.2 Ac. (31.93%)

TOTAL = 57.0 Ac. (100%)

VOLUME REQ. = 1" x 57.0 Ac. = 4.75 Ac.-Ft.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M3
Engineer: TWL
Date: 5-24-96

I. Input Data

Equivalent Pond Length, [L] (ft):	427.00
Equivalent Pond Width, [W] (ft):	427.00
Pond Bottom Elevation, [PB] (ft above datum):	212.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	202.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	206910.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0853
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	206910.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0853
Total Recovered Volume, [V] (ft ³):	206910.00

RETENTION POND #1-0

CONTRIBUTING DRAINAGE BASIN - #1-0 (14.73 Ac.)

RESIDENTIAL AREA = 9.21 Ac. (65% imp.) - 5.99 Ac.

IMPERVIOUS AREA = 1.29 Ac.

TOTAL IMPERVIOUS = 7.28 Ac. (49.42%)

TOTAL PERVIOUS = 7.45 Ac. (50.58%)

TOTAL = 14.73 Ac. (100%)

VOLUME REQ. = 1" x 14.73 Ac. = 1.23 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-0
Engineer: TWL
Date: 5-24-96

I. Input Data

Equivalent Pond Length, [L] (ft):	350.00
Equivalent Pond Width, [W] (ft):	100.00
Pond Bottom Elevation, [PB] (ft above datum):	172.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	162.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	53578.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

II. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1151
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	53578.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1151
Total Recovered Volume, [V] (ft ³):	53578.80

RETENTION POND # 1-P

CONTRIBUTING DRAINAGE BASIN - #1-P (17.83 Ac.)

TOTAL = 17.83 Ac.

RESIDENTIAL AREA = 13.40 Ac. (65% imp.) 8.71 Ac.

IMPERVIOUS AREA = 0.90 Ac.

TOTAL IMPERVIOUS AREA = 9.61 Ac. (53.89%)

TOTAL PERVIOUS = 8.22 Ac. (46.10%)

TOTAL = 17.83 Ac. (100%)

VOLUME REQ. = 17.83 Ac. x 1" = 1.49 Ac.-Ft.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-P
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	250.00
Equivalent Pond Width, [W] (ft):	60.00
Pond Bottom Elevation, [PB] (ft above datum):	162.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	152.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	64904.40
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	45000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0195
Recovered Volume From Saturated Flow, [V2] (ft ³):	19904.40
Maximum Radius Of Influence, [R] (ft):	20.05
Maximum Driving Head, [Hmax] (ft):	11.327
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.2451
Total Recovered Volume, [V] (ft ³):	64904.40

TABLE J.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
									K	T		
	In	Pct	G/cc	In/hr	In/in	pH	mmhos/cm					Pct
2* Arents												
3*: Arents												
Urban land												
4 Anclote	0-19 19-72	2-8 1-13	1.30-1.45 1.50-1.65	6.0-20 6.0-20	0.10-0.15 0.03-0.10	5.1-8.4 5.1-8.4	<2 <2	Low Low	0.10 0.10	5	2	2-9
5*: Anclote	0-19 19-72	2-8 1-13	1.30-1.45 1.50-1.65	6.0-20 6.0-20	0.10-0.15 0.03-0.10	5.1-8.4 5.1-8.4	<2 <2	Low Low	0.10 0.10	5	2	2-9
Myakka	0-6 6-20 20-36 36-80	1-3 2-8 2-8 0-2	1.25-1.45 1.45-1.60 1.45-1.60 1.45-1.60	6.0-20 6.0-20 0.6-6.0 6.0-20	0.05-0.15 0.02-0.05 0.10-0.20 0.02-0.10	3.6-6.5 3.6-6.5 3.6-6.5 3.6-6.5	<2 <2 <2 <2	Low Low Low Low	0.10 0.10 0.15 0.10	5	2	2-7
Felda	0-4 4-22 22-32 32-60	1-3 1-3 13-30 1-10	1.40-1.55 1.45-1.55 1.50-1.60 1.50-1.65	6.0-20 6.0-20 0.6-6.0 6.0-20	0.05-0.10 0.02-0.05 0.10-0.15 0.02-0.05	5.1-7.8 5.1-7.8 6.1-7.8 6.1-8.4	<2 <2 <2 <2	Low Low Low Low	0.10 0.10 0.24 0.17	4	2	1-4
6*: Anclote	0-18 18-80	2-8 2-8	1.30-1.45 1.50-1.65	6.0-20 6.0-20	0.10-0.15 0.03-0.10	5.6-8.4 5.6-8.4	<2 <2	Low Low	0.10 0.10	5	2	2-10
Delray	0-18 18-46 46-60 60-75	3-13 1-7 13-30 10-18	1.35-1.45 1.50-1.65 1.45-1.60 1.50-1.65	6.0-20 6.0-20 0.6-6.0 2.0-6.0	0.10-0.15 0.05-0.08 0.10-0.15 0.07-0.10	5.6-7.3 6.1-7.3 6.6-7.8 7.4-7.8	<2 <2 <2 <2	Low Low Low Low	0.10 0.10 0.24 0.17	5	1	2-5
Hontoon	0-65 65-70 70-80	--- 1-5 ---	0.20-0.40 1.30-1.55 ---	6.0-20 6.0-20 ---	0.30-0.50 0.15-0.20 ---	<4.5 4.5-5.5 ---	<2 <2 ---	Low Low ---	0.10 0.10 ---		2	75-85
7 Apopka	0-55 55-80	<3 18-37	1.45-1.60 1.55-1.75	6.0-20 0.6-2.0	0.03-0.05 0.12-0.17	4.5-6.0 4.5-6.0	<2 <2	Low Low	0.10 0.24	5	2	<2
8*: Apopka	0-55 55-80	<3 18-37	1.45-1.60 1.55-1.75	6.0-20 0.6-2.0	0.03-0.05 0.12-0.17	4.5-6.0 4.5-6.0	<2 <2	Low Low	0.10 0.24	5	2	<2
Urban land												
9 Apopka	0-55 55-80	<3 18-37	1.45-1.60 1.55-1.75	6.0-20 0.6-2.0	0.03-0.05 0.12-0.17	4.5-6.0 4.5-6.0	<2 <2	Low Low	0.10 0.24	5	2	<2
10 Astatula	0-3 3-86	1-3 1-3	1.25-1.55 1.45-1.60	>20 >20	0.04-0.10 0.02-0.05	4.5-6.5 4.5-6.5	<2 <2	Low Low	0.10 0.10	5	2	.5-2

See footnote at end of table.

BASIN NO. 1
25YEAR/96HOUR POST DEVELOPED
WATER QUANTITY RECOVERY ANALYSIS

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-A
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	880.00
Equivalent Pond Width, [W] (ft):	900.00
Pond Bottom Elevation, [PB] (ft above datum):	122.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	90.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	14.50
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	9.70
Runoff Volume, [V] (cubic feet)	710494911.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.9897
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	7603200.50

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	3.4006
Recovered Volume From Saturated Flow, [V2] (ft ³):	2891710.50
Maximum Radius Of Influence, [R] (ft):	155.08
Maximum Driving Head, [Hmax] (ft):	35.651
Minimum Driving Head, [Hmin] (ft):	32.000

TOTAL

Total Recovery Time, [T] (days):	4.3903
Total Recovered Volume, [V] (ft ³):	710494911.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-C
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	500.00
Equivalent Pond Width, [W] (ft):	50.00
Pond Bottom Elevation, [PB] (ft above datum):	151.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	165310.20
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.4060
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	135000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0056
Recovered Volume From Saturated Flow, [V2] (ft ³):	30310.20
Maximum Radius Of Influence, [R] (ft):	10.01
Maximum Driving Head, [Hmax] (ft):	19.212
Minimum Driving Head, [Hmin] (ft):	18.000

TOTAL

Total Recovery Time, [T] (days):	0.4116
Total Recovered Volume, [V] (ft ³):	165310.20

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-D
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	130.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	146.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	261360.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2932
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	65910.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	1.0350
Recovered Volume From Saturated Flow, [V2] (ft ³):	195450.00
Maximum Radius Of Influence, [R] (ft):	127.39
Maximum Driving Head, [Hmax] (ft):	24.565
Minimum Driving Head, [Hmin] (ft):	13.000

TOTAL

Total Recovery Time, [T] (days):	1.3282
Total Recovered Volume, [V] (ft ³):	261360.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-E
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	500.00
Equivalent Pond Width, [W] (ft):	45.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	133.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	87991.20
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2940
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	87991.20

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.2940
Total Recovered Volume, [V] (ft ³):	87991.20

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-G
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	550.00
Equivalent Pond Width, [W] (ft):	70.00
Pond Bottom Elevation, [PB] (ft above datum):	221.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	211.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	230650.20
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	115500.01

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0826
Recovered Volume From Saturated Flow, [V2] (ft ³):	115150.20
Maximum Radius Of Influence, [R] (ft):	56.51
Maximum Driving Head, [Hmax] (ft):	12.991
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.3082
Total Recovered Volume, [V] (ft ³):	230650.20

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-J
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	300.00
Equivalent Pond Width, [W] (ft):	115.00
Pond Bottom Elevation, [PB] (ft above datum):	142.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	106.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	137867.41
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.3005
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	137867.41

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.3005
Total Recovered Volume, [V] (ft ³):	137867.41

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-K
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	750.00
Equivalent Pond Width, [W] (ft):	75.00
Pond Bottom Elevation, [PB] (ft above datum):	139.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	106.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	426016.81
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.5694
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	426016.81

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.5694
Total Recovered Volume, [V] (ft ³):	426016.81

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-L
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	240.00
Equivalent Pond Width, [W] (ft):	90.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	166.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	155944.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	64800.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.2337
Recovered Volume From Saturated Flow, [V2] (ft ³):	91144.80
Maximum Radius Of Influence, [R] (ft):	74.47
Maximum Driving Head, [Hmax] (ft):	14.220
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.4592
Total Recovered Volume, [V] (ft ³):	155944.80

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	30.00
Pond Bottom Elevation, [PB] (ft above datum):	182.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	172.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	5445.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0682
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	5445.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0682
Total Recovered Volume, [V] (ft ³):	5445.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M2
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	330.00
Equivalent Pond Width, [W] (ft):	40.00
Pond Bottom Elevation, [PB] (ft above datum):	187.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	177.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	20908.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1191
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	20908.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1191
Total Recovered Volume, [V] (ft ³):	20908.80

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-N
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	150.00
Equivalent Pond Width, [W] (ft):	100.00
Pond Bottom Elevation, [PB] (ft above datum):	169.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	159.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	264409.19
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	45000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	1.3045
Recovered Volume From Saturated Flow, [V2] (ft ³):	219409.19
Maximum Radius Of Influence, [R] (ft):	170.61
Maximum Driving Head, [Hmax] (ft):	24.627
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	1.5301
Total Recovered Volume, [V] (ft ³):	264409.19

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-M3
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	427.00
Equivalent Pond Width, [W] (ft):	427.00
Pond Bottom Elevation, [PB] (ft above datum):	212.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	202.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	1097712.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	546987.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.9878
Recovered Volume From Saturated Flow, [V2] (ft ³):	550725.00
Maximum Radius Of Influence, [R] (ft):	176.68
Maximum Driving Head, [Hmax] (ft):	13.021
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	1.2134
Total Recovered Volume, [V] (ft ³):	1097712.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-0
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	350.00
Equivalent Pond Width, [W] (ft):	100.00
Pond Bottom Elevation, [PB] (ft above datum):	172.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	162.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	156380.41
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	105000.01

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0537
Recovered Volume From Saturated Flow, [V2] (ft ³):	51380.40
Maximum Radius Of Influence, [R] (ft):	35.18
Maximum Driving Head, [Hmax] (ft):	11.468
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.2793
Total Recovered Volume, [V] (ft ³):	156380.41

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-OA
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	100.00
Equivalent Pond Width, [W] (ft):	60.00
Pond Bottom Elevation, [PB] (ft above datum):	170.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	160.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	41817.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	18000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0726
Recovered Volume From Saturated Flow, [V2] (ft ³):	23817.60
Maximum Radius Of Influence, [R] (ft):	39.44
Maximum Driving Head, [Hmax] (ft):	13.970
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.2982
Total Recovered Volume, [V] (ft ³):	41817.60

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 1-P
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	250.00
Equivalent Pond Width, [W] (ft):	60.00
Pond Bottom Elevation, [PB] (ft above datum):	162.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	152.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	80803.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	45000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0574
Recovered Volume From Saturated Flow, [V2] (ft ³):	35803.80
Maximum Radius Of Influence, [R] (ft):	34.48
Maximum Driving Head, [Hmax] (ft):	12.387
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.2829
Total Recovered Volume, [V] (ft ³):	80803.80

BASIN NO. 3-A
PRE-DEVELOPED
CURVE NUMBER AND
TIME OF CONCENTRATION CALCULATIONS

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: PRE DEV. CONDITIONS

Subarea : 3-A

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	138(39)	-	-	-
-----------------------------------	---------	---	---	---

Total Area (by Hydrologic Soil Group) 138
 =====

SUBAREA: 3-A TOTAL DRAINAGE AREA: 138 Acres WEIGHTED CURVE NUMBER: 39

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: PRE DEV. CONDITIONS

----- Subarea #1 - 3-A -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.0075	F					0.511
Shallow Concent'd		1300	.0246	U					0.143
Shallow Concent'd		750	.0373	U					0.067

Time of Concentration = 0.72*
=====

--- Sheet Flow Surface Codes ---

- | | | |
|--------------------------|------------------|------------------------------|
| A Smooth Surface | F Grass, Dense | --- Shallow Concentrated --- |
| B Fallow (No Res.) | G Grass, Burmuda | --- Surface Codes --- |
| C Cultivated < 20 % Res. | H Woods, Light | P Paved |
| D Cultivated > 20 % Res. | I Woods, Dense | U Unpaved |
| E Grass-Range, Short | | |

Z

BASIN NO. 1-B
PRE-DEVELOPED
CURVE NUMBER AND TIME
OF CONCENTRATION CALCULATIONS

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: PRE DEV. CONDITIONS

Subarea : 1-B

COVER DESCRIPTION

Hydrologic Soil Group

A	B	C	D
Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	86.4(39)	-	-	-
-----------------------------------	----------	---	---	---

Impervious Areas

Paved parking lots, roofs, driveways	5.2(98)	-	-	-
--------------------------------------	---------	---	---	---

Total Area (by Hydrologic Soil Group) 91.6

====

SUBAREA: 1-B TOTAL DRAINAGE AREA: 91.6 Acres WEIGHTED CURVE NUMBER: 42

Project : KINGS RIDGE
 County : LAKE
 Subtitle: PRE DEV. CONDITIONS

State: FL

User: DC
 Checked: _____

Date: 05-14-96
 Date: _____

----- Subarea #1 - 1-B -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.015	F					0.388
Shallow Concent'd		13.5	.0355	U					0.001
Shallow Concent'd		1700	.0218	U					0.198

Time of Concentration = 0.59*
 =====

----- Subarea #2 - 1-LAG -----

Flow Type	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Shallow Concent'd	500	.0289	U					0.051
Shallow Concent'd	1300	.0331	U					0.123

Time of Concentration = 0.17*
 =====

--- Sheet Flow Surface Codes ---

- | | | |
|--------------------------|------------------|------------------------------|
| A Smooth Surface | F Grass, Dense | --- Shallow Concentrated --- |
| B Fallow (No Res.) | G Grass, Burmuda | --- Surface Codes --- |
| C Cultivated < 20 % Res. | H Woods, Light | P Paved |
| D Cultivated > 20 % Res. | I Woods, Dense | U Unpaved |
| E Grass-Range, Short | | |

FARNER, BARLEY & ASSOCIATES, INC.

Engineers & Land Surveyors

350 North Sinclair Avenue

Tavares, Florida 32778

(352) 343-8481

JOB KINGS RIDGE

SHEET NO. _____ OF _____

CALCULATED BY TWL DATE _____

CHECKED BY _____ DATE _____

SCALE _____

BASIN No. 1-B

PRE - DEVELOPED DEPRESSIONAL AREA STAGE - STORAGE

STAGE (FT.) AREA (AC.) STORAGE (AC-FT.)

168.00

0.10

0

173.00

0.90

2.50

178.00

5.20

17.75

179.00

6.20

23.45

BASIN NO. 3-A & I-B
25YR/24HR PRE-DEVELOPED
RUNOFF HYDROGRAPH
INPUT DATA WITH BASIN SUMMARY

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Basin Summary - KINGS5 *****

Basin Name: 3-A 1-B
Group Name: BASE BASE
Node Name: 3-A 1-B
Hydrograph Type: SB SB

Spec Time Inc (sec): 15.00 15.00
Comp Time Inc (sec): 15.00 15.00
Rainfall File: PLMOD PLMOD
Rainfall Amount (in): 8.40 8.40
Storm Duration (hr): 24.00 24.00
Status: ONSITE ONSITE
Time of Conc. (min): 43.20 35.40
Lag Time (hr): 0.00 0.17
Area (acres): 138.00 91.60
Curve Number: 39.00 42.00
DCIA (%): 0.00 0.00

Time Max (hrs): 12.25 12.42
Flow Max (cfs): 49.93 49.30
Runoff Volume (in): 1.33 1.63
Runoff Volume (cf): 665717 543501

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Node Time Series - KINGS5 *****

Time (hrs)	Rainfall (in)	Volume (in)	Volume (cf)	Rate (cfs)
--- Node: 3-A				
0.00	0.00	0.00	0	0.00
1.00	0.10	0.00	0	0.00
2.00	0.21	0.00	0	0.00
3.00	0.33	0.00	0	0.00
4.00	0.45	0.00	0	0.00
5.00	0.60	0.00	0	0.00
6.00	0.75	0.00	0	0.00
7.00	0.92	0.00	0	0.00
8.00	1.13	0.00	0	0.00
9.00	1.38	0.00	0	0.00
10.00	1.69	0.00	0	0.00
10.08	1.72	0.00	0	0.00
10.17	1.76	0.00	0	0.00
10.25	1.79	0.00	0	0.00
10.33	1.83	0.00	0	0.00
10.42	1.86	0.00	0	0.00
10.50	1.90	0.00	0	0.00
10.58	1.94	0.00	0	0.00
10.67	1.99	0.00	0	0.00
10.75	2.03	0.00	0	0.00
10.83	2.08	0.00	0	0.00
10.92	2.12	0.00	0	0.00
11.00	2.17	0.00	0	0.00
11.08	2.21	0.00	0	0.00
11.17	2.26	0.00	0	0.00
11.25	2.31	0.00	0	0.00
11.33	2.40	0.00	41	0.27
11.42	2.49	0.00	164	0.55
11.50	2.59	0.00	368	0.82
11.58	2.90	0.00	1509	6.79
11.67	3.21	0.01	4441	12.76
11.75	3.53	0.02	9165	18.73
11.83	4.05	0.03	16011	26.91
11.92	4.57	0.05	25310	35.08
12.00	5.10	0.07	37061	43.26
12.08	5.31	0.10	50372	45.48
12.17	5.53	0.13	64351	47.70
12.25	5.75	0.16	78995	49.93
12.33	5.84	0.19	93786	48.68
12.42	5.94	0.22	108202	47.43
12.50	6.04	0.24	122244	46.18
12.58	6.10	0.27	135811	44.27
12.67	6.16	0.30	148804	42.35
12.75	6.22	0.32	161221	40.43
12.83	6.26	0.35	173088	38.68
12.92	6.31	0.37	184427	36.92
13.00	6.36	0.39	195239	35.16

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Node Time Series - KINGS5 *****

Time (hrs)	Rainfall (in)	Volume (in)	Volume (cf)	Rate (cfs)
13.08	6.40	0.41	205579	33.77
13.17	6.44	0.43	215502	32.38
13.25	6.48	0.45	225007	30.99
13.33	6.52	0.47	234129	29.83
13.42	6.55	0.48	242904	28.67
13.50	6.59	0.50	251330	27.51
13.58	6.62	0.52	259432	26.50
13.67	6.66	0.53	267231	25.49
13.75	6.69	0.55	274728	24.49
13.83	6.72	0.56	281955	23.69
13.92	6.75	0.58	288942	22.89
14.00	6.78	0.59	295690	22.09
15.00	7.07	0.73	363932	15.82
16.00	7.31	0.83	415116	12.62
17.00	7.50	0.91	457176	10.75
18.00	7.67	0.99	493449	9.40
19.00	7.82	1.05	525696	8.51
20.00	7.96	1.11	555350	7.96
21.00	8.08	1.16	582567	7.16
22.00	8.20	1.21	608124	7.04
23.00	8.31	1.26	632503	6.50
24.00	8.40	1.30	653009	4.89

*** Node: 1-B

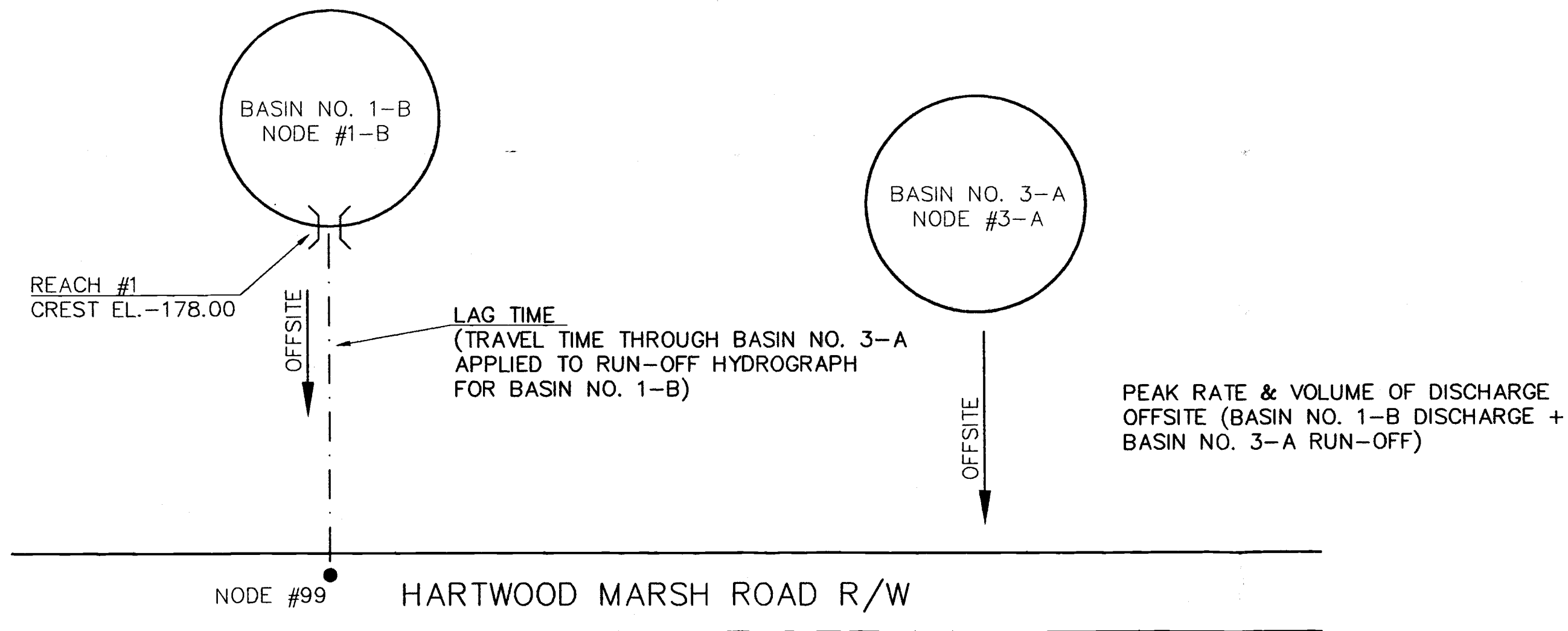
0.00	0.00	0.00	0	0.00
1.00	0.10	0.00	0	0.00
2.00	0.21	0.00	0	0.00
3.00	0.33	0.00	0	0.00
4.00	0.45	0.00	0	0.00
5.00	0.60	0.00	0	0.00
6.00	0.75	0.00	0	0.00
7.00	0.92	0.00	0	0.00
8.00	1.13	0.00	0	0.00
9.00	1.38	0.00	0	0.00
10.00	1.69	0.00	0	0.00
10.08	1.72	0.00	0	0.00
10.17	1.76	0.00	0	0.00
10.25	1.79	0.00	0	0.00
10.33	1.83	0.00	0	0.00
10.42	1.86	0.00	0	0.00
10.50	1.90	0.00	0	0.00
10.58	1.94	0.00	0	0.00
10.67	1.99	0.00	0	0.00
10.75	2.03	0.00	0	0.00
10.83	2.08	0.00	0	0.00
10.92	2.12	0.00	0	0.00
11.00	2.17	0.00	0	0.00

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Node Time Series - KINGS5 *****

Time (hrs)	Rainfall (in)	Volume (in)	Volume (cf)	Rate (cfs)
11.08	2.21	0.00	0	0.00
11.17	2.26	0.00	0	0.00
11.25	2.31	0.00	0	0.00
11.33	2.40	0.00	0	0.00
11.42	2.49	0.00	0	0.00
11.50	2.59	0.00	125	0.83
11.58	2.90	0.00	504	1.70
11.67	3.21	0.00	1143	2.56
11.75	3.53	0.01	2921	9.30
11.83	4.05	0.02	6757	16.28
11.92	4.57	0.04	12687	23.26
12.00	5.10	0.06	20829	31.03
12.08	5.31	0.09	31307	38.83
12.17	5.53	0.13	44127	46.63
12.25	5.75	0.18	58276	47.70
12.33	5.84	0.22	72703	48.48
12.42	5.94	0.26	87365	49.26
12.50	6.04	0.31	101821	47.11
12.58	6.10	0.35	115612	44.83
12.67	6.16	0.39	128719	42.55
12.75	6.22	0.42	141113	40.08
12.83	6.26	0.46	152764	37.59
12.92	6.31	0.49	163669	35.11
13.00	6.36	0.52	173898	33.08
13.08	6.40	0.55	183521	31.07
13.17	6.44	0.58	192542	29.07
13.25	6.48	0.60	201040	27.58
13.33	6.52	0.63	209096	26.13
13.42	6.55	0.65	216716	24.67
13.50	6.59	0.67	223945	23.53
13.58	6.62	0.69	230837	22.41
13.67	6.66	0.71	237392	21.29
13.75	6.69	0.73	243642	20.37
13.83	6.72	0.75	249617	19.46
13.92	6.75	0.77	255319	18.55
14.00	6.78	0.78	260782	17.87
15.00	7.07	0.95	314849	12.17
16.00	7.31	1.06	354111	9.64
17.00	7.50	1.16	386099	8.13
18.00	7.67	1.24	413491	7.09
19.00	7.82	1.32	437782	6.41
20.00	7.96	1.38	460256	6.08
21.00	8.08	1.45	480842	5.36
22.00	8.20	1.50	499956	5.26
23.00	8.31	1.56	518256	4.90
24.00	8.40	1.61	534345	4.03

KINGS RIDGE PHASE IV PRE-DEVELOPED BASINS #1-B & 3-A NODAL / REACH SCHEMATIC



BASIN NO. 3-A & I-B
25 YEAR - 24 HOUR
PRE-DEVELOPED STORM ROUTING
INPUT DATA WITH BASIN SUMMARY

KINGS RIDGE BASIN 3-A & 1-B PRE-DEV. CONDITIONS

***** Input Report *****

-----Class: Node-----

Name: 1-B Base Flow(cfs): 0 Init Stage(ft): 168
Group: BASE Length(ft): 0 Warn Stage(ft): 179
Comment:

Stage(ft)	Area(ac)
168	0.1
173	0.9
178	5.2
179	6.2

-----Class: Node-----

Name: 99 Base Flow(cfs): 0 Init Stage(ft): 118
Group: BASE Length(ft): 0 Warn Stage(ft): 122
Comment: BASIN NO. 99 HARTWOOD MARSH R/W

Time(hrs)	Stage(ft)
0	118
24	120

-----Class: Basin-----

Basin: 1-B Node: 1-B Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 8.4 Lag Time(hrs): 0.17
Time Increment(min): 15 Concentration Time(min): 35.4
Area(ac): 91.6 DCIA(%): 0
Curve #: 42

BASIN NO. 1-B PRE-DEVELOPED

-----Class: Basin-----

Basin: 3-A Node: 3-A Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 8.4 Lag Time(hrs): 0
Time Increment(min): 15 Concentration Time(min): 43.2
Area(ac): 138 DCIA(%): 0
Curve #: 39

BASIN NO. 3-A PRE-DEVELOPED

KINGS RIDGE BASIN 3-A & 1-B PRE-DEV. CONDITIONS

***** Input Report *****

-----Class: Weir-----

Name: 1 From Node: 1-B
Group: BASE To Node: 99
Count: 1

Type: Mavis Flow: Both Geometry: Rectangular

Span(in): 3000
Rise(in): 24
Invert(ft): 178
Control Elev(ft): 178

TABLE

Bottom Clip(in): 0
Top Clip(in): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

-----Class: Simulation-----

C:\ICPR2\KINGS4\KINGS5

Execution: Both

Header: BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

-----HYDRAULICS-----HYDROLOGY-----

Max Delta Z (ft): 1
Delta Z Factor: 0.05 Override Defaults: No

Time Step Optimizer: 10

Drop Structure Optimizer: 10

Sim Start Time(hrs): 0

Sim End Time(hrs): 24

Min Calc Time(sec): 0.5

Max Calc Time(sec): 60

To Hour:	PInc(min):	To Hour:	PInc(min):
10	60	10	60
14	5	14	5
24	60	24	60

-----GROUP SELECTIONS-----

+ BASE (05/15/96)

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Node Maximum Conditions - KINGS5 *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
1-B	BASE	23.99	176.84	179.00	0.0496	182931.09	12.41	49.22	0.00	0.00
99	BASE	23.99	120.00	122.00	0.0014	0.00	0.00	0.00	0.00	0.00

BASIN NO. 3-A & I-B
25 YEAR - 96 HOUR
PRE-DEVELOPED RUN-OFF HYDROGRAPH
INPUT DATA WITH BASIN SUMMARY

BASIN NO. 1-B & 3-A PRE-DEVELOPED CONDITIONS

***** Basin Summary - KINGS5 *****

Basin Name:	3-A	1-B
Group Name:	BASE	BASE
Node Name:	3-A	1-B
Hydrograph Type:	SB	SB

Spec Time Inc (sec):	15.00	15.00
Comp Time Inc (sec):	15.00	15.00
Rainfall File:	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40
Storm Duration (hr):	96.00	96.00
Status:	ONSITE	ONSITE
Time of Conc. (min):	43.20	35.40
Lag Time (hr):	0.00	0.17
Area (acres):	138.00	91.60
Curve Number:	39.00	42.00
DCIA (%):	0.00	0.00

Time Max (hrs):	60.00	60.17
Flow Max (cfs):	119.41	105.68
Runoff Volume (in):	2.86	3.32
Runoff Volume (cf):	1433357	1105268

BASIN NO. 3
POST DEVELOPED CURVE NUMBER COMPUTATION

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: BASIN NO. 3 POST DEV. CONDITIONS
 Subarea : 3-A

User: TWL Date: 05-20-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D

COVER DESCRIPTION	A	B	C	D
FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Open space (Lawns, parks etc.)				
Good condition; grass cover > 75%	0.80(39)	-	-	-
Impervious Areas				
Paved parking lots, roofs, driveways	1.04(98)	-	-	-
Urban Districts Avg % imperv				
Commercial & business 85	1.70(89)	-	-	-
Residential districts Avg % imperv				
(by average lot size)				
1/8 acre (town houses) 65	5.79(77)	-	-	-
Total Area (by Hydrologic Soil Group)	9.33			
	====			

Subarea: 3-A TOTAL DRAINAGE AREA: 9.33 Acres WEIGHTED CURVE NUMBER: 78

Project : KINGS RIDGE

User: dc

Date: 05-13-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: BASIN NO. 3 POST DEV. CONDITIONS

Subarea : 3-A2

COVER DESCRIPTION

Hydrologic Soil Group

A B C D
Acres (CN)

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

 Good condition; grass cover > 75% 2.31(39) - - -

Impervious Areas

 Paved parking lots, roofs, driveways 3.41(98) - - -

Total Area (by Hydrologic Soil Group) 5.72
=====

SUBAREA: 3-A2 TOTAL DRAINAGE AREA: 5.72 Acres WEIGHTED CURVE NUMBER: 74

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: BASIN NO. 3 POST DEV. CONDITIONS
 Subarea : 3-B

User: TWL Date: 05-16-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D

COVER DESCRIPTION	A	B	C	D
FULLY DEVELOPED URBAN AREAS (Veg Estab.) Open space (Lawns, parks etc.) Good condition; grass cover > 75%	11.9(39)	-	-	-
Impervious Areas Paved parking lots, roofs, driveways	0.68(98)	-	-	-
Residential districts Avg % imperv (by average lot size) 1/8 acre (town houses) 65	15.4(77)	-	-	-
Total Area (by Hydrologic Soil Group)	27.9			

Subarea: 3-B TOTAL DRAINAGE AREA: 27.98 Acres WEIGHTED CURVE NUMBER: 61

TR-55 CURVE NUMBER COMPUTATION

VERSION 1.11

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: BASIN NO. 3 POST DEV. CONDITIONS
 Subarea : 3-C

User: TWL Date: 05-16-96
 Checked: _____ Date: _____

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D

FULLY DEVELOPED URBAN AREAS (Veg Estab.)				
Impervious Areas				
Paved parking lots, roofs, driveways	1.17(98)	-	-	-
Residential districts (by average lot size)	Avg % imperv			
1/8 acre (town houses)	65	7.13(77)	-	-
Total Area (by Hydrologic Soil Group)	8.3	====		

SUBAREA: 3-C TOTAL DRAINAGE AREA: 8.3 Acres WEIGHTED CURVE NUMBER:80

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST. DEV. CONDITIONS

Subarea : 3-E

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	17.4(39)	-	-	-
-----------------------------------	----------	---	---	---

Total Area (by Hydrologic Soil Group) 17.4
=====

SUBAREA: 3-E TOTAL DRAINAGE AREA: 17.4 Acres WEIGHTED CURVE NUMBER: 39

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST. DEV. CONDITIONS

Subarea : 3-W

COVER DESCRIPTION	Hydrologic Soil Group			
	A	B	C	D
	Acres (CN)			

FULLY DEVELOPED URBAN AREAS (Veg Estab.)

Open space (Lawns, parks etc.)

Good condition; grass cover > 75%	34.9(39)	-	-	-
-----------------------------------	----------	---	---	---

Total Area (by Hydrologic Soil Group)	34.9			
	====			

SUBAREA: 3-W TOTAL DRAINAGE AREA: 34.9 Acres WEIGHTED CURVE NUMBER: 39

BASIN NO. 3
TIME OF CONCENTRATION

Project : KINGS RIDGE
 County : LAKE State: FL
 Subtitle: BASIN NO. 3 POST DEV. CONDITIONS

User: TWL Date: 05-16-96
 Checked: _____ Date: _____

----- Subarea #1 - 3-A -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	50	.015	F					0.128
Shallow Concent'd		450	.02	P					0.043
									Time of Concentration = 0.17*
									=====

----- Subarea #2 - 3-A2 -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.02	F					0.198
									Time of Concentration = 0.20*
									=====

----- Subarea #3 - 3-B -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		350	.04	U					0.030
Shallow Concent'd		650	.0415	U					0.055
									Time of Concentration = 0.31*
									=====

----- Subarea #4 - 3-C -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		450	.0244	P					0.039
									Time of Concentration = 0.26*
									=====

--- Sheet Flow Surface Codes ---

- | | | |
|--------------------------|------------------|------------------------------|
| A Smooth Surface | F Grass, Dense | --- Shallow Concentrated --- |
| B Fallow (No Res.) | G Grass, Burmuda | --- Surface Codes --- |
| C Cultivated < 20 % Res. | H Woods, Light | P Paved |
| D Cultivated > 20 % Res. | I Woods, Dense | U Unpaved |
| E Grass-Range, Short | | |

Project : KINGS RIDGE

User: DC

Date: 05-14-96

County : LAKE

State: FL

Checked: _____

Date: _____

Subtitle: POST DEV. CONDITIONS

----- Subarea #5 - 3-D -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	100	.015	F					0.223
Shallow Concent'd		400	.0750	P					0.020
Shallow Concent'd		350	.0143	P					0.040

Time of Concentration = 0.28*
=====

----- Subarea #6 - 3-E -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.015	F					0.388
Shallow Concent'd		600	.0117	U					0.095
Shallow Concent'd		650	.020	U					0.079

Time of Concentration = 0.56*
=====

----- Subarea #7 - 3-W -----

Flow Type	2 year rain	Length (ft)	Slope (ft/ft)	Surface code	n	Area (sq/ft)	Wp (ft)	Velocity (ft/sec)	Time (hr)
Sheet	4.6	200	.025	F					0.316
Shallow Concent'd		500	.0220	U					0.058
Shallow Concent'd		650	.0477	U					0.051

Time of Concentration = 0.43*
=====

--- Sheet Flow Surface Codes ---

- | | | |
|--------------------------|------------------|------------------------------|
| A Smooth Surface | F Grass, Dense | --- Shallow Concentrated --- |
| B Fallow (No Res.) | G Grass, Burmuda | --- Surface Codes --- |
| C Cultivated < 20 % Res. | H Woods, Light | P Paved |
| D Cultivated > 20 % Res. | I Woods, Dense | U Unpaved |
| E Grass-Range, Short | | |

BASIN NO. 3
25 YEAR - 24 HOUR POST DEVELOPED RUNOFF
HYDROGRAPH INPUT DATA WITH BASIN SUMMARY

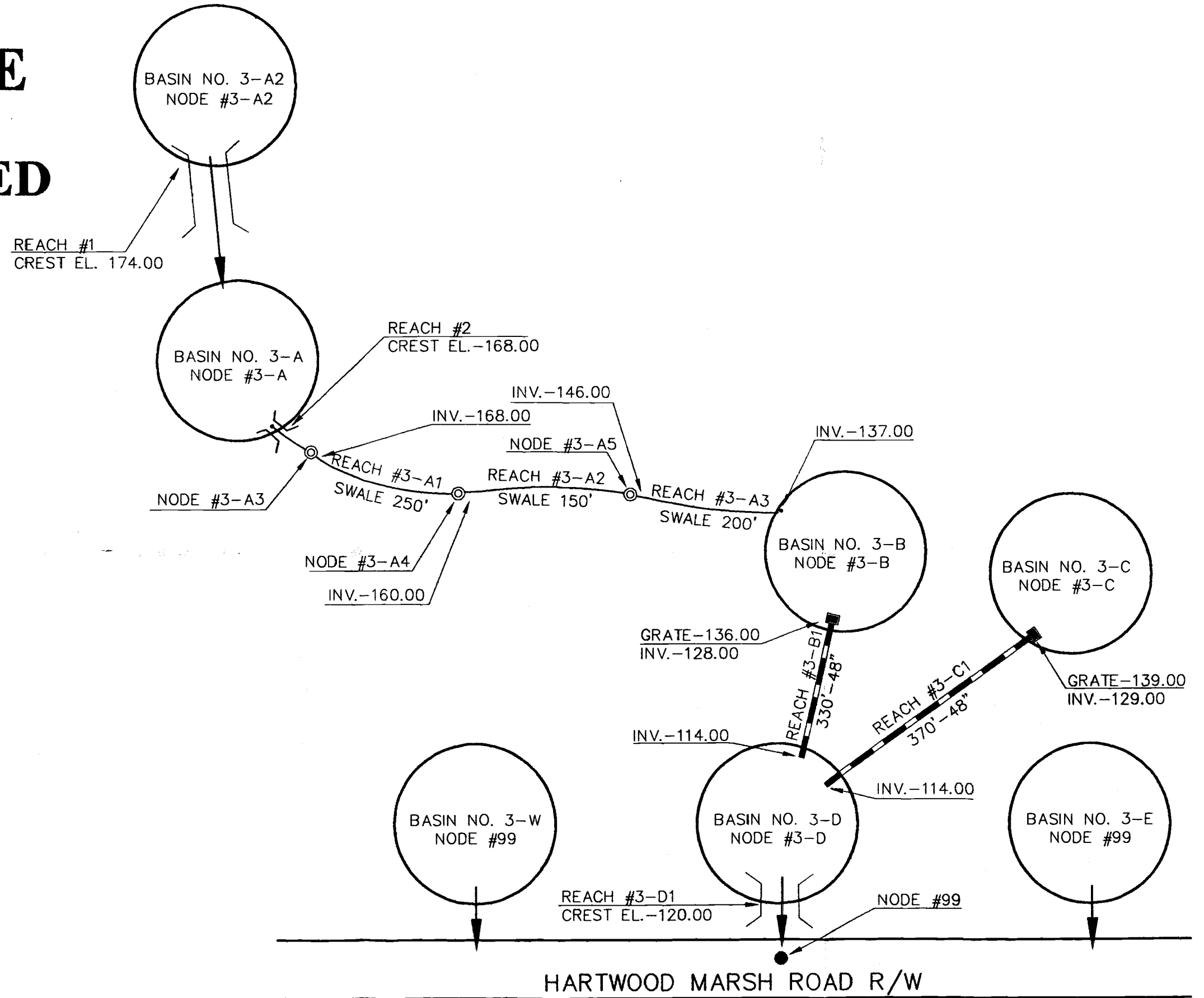
KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Summary - KINGSG *****

Basin Name:	3-A	3-A2	3-B	3-C	3-D
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	3-A	3-A2	3-B	3-C	3-D
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	5.10	6.00	9.30	7.00	8.40
Comp Time Inc (sec):	5.10	6.00	9.30	7.00	8.40
Rainfall File:	PLMOD	PLMOD	PLMOD	PLMOD	PLMOD
Rainfall Amount (in):	8.40	8.40	8.40	8.40	8.40
Storm Duration (hr):	24.00	24.00	24.00	24.00	24.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	10.20	12.00	18.60	15.60	16.80
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	9.33	5.72	27.98	8.30	21.21
Curve Number:	78.00	74.00	61.00	80.00	79.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	11.90	11.90	11.94	11.96	11.90
Flow Max (cfs):	39.08	21.07	58.71	30.91	74.33
Runoff Volume (in):	5.76	5.28	3.74	5.99	5.88
Runoff Volume (cf):	195064	189577	380263	180612	452458

Basin Name:	3-E	3-W
Group Name:	BASE	BASE
Node Name:	99	
Hydrograph Type:	SB	SB
Spec Time Inc (sec):	15.00	12.90
Comp Time Inc (sec):	15.00	12.90
Rainfall File:	PLMOD	PLMOD
Rainfall Amount (in):	8.40	8.40
Storm Duration (hr):	24.00	24.00
Status:	ONSITE	ONSITE
Time of Conc. (min):	33.60	25.80
Lag Time (hr):	0.00	0.00
Area (acres):	17.40	34.90
Curve Number:	39.00	39.00
DCIA (%):	0.00	0.00
Time Max (hrs):	12.25	12.25
Flow Max (cfs):	7.17	16.36
Runoff Volume (in):	1.33	1.32
Runoff Volume (cf):	83938	167726

KINGS RIDGE PHASE IV POST-DEVELOPED BASIN #3 NODAL / REACH SCHEMATIC



BASIN NO. 3
25YR/24HR POST-DEVELOPED
RUN-OFF HYDROGRAPH BASIN
TIME SERIES WITH BASIN SUMMARY

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Summary - KINGSG *****

```

***
Basin Name:          3-A      3-A2      3-B      3-C      3-D
Group Name:         BASE      BASE      BASE      BASE      BASE
Node Name:          3-A      3-A2      3-B      3-C      3-D
Hydrograph Type:    SB        SB        SB        SB        SB

Spec Time Inc (sec):  5.10     6.00     9.30     7.00     0.40
Comp Time Inc (sec):  5.10     6.00     9.30     7.00     0.40
Rainfall File:       PFMOD    PFMOD    PFMOD    PFMOD    PFMOD
Rainfall Amount (in): 0.40     0.40     0.40     0.40     0.40
Storm Duration (hr):  24.00    24.00    24.00    24.00    24.00
Status:              ONSITE   ONSITE   ONSITE   ONSITE   ONSITE
Time of Conc. (min):  10.20    12.00    10.60    15.60    16.00
Lag Time (hr):       0.00     0.00     0.00     0.00     0.00
Area (acres):        9.33     5.72     27.90    0.30     21.21
Curve Number:        70.00    74.00    61.00    80.00    79.00
DCIA (%):            0.00     0.00     0.00     0.00     0.00

Time Max (hrs):      11.90    11.90    11.94    11.96    11.90
Flow Max (cfs):      39.00    21.07    50.71    30.91    74.33
Runoff Volume (in):   5.76     5.28     3.74     5.99     5.00
Runoff Volume (cf):  195064   109577   300263   100612   452450
    
```

```

***
Basin Name:          3-E      3-W
Group Name:         BASE      BASE
Node Name:          99        99
Hydrograph Type:    SB        SB

Spec Time Inc (sec):  15.00    12.90
Comp Time Inc (sec):  15.00    12.90
Rainfall File:       PFMOD    PFMOD
Rainfall Amount (in): 0.40     0.40
Storm Duration (hr):  24.00    24.00
Status:              ONSITE   ONSITE
Time of Conc. (min):  33.60    25.00
Lag Time (hr):       0.00     0.00
Area (acres):        17.40    34.90
Curve Number:        39.00    39.00
DCIA (%):            0.00     0.00

Time Max (hrs):      12.25    12.25
Flow Max (cfs):      7.17     16.36
Runoff Volume (in):   1.33     1.32
Runoff Volume (cf):  83930    167726
    
```

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KING56 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
*** Basin: 3-A Tmax(hrs): 11.90 Qmax(cfs): 39.076 Vmax(in): 5.76								
0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1420	0.0004	0.0004	0.00	33	0.019	0.00
6.00	0.7476	0.1512	0.0113	0.0109	0.01	353	0.159	0.00
7.00	0.9239	0.1763	0.0400	0.0295	0.04	1263	0.347	0.00
8.00	1.1256	0.2010	0.0933	0.0525	0.09	2920	0.570	0.00
9.00	1.3776	0.2520	0.1022	0.0000	0.17	5741	0.905	0.00
10.00	1.6084	0.3100	0.3212	0.1391	0.31	10375	1.509	0.00
10.00	1.7234	0.0350	0.3377	0.0165	0.32	10071	1.720	0.00
10.17	1.7504	0.0350	0.3553	0.0176	0.34	11404	1.831	0.00
10.25	1.7934	0.0350	0.3732	0.0179	0.35	11965	1.911	0.00
10.33	1.8204	0.0350	0.3913	0.0182	0.37	12540	1.973	0.00
10.42	1.8634	0.0350	0.4090	0.0185	0.39	13152	2.054	0.00
10.50	1.8904	0.0350	0.4299	0.0201	0.41	13791	2.205	0.00
10.58	1.9432	0.0440	0.4529	0.0230	0.43	14401	2.401	0.00
10.67	1.9000	0.0440	0.4777	0.0240	0.45	15227	2.560	0.00
10.75	2.0320	0.0440	0.5030	0.0252	0.47	16015	2.607	0.00
10.83	2.0776	0.0440	0.5206	0.0256	0.50	16035	2.777	0.00
10.92	2.1224	0.0440	0.5546	0.0260	0.52	17600	2.859	0.00
11.00	2.1672	0.0440	0.5014	0.0260	0.55	10552	2.953	0.00
11.00	2.2140	0.0476	0.6095	0.0200	0.57	19453	3.055	0.00
11.17	2.2624	0.0476	0.6303	0.0200	0.60	20405	3.296	0.00
11.25	2.3100	0.0476	0.6741	0.0350	0.63	21491	3.940	0.00
11.33	2.4024	0.0924	0.7255	0.0514	0.67	22009	4.040	0.00
11.42	2.4947	0.0924	0.7047	0.0592	0.72	24409	6.350	0.00
11.50	2.5071	0.0924	0.0769	0.0922	0.00	26939	9.907	0.00
11.50	2.9004	0.3133	1.0596	0.1027	0.91	30706	15.127	0.00
11.67	3.2139	0.3135	1.2045	0.2249	1.06	35994	20.121	0.00
11.75	3.5274	0.3135	1.5493	0.2640	1.27	42996	26.560	0.00
11.83	4.0509	0.5235	1.9291	0.3790	1.54	52000	34.053	0.00
11.92	4.5749	0.5239	2.3559	0.4260	1.86	63042	30.975	0.00
12.00	5.0900	0.5239	2.7571	0.4012	2.20	74513	37.497	0.00
12.00	5.3143	0.2155	2.9006	0.2236	2.51	04912	31.030	0.00
12.17	5.5299	0.2155	3.1671	0.1064	2.77	93705	27.324	0.00
12.25	5.7454	0.2155	3.3441	0.1771	2.99	101279	22.637	0.00
12.33	5.0436	0.0902	3.4411	0.0970	3.17	107342	17.702	0.00
12.42	5.9416	0.0901	3.5274	0.0063	3.31	112192	14.555	0.00
12.50	6.0397	0.0900	3.6120	0.0046	3.43	116160	11.894	0.00
12.50	6.0904	0.0500	3.6660	0.0540	3.52	119370	9.560	0.00
12.67	6.1572	0.0500	3.7101	0.0521	3.60	122027	0.105	0.00
12.75	6.2160	0.0500	3.7704	0.0522	3.67	124295	7.011	0.00
12.83	6.2636	0.0476	3.8127	0.0423	3.73	126267	6.130	0.00
12.92	6.3112	0.0476	3.8551	0.0424	3.70	120020	5.600	0.00
13.00	6.3500	0.0476	3.8971	0.0420	3.83	129635	5.116	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.00	6.3900	0.0392	3.9326	0.0354	3.87	131103	4.670	0.00
13.17	6.4372	0.0392	3.9676	0.0351	3.91	132462	4.391	0.00
13.25	6.4764	0.0392	4.0027	0.0351	3.95	133755	4.224	0.00
13.33	6.5156	0.0392	4.0379	0.0351	3.99	135007	4.124	0.00
13.42	6.5548	0.0392	4.0730	0.0352	4.02	136231	4.039	0.00
13.50	6.5940	0.0392	4.1071	0.0341	4.06	137414	3.844	0.00
13.58	6.6248	0.0308	4.1359	0.0288	4.09	138528	3.587	0.00
13.67	6.6556	0.0308	4.1636	0.0277	4.12	139578	3.407	0.00
13.75	6.6864	0.0308	4.1914	0.0277	4.15	140584	3.299	0.00
13.83	6.7172	0.0308	4.2191	0.0278	4.18	141563	3.234	0.00
13.92	6.7480	0.0308	4.2469	0.0278	4.21	142525	3.177	0.00
14.00	6.7788	0.0308	4.2739	0.0270	4.24	143463	3.077	0.00
14.08	6.8054	0.0266	4.2987	0.0248	4.26	144367	2.951	0.00
14.17	6.8320	0.0266	4.3227	0.0248	4.29	145239	2.857	0.00
14.25	6.8586	0.0266	4.3468	0.0248	4.31	146087	2.801	0.00
14.33	6.8852	0.0266	4.3708	0.0241	4.34	146923	2.768	0.00
14.42	6.9118	0.0266	4.3949	0.0241	4.36	147747	2.727	0.00
14.50	6.9384	0.0266	4.4180	0.0231	4.39	148552	2.639	0.00
14.58	6.9600	0.0224	4.4393	0.0212	4.41	149326	2.523	0.00
14.67	6.9832	0.0224	4.4596	0.0203	4.43	150069	2.433	0.00
14.75	7.0056	0.0224	4.4799	0.0203	4.45	150791	2.378	0.00
14.83	7.0280	0.0224	4.5002	0.0203	4.47	151500	2.346	0.00
14.92	7.0504	0.0224	4.5206	0.0203	4.49	152199	2.319	0.00
15.00	7.0728	0.0224	4.5406	0.0200	4.51	152898	2.282	0.00
15.08	7.0938	0.0210	4.5600	0.0194	4.53	153568	2.239	0.00
15.17	7.1148	0.0210	4.5791	0.0191	4.55	154235	2.207	0.00
15.25	7.1358	0.0210	4.5982	0.0191	4.57	154894	2.187	0.00
15.33	7.1568	0.0210	4.6173	0.0191	4.59	155548	2.176	0.00
15.42	7.1778	0.0210	4.6364	0.0191	4.61	156198	2.155	0.00
15.50	7.1988	0.0210	4.6550	0.0185	4.63	156836	2.100	0.00
15.58	7.2170	0.0182	4.6721	0.0172	4.65	157455	2.023	0.00
15.67	7.2352	0.0182	4.6887	0.0166	4.67	158053	1.964	0.00
15.75	7.2534	0.0182	4.7053	0.0166	4.68	158637	1.928	0.00
15.83	7.2716	0.0182	4.7219	0.0166	4.70	159212	1.907	0.00
15.92	7.2898	0.0182	4.7385	0.0166	4.72	159781	1.889	0.00
16.00	7.3080	0.0182	4.7549	0.0164	4.73	160343	1.855	0.00
17.00	7.5012	0.1932	4.9319	0.1770	4.92	166559	1.599	0.00
18.00	7.6692	0.1680	5.0863	0.1544	5.07	171870	1.351	0.00
19.00	7.8204	0.1512	5.2256	0.1393	5.21	176481	1.210	0.00
20.00	7.9632	0.1428	5.3567	0.1312	5.34	180712	1.141	0.00
21.00	8.0888	0.1176	5.4658	0.1098	5.45	184610	1.024	0.00
22.00	8.1984	0.1176	5.5747	0.1089	5.56	188299	1.025	0.00
23.00	8.3077	0.1093	5.6761	0.1014	5.66	191742	0.887	0.00
24.00	8.4080	0.0923	5.7596	0.0835	5.74	194259	0.511	0.00

*** Basin: 3-A2 Tmax(hrs): 11.90 Qmax(cfs): 21.075 Vmax(in): 5.28
 0.00 0.0000 0.0000 0.0000 0.0000 0.00 0 0.000 0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sun Rain(in)	Inc Rain(in)	Sun Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1420	0.0000	0.0000	0.00	0	0.000	0.00
6.00	0.7476	0.1512	0.0006	0.0006	0.00	26	0.014	0.00
7.00	0.9239	0.1763	0.0131	0.0125	0.01	245	0.107	0.00
8.00	1.1256	0.2010	0.0454	0.0323	0.04	852	0.230	0.00
9.00	1.3776	0.2520	0.1087	0.0633	0.10	2060	0.441	0.00
10.00	1.6884	0.3100	0.2159	0.1072	0.20	4224	0.761	0.00
10.00	1.7234	0.0350	0.2290	0.0139	0.21	4462	0.832	0.00
10.17	1.7584	0.0350	0.2440	0.0142	0.23	4720	0.887	0.00
10.25	1.7934	0.0350	0.2584	0.0145	0.24	4993	0.930	0.00
10.33	1.8284	0.0350	0.2732	0.0148	0.25	5277	0.967	0.00
10.42	1.8634	0.0350	0.2883	0.0151	0.27	5574	1.008	0.00
10.50	1.8984	0.0350	0.3036	0.0153	0.28	5888	1.087	0.00
10.58	1.9432	0.0440	0.3237	0.0201	0.30	6230	1.196	0.00
10.67	1.9880	0.0440	0.3443	0.0206	0.32	6601	1.280	0.00
10.75	2.0328	0.0440	0.3653	0.0210	0.34	6995	1.346	0.00
10.83	2.0776	0.0440	0.3868	0.0214	0.36	7407	1.400	0.00
10.92	2.1224	0.0440	0.4086	0.0218	0.38	7835	1.449	0.00
11.00	2.1672	0.0440	0.4309	0.0222	0.40	8278	1.505	0.00
11.00	2.2140	0.0476	0.4550	0.0241	0.42	8738	1.566	0.00
11.17	2.2624	0.0476	0.4796	0.0246	0.44	9233	1.729	0.00
11.25	2.3100	0.0476	0.5110	0.0322	0.47	9800	2.052	0.00
11.33	2.4024	0.0924	0.5544	0.0426	0.50	10478	2.468	0.00
11.42	2.4947	0.0924	0.6054	0.0510	0.55	11324	3.177	0.00
11.50	2.5871	0.0924	0.6570	0.0524	0.60	12555	5.029	0.00
11.58	2.9004	0.3133	0.8471	0.1092	0.70	14494	7.895	0.00
11.67	3.2139	0.3135	1.0485	0.2015	0.83	17297	10.793	0.00
11.75	3.5274	0.3135	1.3056	0.2571	1.01	21059	14.289	0.00
11.83	4.0509	0.5235	1.6371	0.3314	1.25	25919	18.106	0.00
11.92	4.5749	0.5239	2.0317	0.3946	1.53	31788	21.021	0.00
12.00	5.0988	0.5239	2.4433	0.4116	1.83	38854	20.756	0.00
12.00	5.3143	0.2155	2.6177	0.1743	2.11	43851	17.009	0.00
12.17	5.5299	0.2155	2.7941	0.1764	2.35	48864	15.532	0.00
12.25	5.7454	0.2155	2.9429	0.1489	2.56	53171	13.180	0.00
12.33	5.8436	0.0902	3.0530	0.1109	2.73	56785	10.916	0.00
12.42	5.9416	0.0901	3.1359	0.0821	2.88	59772	8.991	0.00
12.50	6.0397	0.0900	3.2183	0.0824	3.00	62232	7.411	0.00
12.58	6.0904	0.0500	3.2679	0.0496	3.09	64257	6.087	0.00
12.67	6.1572	0.0500	3.3176	0.0497	3.10	65941	5.145	0.00
12.75	6.2160	0.0500	3.3645	0.0470	3.25	67379	4.437	0.00
12.83	6.2636	0.0476	3.4078	0.0433	3.31	68629	3.900	0.00
12.92	6.3112	0.0476	3.4483	0.0405	3.36	69738	3.496	0.00
13.00	6.3508	0.0476	3.4888	0.0406	3.41	70737	3.162	0.00
13.00	6.3980	0.0392	3.5223	0.0335	3.45	71644	2.881	0.00
13.17	6.4372	0.0392	3.5558	0.0335	3.49	72480	2.691	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.25	6.4764	0.0392	3.5094	0.0336	3.53	73268	2.565	0.00
13.33	6.5156	0.0392	3.6230	0.0336	3.57	74025	2.482	0.00
13.42	6.5548	0.0392	3.6567	0.0337	3.60	74759	2.412	0.00
13.50	6.5940	0.0392	3.6904	0.0337	3.63	75465	2.295	0.00
13.58	6.6248	0.0308	3.7169	0.0265	3.67	76131	2.142	0.00
13.67	6.6556	0.0308	3.7435	0.0265	3.70	76758	2.039	0.00
13.75	6.6864	0.0308	3.7700	0.0266	3.73	77360	1.970	0.00
13.83	6.7172	0.0308	3.7966	0.0266	3.75	77944	1.926	0.00
13.92	6.7480	0.0308	3.8233	0.0266	3.78	78516	1.888	0.00
14.00	6.7788	0.0308	3.8499	0.0266	3.81	79074	1.828	0.00
14.08	6.8054	0.0266	3.8730	0.0230	3.83	79610	1.750	0.00
14.17	6.8320	0.0266	3.8960	0.0231	3.86	80128	1.698	0.00
14.25	6.8586	0.0266	3.9191	0.0231	3.88	80632	1.663	0.00
14.33	6.8852	0.0266	3.9422	0.0231	3.91	81127	1.641	0.00
14.42	6.9118	0.0266	3.9653	0.0231	3.93	81616	1.618	0.00
14.50	6.9384	0.0266	3.9884	0.0231	3.95	82094	1.567	0.00
14.58	6.9608	0.0224	4.0079	0.0195	3.98	82553	1.495	0.00
14.67	6.9832	0.0224	4.0274	0.0195	4.00	82994	1.446	0.00
14.75	7.0056	0.0224	4.0469	0.0195	4.02	83423	1.414	0.00
14.83	7.0280	0.0224	4.0665	0.0195	4.04	83844	1.392	0.00
14.92	7.0504	0.0224	4.0860	0.0196	4.06	84259	1.376	0.00
15.00	7.0728	0.0224	4.1056	0.0196	4.08	84669	1.353	0.00
15.08	7.0930	0.0210	4.1240	0.0184	4.10	85070	1.326	0.00
15.17	7.1148	0.0210	4.1423	0.0184	4.12	85465	1.307	0.00
15.25	7.1358	0.0210	4.1607	0.0184	4.13	85856	1.295	0.00
15.33	7.1568	0.0210	4.1791	0.0184	4.15	86243	1.288	0.00
15.42	7.1778	0.0210	4.1975	0.0184	4.17	86628	1.277	0.00
15.50	7.1988	0.0210	4.2159	0.0184	4.19	87006	1.246	0.00
15.58	7.2170	0.0182	4.2319	0.0160	4.21	87373	1.199	0.00
15.67	7.2352	0.0182	4.2478	0.0160	4.23	87728	1.167	0.00
15.75	7.2534	0.0182	4.2638	0.0160	4.24	88075	1.146	0.00
15.83	7.2716	0.0182	4.2798	0.0160	4.26	88416	1.132	0.00
15.92	7.2898	0.0182	4.2958	0.0160	4.27	88754	1.120	0.00
16.00	7.3080	0.0182	4.3118	0.0160	4.29	89087	1.101	0.00
17.00	7.5012	0.1932	4.4821	0.1704	4.47	92774	0.947	0.00
18.00	7.6692	0.1680	4.6309	0.1488	4.62	95922	0.882	0.00
19.00	7.8204	0.1512	4.7654	0.1344	4.75	98656	0.718	0.00
20.00	7.9632	0.1428	4.8928	0.1274	4.87	101172	0.688	0.00
21.00	8.0888	0.1176	4.9988	0.1052	4.98	103491	0.688	0.00
22.00	8.1984	0.1176	5.1035	0.1055	5.09	105681	0.609	0.00
23.00	8.3077	0.1093	5.2018	0.0983	5.19	107730	0.529	0.00
24.00	8.4088	0.0923	5.2774	0.0756	5.25	109869	0.215	0.00

*** Basin: 3-B Tmax(hrs): 11.94 Qmax(cfs): 58.712 Vmax(in): 3.74

0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1420	0.0000	0.0000	0.00	0	0.000	0.00
6.00	0.7476	0.1512	0.0000	0.0000	0.00	0	0.000	0.00
7.00	0.9239	0.1763	0.0000	0.0000	0.00	0	0.000	0.00
8.00	1.1256	0.2010	0.0000	0.0000	0.00	0	0.000	0.00
9.00	1.3776	0.2520	0.0015	0.0015	0.00	243	0.135	0.00
10.00	1.6004	0.3100	0.0252	0.0236	0.02	2244	0.976	0.00
10.08	1.7234	0.0350	0.0209	0.0038	0.03	2555	1.096	0.00
10.17	1.7584	0.0350	0.0336	0.0047	0.03	2903	1.223	0.00
10.25	1.7934	0.0350	0.0384	0.0040	0.03	3289	1.351	0.00
10.33	1.8284	0.0350	0.0436	0.0052	0.04	3714	1.484	0.00
10.42	1.8634	0.0350	0.0492	0.0056	0.04	4183	1.639	0.00
10.50	1.8984	0.0350	0.0555	0.0062	0.05	4703	1.828	0.00
10.58	1.9432	0.0440	0.0627	0.0073	0.05	5282	2.032	0.00
10.67	1.9880	0.0440	0.0710	0.0082	0.06	5924	2.249	0.00
10.75	2.0320	0.0440	0.0797	0.0088	0.07	6629	2.450	0.00
10.83	2.0776	0.0440	0.0888	0.0091	0.07	7392	2.641	0.00
10.92	2.1224	0.0440	0.0986	0.0097	0.08	8214	2.839	0.00
11.00	2.1672	0.0440	0.1085	0.0099	0.09	9096	3.037	0.00
11.08	2.2140	0.0476	0.1190	0.0113	0.10	10063	3.414	0.00
11.17	2.2624	0.0476	0.1316	0.0118	0.11	11150	3.834	0.00
11.25	2.3100	0.0476	0.1489	0.0173	0.12	12419	4.624	0.00
11.33	2.4024	0.0924	0.1683	0.0194	0.14	14006	5.960	0.00
11.42	2.4947	0.0924	0.1950	0.0267	0.16	16285	9.230	0.00
11.50	2.5871	0.0924	0.2459	0.0510	0.19	19723	13.691	0.00
11.58	2.9004	0.3133	0.3400	0.0941	0.24	24817	20.268	0.00
11.67	3.2139	0.3135	0.4638	0.1238	0.32	32185	28.852	0.00
11.75	3.5274	0.3135	0.6173	0.1535	0.42	42429	39.441	0.00
11.83	4.0509	0.5235	0.8495	0.2323	0.55	55631	48.573	0.00
11.92	4.5749	0.5239	1.1261	0.2766	0.70	71449	56.883	0.00
12.00	5.0988	0.5239	1.3486	0.2225	0.87	88781	58.660	0.00
12.08	5.3143	0.2155	1.5558	0.2072	1.05	106369	58.594	0.00
12.17	5.5299	0.2155	1.6992	0.1433	1.21	123237	53.859	0.00
12.25	5.7454	0.2155	1.8327	0.1335	1.36	138615	48.664	0.00
12.33	5.8436	0.0982	1.8998	0.0671	1.50	152307	42.613	0.00
12.42	5.9416	0.0981	1.9648	0.0649	1.62	164226	36.046	0.00
12.50	6.0397	0.0980	2.0210	0.0563	1.72	174586	32.221	0.00
12.58	6.0984	0.0588	2.0717	0.0507	1.81	183612	27.954	0.00
12.67	6.1572	0.0588	2.1115	0.0398	1.89	191463	24.304	0.00
12.75	6.2160	0.0588	2.1487	0.0372	1.95	198325	21.363	0.00
12.83	6.2636	0.0476	2.1832	0.0345	2.01	204370	18.937	0.00
12.92	6.3112	0.0476	2.2161	0.0329	2.07	209752	16.947	0.00
13.00	6.3588	0.0476	2.2481	0.0320	2.11	214578	15.225	0.00
13.08	6.3980	0.0392	2.2764	0.0283	2.16	218946	13.896	0.00
13.17	6.4372	0.0392	2.3035	0.0271	2.19	222935	12.692	0.00
13.25	6.4764	0.0392	2.3300	0.0273	2.23	226628	11.930	0.00
13.33	6.5156	0.0392	2.3581	0.0273	2.27	230101	11.223	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KING96 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.42	6.5540	0.0392	2.3055	0.0274	2.30	233376	10.612	0.00
13.50	6.5940	0.0392	2.4120	0.0265	2.33	236469	10.007	0.00
13.58	6.6240	0.0300	2.4342	0.0222	2.36	239305	9.434	0.00
13.67	6.6556	0.0300	2.4563	0.0221	2.38	242139	8.929	0.00
13.75	6.6864	0.0300	2.4700	0.0217	2.41	244764	8.570	0.00
13.83	6.7172	0.0300	2.4998	0.0218	2.43	247207	8.247	0.00
13.92	6.7400	0.0300	2.5217	0.0218	2.46	249719	7.964	0.00
14.00	6.7700	0.0300	2.5423	0.0207	2.48	252066	7.687	0.00
14.08	6.8054	0.0266	2.5622	0.0199	2.50	254331	7.413	0.00
14.17	6.8320	0.0266	2.5814	0.0192	2.53	256523	7.198	0.00
14.25	6.8586	0.0266	2.6004	0.0190	2.55	258653	7.003	0.00
14.33	6.8852	0.0266	2.6194	0.0190	2.57	260729	6.838	0.00
14.42	6.9118	0.0266	2.6384	0.0190	2.59	262756	6.675	0.00
14.50	6.9384	0.0266	2.6562	0.0177	2.61	264728	6.473	0.00
14.58	6.9600	0.0224	2.6737	0.0175	2.63	266648	6.274	0.00
14.67	6.9832	0.0224	2.6898	0.0161	2.64	268495	6.095	0.00
14.75	7.0056	0.0224	2.7060	0.0162	2.66	270300	5.936	0.00
14.83	7.0280	0.0224	2.7222	0.0162	2.68	272064	5.824	0.00
14.92	7.0504	0.0224	2.7383	0.0161	2.70	273795	5.717	0.00
15.00	7.0728	0.0224	2.7543	0.0160	2.71	275495	5.615	0.00
15.08	7.0938	0.0210	2.7698	0.0156	2.73	277166	5.522	0.00
15.17	7.1148	0.0210	2.7851	0.0153	2.75	278809	5.436	0.00
15.25	7.1358	0.0210	2.8004	0.0153	2.76	280431	5.376	0.00
15.33	7.1568	0.0210	2.8156	0.0153	2.78	282036	5.326	0.00
15.42	7.1778	0.0210	2.8310	0.0153	2.79	283620	5.232	0.00
15.50	7.1988	0.0210	2.8463	0.0153	2.81	285174	5.130	0.00
15.58	7.2170	0.0182	2.8596	0.0133	2.82	286693	4.996	0.00
15.67	7.2352	0.0182	2.8729	0.0133	2.84	288173	4.870	0.00
15.75	7.2534	0.0182	2.8862	0.0133	2.85	289622	4.792	0.00
15.83	7.2716	0.0182	2.8996	0.0133	2.87	291048	4.715	0.00
15.92	7.2898	0.0182	2.9129	0.0134	2.88	292452	4.641	0.00
16.00	7.3080	0.0182	2.9259	0.0130	2.89	293833	4.565	0.00
17.00	7.5012	0.1932	3.0691	0.1432	3.04	309138	3.938	0.00
18.00	7.6692	0.1600	3.1947	0.1256	3.17	322316	3.383	0.00
19.00	7.8204	0.1512	3.3088	0.1141	3.29	333900	3.053	0.00
20.00	7.9632	0.1428	3.4166	0.1078	3.39	344537	2.857	0.00
21.00	8.0800	0.1176	3.5064	0.0890	3.49	354268	2.549	0.00
22.00	8.1984	0.1176	3.5966	0.0902	3.58	363446	2.550	0.00
23.00	8.3077	0.1093	3.6809	0.0843	3.66	372097	2.257	0.00
24.00	8.4000	0.0923	3.7439	0.0630	3.72	378026	1.837	0.00

*** Basin: 3-C Tmax(hrs): 11.96 Qmax(cfs): 30.913 Vmax(in): 5.99

0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
5.00	0.5964	0.1428	0.0036	0.0036	0.00	118	0.066	0.00
6.00	0.7476	0.1512	0.0224	0.0100	0.02	601	0.203	0.00
7.00	0.9239	0.1763	0.0616	0.0392	0.05	1655	0.382	0.00
8.00	1.1256	0.2018	0.1257	0.0641	0.11	3428	0.603	0.00
9.00	1.3776	0.2520	0.2202	0.1026	0.21	6272	0.977	0.00
10.00	1.6884	0.3100	0.3833	0.1551	0.36	10783	1.528	0.00
10.00	1.7234	0.0350	0.4020	0.0107	0.37	11257	1.631	0.00
10.17	1.7584	0.0350	0.4214	0.0193	0.39	11761	1.727	0.00
10.25	1.7934	0.0350	0.4410	0.0196	0.41	12290	1.802	0.00
10.33	1.8284	0.0350	0.4610	0.0200	0.43	12842	1.876	0.00
10.42	1.8634	0.0350	0.4814	0.0204	0.45	13417	1.960	0.00
10.50	1.8984	0.0350	0.5033	0.0218	0.47	14025	2.091	0.00
10.58	1.9432	0.0448	0.5283	0.0250	0.49	14674	2.235	0.00
10.67	1.9880	0.0448	0.5552	0.0269	0.51	15366	2.383	0.00
10.75	2.0328	0.0448	0.5827	0.0275	0.53	16097	2.489	0.00
10.83	2.0776	0.0448	0.6105	0.0278	0.56	16858	2.585	0.00
10.92	2.1224	0.0448	0.6385	0.0281	0.59	17647	2.673	0.00
11.00	2.1672	0.0448	0.6678	0.0293	0.61	18462	2.763	0.00
11.00	2.2140	0.0476	0.6978	0.0300	0.64	19315	2.921	0.00
11.17	2.2624	0.0476	0.7288	0.0310	0.67	20231	3.183	0.00
11.25	2.3100	0.0476	0.7719	0.0431	0.71	21264	3.705	0.00
11.33	2.4024	0.0924	0.8223	0.0504	0.75	22509	4.594	0.00
11.42	2.4947	0.0924	0.8855	0.0632	0.80	24142	6.297	0.00
11.50	2.5871	0.0924	1.0119	0.1265	0.88	26456	9.129	0.00
11.58	2.9004	0.3133	1.1769	0.1650	0.99	29717	12.614	0.00
11.67	3.2139	0.3135	1.4140	0.2378	1.13	34193	17.225	0.00
11.75	3.5274	0.3135	1.7240	0.3092	1.33	40126	22.327	0.00
11.83	4.0509	0.5235	2.0043	0.3603	1.58	47619	27.626	0.00
11.92	4.5749	0.5239	2.5289	0.4446	1.87	56231	29.789	0.00
12.00	5.0988	0.5239	2.8906	0.3616	2.16	65195	29.972	0.00
12.00	5.3143	0.2155	3.1623	0.2718	2.45	73893	28.011	0.00
12.17	5.5299	0.2155	3.3683	0.1900	2.72	81827	24.882	0.00
12.25	5.7454	0.2155	3.5233	0.1630	2.95	88805	21.639	0.00
12.33	5.8436	0.0982	3.6356	0.1123	3.15	94807	18.372	0.00
12.42	5.9416	0.0981	3.7287	0.0931	3.32	99902	15.597	0.00
12.50	6.0397	0.0980	3.8099	0.0812	3.46	104205	13.892	0.00
12.58	6.0984	0.0588	3.8685	0.0586	3.58	107826	11.849	0.00
12.67	6.1572	0.0588	3.9234	0.0550	3.68	110899	9.435	0.00
12.75	6.2160	0.0588	3.9756	0.0522	3.77	113525	8.074	0.00
12.83	6.2636	0.0476	4.0196	0.0440	3.84	115801	7.097	0.00
12.92	6.3112	0.0476	4.0632	0.0436	3.91	117888	6.280	0.00
13.00	6.3588	0.0476	4.1065	0.0433	3.97	119588	5.588	0.00
13.08	6.3980	0.0392	4.1422	0.0357	4.02	121187	5.076	0.00
13.17	6.4372	0.0392	4.1780	0.0357	4.07	122647	4.654	0.00
13.25	6.4764	0.0392	4.2137	0.0350	4.12	123997	4.348	0.00
13.33	6.5156	0.0392	4.2495	0.0350	4.16	125270	4.138	0.00
13.42	6.5548	0.0392	4.2850	0.0355	4.20	126481	3.934	0.00
13.50	6.5940	0.0392	4.3197	0.0347	4.24	127628	3.717	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.50	6.6248	0.0308	4.3495	0.0298	4.27	128712	3.504	0.00
13.67	6.6556	0.0308	4.3777	0.0282	4.31	129733	3.308	0.00
13.75	6.6864	0.0308	4.4059	0.0282	4.34	130707	3.181	0.00
13.83	6.7172	0.0308	4.4342	0.0283	4.37	131645	3.077	0.00
13.92	6.7480	0.0308	4.4624	0.0282	4.40	132555	2.985	0.00
14.00	6.7788	0.0308	4.4895	0.0271	4.43	133435	2.882	0.00
14.00	6.8054	0.0266	4.5152	0.0257	4.46	134284	2.782	0.00
14.17	6.8320	0.0266	4.5397	0.0245	4.48	135104	2.686	0.00
14.25	6.8586	0.0266	4.5641	0.0245	4.51	135901	2.627	0.00
14.33	6.8852	0.0266	4.5886	0.0245	4.54	136601	2.570	0.00
14.42	6.9118	0.0266	4.6131	0.0245	4.56	137443	2.513	0.00
14.50	6.9384	0.0266	4.6361	0.0230	4.59	138185	2.434	0.00
14.50	6.9608	0.0224	4.6583	0.0222	4.61	138903	2.353	0.00
14.67	6.9832	0.0224	4.6789	0.0207	4.63	139597	2.276	0.00
14.75	7.0056	0.0224	4.6996	0.0207	4.66	140272	2.222	0.00
14.83	7.0280	0.0224	4.7203	0.0207	4.68	140932	2.178	0.00
14.92	7.0504	0.0224	4.7410	0.0207	4.70	141580	2.141	0.00
15.00	7.0728	0.0224	4.7612	0.0202	4.72	142216	2.103	0.00
15.00	7.0938	0.0210	4.7811	0.0199	4.74	142841	2.064	0.00
15.17	7.1148	0.0210	4.8005	0.0194	4.76	143456	2.035	0.00
15.25	7.1358	0.0210	4.8199	0.0194	4.78	144063	2.011	0.00
15.33	7.1568	0.0210	4.8394	0.0194	4.80	144664	1.994	0.00
15.42	7.1778	0.0210	4.8588	0.0194	4.82	145257	1.960	0.00
15.50	7.1988	0.0210	4.8775	0.0187	4.84	145839	1.917	0.00
15.50	7.2170	0.0102	4.8950	0.0175	4.86	146405	1.862	0.00
15.67	7.2352	0.0182	4.9120	0.0170	4.88	146958	1.819	0.00
15.75	7.2534	0.0182	4.9288	0.0169	4.90	147498	1.782	0.00
15.83	7.2716	0.0182	4.9457	0.0169	4.91	148029	1.758	0.00
15.92	7.2898	0.0182	4.9626	0.0169	4.93	148552	1.731	0.00
16.00	7.3080	0.0182	4.9793	0.0167	4.95	149067	1.701	0.00
17.00	7.5012	0.1932	5.1590	0.1797	5.14	154750	1.457	0.00
18.00	7.6692	0.1680	5.3161	0.1571	5.30	159608	1.242	0.00
19.00	7.8204	0.1512	5.4571	0.1410	5.44	163840	1.109	0.00
20.00	7.9632	0.1428	5.5902	0.1332	5.57	167706	1.039	0.00
21.00	8.0888	0.1176	5.7088	0.1105	5.68	171242	0.926	0.00
22.00	8.1984	0.1176	5.8112	0.1104	5.79	174573	0.925	0.00
23.00	8.3077	0.1093	5.9140	0.1028	5.90	177695	0.810	0.00
24.00	8.4080	0.0923	5.9946	0.0886	5.97	179899	0.415	0.00

*** Basin: 3-0 Tmax(hrs): 11.90 Qmax(cfs): 74.335 Vmax(in): 5.88

0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1428	0.0016	0.0016	0.00	169	0.094	0.00
6.00	0.7476	0.1512	0.0163	0.0147	0.01	1090	0.422	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGSG *****

Time (hrs)	Sun Rain(in)	Inc Rain(in)	Sun Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
7.00	0.9239	0.1763	0.0504	0.0341	0.04	3406	0.860	0.00
8.00	1.1256	0.2018	0.1007	0.0503	0.10	7401	1.403	0.00
9.00	1.3776	0.2520	0.2045	0.0950	0.18	14194	2.326	0.00
10.00	1.6004	0.3100	0.3523	0.1478	0.33	25059	3.710	0.00
10.00	1.7234	0.0350	0.3609	0.0166	0.34	26206	3.937	0.00
10.17	1.7504	0.0350	0.3075	0.0106	0.36	27419	4.150	0.00
10.25	1.7934	0.0350	0.4062	0.0107	0.37	28693	4.344	0.00
10.33	1.8204	0.0350	0.4252	0.0190	0.39	30019	4.501	0.00
10.42	1.8634	0.0350	0.4446	0.0194	0.41	31407	4.752	0.00
10.50	1.8904	0.0350	0.4641	0.0195	0.43	32877	5.047	0.00
10.50	1.9432	0.0440	0.4097	0.0256	0.45	34449	5.432	0.00
10.67	1.9000	0.0440	0.5156	0.0250	0.47	36131	5.701	0.00
10.75	2.0320	0.0440	0.5419	0.0263	0.49	37906	6.053	0.00
10.83	2.0776	0.0440	0.5606	0.0267	0.52	39759	6.295	0.00
10.92	2.1224	0.0440	0.5956	0.0270	0.54	41601	6.520	0.00
11.00	2.1672	0.0440	0.6239	0.0203	0.57	43671	6.747	0.00
11.00	2.2140	0.0476	0.6527	0.0200	0.59	45752	7.120	0.00
11.17	2.2624	0.0476	0.6026	0.0300	0.62	48000	7.907	0.00
11.25	2.3100	0.0476	0.7242	0.0416	0.66	50556	9.001	0.00
11.33	2.4024	0.0924	0.7736	0.0494	0.69	53496	10.510	0.00
11.42	2.4947	0.0924	0.8343	0.0607	0.75	57421	15.649	0.00
11.50	2.5071	0.0924	0.9291	0.0940	0.82	63062	21.957	0.00
11.50	2.9004	0.3133	1.1200	0.1996	0.92	71001	30.973	0.00
11.67	3.2139	0.3135	1.3564	0.2277	1.06	81923	41.039	0.00
11.75	3.5274	0.3135	1.6062	0.2497	1.25	96323	54.150	0.00
11.83	4.0509	0.5235	2.0100	0.4046	1.40	114261	65.430	0.00
11.92	4.5749	0.5239	2.4250	0.4150	1.76	135209	74.221	0.00
12.00	5.0900	0.5239	2.7900	0.3721	2.04	157309	73.650	0.00
12.00	5.3143	0.2155	3.0746	0.2766	2.32	170060	69.491	0.00
12.17	5.5299	0.2155	3.2631	0.1005	2.50	190507	62.019	0.00
12.25	5.7454	0.2155	3.4090	0.1467	2.81	216050	54.460	0.00
12.33	5.8436	0.0902	3.5403	0.1305	3.00	231277	46.990	0.00
12.42	5.9416	0.0901	3.6277	0.0073	3.17	244346	40.127	0.00
12.50	6.0397	0.0900	3.7031	0.0755	3.32	255475	34.067	0.00
12.50	6.0904	0.0500	3.7657	0.0626	3.44	264910	28.007	0.00
12.67	6.1572	0.0500	3.8204	0.0547	3.55	272906	24.099	0.00
12.75	6.2160	0.0500	3.8720	0.0516	3.64	279923	21.345	0.00
12.83	6.2636	0.0476	3.9155	0.0435	3.71	285944	18.797	0.00
12.92	6.3112	0.0476	3.9503	0.0420	3.70	291252	16.500	0.00
13.00	6.3500	0.0476	4.0001	0.0410	3.84	295962	14.011	0.00
13.00	6.3900	0.0392	4.0370	0.0369	3.90	300197	13.427	0.00
13.17	6.4372	0.0392	4.0724	0.0354	3.95	304042	12.207	0.00
13.25	6.4764	0.0392	4.1079	0.0355	4.00	307592	11.455	0.00
13.33	6.5156	0.0392	4.1434	0.0355	4.04	310925	10.771	0.00
13.42	6.5548	0.0392	4.1709	0.0355	4.00	314069	10.109	0.00
13.50	6.5940	0.0392	4.2113	0.0324	4.12	317039	9.610	0.00
13.50	6.6240	0.0300	4.2424	0.0311	4.15	319036	9.036	0.00
13.67	6.6556	0.0300	4.2703	0.0200	4.19	322400	8.591	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGSG *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.75	6.6064	0.0300	4.2903	0.0200	4.22	325000	8.211	0.00
13.83	6.7172	0.0300	4.3264	0.0200	4.25	327424	7.946	0.00
13.92	6.7400	0.0300	4.3544	0.0200	4.28	329767	7.674	0.00
14.00	6.7700	0.0300	4.3824	0.0200	4.31	332020	7.400	0.00
14.00	6.8054	0.0266	4.4067	0.0242	4.34	334206	7.119	0.00
14.17	6.8320	0.0266	4.4309	0.0242	4.37	336305	6.875	0.00
14.25	6.8506	0.0266	4.4552	0.0243	4.39	338343	6.709	0.00
14.33	6.8852	0.0266	4.4794	0.0243	4.42	340332	6.553	0.00
14.42	6.9110	0.0266	4.5037	0.0243	4.45	342276	6.405	0.00
14.50	6.9304	0.0266	4.5264	0.0227	4.47	344167	6.202	0.00
14.58	6.9600	0.0224	4.5405	0.0221	4.49	345997	6.001	0.00
14.67	6.9832	0.0224	4.5690	0.0205	4.52	347769	5.813	0.00
14.75	7.0056	0.0224	4.5895	0.0205	4.54	349492	5.670	0.00
14.83	7.0280	0.0224	4.6100	0.0205	4.56	351176	5.557	0.00
14.92	7.0504	0.0224	4.6305	0.0205	4.58	352820	5.456	0.00
15.00	7.0720	0.0224	4.6500	0.0203	4.60	354450	5.356	0.00
15.00	7.0930	0.0210	4.6702	0.0194	4.62	356042	5.258	0.00
15.17	7.1140	0.0210	4.6896	0.0193	4.64	357607	5.179	0.00
15.25	7.1350	0.0210	4.7000	0.0193	4.66	359151	5.115	0.00
15.33	7.1560	0.0210	4.7201	0.0193	4.68	360677	5.055	0.00
15.42	7.1770	0.0210	4.7472	0.0191	4.70	362183	4.984	0.00
15.50	7.1980	0.0210	4.7650	0.0186	4.72	363661	4.869	0.00
15.58	7.2170	0.0182	4.7834	0.0176	4.74	365103	4.750	0.00
15.67	7.2352	0.0182	4.8001	0.0167	4.76	366510	4.626	0.00
15.75	7.2534	0.0182	4.8169	0.0167	4.78	367885	4.544	0.00
15.83	7.2716	0.0182	4.8336	0.0167	4.80	369237	4.470	0.00
15.92	7.2898	0.0182	4.8503	0.0167	4.81	370560	4.399	0.00
16.00	7.3080	0.0182	4.8666	0.0163	4.83	371876	4.322	0.00
17.00	7.5012	0.1932	5.0453	0.1706	5.02	386322	3.703	0.00
18.00	7.6692	0.1600	5.2012	0.1559	5.18	398677	3.161	0.00
19.00	7.8204	0.1512	5.3413	0.1401	5.32	409455	2.827	0.00
20.00	7.9632	0.1420	5.4734	0.1320	5.45	419300	2.642	0.00
21.00	8.0800	0.1176	5.5832	0.1098	5.56	428289	2.352	0.00
22.00	8.1984	0.1176	5.6929	0.1097	5.67	436740	2.347	0.00
23.00	8.3077	0.1093	5.7950	0.1021	5.78	444685	2.062	0.00
24.00	8.4080	0.0923	5.8767	0.0817	5.85	450406	1.161	0.00

*** Basin: 3-B Tmax(hrs): 12.25 Qmax(cfs): 7.169 Vmax(in): 1.33

0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1420	0.0000	0.0000	0.00	0	0.000	0.00
6.00	0.7476	0.1512	0.0000	0.0000	0.00	0	0.000	0.00
7.00	0.9239	0.1763	0.0000	0.0000	0.00	0	0.000	0.00
8.00	1.1256	0.2010	0.0000	0.0000	0.00	0	0.000	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS36 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
9.00	1.3776	0.2520	0.0000	0.0000	0.00	0	0.000	0.00
10.00	1.6884	0.3100	0.0000	0.0000	0.00	0	0.000	0.00
10.00	1.7234	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.17	1.7584	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.25	1.7934	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.33	1.8284	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.42	1.8634	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.50	1.8984	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.58	1.9432	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
10.67	1.9880	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
10.75	2.0328	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
10.83	2.0776	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
10.92	2.1224	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
11.00	2.1672	0.0440	0.0000	0.0000	0.00	0	0.000	0.00
11.00	2.2140	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.17	2.2624	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.25	2.3100	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.33	2.4024	0.0924	0.0000	0.0000	0.00	6	0.042	0.00
11.42	2.4947	0.0924	0.0000	0.0000	0.00	25	0.085	0.00
11.50	2.5871	0.0924	0.0000	0.0000	0.00	57	0.127	0.00
11.50	2.9004	0.3133	0.0033	0.0033	0.00	234	1.053	0.00
11.67	3.2139	0.3135	0.0066	0.0033	0.01	689	1.979	0.00
11.75	3.5274	0.3135	0.0099	0.0033	0.02	1422	2.905	0.00
11.83	4.0509	0.5235	0.0001	0.0702	0.04	2474	4.110	0.00
11.92	4.5749	0.5239	0.1503	0.0702	0.06	3088	5.316	0.00
12.00	5.0988	0.5239	0.2205	0.0702	0.09	5663	6.522	0.00
12.00	5.3143	0.2155	0.2720	0.0516	0.12	7652	6.737	0.00
12.17	5.5299	0.2155	0.3236	0.0516	0.15	9706	6.953	0.00
12.25	5.7454	0.2155	0.3752	0.0516	0.19	11824	7.169	0.00
12.33	5.8436	0.0902	0.4024	0.0272	0.22	13930	6.069	0.00
12.42	5.9416	0.0901	0.4296	0.0272	0.25	15945	6.568	0.00
12.50	6.0397	0.0900	0.4569	0.0272	0.28	17871	6.268	0.00
12.50	6.0984	0.0588	0.4743	0.0174	0.31	19698	5.916	0.00
12.67	6.1572	0.0588	0.4917	0.0174	0.34	21420	5.563	0.00
12.75	6.2160	0.0588	0.5091	0.0174	0.36	23036	5.211	0.00
12.83	6.2636	0.0476	0.5237	0.0146	0.39	24557	4.924	0.00
12.92	6.3112	0.0476	0.5304	0.0146	0.41	25991	4.637	0.00
13.00	6.3588	0.0476	0.5530	0.0146	0.43	27339	4.350	0.00
13.00	6.3980	0.0392	0.5655	0.0124	0.45	28613	4.144	0.00
13.17	6.4372	0.0392	0.5779	0.0124	0.47	29825	3.937	0.00
13.25	6.4764	0.0392	0.5904	0.0124	0.49	30976	3.731	0.00
13.33	6.5156	0.0392	0.6031	0.0128	0.51	32071	3.572	0.00
13.42	6.5548	0.0392	0.6159	0.0128	0.52	33119	3.413	0.00
13.50	6.5940	0.0392	0.6287	0.0128	0.54	34119	3.254	0.00
13.58	6.6248	0.0308	0.6389	0.0103	0.56	35076	3.124	0.00
13.67	6.6556	0.0308	0.6492	0.0103	0.57	35993	2.993	0.00
13.75	6.6864	0.0308	0.6594	0.0103	0.58	36872	2.863	0.00
13.83	6.7172	0.0308	0.6699	0.0105	0.60	37716	2.766	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGS6 *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
13.92	6.7400	0.0300	0.6004	0.0105	0.61	30531	2.669	0.00
14.00	6.7700	0.0300	0.6900	0.0105	0.62	39317	2.572	0.00
14.00	6.8054	0.0266	0.7000	0.0092	0.63	40070	2.497	0.00
14.17	6.8320	0.0266	0.7092	0.0092	0.65	40015	2.421	0.00
14.25	6.8506	0.0266	0.7184	0.0092	0.66	41530	2.345	0.00
14.33	6.8852	0.0266	0.7277	0.0093	0.67	42224	2.281	0.00
14.42	6.9110	0.0266	0.7370	0.0093	0.68	42099	2.217	0.00
14.50	6.9304	0.0266	0.7463	0.0093	0.69	43554	2.153	0.00
14.58	6.9600	0.0224	0.7543	0.0080	0.70	44192	2.097	0.00
14.67	6.9832	0.0224	0.7623	0.0080	0.71	44013	2.040	0.00
14.75	7.0056	0.0224	0.7703	0.0080	0.72	45416	1.984	0.00
14.83	7.0200	0.0224	0.7783	0.0081	0.73	46005	1.944	0.00
14.92	7.0504	0.0224	0.7864	0.0081	0.74	46582	1.904	0.00
15.00	7.0720	0.0224	0.7945	0.0081	0.75	47147	1.863	0.00
15.00	7.0930	0.0210	0.8021	0.0077	0.76	47702	1.834	0.00
15.17	7.1140	0.0210	0.8090	0.0077	0.76	48240	1.804	0.00
15.25	7.1350	0.0210	0.8174	0.0077	0.77	48784	1.775	0.00
15.33	7.1560	0.0210	0.8251	0.0077	0.78	49312	1.744	0.00
15.42	7.1770	0.0210	0.8329	0.0077	0.79	49831	1.714	0.00
15.50	7.1980	0.0210	0.8406	0.0077	0.80	50341	1.684	0.00
15.58	7.2170	0.0182	0.8474	0.0060	0.80	50842	1.654	0.00
15.67	7.2352	0.0182	0.8542	0.0060	0.81	51333	1.623	0.00
15.75	7.2534	0.0182	0.8609	0.0060	0.82	51815	1.592	0.00
15.83	7.2716	0.0182	0.8678	0.0060	0.83	52289	1.560	0.00
15.92	7.2890	0.0182	0.8746	0.0060	0.84	52756	1.543	0.00
16.00	7.3080	0.0182	0.8814	0.0060	0.84	53215	1.518	0.00
17.00	7.5812	0.1932	0.9555	0.0741	0.92	58315	1.315	0.00
18.00	7.6692	0.1600	1.0217	0.0662	0.99	62763	1.156	0.00
19.00	7.8204	0.1512	1.0020	0.0611	1.06	66730	1.052	0.00
20.00	7.9632	0.1420	1.1417	0.0589	1.11	70409	0.980	0.00
21.00	8.0000	0.1176	1.1911	0.0494	1.17	73787	0.889	0.00
22.00	8.1984	0.1176	1.2412	0.0501	1.22	76970	0.804	0.00
23.00	8.3077	0.1093	1.2005	0.0473	1.27	80025	0.809	0.00
24.00	8.4000	0.0923	1.3289	0.0404	1.31	82519	0.577	0.00

*** Basin: 3-W Tmax(hrs): 12.25 Qmax(cfs): 16.360 Vmax(in): 1.32

0.00	0.0000	0.0000	0.0000	0.0000	0.00	0	0.000	0.00
1.00	0.1000	0.1000	0.0000	0.0000	0.00	0	0.000	0.00
2.00	0.2100	0.1092	0.0000	0.0000	0.00	0	0.000	0.00
3.00	0.3267	0.1167	0.0000	0.0000	0.00	0	0.000	0.00
4.00	0.4536	0.1269	0.0000	0.0000	0.00	0	0.000	0.00
5.00	0.5964	0.1420	0.0000	0.0000	0.00	0	0.000	0.00
6.00	0.7476	0.1512	0.0000	0.0000	0.00	0	0.000	0.00
7.00	0.9239	0.1763	0.0000	0.0000	0.00	0	0.000	0.00
8.00	1.1256	0.2010	0.0000	0.0000	0.00	0	0.000	0.00
9.00	1.3776	0.2520	0.0000	0.0000	0.00	0	0.000	0.00
10.00	1.6884	0.3100	0.0000	0.0000	0.00	0	0.000	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGSG *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
10.00	1.7234	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.17	1.7504	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.25	1.7934	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.33	1.8204	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.42	1.8634	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.50	1.8904	0.0350	0.0000	0.0000	0.00	0	0.000	0.00
10.50	1.9432	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
10.67	1.9800	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
10.75	2.0320	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
10.83	2.0776	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
10.92	2.1224	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
11.00	2.1672	0.0448	0.0000	0.0000	0.00	0	0.000	0.00
11.00	2.2140	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.17	2.2624	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.25	2.3100	0.0476	0.0000	0.0000	0.00	0	0.000	0.00
11.33	2.4024	0.0924	0.0000	0.0000	0.00	0	0.000	0.00
11.42	2.4947	0.0924	0.0000	0.0000	0.00	23	0.151	0.00
11.50	2.5071	0.0924	0.0000	0.0000	0.00	155	0.733	0.00
11.50	2.9004	0.3133	0.0000	0.0000	0.00	463	1.316	0.00
11.67	3.2139	0.3135	0.0121	0.0121	0.01	1176	3.439	0.00
11.75	3.5274	0.3135	0.0299	0.0178	0.02	2635	6.207	0.00
11.83	4.0509	0.5235	0.0535	0.0236	0.04	4940	9.133	0.00
11.92	4.5749	0.5239	0.1299	0.0763	0.06	8112	11.959	0.00
12.00	5.0980	0.5239	0.2062	0.0763	0.10	12123	14.705	0.00
12.00	5.3143	0.2155	0.2690	0.0636	0.13	16769	16.106	0.00
12.17	5.5299	0.2155	0.3217	0.0519	0.17	21637	16.270	0.00
12.25	5.7454	0.2155	0.3736	0.0519	0.21	26531	16.355	0.00
12.33	5.8436	0.0902	0.4023	0.0206	0.25	31293	15.390	0.00
12.42	5.9416	0.0901	0.4294	0.0271	0.28	35755	14.357	0.00
12.50	6.0397	0.0900	0.4535	0.0241	0.32	39909	13.336	0.00
12.50	6.0904	0.0500	0.4723	0.0100	0.35	43760	12.336	0.00
12.67	6.1572	0.0500	0.4911	0.0100	0.37	47310	11.336	0.00
12.75	6.2160	0.0500	0.5074	0.0162	0.40	50500	10.512	0.00
12.83	6.2636	0.0476	0.5229	0.0155	0.42	53625	9.737	0.00
12.92	6.3112	0.0476	0.5300	0.0151	0.45	56436	9.005	0.00
13.00	6.3588	0.0476	0.5515	0.0135	0.47	59054	8.445	0.00
13.00	6.3900	0.0392	0.5649	0.0135	0.49	61503	7.805	0.00
13.17	6.4372	0.0392	0.5779	0.0129	0.50	63802	7.430	0.00
13.25	6.4764	0.0392	0.5904	0.0126	0.52	65977	7.062	0.00
13.33	6.5156	0.0392	0.6030	0.0126	0.54	68039	6.609	0.00
13.42	6.5540	0.0392	0.6153	0.0123	0.55	70001	6.300	0.00
13.50	6.5940	0.0392	0.6275	0.0123	0.57	71872	6.008	0.00
13.50	6.6240	0.0300	0.6309	0.0114	0.50	73650	5.815	0.00
13.67	6.6556	0.0300	0.6492	0.0103	0.59	75366	5.575	0.00
13.75	6.6864	0.0300	0.6595	0.0103	0.61	77003	5.335	0.00
13.83	6.7172	0.0300	0.6699	0.0104	0.62	78576	5.152	0.00
13.92	6.7480	0.0300	0.6803	0.0105	0.63	80095	4.977	0.00
14.00	6.7780	0.0300	0.6905	0.0101	0.64	81564	4.811	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Time Series - KINGSG *****

Time (hrs)	Sum Rain(in)	Inc Rain(in)	Sum Excess Rain(in)	Inc Excess Rain(in)	Volume (in)	Volume (cf)	Rate (cfs)	Velocity (fps)
14.00	6.8054	0.0266	0.6998	0.0093	0.66	82985	4.668	0.00
14.17	6.8320	0.0266	0.7091	0.0093	0.67	84364	4.524	0.00
14.25	6.8586	0.0266	0.7184	0.0093	0.68	85704	4.405	0.00
14.33	6.8852	0.0266	0.7277	0.0093	0.69	87008	4.294	0.00
14.42	6.9118	0.0266	0.7369	0.0092	0.70	88280	4.183	0.00
14.50	6.9384	0.0266	0.7454	0.0086	0.71	89519	4.075	0.00
14.58	6.9600	0.0224	0.7540	0.0086	0.72	90725	3.967	0.00
14.67	6.9832	0.0224	0.7623	0.0083	0.73	91901	3.872	0.00
14.75	7.0056	0.0224	0.7703	0.0080	0.73	93050	3.788	0.00
14.83	7.0280	0.0224	0.7783	0.0080	0.74	94174	3.703	0.00
14.92	7.0504	0.0224	0.7863	0.0080	0.75	95275	3.641	0.00
15.00	7.0728	0.0224	0.7942	0.0080	0.76	96358	3.579	0.00
15.08	7.0930	0.0210	0.8021	0.0078	0.77	97424	3.524	0.00
15.17	7.1140	0.0210	0.8097	0.0077	0.78	98474	3.479	0.00
15.25	7.1350	0.0210	0.8174	0.0077	0.79	99511	3.434	0.00
15.33	7.1560	0.0210	0.8251	0.0077	0.79	100533	3.382	0.00
15.42	7.1770	0.0210	0.8329	0.0077	0.80	101540	3.328	0.00
15.50	7.1980	0.0210	0.8404	0.0075	0.81	102530	3.273	0.00
15.58	7.2170	0.0182	0.8473	0.0069	0.82	103502	3.211	0.00
15.67	7.2352	0.0182	0.8541	0.0069	0.82	104456	3.149	0.00
15.75	7.2534	0.0182	0.8609	0.0068	0.83	105393	3.096	0.00
15.83	7.2716	0.0182	0.8678	0.0068	0.84	106315	3.049	0.00
15.92	7.2898	0.0182	0.8745	0.0068	0.85	107223	3.003	0.00
16.00	7.3080	0.0182	0.8811	0.0066	0.85	108117	2.961	0.00
17.00	7.5012	0.1932	0.9555	0.0744	0.93	118114	2.593	0.00
18.00	7.6692	0.1680	1.0220	0.0665	1.00	126902	2.289	0.00
19.00	7.8204	0.1512	1.0831	0.0611	1.06	134778	2.086	0.00
20.00	7.9632	0.1428	1.1417	0.0505	1.12	142062	1.960	0.00
21.00	8.0000	0.1176	1.1911	0.0494	1.17	148769	1.766	0.00
22.00	8.1984	0.1176	1.2412	0.0501	1.22	155136	1.771	0.00
23.00	8.3077	0.1093	1.2885	0.0473	1.27	161212	1.604	0.00
24.00	8.4000	0.0923	1.3239	0.0355	1.31	165625	0.848	0.00

BASIN NO. 3
STAGE-STORAGE CALCULATIONS

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 3-A

RETENTION POND # 3-A

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
162.00	0.47	0.50
163.00	0.53	0.50
164.00	0.60	1.065
165.00	0.67	1.700
166.00	0.74	2.405
167.00	0.81	3.180
168.00	0.88	4.025
169.00	0.96	4.945
170.00	1.04	5.945

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
 350 North Sinclair Avenue
 Tavares, Florida 32778
 (352) 343-8481

JOB KINGS RIDGE
 SHEET NO. _____ OF _____
 CALCULATED BY TWL DATE _____
 CHECKED BY _____ DATE _____
 SCALE _____

BASIN No. 3-A2

RETENTION POND # 3-A2

<u>STAGE (FT.)</u>	<u>AREA (AC.)</u>	<u>STORAGE (AC.-FT.)</u>
164.00	1.32	0
165.00	1.48	1.40
166.00	1.65	2.97
167.00	1.82	4.71
168.00	2.00	6.62
169.00	2.19	8.72
170.00	2.38	11.01
171.00	2.57	13.49
172.00 - D.H.W. -	2.78	TOP OF HDPE LINER - 16.17
173.00	2.98	19.05
174.00	3.20	22.14
175.00	3.41	25.45

JOB KINGS RIDGE

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

SHEET NO. _____ OF _____

CALCULATED BY TWL DATE _____

CHECKED BY _____ DATE _____

SCALE _____

BASIN No. 3-B

RETENTION POND # 3-B

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac - Ft.)</u>
130.00	0.21	0
131.00	0.26	0.235
132.00	0.31	0.520
133.00	0.36	0.855
134.00	0.42	1.245
135.00	0.48	1.695
136.00	0.55	2.210
137.00	0.61	2.790
138.00	0.68	3.435

JOB KINGS RIDGE

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

SHEET NO. _____ OF _____

CALCULATED BY TWL DATE _____

CHECKED BY _____ DATE _____

SCALE _____

BASIN No. 3-C

RETENTION POND # 3-C

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-FT.)</u>
133.00	0.61	0
134.00	0.67	0.64
135.00	0.74	1.345
136.00	0.80	2.115
137.00	0.87	2.950
138.00	0.94	3.855
139.00	1.02	4.835
140.00	1.09	5.890
141.00	1.17	7.020

FARNER, BARLEY & ASSOCIATES, INC.
Engineers & Land Surveyors
350 North Sinclair Avenue
TAVARES, FLORIDA 32778
(904) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

BASIN No. 3-D

RETENTION POND # 3-D

<u>STAGE (FT.)</u>	<u>AREA (Ac.)</u>	<u>STORAGE (Ac.-Ft.)</u>
114.00	1.00	0
115.00	1.10	1.050
116.00	1.19	2.195
117.00	1.29	3.435
118.00	1.39	4.775
119.00	1.49	6.215
120.00	1.59	7.755
121.00	1.70	9.400
122.00	1.81	11.155

BASIN NO. 3
25 YEAR - 24 HOUR POST-DEVELOPED
STORM ROUTING INPUT DATA

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 3-A Base Flow(cfs): 0 Init Stage(ft): 162
Group: BASR Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft)	Area(ac)
162	0.47
163	0.53
164	0.6
165	0.67
166	0.74
167	0.81
168	0.88
169	0.96
170	1.04

-----Class: Node-----

Name: 3-A2 Base Flow(cfs): 0 Init Stage(ft): 172
Group: BASR Length(ft): 0 Warn Stage(ft): 175
Comment:

Stage(ft)	Area(ac)
164	1.32
165	1.48
166	1.65
167	1.82
168	2
169	2.19
170	2.38
171	2.57
172	2.78
173	2.98
174	3.2
175	3.41

-----Class: Node-----

Name: 3-A3 Base Flow(cfs): 0 Init Stage(ft): 168
Group: BASR Length(ft): 0 Warn Stage(ft): 175
Comment:

Stage(ft)	Area(ac)
170	0
175	0

-----Class: Node-----

Name: 3-A4 Base Flow(cfs): 0 Init Stage(ft): 160
Group: BASR Length(ft): 0 Warn Stage(ft): 167
Comment:

Stage(ft)	Area(ac)
162	0
167	0

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----
Name: 3-A5 Base Flow(cfs): 0 Init Stage(ft): 146
Group: BASR Length(ft): 0 Warn Stage(ft): 153
Comment:

Stage(ft)	Area(ac)
140	0
153	0

-----Class: Node-----
Name: 3-B Base Flow(cfs): 0 Init Stage(ft): 130
Group: BASR Length(ft): 0 Warn Stage(ft): 130
Comment:

Stage(ft)	Area(ac)
130	0.21
131	0.26
132	0.31
133	0.36
134	0.42
135	0.48
136	0.55
137	0.61
138	0.68

-----Class: Node-----
Name: 3-C Base Flow(cfs): 0 Init Stage(ft): 133
Group: BASR Length(ft): 0 Warn Stage(ft): 141
Comment:

Stage(ft)	Area(ac)
133	0.61
134	0.67
135	0.74
136	0.8
137	0.87
138	0.94
139	1.02
140	1.09
141	1.17

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----
Name: 3-D Base Flow(cfs): 0 Init Stage(ft): 114
Group: BASE Length(ft): 0 Warn Stage(ft): 122
Comment:

Stage(ft)	Area(ac)
114	1
115	1.1
116	1.19
117	1.29
118	1.39
119	1.49
120	1.59
121	1.7
122	1.81

-----Class: Node-----
Name: 99 Base Flow(cfs): 0 Init Stage(ft): 118
Group: BASE Length(ft): 0 Warn Stage(ft): 122
Comment:

Time(hrs)	Stage(ft)
0	118
24	120

-----Class: Basin-----
Basin: 3-A Node: 3-A Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 8.4 Lag Time(hrs): 0
Time Increment(min): 5.1 Concentration Time(min): 10.2
Area(ac): 9.33 OCIA(%): 0
Curve #: 78

BASIN NO. 3-A POST DEVELOPED

-----Class: Basin-----
Basin: 3-A2 Node: 3-A2 Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 8.4 Lag Time(hrs): 0
Time Increment(min): 6 Concentration Time(min): 12
Area(ac): 5.72 DCIA(%): 0
Curve #: 74

BASIN NO. 3-A2 POST DEVELOPED

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Basin-----
Basin: 3-B Node: 3-B Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 0.4 Lag Time(hrs): 0
Time Increment(min): 9.3 Concentration Time(min): 10.6
 Area(ac): 27.98 DCIA(%): 0
 Curve #: 61

BASIN NO. 3-B POST DEVELOPED

-----Class: Basin-----
Basin: 3-C Node: 3-C Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 0.4 Lag Time(hrs): 0
Time Increment(min): 7.8 Concentration Time(min): 15.6
 Area(ac): 8.3 DCIA(%): 0
 Curve #: 80

BASIN NO. 3-C POST DEVELOPED

-----Class: Basin-----
Basin: 3-D Node: 3-D Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 0.4 Lag Time(hrs): 0
Time Increment(min): 8.4 Concentration Time(min): 16.0
 Area(ac): 21.21 DCIA(%): 0
 Curve #: 79

BASIN NO. 3-D POST DEVELOPED

-----Class: Basin-----
Basin: 3-E Node: 99 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 0.4 Lag Time(hrs): 0
Time Increment(min): 15 Concentration Time(min): 33.6
 Area(ac): 17.4 DCIA(%): 0
 Curve #: 39

BASIN NO. 3-E POST DEVELOPED

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Basin-----
Basin: 3-W Node: 99 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: PLMOD Storm Duration(hrs): 24
Rainfall Amount(in): 8.4 Lag Time(hrs): 0
Time Increment(min): 12.9 Concentration Time(min): 25.8
 Area(ac): 34.9 DCIA(%): 0
 Curve #: 39

BASIN NO. 3-W POST DEVELOPED

-----Class: Weir-----
Name: 1 From Node: 3-A2
Group: BASE To Node: 3-A
Count: 1

Type: Havis Flow: Both Geometry: Trapezoidal

 Bottom Width(ft): 15
 Left Side Slope(h/v): 6
 Right Side Slope(h/v): 6
 Invert(ft): 174
 Control Elev(ft): 174
Structure Opening(ft): 2 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
 Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 2 From Node: 3-A
Group: BASE To Node: 3-A3
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 168
Control Elev(ft): 168
Structure Opening(ft): 2
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

-----Class: Weir-----

Name: 3-D1 From Node: 3-D
Group: BASE To Node: 99
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 1
Right Side Slope(h/v): 1
Invert(ft): 120
Control Elev(ft): 120
Structure Opening(ft): 2
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

Advanced Interconnected Channel & Pond Routing (ICPR Ver 2.01) (7)
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KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Simulation-----

C:\ICPR2\KINGS4\KINGS6

Execution: Both

Header: KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

-----HYDRAULICS-----HYDROLOGY-----

Max Delta Z (ft): 0.1

Delta Z Factor: 0.01

Override Defaults: No

Time Step Optimizer: 10

Drop Structure Optimizer: 10

Sim Start Time(hrs): 0

Sim End Time(hrs): 24

Min Calc Time(sec): 0.5

Max Calc Time(sec): 60

To Hour: PInc(min):

10 60

16 5

24 60

To Hour: PInc(min):

10 60

16 5

24 60

-----GROUP SELECTIONS-----

+ BASE (05/20/96)

BASIN NO. 3
25YR/24HR POST-DEVELOPED
STORM ROUTING NODE - TIME SERIES WITH NODE MAXIMUMS

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Maximum Conditions - KING36 *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
3-A	BASE	22.00	168.10	170.00	0.0009	30667.64	11.92	30.97	21.00	1.02
3-A2	BASE	24.00	172.07	175.00	0.0001	120704.35	11.92	21.02	0.00	0.00
3-A3	BASE	22.01	168.06	175.00	0.0005	1956.79	21.00	1.02	22.02	1.02
3-A4	BASE	22.02	160.04	167.00	0.0004	3114.57	22.02	1.02	22.02	1.02
3-A5	BASE	22.04	146.05	153.00	0.0006	2710.40	22.02	1.02	22.04	1.02
3-B	BASE	12.30	136.60	130.00	0.0013	27235.59	12.00	50.66	12.30	44.87
3-C	BASE	24.00	130.29	141.00	0.0007	41952.93	12.00	29.97	0.00	0.00
3-D	BASE	13.20	120.67	122.00	0.0010	72493.20	12.24	97.00	13.20	24.11
99	BASE	24.00	120.00	122.00	0.0014	0.00	13.10	35.07	0.00	0.00

PEAK DISCHARGE + RUNOFF
 OFFSITE FROM BASIN
 3-D, 3-E & 3-W.

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGS6 *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----				Link	
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Badry Q (cfs)	Link Q (cfs)	Outflow (cfs)
*** Group: BASR			Node: 3-A					
0.000	162.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
1.016	162.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
2.016	162.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
3.016	162.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
4.016	162.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
5.016	162.00	0.47	0.00	0.02	0.00	0.00	0.00	0.00
6.016	162.02	0.47	0.00	0.16	0.00	0.00	0.00	0.00
7.006	162.06	0.47	0.00	0.35	0.00	0.00	0.00	0.00
8.004	162.14	0.48	0.00	0.58	0.00	0.00	0.00	0.00
9.004	162.28	0.49	0.00	0.99	0.00	0.00	0.00	0.00
10.001	162.49	0.50	0.00	1.59	0.00	0.00	0.00	0.00
11.000	162.86	0.52	0.00	2.95	0.00	0.00	0.00	0.00
11.004	162.90	0.52	0.00	3.06	0.00	0.00	0.00	0.00
11.167	162.94	0.53	0.00	3.30	0.00	0.00	0.00	0.00
11.250	162.99	0.53	0.00	3.95	0.00	0.00	0.00	0.00
11.334	163.04	0.53	0.00	4.86	0.00	0.00	0.00	0.00
11.417	163.12	0.54	0.00	6.35	0.00	0.00	0.00	0.00
11.500	163.22	0.55	0.00	9.99	0.00	0.00	0.00	0.00
11.503	163.38	0.56	0.00	15.13	0.00	0.00	0.00	0.00
11.667	163.59	0.57	0.00	20.12	0.00	0.00	0.00	0.00
11.750	163.87	0.59	0.00	26.56	0.00	0.00	0.00	0.00
11.833	164.22	0.62	0.00	34.05	0.00	0.00	0.00	0.00
11.917	164.62	0.64	0.00	38.97	0.00	0.00	0.00	0.00
12.000	165.02	0.67	0.00	37.50	0.00	0.00	0.00	0.00
12.003	165.37	0.70	0.00	31.83	0.00	0.00	0.00	0.00
12.167	165.65	0.72	0.00	27.32	0.00	0.00	0.00	0.00
12.250	165.09	0.73	0.00	22.64	0.00	0.00	0.00	0.00
12.333	166.08	0.75	0.00	17.78	0.00	0.00	0.00	0.00
12.417	166.23	0.76	0.00	14.55	0.00	0.00	0.00	0.00
12.500	166.35	0.76	0.00	11.89	0.00	0.00	0.00	0.00
12.503	166.44	0.77	0.00	9.56	0.00	0.00	0.00	0.00
12.667	166.52	0.78	0.00	8.10	0.00	0.00	0.00	0.00
12.750	166.59	0.78	0.00	7.01	0.00	0.00	0.00	0.00
12.833	166.65	0.79	0.00	6.14	0.00	0.00	0.00	0.00
12.917	166.70	0.79	0.00	5.60	0.00	0.00	0.00	0.00
13.001	166.75	0.79	0.00	5.11	0.00	0.00	0.00	0.00
13.004	166.79	0.80	0.00	4.67	0.00	0.00	0.00	0.00
13.167	166.83	0.80	0.00	4.39	0.00	0.00	0.00	0.00
13.250	166.86	0.80	0.00	4.22	0.00	0.00	0.00	0.00
13.334	166.90	0.80	0.00	4.12	0.00	0.00	0.00	0.00
13.417	166.94	0.81	0.00	4.04	0.00	0.00	0.00	0.00
13.501	166.97	0.81	0.00	3.84	0.00	0.00	0.00	0.00
13.505	167.00	0.81	0.00	3.58	0.00	0.00	0.00	0.00
13.667	167.03	0.81	0.00	3.41	0.00	0.00	0.00	0.00
13.751	167.06	0.81	0.00	3.30	0.00	0.00	0.00	0.00
13.834	167.09	0.82	0.00	3.23	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KING06 *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Drdry Q (cfs)	Link Q (cfs)	
13.910	167.11	0.02	0.00	3.18	0.00	0.00	0.00	0.00
14.000	167.14	0.02	0.00	3.00	0.00	0.00	0.00	0.00
14.004	167.16	0.02	0.00	2.95	0.00	0.00	0.00	0.00
14.160	167.19	0.02	0.00	2.86	0.00	0.00	0.00	0.00
14.251	167.21	0.02	0.00	2.80	0.00	0.00	0.00	0.00
14.334	167.24	0.03	0.00	2.77	0.00	0.00	0.00	0.00
14.417	167.26	0.03	0.00	2.73	0.00	0.00	0.00	0.00
14.502	167.28	0.03	0.00	2.64	0.00	0.00	0.00	0.00
14.505	167.30	0.03	0.00	2.52	0.00	0.00	0.00	0.00
14.660	167.32	0.03	0.00	2.43	0.00	0.00	0.00	0.00
14.751	167.34	0.03	0.00	2.38	0.00	0.00	0.00	0.00
14.834	167.36	0.04	0.00	2.35	0.00	0.00	0.00	0.00
14.910	167.38	0.04	0.00	2.32	0.00	0.00	0.00	0.00
15.001	167.40	0.04	0.00	2.28	0.00	0.00	0.00	0.00
15.005	167.42	0.04	0.00	2.24	0.00	0.00	0.00	0.00
15.160	167.44	0.04	0.00	2.21	0.00	0.00	0.00	0.00
15.251	167.46	0.04	0.00	2.19	0.00	0.00	0.00	0.00
15.335	167.47	0.04	0.00	2.18	0.00	0.00	0.00	0.00
15.410	167.49	0.04	0.00	2.15	0.00	0.00	0.00	0.00
15.501	167.51	0.05	0.00	2.10	0.00	0.00	0.00	0.00
15.505	167.53	0.05	0.00	2.02	0.00	0.00	0.00	0.00
15.667	167.54	0.05	0.00	1.96	0.00	0.00	0.00	0.00
15.753	167.56	0.05	0.00	1.93	0.00	0.00	0.00	0.00
15.835	167.57	0.05	0.00	1.91	0.00	0.00	0.00	0.00
15.917	167.59	0.05	0.00	1.89	0.00	0.00	0.00	0.00
16.002	167.60	0.05	0.00	1.85	0.00	0.00	0.00	0.00
17.003	167.77	0.06	0.00	1.60	0.00	0.00	0.00	0.00
18.001	167.91	0.07	0.00	1.35	0.00	0.00	0.00	0.00
19.002	168.03	0.08	0.00	1.21	0.00	0.00	0.00	0.16
20.002	168.09	0.09	0.00	1.14	0.00	0.00	0.00	0.37
21.002	168.10	0.09	0.00	1.02	0.00	0.00	0.00	1.02
22.001	168.10	0.09	0.00	1.03	0.00	0.00	0.00	1.02
23.003	168.09	0.09	0.00	0.89	0.00	0.00	0.00	0.96
24.000	168.00	0.09	0.00	0.00	0.00	0.00	0.00	0.72
24.004	168.00	0.09	0.00	0.00	0.00	0.00	0.00	0.72

*** Group: BASE Node: 3-A2

0.000	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
1.016	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
2.016	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
3.016	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
4.016	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
5.016	172.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00
6.016	172.00	2.70	0.00	0.02	0.00	0.00	0.00	0.00
7.006	172.00	2.70	0.00	0.11	0.00	0.00	0.00	0.00
8.004	172.01	2.70	0.00	0.23	0.00	0.00	0.00	0.00
9.004	172.02	2.70	0.00	0.44	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KING36 *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----				Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Body Q (cfs)		
10.001	172.03	2.79	0.00	0.76	0.00	0.00	0.00	0.00
11.000	172.07	2.79	0.00	1.51	0.00	0.00	0.00	0.00
11.004	172.07	2.79	0.00	1.57	0.00	0.00	0.00	0.00
11.167	172.08	2.80	0.00	1.73	0.00	0.00	0.00	0.00
11.250	172.08	2.80	0.00	2.05	0.00	0.00	0.00	0.00
11.334	172.09	2.80	0.00	2.47	0.00	0.00	0.00	0.00
11.417	172.09	2.80	0.00	3.10	0.00	0.00	0.00	0.00
11.500	172.10	2.80	0.00	5.03	0.00	0.00	0.00	0.00
11.503	172.12	2.80	0.00	7.90	0.00	0.00	0.00	0.00
11.667	172.14	2.01	0.00	10.79	0.00	0.00	0.00	0.00
11.750	172.17	2.81	0.00	14.29	0.00	0.00	0.00	0.00
11.833	172.21	2.82	0.00	18.11	0.00	0.00	0.00	0.00
11.917	172.26	2.83	0.00	21.02	0.00	0.00	0.00	0.00
12.000	172.31	2.04	0.00	20.76	0.00	0.00	0.00	0.00
12.003	172.36	2.85	0.00	17.89	0.00	0.00	0.00	0.00
12.167	172.40	2.86	0.00	15.53	0.00	0.00	0.00	0.00
12.250	172.43	2.87	0.00	13.18	0.00	0.00	0.00	0.00
12.333	172.46	2.87	0.00	10.92	0.00	0.00	0.00	0.00
12.417	172.49	2.88	0.00	8.99	0.00	0.00	0.00	0.00
12.500	172.50	2.88	0.00	7.41	0.00	0.00	0.00	0.00
12.503	172.52	2.88	0.00	6.08	0.00	0.00	0.00	0.00
12.667	172.53	2.89	0.00	5.14	0.00	0.00	0.00	0.00
12.750	172.55	2.89	0.00	4.44	0.00	0.00	0.00	0.00
12.833	172.56	2.89	0.00	3.90	0.00	0.00	0.00	0.00
12.917	172.56	2.89	0.00	3.50	0.00	0.00	0.00	0.00
13.001	172.57	2.89	0.00	3.16	0.00	0.00	0.00	0.00
13.004	172.58	2.90	0.00	2.88	0.00	0.00	0.00	0.00
13.167	172.59	2.90	0.00	2.69	0.00	0.00	0.00	0.00
13.250	172.59	2.90	0.00	2.56	0.00	0.00	0.00	0.00
13.334	172.60	2.90	0.00	2.48	0.00	0.00	0.00	0.00
13.417	172.60	2.90	0.00	2.41	0.00	0.00	0.00	0.00
13.501	172.61	2.90	0.00	2.29	0.00	0.00	0.00	0.00
13.505	172.62	2.90	0.00	2.14	0.00	0.00	0.00	0.00
13.667	172.62	2.90	0.00	2.04	0.00	0.00	0.00	0.00
13.751	172.62	2.90	0.00	1.97	0.00	0.00	0.00	0.00
13.834	172.63	2.91	0.00	1.93	0.00	0.00	0.00	0.00
13.918	172.63	2.91	0.00	1.89	0.00	0.00	0.00	0.00
14.000	172.64	2.91	0.00	1.83	0.00	0.00	0.00	0.00
14.004	172.64	2.91	0.00	1.75	0.00	0.00	0.00	0.00
14.168	172.65	2.91	0.00	1.70	0.00	0.00	0.00	0.00
14.251	172.65	2.91	0.00	1.66	0.00	0.00	0.00	0.00
14.334	172.65	2.91	0.00	1.64	0.00	0.00	0.00	0.00
14.417	172.66	2.91	0.00	1.62	0.00	0.00	0.00	0.00
14.502	172.66	2.91	0.00	1.57	0.00	0.00	0.00	0.00
14.505	172.67	2.91	0.00	1.49	0.00	0.00	0.00	0.00
14.668	172.67	2.91	0.00	1.45	0.00	0.00	0.00	0.00
14.751	172.67	2.91	0.00	1.41	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Badry Q (cfs)	Link Q (cfs)		
12.750	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12.833	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12.917	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.001	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.084	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.167	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.250	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.334	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.417	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.501	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.585	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.667	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.751	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.834	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13.918	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.000	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.084	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.168	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.251	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.334	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.417	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.502	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.585	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.668	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.751	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.834	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.918	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.001	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.085	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.168	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.251	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.335	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.418	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.501	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.585	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.667	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.753	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.835	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.917	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16.002	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
17.003	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18.001	160.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19.002	160.01	0.07	0.00	0.00	0.00	0.00	0.12	0.07	
20.002	160.03	0.07	0.00	0.00	0.00	0.00	0.06	0.05	
21.002	160.04	0.07	0.00	0.00	0.00	0.00	1.02	1.02	
22.001	160.04	0.07	0.00	0.00	0.00	0.00	1.02	1.02	
23.003	160.04	0.07	0.00	0.00	0.00	0.00	0.96	0.96	

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Hardy Q (cfs)	Link Q (cfs)		
24.000	160.03	0.07	0.00	0.00	0.00	0.00	0.73	0.74	
24.004	160.03	0.07	0.00	0.00	0.00	0.00	0.73	0.74	

*** Group: BASE Node: 3-A5

0.000	146.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
2.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
3.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
4.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
5.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
6.016	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
7.006	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
8.004	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
9.004	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
10.001	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.000	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.004	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.167	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.250	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.334	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.417	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.500	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.583	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.667	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.750	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.833	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.917	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.000	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.083	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.167	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.250	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.333	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.417	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.500	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.583	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.667	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.750	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.833	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.917	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.001	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.084	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.167	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.250	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.334	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.417	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.501	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.505	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Body Q (cfs)	Link Q (cfs)		
13.667	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
13.751	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
13.834	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
13.918	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.000	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.084	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.168	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.251	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.334	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.417	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.502	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.585	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.668	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.751	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.834	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
14.918	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.001	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.085	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.168	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.251	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.335	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.418	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.501	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.585	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.667	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.753	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.835	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
15.917	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
16.002	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
17.003	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
18.001	146.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
19.002	146.00	0.06	0.00	0.00	0.00	0.00	0.07	0.01	
20.002	146.04	0.06	0.00	0.00	0.00	0.00	0.05	0.04	
21.002	146.05	0.06	0.00	0.00	0.00	0.00	1.02	1.02	
22.001	146.05	0.06	0.00	0.00	0.00	0.00	1.02	1.02	
23.003	146.05	0.06	0.00	0.00	0.00	0.00	0.96	0.96	
24.000	146.04	0.06	0.00	0.00	0.00	0.00	0.74	0.74	
24.004	146.04	0.06	0.00	0.00	0.00	0.00	0.74	0.74	

*** Group: BASS Node: 3-8

0.000	130.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
1.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
2.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
3.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
4.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
5.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
6.016	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	-----Inflow-----					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Body Q (cfs)	Link Q (cfs)		
7.006	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	
8.004	130.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	
9.004	130.02	0.25	0.00	0.14	0.00	0.00	0.00	0.00	
10.001	130.21	0.25	0.00	0.98	0.00	0.00	0.00	0.00	
11.000	130.79	0.28	0.00	3.04	0.00	0.00	0.00	0.00	
11.004	130.87	0.29	0.00	3.42	0.00	0.00	0.00	0.00	
11.167	130.95	0.29	0.00	3.84	0.00	0.00	0.00	0.00	
11.250	131.05	0.30	0.00	4.63	0.00	0.00	0.00	0.00	
11.334	131.18	0.30	0.00	5.98	0.00	0.00	0.00	0.00	
11.417	131.34	0.31	0.00	9.23	0.00	0.00	0.00	0.00	
11.500	131.59	0.32	0.00	13.70	0.00	0.00	0.00	0.00	
11.503	131.94	0.34	0.00	20.27	0.00	0.00	0.00	0.00	
11.667	132.42	0.37	0.00	28.85	0.00	0.00	0.00	0.00	
11.750	133.04	0.40	0.00	39.44	0.00	0.00	0.00	0.00	
11.833	133.76	0.44	0.00	48.57	0.00	0.00	0.00	0.00	
11.917	134.55	0.49	0.00	56.88	0.00	0.00	0.00	0.00	
12.000	135.33	0.54	0.00	58.66	0.00	0.00	0.00	0.00	
12.003	136.04	0.59	0.00	58.59	0.00	0.00	0.00	0.72	
12.167	136.51	0.62	0.00	53.86	0.00	0.00	0.00	29.50	
12.250	136.66	0.62	0.00	48.66	0.00	0.00	0.00	43.23	
12.333	136.68	0.62	0.00	42.61	0.00	0.00	0.00	44.47	
12.417	136.64	0.62	0.00	36.85	0.00	0.00	0.00	41.02	
12.500	136.59	0.62	0.00	32.22	0.00	0.00	0.00	36.56	
12.503	136.55	0.62	0.00	27.95	0.00	0.00	0.00	32.23	
12.667	136.50	0.61	0.00	24.38	0.00	0.00	0.00	28.29	
12.750	136.46	0.61	0.00	21.36	0.00	0.00	0.00	24.86	
12.833	136.42	0.61	0.00	18.94	0.00	0.00	0.00	21.97	
12.917	136.39	0.61	0.00	16.94	0.00	0.00	0.00	19.55	
13.001	136.36	0.61	0.00	15.21	0.00	0.00	0.00	17.51	
13.004	136.34	0.60	0.00	13.89	0.00	0.00	0.00	15.82	
13.167	136.32	0.60	0.00	12.69	0.00	0.00	0.00	14.40	
13.250	136.30	0.60	0.00	11.93	0.00	0.00	0.00	13.26	
13.334	136.29	0.60	0.00	11.22	0.00	0.00	0.00	12.34	
13.417	136.28	0.60	0.00	10.61	0.00	0.00	0.00	11.59	
13.501	136.26	0.60	0.00	10.00	0.00	0.00	0.00	10.91	
13.505	136.25	0.60	0.00	9.42	0.00	0.00	0.00	10.28	
13.667	136.25	0.60	0.00	8.93	0.00	0.00	0.00	9.72	
13.751	136.24	0.60	0.00	8.57	0.00	0.00	0.00	9.23	
13.834	136.23	0.60	0.00	8.25	0.00	0.00	0.00	8.82	
13.918	136.22	0.60	0.00	7.96	0.00	0.00	0.00	8.46	
14.000	136.22	0.60	0.00	7.69	0.00	0.00	0.00	8.15	
14.004	136.21	0.60	0.00	7.41	0.00	0.00	0.00	7.86	
14.168	136.21	0.60	0.00	7.19	0.00	0.00	0.00	7.59	
14.251	136.20	0.60	0.00	7.00	0.00	0.00	0.00	7.35	
14.334	136.20	0.60	0.00	6.84	0.00	0.00	0.00	7.15	
14.417	136.20	0.60	0.00	6.67	0.00	0.00	0.00	6.96	
14.502	136.19	0.60	0.00	6.47	0.00	0.00	0.00	6.78	

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Badry Q (cfs)	Link Q (cfs)	
14.505	136.19	0.60	0.00	6.27	0.00	0.00	0.00	6.59
14.660	136.19	0.60	0.00	6.09	0.00	0.00	0.00	6.40
14.751	136.18	0.60	0.00	5.94	0.00	0.00	0.00	6.22
14.834	136.18	0.60	0.00	5.82	0.00	0.00	0.00	6.07
14.918	136.18	0.60	0.00	5.72	0.00	0.00	0.00	5.93
15.001	136.17	0.59	0.00	5.61	0.00	0.00	0.00	5.81
15.005	136.17	0.59	0.00	5.52	0.00	0.00	0.00	5.70
15.160	136.17	0.59	0.00	5.43	0.00	0.00	0.00	5.60
15.251	136.17	0.59	0.00	5.37	0.00	0.00	0.00	5.51
15.335	136.17	0.59	0.00	5.32	0.00	0.00	0.00	5.44
15.418	136.17	0.59	0.00	5.23	0.00	0.00	0.00	5.37
15.501	136.16	0.59	0.00	5.13	0.00	0.00	0.00	5.28
15.585	136.16	0.59	0.00	4.99	0.00	0.00	0.00	5.19
15.667	136.16	0.59	0.00	4.87	0.00	0.00	0.00	5.07
15.753	136.16	0.59	0.00	4.79	0.00	0.00	0.00	4.97
15.835	136.15	0.59	0.00	4.71	0.00	0.00	0.00	4.87
15.917	136.15	0.59	0.00	4.64	0.00	0.00	0.00	4.79
16.002	136.15	0.59	0.00	4.56	0.00	0.00	0.00	4.71
17.003	136.14	0.59	0.00	3.94	0.00	0.00	0.00	4.04
18.001	136.12	0.59	0.00	3.38	0.00	0.00	0.00	3.48
19.002	136.11	0.59	0.00	3.05	0.00	0.00	0.01	3.11
20.002	136.13	0.59	0.00	2.86	0.00	0.00	0.04	3.64
21.002	136.13	0.59	0.00	2.55	0.00	0.00	1.02	3.62
22.001	136.13	0.59	0.00	2.55	0.00	0.00	1.02	3.57
23.003	136.12	0.59	0.00	2.25	0.00	0.00	0.96	3.28
24.000	136.09	0.59	0.00	0.00	0.00	0.00	0.74	2.05
24.004	136.09	0.59	0.00	0.00	0.00	0.00	0.74	2.05

*** Group: BASE Node: 3-C

0.000	133.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
1.016	133.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
2.016	133.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
3.016	133.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
4.016	133.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
5.016	133.00	0.61	0.00	0.07	0.00	0.00	0.00	0.00
6.016	133.02	0.61	0.00	0.21	0.00	0.00	0.00	0.00
7.006	133.06	0.61	0.00	0.38	0.00	0.00	0.00	0.00
8.004	133.13	0.62	0.00	0.60	0.00	0.00	0.00	0.00
9.004	133.23	0.62	0.00	0.98	0.00	0.00	0.00	0.00
10.001	133.40	0.63	0.00	1.53	0.00	0.00	0.00	0.00
11.000	133.67	0.65	0.00	2.76	0.00	0.00	0.00	0.00
11.004	133.70	0.65	0.00	2.92	0.00	0.00	0.00	0.00
11.167	133.74	0.65	0.00	3.19	0.00	0.00	0.00	0.00
11.250	133.77	0.66	0.00	3.71	0.00	0.00	0.00	0.00
11.334	133.81	0.66	0.00	4.60	0.00	0.00	0.00	0.00
11.417	133.87	0.66	0.00	6.30	0.00	0.00	0.00	0.00
11.500	133.95	0.67	0.00	9.13	0.00	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KING36 *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->				Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Wdry Q (cfs)	
11.503	134.06	0.67	0.00	12.62	0.00	0.00	0.00
11.667	134.21	0.68	0.00	17.23	0.00	0.00	0.00
11.750	134.41	0.70	0.00	22.33	0.00	0.00	0.00
11.833	134.65	0.72	0.00	27.63	0.00	0.00	0.00
11.917	134.93	0.73	0.00	29.79	0.00	0.00	0.00
12.000	135.20	0.75	0.00	29.97	0.00	0.00	0.00
12.083	135.47	0.77	0.00	28.01	0.00	0.00	0.00
12.167	135.70	0.78	0.00	24.88	0.00	0.00	0.00
12.250	135.90	0.79	0.00	21.64	0.00	0.00	0.00
12.333	136.00	0.81	0.00	18.37	0.00	0.00	0.00
12.417	136.22	0.82	0.00	15.60	0.00	0.00	0.00
12.500	136.34	0.82	0.00	13.89	0.00	0.00	0.00
12.583	136.44	0.83	0.00	11.05	0.00	0.00	0.00
12.667	136.53	0.84	0.00	9.43	0.00	0.00	0.00
12.750	136.60	0.84	0.00	8.07	0.00	0.00	0.00
12.833	136.66	0.85	0.00	7.10	0.00	0.00	0.00
12.917	136.71	0.85	0.00	6.28	0.00	0.00	0.00
13.001	136.76	0.85	0.00	5.58	0.00	0.00	0.00
13.084	136.81	0.86	0.00	5.07	0.00	0.00	0.00
13.167	136.84	0.86	0.00	4.65	0.00	0.00	0.00
13.250	136.88	0.86	0.00	4.35	0.00	0.00	0.00
13.334	136.91	0.86	0.00	4.14	0.00	0.00	0.00
13.417	136.95	0.87	0.00	3.93	0.00	0.00	0.00
13.501	136.98	0.87	0.00	3.71	0.00	0.00	0.00
13.585	137.01	0.87	0.00	3.58	0.00	0.00	0.00
13.667	137.03	0.87	0.00	3.31	0.00	0.00	0.00
13.751	137.06	0.87	0.00	3.18	0.00	0.00	0.00
13.834	137.08	0.88	0.00	3.08	0.00	0.00	0.00
13.918	137.11	0.88	0.00	2.98	0.00	0.00	0.00
14.000	137.13	0.88	0.00	2.88	0.00	0.00	0.00
14.084	137.15	0.88	0.00	2.78	0.00	0.00	0.00
14.168	137.17	0.88	0.00	2.68	0.00	0.00	0.00
14.251	137.19	0.88	0.00	2.63	0.00	0.00	0.00
14.334	137.21	0.88	0.00	2.57	0.00	0.00	0.00
14.417	137.23	0.89	0.00	2.51	0.00	0.00	0.00
14.502	137.25	0.89	0.00	2.43	0.00	0.00	0.00
14.585	137.27	0.89	0.00	2.35	0.00	0.00	0.00
14.668	137.29	0.89	0.00	2.28	0.00	0.00	0.00
14.751	137.31	0.89	0.00	2.22	0.00	0.00	0.00
14.834	137.32	0.89	0.00	2.18	0.00	0.00	0.00
14.918	137.34	0.89	0.00	2.14	0.00	0.00	0.00
15.001	137.36	0.89	0.00	2.10	0.00	0.00	0.00
15.085	137.37	0.90	0.00	2.06	0.00	0.00	0.00
15.168	137.39	0.90	0.00	2.03	0.00	0.00	0.00
15.251	137.40	0.90	0.00	2.01	0.00	0.00	0.00
15.335	137.42	0.90	0.00	1.99	0.00	0.00	0.00
15.418	137.43	0.90	0.00	1.96	0.00	0.00	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----inflow-----					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Dry Q (cfs)	Link Q (cfs)		
15.501	137.45	0.90	0.00	1.92	0.00	0.00	0.00	0.00	
15.505	137.46	0.90	0.00	1.86	0.00	0.00	0.00	0.00	
15.667	137.48	0.90	0.00	1.82	0.00	0.00	0.00	0.00	
15.753	137.49	0.90	0.00	1.78	0.00	0.00	0.00	0.00	
15.835	137.51	0.91	0.00	1.76	0.00	0.00	0.00	0.00	
15.917	137.52	0.91	0.00	1.73	0.00	0.00	0.00	0.00	
16.002	137.53	0.91	0.00	1.70	0.00	0.00	0.00	0.00	
17.003	137.67	0.92	0.00	1.46	0.00	0.00	0.00	0.00	
18.001	137.80	0.93	0.00	1.24	0.00	0.00	0.00	0.00	
19.002	137.98	0.93	0.00	1.11	0.00	0.00	0.00	0.00	
20.002	137.99	0.94	0.00	1.04	0.00	0.00	0.00	0.00	
21.002	138.08	0.95	0.00	0.93	0.00	0.00	0.00	0.00	
22.001	138.16	0.95	0.00	0.92	0.00	0.00	0.00	0.00	
23.003	138.24	0.96	0.00	0.81	0.00	0.00	0.00	0.00	
24.000	138.29	0.96	0.00	0.00	0.00	0.00	0.00	0.00	
24.004	138.29	0.96	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 3-0

0.000	114.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
1.016	114.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2.016	114.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
3.016	114.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
4.016	114.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
5.016	114.00	1.00	0.00	0.10	0.00	0.00	0.00	0.00
6.016	114.03	1.00	0.00	0.43	0.00	0.00	0.00	0.00
7.006	114.08	1.01	0.00	0.86	0.00	0.00	0.00	0.00
8.004	114.17	1.02	0.00	1.41	0.00	0.00	0.00	0.00
9.004	114.32	1.03	0.00	2.33	0.00	0.00	0.00	0.00
10.001	114.56	1.06	0.00	3.71	0.00	0.00	0.00	0.00
11.000	114.96	1.10	0.00	6.75	0.00	0.00	0.00	0.00
11.004	115.00	1.10	0.00	7.13	0.00	0.00	0.00	0.00
11.167	115.05	1.10	0.00	7.92	0.00	0.00	0.00	0.00
11.250	115.10	1.11	0.00	9.09	0.00	0.00	0.00	0.00
11.334	115.16	1.11	0.00	10.55	0.00	0.00	0.00	0.00
11.417	115.24	1.12	0.00	15.65	0.00	0.00	0.00	0.00
11.500	115.36	1.13	0.00	21.97	0.00	0.00	0.00	0.00
11.503	115.52	1.15	0.00	30.98	0.00	0.00	0.00	0.00
11.667	115.73	1.17	0.00	41.84	0.00	0.00	0.00	0.00
11.750	116.01	1.19	0.00	54.16	0.00	0.00	0.00	0.00
11.833	116.35	1.23	0.00	65.43	0.00	0.00	0.00	0.00
11.917	116.74	1.26	0.00	74.22	0.00	0.00	0.00	0.00
12.000	117.14	1.30	0.00	73.65	0.00	0.00	0.00	0.00
12.003	117.51	1.34	0.00	69.49	0.00	0.00	0.72	0.00
12.167	117.92	1.38	0.00	62.02	0.00	0.00	29.50	0.00
12.250	118.39	1.43	0.00	54.46	0.00	0.00	43.23	0.00
12.333	118.84	1.47	0.00	47.00	0.00	0.00	44.47	0.00
12.417	119.24	1.51	0.00	40.13	0.00	0.00	41.02	0.00

KINGS RIVER BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KING86 *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----				Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Body Q (cfs)		
12.500	119.50	1.55	0.00	34.87	0.00	0.00	36.56	0.00
12.503	119.87	1.50	0.00	28.88	0.00	0.00	32.23	0.00
12.667	120.12	1.60	0.00	24.89	0.00	0.00	28.29	1.72
12.750	120.31	1.62	0.00	21.34	0.00	0.00	24.86	7.42
12.833	120.45	1.64	0.00	18.79	0.00	0.00	21.97	13.03
12.917	120.55	1.65	0.00	16.59	0.00	0.00	19.55	17.52
13.001	120.61	1.66	0.00	14.80	0.00	0.00	17.51	20.69
13.004	120.65	1.66	0.00	13.42	0.00	0.00	15.82	22.65
13.167	120.67	1.66	0.00	12.20	0.00	0.00	14.40	23.70
13.250	120.67	1.66	0.00	11.45	0.00	0.00	13.26	24.88
13.334	120.67	1.66	0.00	10.76	0.00	0.00	12.34	24.04
13.417	120.67	1.66	0.00	10.19	0.00	0.00	11.59	23.71
13.501	120.66	1.66	0.00	9.60	0.00	0.00	10.91	23.18
13.505	120.65	1.66	0.00	9.03	0.00	0.00	10.20	22.52
13.667	120.63	1.66	0.00	8.59	0.00	0.00	9.72	21.79
13.751	120.62	1.66	0.00	8.21	0.00	0.00	9.23	21.01
13.834	120.60	1.66	0.00	7.94	0.00	0.00	8.82	20.26
13.918	120.59	1.65	0.00	7.67	0.00	0.00	8.46	19.52
14.000	120.57	1.65	0.00	7.40	0.00	0.00	8.15	18.82
14.084	120.56	1.65	0.00	7.12	0.00	0.00	7.86	18.16
14.168	120.55	1.65	0.00	6.87	0.00	0.00	7.59	17.50
14.251	120.54	1.65	0.00	6.71	0.00	0.00	7.35	16.91
14.334	120.52	1.65	0.00	6.55	0.00	0.00	7.15	16.36
14.417	120.51	1.65	0.00	6.40	0.00	0.00	6.96	15.85
14.502	120.50	1.65	0.00	6.20	0.00	0.00	6.78	15.37
14.505	120.49	1.64	0.00	6.00	0.00	0.00	6.59	14.91
14.668	120.48	1.64	0.00	5.81	0.00	0.00	6.40	14.47
14.751	120.47	1.64	0.00	5.67	0.00	0.00	6.22	14.05
14.834	120.47	1.64	0.00	5.56	0.00	0.00	6.07	13.65
14.918	120.46	1.64	0.00	5.45	0.00	0.00	5.93	13.29
15.001	120.45	1.64	0.00	5.36	0.00	0.00	5.81	12.95
15.005	120.44	1.64	0.00	5.26	0.00	0.00	5.70	12.63
15.168	120.44	1.64	0.00	5.18	0.00	0.00	5.60	12.33
15.251	120.43	1.64	0.00	5.11	0.00	0.00	5.51	12.06
15.335	120.42	1.64	0.00	5.05	0.00	0.00	5.44	11.82
15.418	120.42	1.64	0.00	4.98	0.00	0.00	5.37	11.59
15.501	120.41	1.64	0.00	4.87	0.00	0.00	5.28	11.37
15.585	120.41	1.63	0.00	4.75	0.00	0.00	5.19	11.16
15.667	120.40	1.63	0.00	4.63	0.00	0.00	5.07	10.94
15.753	120.40	1.63	0.00	4.54	0.00	0.00	4.97	10.72
15.835	120.39	1.63	0.00	4.47	0.00	0.00	4.87	10.52
15.917	120.39	1.63	0.00	4.40	0.00	0.00	4.79	10.32
16.002	120.38	1.63	0.00	4.32	0.00	0.00	4.71	10.13
17.003	120.34	1.63	0.00	3.70	0.00	0.00	4.04	8.45
18.001	120.31	1.62	0.00	3.16	0.00	0.00	3.48	7.24
19.002	120.28	1.62	0.00	2.83	0.00	0.00	3.11	6.36
20.002	120.28	1.62	0.00	2.64	0.00	0.00	3.64	6.10

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	-----Inflow-----				Link Q (cfs)	Link Q (cfs)	Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bedry Q (cfs)			
21.002	120.27	1.62	0.00	2.35	0.00	0.00	3.62	6.13	
22.001	120.27	1.62	0.00	2.35	0.00	0.00	3.57	5.96	
23.003	120.26	1.62	0.00	2.06	0.00	0.00	3.28	5.65	
24.000	120.22	1.61	0.00	0.00	0.00	0.00	2.05	4.38	
24.004	120.22	1.61	0.00	0.00	0.00	0.00	2.05	4.38	

*** Group: BASR Node: 99

0.000	118.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.016	118.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.016	118.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.016	118.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.016	118.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.016	118.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.016	118.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.006	118.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.004	118.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9.004	118.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.001	118.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.000	118.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.004	118.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.167	118.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.250	118.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.334	118.94	0.00	0.00	0.04	0.00	0.00	0.00	0.00
11.417	118.95	0.00	0.00	0.24	0.00	0.00	0.00	0.00
11.500	118.96	0.00	0.00	0.86	0.00	0.00	0.00	0.00
11.583	118.97	0.00	0.00	2.37	0.00	0.00	0.00	0.00
11.667	118.97	0.00	0.00	5.42	0.00	0.00	0.00	0.00
11.750	118.98	0.00	0.00	9.19	0.00	0.00	0.00	0.00
11.833	118.99	0.00	0.00	13.24	0.00	0.00	0.00	0.00
11.917	118.99	0.00	0.00	17.28	0.00	0.00	0.00	0.00
12.000	119.00	0.00	0.00	21.31	0.00	0.00	0.00	0.00
12.083	119.01	0.00	0.00	22.92	0.00	0.00	0.00	0.00
12.167	119.01	0.00	0.00	23.22	0.00	0.00	0.00	0.00
12.250	119.02	0.00	0.00	23.52	0.00	0.00	0.00	0.00
12.333	119.03	0.00	0.00	22.26	0.00	0.00	0.00	0.00
12.417	119.03	0.00	0.00	20.93	0.00	0.00	0.00	0.00
12.500	119.04	0.00	0.00	19.60	0.00	0.00	0.00	0.00
12.583	119.05	0.00	0.00	18.25	0.00	0.00	0.00	0.00
12.667	119.06	0.00	0.00	16.90	0.00	0.00	1.72	0.00
12.750	119.06	0.00	0.00	15.72	0.00	0.00	7.42	0.00
12.833	119.07	0.00	0.00	14.66	0.00	0.00	13.03	0.00
12.917	119.08	0.00	0.00	13.64	0.00	0.00	17.52	0.00
13.001	119.08	0.00	0.00	12.79	0.00	0.00	20.69	0.00
13.084	119.09	0.00	0.00	12.02	0.00	0.00	22.65	0.00
13.167	119.10	0.00	0.00	11.37	0.00	0.00	23.70	0.00
13.250	119.10	0.00	0.00	10.79	0.00	0.00	24.00	0.00
13.334	119.11	0.00	0.00	10.26	0.00	0.00	24.04	0.00

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Time Series by Node - KINGSG *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	{<-----Inflow----->}				Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Body Q (cfs)		
13.417	119.12	0.00	0.00	9.00	0.00	0.00	23.71	0.00
13.501	119.13	0.00	0.00	9.34	0.00	0.00	23.10	0.00
13.505	119.13	0.00	0.00	8.93	0.00	0.00	22.52	0.00
13.667	119.14	0.00	0.00	8.57	0.00	0.00	21.79	0.00
13.751	119.15	0.00	0.00	8.19	0.00	0.00	21.01	0.00
13.834	119.15	0.00	0.00	7.92	0.00	0.00	20.26	0.00
13.910	119.16	0.00	0.00	7.64	0.00	0.00	19.52	0.00
14.000	119.17	0.00	0.00	7.30	0.00	0.00	18.82	0.00
14.004	119.17	0.00	0.00	7.16	0.00	0.00	18.16	0.00
14.160	119.18	0.00	0.00	6.94	0.00	0.00	17.50	0.00
14.251	119.19	0.00	0.00	6.75	0.00	0.00	16.91	0.00
14.334	119.19	0.00	0.00	6.57	0.00	0.00	16.36	0.00
14.417	119.20	0.00	0.00	6.40	0.00	0.00	15.85	0.00
14.502	119.21	0.00	0.00	6.22	0.00	0.00	15.37	0.00
14.505	119.22	0.00	0.00	6.06	0.00	0.00	14.91	0.00
14.660	119.22	0.00	0.00	5.91	0.00	0.00	14.47	0.00
14.751	119.23	0.00	0.00	5.77	0.00	0.00	14.05	0.00
14.834	119.24	0.00	0.00	5.65	0.00	0.00	13.65	0.00
14.910	119.24	0.00	0.00	5.54	0.00	0.00	13.29	0.00
15.001	119.25	0.00	0.00	5.44	0.00	0.00	12.95	0.00
15.005	119.26	0.00	0.00	5.36	0.00	0.00	12.63	0.00
15.160	119.26	0.00	0.00	5.20	0.00	0.00	12.33	0.00
15.251	119.27	0.00	0.00	5.21	0.00	0.00	12.06	0.00
15.335	119.28	0.00	0.00	5.12	0.00	0.00	11.82	0.00
15.410	119.28	0.00	0.00	5.04	0.00	0.00	11.59	0.00
15.501	119.29	0.00	0.00	4.96	0.00	0.00	11.37	0.00
15.505	119.30	0.00	0.00	4.86	0.00	0.00	11.16	0.00
15.667	119.31	0.00	0.00	4.77	0.00	0.00	10.94	0.00
15.753	119.31	0.00	0.00	4.69	0.00	0.00	10.72	0.00
15.835	119.32	0.00	0.00	4.62	0.00	0.00	10.52	0.00
15.917	119.33	0.00	0.00	4.55	0.00	0.00	10.32	0.00
16.002	119.33	0.00	0.00	4.48	0.00	0.00	10.13	0.00
17.003	119.42	0.00	0.00	3.91	0.00	0.00	8.45	0.00
18.001	119.50	0.00	0.00	3.45	0.00	0.00	7.24	0.00
19.002	119.50	0.00	0.00	3.14	0.00	0.00	6.36	0.00
20.002	119.67	0.00	0.00	2.95	0.00	0.00	6.10	0.00
21.002	119.75	0.00	0.00	2.66	0.00	0.00	6.13	0.00
22.001	119.83	0.00	0.00	2.66	0.00	0.00	5.96	0.00
23.003	119.92	0.00	0.00	2.41	0.00	0.00	5.65	0.00
24.000	120.00	0.00	0.00	0.00	0.00	0.00	4.30	0.00
24.004	120.00	0.00	0.00	0.00	0.00	0.00	4.30	0.00

BASIN NO. 3
25 YEAR - 96 HOUR
POST DEVELOPED RUN-OFF HYDROGRAPH
INPUT DATA WITH BASIN SUMMARY

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Basin Summary - KINGS6 *****

Basin Name:	3-A	3-A2	3-B	3-C	3-D
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	3-A	3-A2	3-B	3-C	3-D
Hydrograph Type:	SB	SB	SB	SB	SB

Spec Time Inc (sec):	5.10	6.00	9.30	7.80	8.40
Comp Time Inc (sec):	5.10	6.00	9.30	7.80	8.40
Rainfall File:	SJRWND96	SJRWND96	SJRWND96	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	10.20	12.00	18.60	15.60	16.80
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	9.33	5.72	27.98	8.30	21.21
Curve Number:	78.00	74.00	61.00	80.00	79.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00

Time Max (hrs):	59.92	59.90	59.83	59.93	59.92
Flow Max (cfs):	47.09	26.88	85.36	36.30	90.07
Runoff Volume (in):	8.60	8.05	6.20	8.86	8.73
Runoff Volume (cf):	291136	167198	629785	267049	671968

Basin Name:	3-E	3-W
Group Name:	BASE	BASE
Node Name:	99	99
Hydrograph Type:	SB	SB

Spec Time Inc (sec):	15.00	12.90
Comp Time Inc (sec):	15.00	12.90
Rainfall File:	SJRWND96	SJRWND96
Rainfall Amount (in):	11.40	11.40
Storm Duration (hr):	96.00	96.00
Status:	ONSITE	ONSITE
Time of Conc. (min):	33.60	25.00
Lag Time (hr):	0.00	0.00
Area (acres):	17.40	34.90
Curve Number:	39.00	39.00
DCIA (%):	0.00	0.00

Time Max (hrs):	60.00	59.98
Flow Max (cfs):	17.23	39.30
Runoff Volume (in):	2.86	2.86
Runoff Volume (cf):	180728	362097

BASIN NO. 3
25 YEAR - 96 HOUR
POST DEVELOPED STORM ROUTING
INPUT DATA

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 3-A Base Flow(cfs): 0 Init Stage(ft): 162
Group: BASE Length(ft): 0 Warn Stage(ft): 170
Comment:

Stage(ft)	Area(ac)
162	0.47
163	0.53
164	0.6
165	0.67
166	0.74
167	0.81
168	0.88
169	0.96
170	1.04

-----Class: Node-----

Name: 3-A2 Base Flow(cfs): 0 Init Stage(ft): 172
Group: BASE Length(ft): 0 Warn Stage(ft): 175
Comment:

Stage(ft)	Area(ac)
164	1.32
165	1.48
166	1.65
167	1.82
168	2
169	2.19
170	2.38
171	2.57
172	2.78
173	2.98
174	3.2
175	3.41

-----Class: Node-----

Name: 3-A3 Base Flow(cfs): 0 Init Stage(ft): 168
Group: BASE Length(ft): 0 Warn Stage(ft): 175
Comment:

Stage(ft)	Area(ac)
170	0
175	0

-----Class: Node-----

Name: 3-A4 Base Flow(cfs): 0 Init Stage(ft): 160
Group: BASE Length(ft): 0 Warn Stage(ft): 167
Comment:

Stage(ft)	Area(ac)
162	0
167	0

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 3-A5 Base Flow(cfs): 0 Init Stage(ft): 146
Group: BASE Length(ft): 0 Warn Stage(ft): 153
Comment:

Stage(ft)	Area(ac)
148	0
153	0

-----Class: Node-----

Name: 3-B Base Flow(cfs): 0 Init Stage(ft): 130
Group: BASE Length(ft): 0 Warn Stage(ft): 138
Comment:

Stage(ft)	Area(ac)
130	0.21
131	0.26
132	0.31
133	0.36
134	0.42
135	0.48
136	0.55
137	0.61
138	0.68

-----Class: Node-----

Name: 3-C Base Flow(cfs): 0 Init Stage(ft): 133
Group: BASE Length(ft): 0 Warn Stage(ft): 141
Comment:

Stage(ft)	Area(ac)
133	0.61
134	0.67
135	0.74
136	0.8
137	0.87
138	0.94
139	1.02
140	1.09
141	1.17

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Node-----

Name: 3-D Base Flow(cfs): 0 Init Stage(ft): 114
Group: BASE Length(ft): 0 Warn Stage(ft): 122
Comment:

Stage(ft)	Area(ac)
114	1
115	1.1
116	1.19
117	1.29
118	1.39
119	1.49
120	1.59
121	1.7
122	1.81

-----Class: Node-----

Name: 99 Base Flow(cfs): 0 Init Stage(ft): 118
Group: BASE Length(ft): 0 Warn Stage(ft): 122
Comment:

Time(hrs)	Stage(ft)
0	118
24	120

-----Class: Basin-----

Basin: 3-A Node: 3-A Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 5.1 Concentration Time(min): 10.2
Area(ac): 9.33 DCIA(%): 0
Curve #: 78

BASIN NO. 3-A POST DEVELOPED

-----Class: Basin-----

Basin: 3-A2 Node: 3-A2 Status: On Site Type: Santa Barbara
Group: BASE
Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 6 Concentration Time(min): 12
Area(ac): 5.72 DCIA(%): 0
Curve #: 74

BASIN NO. 3-A2 POST DEVELOPED

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Basin-----

Basin: 3-B Node: 3-B Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 9.3 Concentration Time(min): 18.6
Area(ac): 27.98 DCIA(%): 0
Curve #: 61

BASIN NO. 3-B POST DEVELOPED

-----Class: Basin-----

Basin: 3-C Node: 3-C Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 7.8 Concentration Time(min): 15.6
Area(ac): 8.3 DCIA(%): 0
Curve #: 80

BASIN NO. 3-C POST DEVELOPED

-----Class: Basin-----

Basin: 3-D Node: 3-D Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 8.4 Concentration Time(min): 16.8
Area(ac): 21.21 DCIA(%): 0
Curve #: 79

BASIN NO. 3-D POST DEVELOPED

-----Class: Basin-----

Basin: 3-E Node: 99 Status: On Site Type: Santa Barbara
Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 15 Concentration Time(min): 33.6
Area(ac): 17.4 DCIA(%): 0
Curve #: 39

BASIN NO. 3-E POST DEVELOPED

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Basin-----
Basin: 3-W Node: 99 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.4 Lag Time(hrs): 0
Time Increment(min): 12.9 Concentration Time(min): 25.8
 Area(ac): 34.9 DCIA(%): 0
 Curve #: 39

BASIN NO. 3-W POST DEVELOPED

-----Class: Weir-----
Name: 1 From Node: 3-A2
Group: BASE To Node: 3-A
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

 Bottom Width(ft): 15
 Left Side Slope(h/v): 6
 Right Side Slope(h/v): 6
 Invert(ft): 174
 Control Elev(ft): 174
Structure Opening(ft): 2 TABLE
 Bottom Clip(ft): 0
 Top Clip(ft): 0
 Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Weir-----

Name: 2 From Node: 3-A
Group: BASE To Node: 3-A3
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 6
Right Side Slope(h/v): 6
Invert(ft): 168
Control Elev(ft): 168
Structure Opening(ft): 2
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

-----Class: Weir-----

Name: 3-D1 From Node: 3-D
Group: BASE To Node: 99
Count: 1

Type: Navis Flow: Both Geometry: Trapezoidal

Bottom Width(ft): 15
Left Side Slope(h/v): 1
Right Side Slope(h/v): 1
Invert(ft): 120
Control Elev(ft): 120
Structure Opening(ft): 2
Bottom Clip(ft): 0
Top Clip(ft): 0
Weir Discharge Coef: 2.8
Orifice Discharge Coef: 0.6

TABLE

Advanced Interconnected Channel & Pond Routing (ICPR Ver 2.01) [7]
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KINGS RIDGE BASIN NO. 3 POST-DEVELOPED

***** Input Report *****

-----Class: Simulation-----

C:\ICPR2\KINGS4\KINGS6

Execution: Both

Header: KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

-----HYDRAULICS-----HYDROLOGY-----

Max Delta Z (ft): 0.1

Delta Z Factor: 0.01

Override Defaults: No

Time Step Optimizer: 10

Drop Structure Optimizer: 10

Sim Start Time(hrs): 0

Sim End Time(hrs): 96

Min Calc Time(sec): 0.5

Max Calc Time(sec): 60

To Hour: PInc(min):

125 15

To Hour: PInc(min):

96 15

-----GROUP SELECTIONS-----

+ BASE [05/20/96]

BASIN NO. 3
25YR/96HR POST-DEVELOPED
NODE-MAXIMUM CONDITIONS

KINGS RIDGE BASIN NO. 3 POST DEVELOPED CONDITIONS

***** Node Maximum Conditions - KINGS6 *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
3-A	BASE	61.04	168.26	170.00	0.0008	39222.62	59.75	41.61	61.03	4.83
3-A2	BASE	96.00	173.32	175.00	0.0004	132846.47	60.00	23.44	0.00	0.00
3-A3	BASE	61.04	168.14	175.00	0.0004	2078.08	61.03	4.83	61.04	4.83
3-A4	BASE	61.05	160.10	167.00	0.0003	3291.72	61.04	4.83	61.06	4.83
3-A5	BASE	61.07	146.12	153.00	0.0004	2860.45	61.06	4.83	61.07	4.83
3-B	BASE	60.02	136.99	138.00	0.0010	28044.35	60.00	80.57	60.02	78.75
3-C	BASE	67.78	139.06	141.00	0.0006	44609.59	60.00	32.61	67.80	1.13
3-D	BASE	60.33	121.63	122.00	0.0011	77085.12	60.00	159.49	60.33	95.21
99	BASE	24.02	120.00	122.00	0.0014	0.00	60.27	136.65	0.00	0.00

BASIN NO. 3
WATER QUALITY REQUIREMENTS
AND RECOVERY ANALYSIS

RETENTION POND # 3-A

CONTRIBUTING DRAINAGE BASIN - #3-A (9.33 Ac.)

TOTAL = 9.33 Ac.

RESIDENTIAL AREA = 5.79 Ac. (65% imp.) = 3.76 Ac.

COMMERCIAL AREA = 1.70 Ac. (85% imp.) = 1.45 Ac.

IMPERVIOUS AREA = 1.04 Ac.
(ROADS) PAVT., RETENTION)

TOTAL IMPERVIOUS = 6.25 Ac. (66.99%)

TOTAL PERVIOUS = 3.08 Ac. (33.01%)

TOTAL = 9.33 Ac. (100%)

VOLUME REQ. = 1" x 9.33 Ac. = 0.78 Ac.- FT.

PONDS - Version 2.10
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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-A
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	60.00
Pond Bottom Elevation, [PB] (ft above datum):	162.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	152.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	33976.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2129
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	33976.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.2129
Total Recovered Volume, [V] (ft ³):	33976.80

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Engineers & Land Surveyors
350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND # 3-A2

CONTRIBUTING DRAINAGE BASIN - #3-A2 (5.72 Ac.)

TOTAL = 5.72 Ac.

(IMPERVIOUS AREA = 3.41 Ac.
RETENTION)

TOTAL IMPERVIOUS = 3.41 Ac. (59.62%)

TOTAL PERVIOUS = 2.31 Ac. (40.38%)

TOTAL = 5.72 Ac. (100%)

VOLUME REQ. = 1" x 5.72 Ac. = 0.48 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-A2
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	135.00
Equivalent Pond Width, [W] (ft):	135.00
Pond Bottom Elevation, [PB] (ft above datum):	172.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	162.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	20908.80
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0863
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	20908.80

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0863
Total Recovered Volume, [V] (ft ³):	20908.80

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350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND # 3-B & # 3-D

CONTRIBUTING DRAINAGE BASINS - #3-B (27.98 Ac.)
#3-D (21.21 Ac.)

TOTAL = 49.19 Ac.

RESIDENTIAL AREA = 26.53 Ac. (65% Imp.) = 17.24 Ac.

IMPERVIOUS AREA = 2.98 Ac.

TOTAL IMPERVIOUS = 20.22 Ac. (41.11%)

TOTAL PERVIOUS = 28.97 Ac. (58.89%)

TOTAL = 49.19 Ac. (100%)

VOLUME REQ. = 1" x 49.19 Ac. = 4.10 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-B
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	130.00
Equivalent Pond Width, [W] (ft):	50.00
Pond Bottom Elevation, [PB] (ft above datum):	130.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	120.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	96267.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	19500.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.6695
Recovered Volume From Saturated Flow, [V2] (ft ³):	76767.60
Maximum Radius Of Influence, [R] (ft):	92.44
Maximum Driving Head, [Hmax] (ft):	21.810
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.8950
Total Recovered Volume, [V] (ft ³):	96267.60

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-D
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	350.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	114.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	104.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	82328.40
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1360
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	82328.40

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1360
Total Recovered Volume, [V] (ft ³):	82328.40

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350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

JOB KINGS RIDGE
SHEET NO. _____ OF _____
CALCULATED BY TWL DATE _____
CHECKED BY _____ DATE _____
SCALE _____

RETENTION POND # 3-C

CONTRIBUTING DRAINAGE BASIN - # 3-C (8.30 Ac.)

TOTAL = 8.30 Ac.

RESIDENTIAL AREA = 7.13 Ac. (65% imp.) = 4.63 Ac.

IMPERVIOUS AREA = 1.17 Ac.
(RETENTION)

TOTAL IMPERVIOUS = 5.80 Ac. (69.88%)

TOTAL PERVIOUS = 2.50 Ac. (30.12%)

TOTAL = 8.30 Ac. (100%)

VOLUME REQ. = 1" x 8.30 Ac. = 0.69 Ac.-FT.

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-C
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	220.00
Equivalent Pond Width, [W] (ft):	140.00
Pond Bottom Elevation, [PB] (ft above datum):	133.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	123.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	30056.40
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0734
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	30056.40

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0734
Total Recovered Volume, [V] (ft ³):	30056.40

BASIN NO. 3
25YR/96HR POST-DEVELOPED
WATER QUANTITY RECOVERY ANALYSIS

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-A
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	60.00
Pond Bottom Elevation, [PB] (ft above datum):	162.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	152.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	175329.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	36000.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.6563
Recovered Volume From Saturated Flow, [V2] (ft ³):	139329.00
Maximum Radius Of Influence, [R] (ft):	120.32
Maximum Driving Head, [Hmax] (ft):	21.611
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.8819
Total Recovered Volume, [V] (ft ³):	175329.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-A2
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	135.00
Equivalent Pond Width, [W] (ft):	135.00
Pond Bottom Elevation, [PB] (ft above datum):	172.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	162.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	167706.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	54675.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.4667
Recovered Volume From Saturated Flow, [V2] (ft ³):	113031.00
Maximum Radius Of Influence, [R] (ft):	100.43
Maximum Driving Head, [Hmax] (ft):	16.202
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.6923
Total Recovered Volume, [V] (ft ³):	167706.00

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-B
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	130.00
Equivalent Pond Width, [W] (ft):	50.00
Pond Bottom Elevation, [PB] (ft above datum):	130.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	120.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	92267.60
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	19500.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.6224
Recovered Volume From Saturated Flow, [V2] (ft ³):	72767.60
Maximum Radius Of Influence, [R] (ft):	88.84
Maximum Driving Head, [Hmax] (ft):	21.195
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.8479
Total Recovered Volume, [V] (ft ³):	92267.60

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-D
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	350.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	114.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	104.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	337807.81
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	136500.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	1.6156
Recovered Volume From Saturated Flow, [V2] (ft ³):	201307.81
Maximum Radius Of Influence, [R] (ft):	112.29
Maximum Driving Head, [Hmax] (ft):	14.424
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	1.8412
Total Recovered Volume, [V] (ft ³):	337807.81

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Retention Pond Recovery Analysis

I. Job Information

Job Name: KINGS RIDGE RETENTION POND NO. 3-C
Engineer: TWL
Date: 5-24-96

II. Input Data

Equivalent Pond Length, [L] (ft):	220.00
Equivalent Pond Width, [W] (ft):	140.00
Pond Bottom Elevation, [PB] (ft above datum):	133.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	85.00
Water Table Elevation, [WT] (ft above datum):	123.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.30
Runoff Volume, [V] (cubic feet)	210612.59
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2256
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	92400.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.6251
Recovered Volume From Saturated Flow, [V2] (ft ³):	118212.59
Maximum Radius Of Influence, [R] (ft):	87.29
Maximum Driving Head, [Hmax] (ft):	13.838
Minimum Driving Head, [Hmin] (ft):	10.000

TOTAL

Total Recovery Time, [T] (days):	0.8507
Total Recovered Volume, [V] (ft ³):	210612.59

RATIONAL FORMULA

SS-1

STORM SEWER TABULATION FORM

SHEET NO.

DATE 5-23-96

PROJECT NO. 941216.017

ROAD KINGS RIDGE PH. IV

COUNTY LAKE

BY TWL

1 of 7

LOCATION OF UPPER END			STRUCTURE NO.	TYPE OF STRUCTURE	TYPE OF LINE	LENGTH (FT.)	DRAINAGE AREA (ACRES)			TIME OF CONCENTRATION (MIN.)	TIME OF FLOW IN SECTION (MIN.)	INTENSITY (I)	TOTAL (C.A.)	TOTAL RUNOFF (C.F.S.)-(C.I.A.)	INLET ELEVATION (FT.)	ELEV. OF H.G.			DIAMETER (IN.)	SLOPE (%)	VELOCITY (FPS)	CAPACITY (C.F.S.)	NOTES		
STATION	DIST.	SIDE					INCREMENT	SUB TOT.	SUB-TOTAL (C.A.)							UPPER END	LOWER END	FALL (FT.)					ZONE	FREQUENCY	YR.
						D-14				"E"	RCP	54.20	0.39	1.44	1.37				10	7.4	1.76	13.02			
						0.29	1.95	0.39	208.68	208.50				207.18	207.00										
			D-15	FLARED END	-	-									210.00								TAILWATER = 210.00		
			D-12	"E"	RCP	62.60	0.47	0.47	0.45	10	7.4	0.54	4.00	206.01	205.09	205.00		18	0.14	2.3	4.0				
						0.46	0.46	0.09	202.81						202.50								201.31	201.00	
			D-13	FLARED END	-	-									205.00								TAILWATER = 205.00		
			D-8	"E"	RCP	201.89	0.57	0.57	0.54	10	7.4	0.63	4.66	197.31	193.81	187.21		18	0.19	2.6	4.7				
						0.46	0.46	0.09	193.81						185.98								192.31	184.48	
			D-9	"E"	RCP	221.17	0.36	0.93	0.88	10	7.4	1.03	7.62	189.48	185.98	183.93		18	0.50	4.2	7.6				
						0.30	0.76	0.15	185.98						181.00								184.48	179.50	
			D-10	"E"	RCP	143.42	0.90	1.83	1.74	10	7.4	2.17	16.06	184.04	183.70	183.00		24	0.49	5.0	16.1				
						1.41	2.17	0.43	181.50						181.00								179.56	179.00	
			D-11	FLARED END	-	-									183.00								TAILWATER = 183.00		
			D-6	"E"	RCP	161.78	0.98	0.98	0.93	10	7.4	1.15	8.51	185.31	184.72	183.70		18	0.63	4.6	8.5				
						1.08	1.08	0.22	181.31						177.50								179.81	176.00	
			D-7	FLARED END	-	-									183.70								TAILWATER = 183.7		
			D-4	P-6	RCP	25.50	0.27	0.27	0.26	10	7.4	0.33	2.44	184.92	183.31	183.30		18	0.05	2.4	1.2				
						0.35	0.35	0.07	181.92						181.79								180.42	180.29	
			D-5	P-6	RCP	237.51	0.13	0.40	0.38	10	7.4	0.48	3.55	184.92	183.26	183.0		18	0.11	2.0	3.6				
						0.16	0.51	0.10	181.79						177.74								180.29	176.24	
																								TAILWATER = 183.00	

RATIONAL FORMULA

SS-1

DATE 5-23-96

PROJECT NO. 941216.017

STORM SEWER TABULATION FORM

ROAD KINGS RIDGE PH. IV

COUNTY LAKE

BY TWL

SHEET NO.

2 of 7

LOCATION OF UPPER END			STRUCTURE NO.	TYPE OF STRUCTURE	TYPE OF LINE	LENGTH (FT.)	DRAINAGE AREA (ACRES)			TIME OF CONCENTRATION (MIN.)	TIME OF FLOW IN SECTION (MIN.)	INTENSITY (I)	TOTAL (C.A.)	TOTAL RUNOFF (C.F.S.)-(C.I.A.)	INLET ELEVATION (FT.)	ELEV. OF H.G.			DIAMETER (IN.)	SLOPE (%)	VELOCITY (FPS)	CAPACITY (C.F.S.)	NOTES		
STATION	DIST	SIDE					C=		SUB-TOTAL (C.A.)							UPPER END	LOWER END	FALL (FT.)					ZONE	FREQUENCY	YR.
			0.95	0.20	REMARKS																				
			D-1	P-5	RCP	36.50	0.15 0.36	0.15 0.36	0.14 0.07	10	7.4	0.21	1.55	180.97	179.08 178.74 177.24	179.07 178.61 177.11		18	0.03 0.35	1.0 3.5	1.6 6.40				
			D-2	P-5	RCP	32.15	0.15 0.72	0.30 1.08	0.29 0.22	10	7.4	0.51	3.77	180.97	179.04 178.61 177.11	179.00 178.50 177.00		18	0.11 0.35	2.1 3.5	3.8 6.40		2.1	CFS TO INLET.	
			D-3	FLARED END	-	-									179.00 178.50 177.00									TAILWATER = 179.00	
			D-19	P-6	RCP	29.50	0.44 0.37	0.44 0.37	0.42 0.07	10	7.4	0.49	33.63	187.19	187.09 185.16 182.66	186.90 185.06 182.56		30	0.63 0.35	6.6 5.0	33.6 25.0		30.0	CFS FROM RETENTION POND * 1-MZ 3.6 CFS TO INLET.	
			D-20	P-6	RCP	117.37	0.20 0.25	0.64 0.62	0.61 0.12	10	7.4	0.73	35.40	187.19	186.55 185.06 182.56	185.73 184.65 182.15		30	0.70 0.35	6.8 5.0	35.4 25.0				
			D-21	MH	RCP	43.24	- -	0.64 0.62	0.61 0.12	10	7.4	0.73	35.40	188.25	185.30 184.65 182.15	185.00 184.50 182.00		30	0.70 0.35	6.8 5.0	35.4 25.0			TAILWATER = 185.00	
			D-23	"E"	RCP	164.15	0.40 0.32	0.40 0.32	0.38 0.06	10	7.4	0.44	3.26	191.14	187.64 187.64 186.14	185.00 183.56 182.00		18	0.10 2.52	1.8 9.2	3.3 17.0		3.3	CFS TO INLET.	
			D-24	FLARED END	-	-									185.00 183.50 182.00									TAILWATER = 185.00	
			D-25	"E"	RCP	274.59	1.03 0.73	1.03 0.73	0.98 0.15	10	7.4	1.13	8.36	191.83	188.33 188.33 186.83	183.70 177.50 176.00		18	0.60 3.94	4.6 11.8	8.4 22.0		8.4	CFS TO INLET	
			D-26	FLARED END	-	-									183.70 177.50 176.00									TAILWATER = 183.70	
			D-27	"E"	RCP	155.79	0.86 0.49	0.85 0.49	0.82 0.10	10	7.4	0.92	6.81	198.12	197.62 195.28 193.78	197.00 194.50 193.00		18	0.40 0.50	3.7 4.2	6.8 7.6			TAILWATER = 197.00	

RATIONAL FORMULA

SS-1

DATE 5-23-96

PROJECT NO. 941216.017

STORM SEWER TABULATION FORM

ROAD ~~ROAD~~ KINGS RIDGE PH. IV

COUNTY LAKE

BY TWL

SHEET NO. 5 of 7

LOCATION OF UPPER END			STRUCTURE NO.	TYPE OF STRUCTURE	TYPE OF LINE	LENGTH (FT.)	DRAINAGE AREA (ACRES)			TIME OF CONCENTRATION (MIN.)	TIME OF FLOW IN SECTION (MIN.)	INTENSITY (I)	TOTAL (C.A.)	TOTAL RUNOFF (C.F.S.)-(C.I.A.)	INLET ELEVATION (FT.)	ELEV. OF H.G.			DIAMETER (IN.)	SLOPE (%)	VELOCITY (FPS)	CAPACITY (C.F.S.)	NOTES		
							INCREMENT	SUB TOT.	SUB-TOTAL (C.A.)							CROWN ELEV.	UPPER END	LOWER END					FALL (FT.)	ZONE	FREQUENCY
STATION	DIST	SIDE	REMARKS																						
			D-47	"E"	RCP	150.23	1.10	1.10	1.05	15		6.4	1.27	8.13	225.53	222.89	222.00		18	0.59	4.5	8.1	8.1 CFS TO INLET.		
							1.11	1.11	0.22							222.25	221.50								
																220.75	220.00								
			D-48	FLARED END	-	-										222.00							TAILWATER = 222.0		
																221.50									
																220.00									
			D-54	"E"	RCP	286.33	0.63	0.63	0.60	10		7.4	0.68	5.03	241.67	238.67	235.99		18	0.22	2.8	5.1			
							0.39	0.39	0.08							238.67	235.24								
																237.17	233.74			1.20	6.4	11.8			
			D-55	"E"	RCP	286.33	0.65	1.28	1.22	10		7.4	1.38	10.21	238.71	235.67	232.98		18	0.94	5.7	10.2	5.1 CFS TO INLET.		
							0.39	0.78	0.16							235.24	231.80								
																233.74	230.30			1.20	6.4	11.8			
			D-56	"E"	RCP	274.03	1.10	6.17	5.86	10		7.4	6.57	48.62	236.10	232.34	228.50		30	1.40	9.5	48.6	7.8 AC. FUTURE RES. (65% IMP)		
							0.80	3.53	0.71							231.80	223.50						8.90 CFS TO INLET.		
																229.30	221.00			3.03	14.2	74.0			
			D-57	FLARED END	-	-										228.50							TAILWATER = 228.50		
																223.50									
																221.00									
			D-58	"E"	RCP	314.26	0.75	2.31	2.19	10		7.4	2.47	18.28	234.35	230.48	228.50		24	0.63	5.6	18.3	2.40 AC. FUTURE RES. (65% IMP)		
							0.54	1.38	0.28							228.05	223.00						6.1 CFS TO INLET		
																226.05	221.00			1.61	9.0	30.0			
			D-59	FLARED END	-	-										228.50							TAILWATER = 228.50		
																223.00									
																221.00									
			D-60	"E"	RCP	159.14	0.82	0.82	0.78	10		7.4	0.93	6.88	231.00	230.14	229.50		18	0.40	3.8	6.9	6.9 CFS TO INLET.		
							0.73	0.73	0.15							228.30	227.50								
																226.80	226.00			0.50	4.2	7.60			
			D-61	FLARED END	-	-										229.50							TAILWATER = 229.50		
																227.50									
																226.00									
			D-62	"E"	RCP	149.18	0.47	0.47	0.45	10		7.4	0.51	3.77	226.00	222.50	220.34		18	0.11	2.0	3.8	3.8 CFS TO INLET.		
							0.29	0.29	0.06							222.50	219.74								
																221.00	218.24			1.85	8.0	14.5			
			D-63	"E"	RCP	150.37	0.65	1.12	1.06	10		7.4	1.22	9.03	226.64	219.74	216.61		18	0.72	5.0	9.1	5.3 CFS TO INLET.		
							0.52	0.81	0.16							219.74	215.20								
																218.24	213.70			3.02	10.0	19.0			

RATIONAL FORMULA

SS-1

DATE 5-24-96

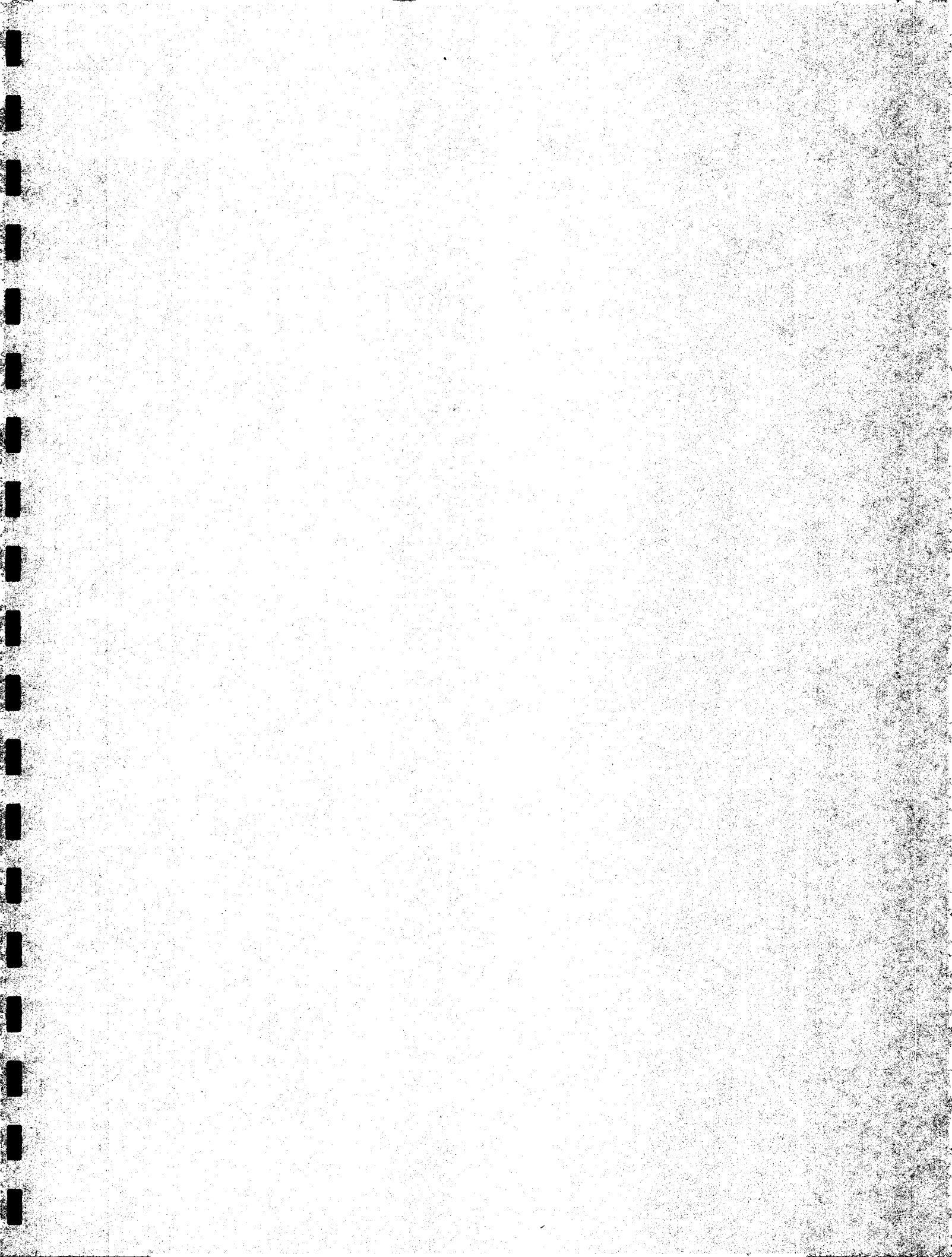
PROJECT NO. 941216.017

STORM SEWER TABULATION FORM
ROAD KINGS RIDGE PH. IV

COUNTY LAKE

BY TWL SHEET NO. 6 of 7

LOCATION OF UPPER END			STRUCTURE NO.	TYPE OF STRUCTURE	TYPE OF LINE	LENGTH (FT.)	DRAINAGE AREA (ACRES)			TIME OF CONCENTRATION (MIN.)	TIME OF FLOW IN SECTION (MIN.)	INTENSITY (I)	TOTAL (C.A.)	TOTAL RUNOFF (C.F.S.)(C.I.A.)	INLET ELEVATION (FT.)	ELEV. OF H.G.			DIAMETER (IN.)	SLOPE (%)	VELOCITY (FPS)	CAPACITY (C.F.S.)	NOTES				
STATION	DIST	SIDE					C= 0.95		SUB-TOTAL (C.A.)							UPPER END	LOWER END	FALL (FT.)					ZONE	FREQUENCY	YR.		
			INCREMENT	SUB TOT.	REMARKS																						
			D-64	MH	RCP	133.32	—	1.12	1.06	10	7.4	1.22	9.03	224.70	215.68	214.72		18	0.72	5.0	9.0						
			D-65	P-6	RCP	240.17	0.63	2.69	2.56	10	7.4	3.19	23.61	214.89	215.20	209.53		24	1.10	7.2	23.6				5.20 CFS TO INLET.		
			D-66	P-6	RCP	27.50	0.76	2.06	1.96	10	7.4	2.49	18.43	214.89	212.93	210.29		24	3.00	11.1	40.0				7.4 CFS TO INLET.		
			D-67	P-5	RCP	70.73	0.18	0.18	0.17	10	7.4	0.26	1.92	214.79	206.89	199.69		18	0.64	5.6	18.4				7.4 CFS TO INLET.		
			D-68	P-5	RCP	95.71	0.44	0.44	0.09	10	7.4	0.26	1.92	214.79	213.40	213.22		30	0.50	5.0	16.1				1.9 CFS TO INLET.		
			D-69	P-5	RCP	36.50	0.10	2.89	2.75	10	7.4	3.46	25.60	210.43	209.88	209.53		18	0.03	1.1	1.9				1.9 CFS TO INLET.		
			D-70	P-6	RCP	25.50	0.23	3.54	0.71	10	7.4	0.13	0.96	210.43	208.38	208.03		18	0.50	4.2	7.6				1.9 CFS TO INLET.		
			D-71	P-6	RCP	71.08	0.10	0.10	0.10	10	7.4	0.13	0.96	210.43	208.95	207.8		18	1.20	5.0	25.6				TAILWATER = 207.8		
			D-72	P-5	RCP	263.11	0.16	0.16	0.03	10	7.4	0.13	0.96	210.43	199.69	196.82		18	3.00	14.0	70.0				TAILWATER = 207.8		
			D-73	P-5	RCP	243.57	0.40	0.40	0.38	10	7.4	0.46	3.40	201.81	210.30	210.29		18	0.03	1.0	1.0				0.03	1.0	1.0
			D-74	P-5	RCP	36.50	0.38	0.38	0.08	10	7.4	0.46	3.40	201.81	207.93	207.75		18	0.50	4.2	7.6				0.50	4.2	7.6
			D-75	P-6	RCP	71.08	0.06	0.46	0.44	10	7.4	0.54	4.00	201.81	206.43	206.25		18	0.03	1.0	1.0				0.03	1.0	1.0
			D-76	P-5	RCP	263.11	0.12	0.50	0.10	10	7.4	0.54	4.00	201.81	199.02	198.99		18	0.10	1.9	3.4				0.10	1.9	3.4
			D-77	P-5	RCP	263.11	0.11	0.57	0.54	10	7.4	0.69	5.11	201.67	198.31	198.18		18	0.50	4.2	7.6				0.50	4.2	7.6
			D-78	P-5	RCP	263.11	0.26	0.76	0.15	10	7.4	0.69	5.11	201.67	198.77	198.67		18	0.14	2.1	4.0				0.14	2.1	4.0
			D-79	P-5	RCP	263.11	0.11	0.57	0.54	10	7.4	0.69	5.11	201.67	198.18	197.82		18	0.50	4.2	7.6				0.50	4.2	7.6
			D-80	P-5	RCP	263.11	0.26	0.76	0.15	10	7.4	0.69	5.11	201.67	198.45	182.08		18	0.24	2.8	5.1				0.24	2.8	5.1
			D-81	P-5	RCP	263.11	0.11	1.10	1.05	10	7.4	1.36	10.06	186.18	197.82	178.98		18	7.16	15.8	28.0				7.16	15.8	28.0
			D-82	P-5	RCP	263.11	0.24	1.56	0.31	10	7.4	1.36	10.06	186.18	196.32	177.48		18	0.90	5.6	10.1				0.90	5.6	10.1
			D-83	P-5	RCP	263.11	0.42	0.42	0.40	10	7.4	0.51	3.77	186.18	178.98	162.67		18	8.00	16.0	30.0				8.00	16.0	30.0
			D-84	P-5	RCP	263.11	0.56	0.56	0.11	10	7.4	0.51	3.77	186.18	177.48	157.99		18	0.12	2.1	3.8				0.12	2.1	3.8
			D-85	P-5	RCP	263.11	0.42	0.42	0.40	10	7.4	0.51	3.77	186.18	182.68	182.50		18	0.50	4.2	7.6				0.50	4.2	7.6
			D-86	P-5	RCP	263.11	0.56	0.56	0.11	10	7.4	0.51	3.77	186.18	182.68	182.50		18	0.50	4.2	7.6				0.50	4.2	7.6
			D-87	P-5	RCP	263.11	0.56	0.56	0.11	10	7.4	0.51	3.77	186.18	181.18	181.00		18	0.50	4.2	7.6				0.50	4.2	7.6





**LJ Nodarse
& Associates, Inc.**

October 12, 1994
Project No. 94G-0521

TO: FARNER BARLEY & ASSOCIATES
350 North Sinclair Avenue
Tavares, Florida 32778

ATTN: Mr. Bob Farner

RE: Report of Subsurface Exploration and Geotechnical Engineering Evaluation for
Proposed Stormwater Pond, Clermont Hills PUD, Lake County, Florida

Dear Mr. Farner:

L.J. Nodarse & Associates, Inc. (LJN) is pleased to present this report of our subsurface exploration and geotechnical engineering evaluation for the above-referenced project. This exploration was authorized by your acceptance of our proposal dated September 30, 1994. The purposes of this study were to explore subsurface conditions at the site and to use the data obtained to assist in design of the proposed stormwater retention facility. This report describes our exploration procedures, exhibits the data obtained, and presents our conclusions and recommendations regarding the geotechnical engineering aspects of site development.

PROJECT DESCRIPTION

The project site is located in Section 4, Township 23 South, Range 26 East in Lake County, Florida. More specifically, the project site is located in the southeast quadrant of the intersection of Highway 27 and Highway 50. We understand that stormwater runoff for the proposed subdivision will be conveyed to a stormwater pond located just south of Lake Felter. The proposed pond will have a bottom elevation of +123 NGVD and top of berm of approximately +135 NGVD. The purposes of this study were to obtain soil and groundwater data to assist in the design of the proposed stormwater pond.

Geotechnical, Environmental, & Materials Engineers

807 South Orlando Avenue ♦ Suite A ♦ Winter Park, Florida 32789 ♦ Telephone 407.740.6110 ♦ Facsimile 407.740.6112

SUBSURFACE EXPLORATION

For this study, a total of five (5) 25 foot deep machine auger borings were performed in the proposed pond. Horizontal and vertical control at the boring locations was established in the field by your surveyors. The approximate boring locations are shown on Figure 1 in the Appendix.

The machine auger borings were performed by hydraulically turning a 4 inch diameter continuous flight auger into the ground in 5 foot increments. Additional flights were added until the desired termination depth was achieved. The auger was then extracted without further rotation and representative soil samples were retrieved from the auger. Samples were visually classified in the field and then bagged and returned to our soils laboratory for further classification and testing.

GENERAL SUBSURFACE CONDITIONS

Subsurface conditions encountered in the borings are shown on the soil profile sheet in the Appendix. Descriptions of the soils encountered in the borings are accompanied by the Unified Soil Classification symbol (SP, SC, etc.) based on visual examination. Stratification boundaries between soil types should be considered approximate as the actual transition between soil types may be gradual.

In general, the borings encountered a surficial stratum of light brown to brown fine sand from the existing ground surface to depths ranging from 4.5 to 15 feet below the existing ground surface. The borings then encountered light orangish brown fine sand to the 25 foot termination depths of the borings. Please note that boring AB-3 also encountered a strata of orangish brown to reddish brown silty fine sand (SM) from 15 to 25 feet below the existing ground surface. The borings did not encounter any deleterious materials (i.e. muck or peat) to the 25 foot termination depth of the borings.

Groundwater levels measured in the open boreholes during our field exploration indicated that groundwater was not encountered to the 25 foot termination depth. Groundwater levels will fluctuate with the amount of local rainfall and with site development and, therefore, may be different at other times. Typical "wet season" groundwater levels for the site in its present condition are expected at or below 20 feet beneath the existing ground surface at the boring locations. However, changes in drainage characteristics due to site development or the installation and operation of irrigation systems may cause significant deviations from these anticipated "wet season" groundwater levels.

LABORATORY PERMEABILITY TEST RESULTS

Soil permeability samples were obtained from borings AB-1 and AB-3 at an approximate depth of 9 to 10 feet below the existing ground surface. Falling head laboratory permeability tests were performed on these samples in accordance with appropriate ASTM guidelines. The permeability test results indicate a coefficient of mean permeability of 23 and 35 feet per day for borings AB-1 and AB-3, respectively.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the project characteristics previously described, the data obtained in our field exploration and our experience with similar subsurface conditions and construction types. If final pond locations or grades are significantly different from those previously described, or if subsurface conditions different from those disclosed by the borings are encountered during construction, we should be notified immediately so that we might review the following recommendations in light of such changes.

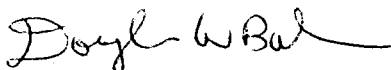
Based on the results of our subsurface exploration, it appears that the surficial soils encountered in the proposed ponds would be suitable for use as structural fill. Based on these soil and groundwater conditions and the laboratory permeability test results it appears that a dry bottom stormwater retention facility would be feasible at this site. Once final pond geometry and retention volumes are known LJM would be pleased to perform a volume recovery analysis if you so desire.

CLOSURE

LJM appreciates the opportunity to be of service to you on this project. If you should have any questions concerning the contents of this report, or if we may be of further assistance, please do not hesitate to contact us.

Very truly yours,

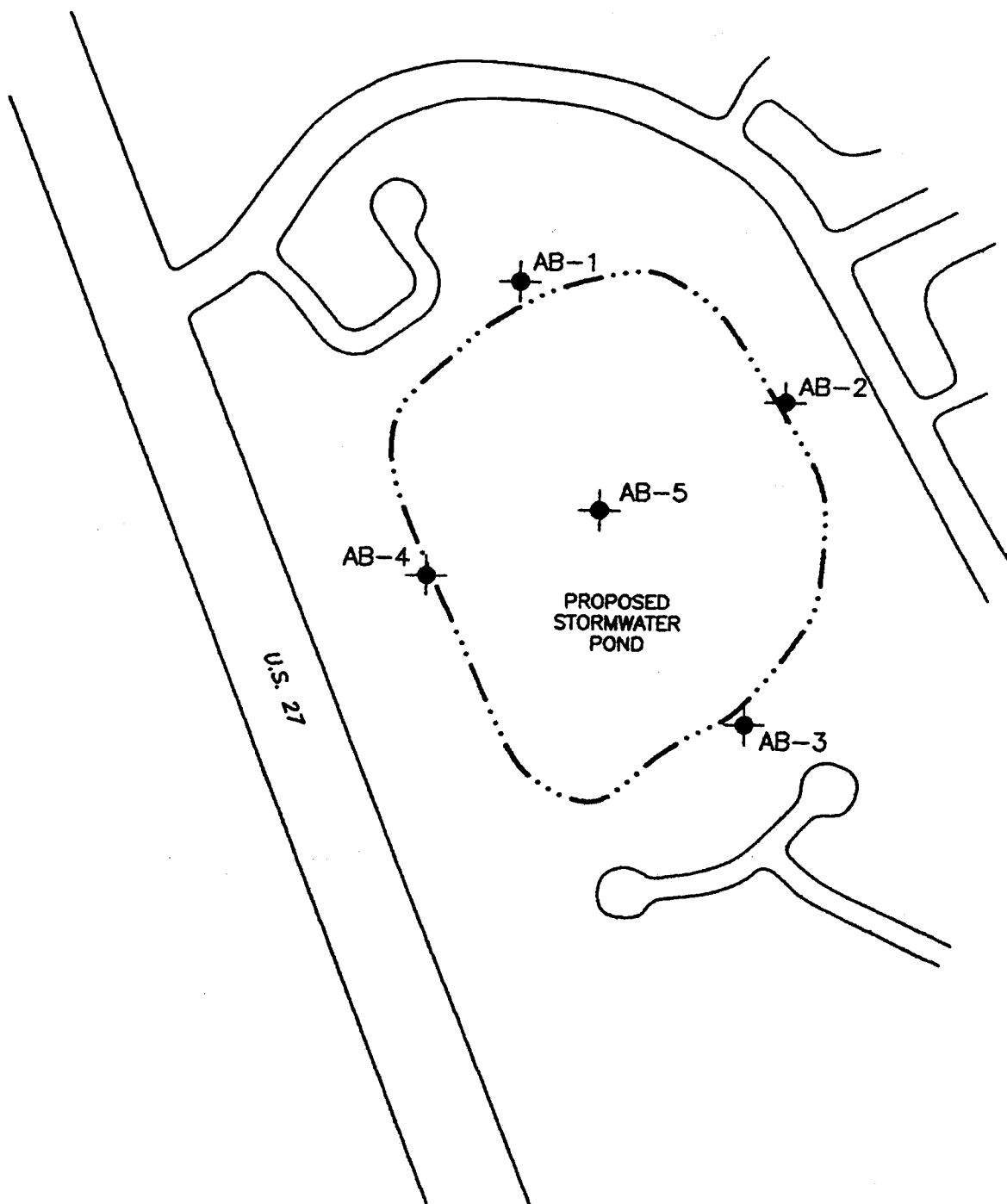
L.J. NODARSE & ASSOCIATES, INC.



Douglas W. Baker, E.I.
Project Engineer



Michael J. Preim, P.E.
Chief Engineer
FL Registration No. 24041



LEGEND

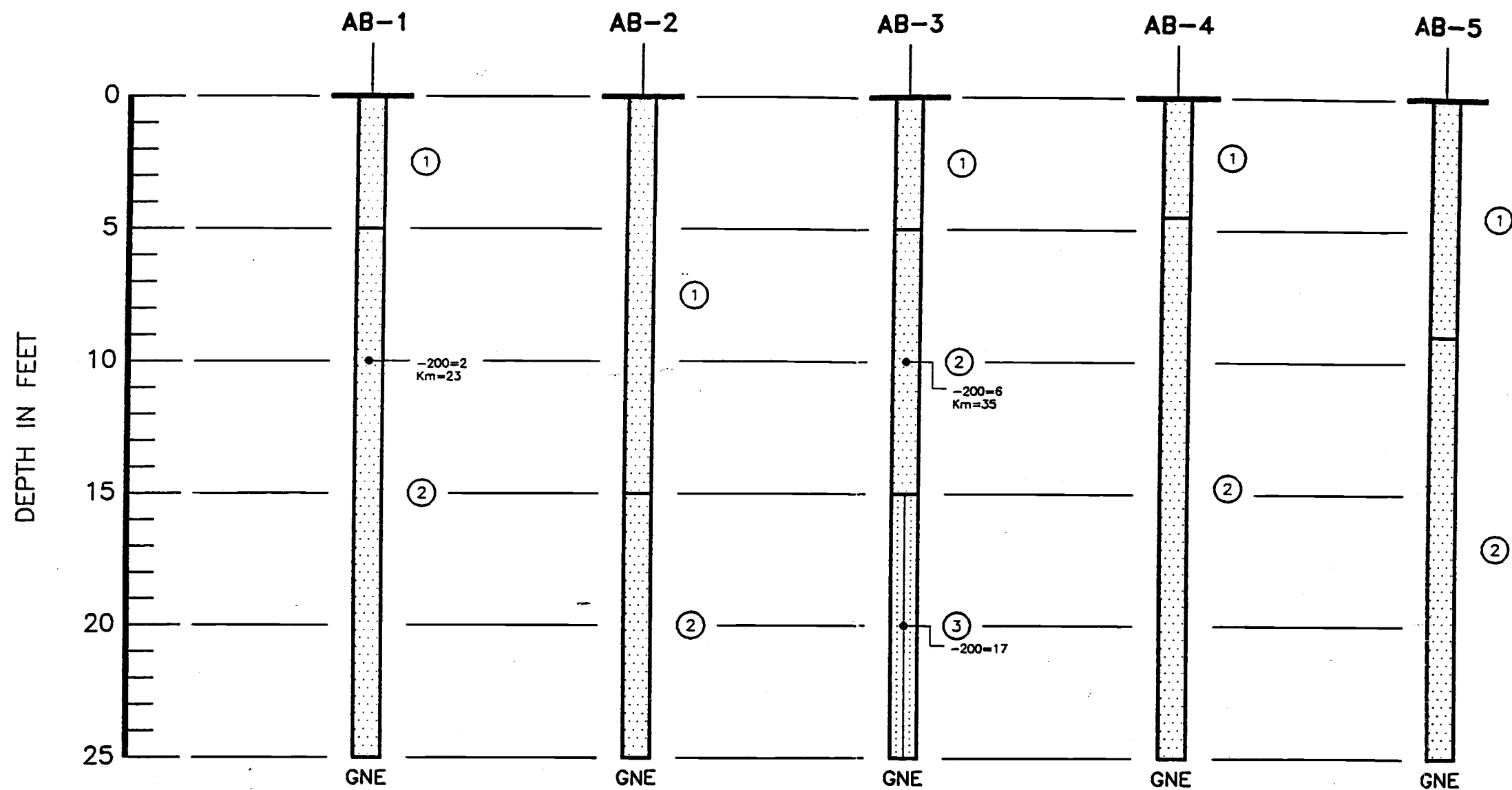
 APPROXIMATE LOCATION OF AUGER BORING

GEOTECHNICAL ENGINEERING EVALUATION
 PROPOSED STORMWATER POND
 CLERMONT HILLS P.U.D.
 LAKE COUNTY, FLORIDA

L.J. NODARSE & ASSOCIATES, INC.

DRAWN:	MG	SCALE:	1" = 200'	PROJ. NO:	94G-0521
CHKD:	DWB	DATE:	10-5-94	SHEET:	1

94G0521L.DWG



LEGEND

- ① LIGHT BROWN TO BROWN AND LIGHT GRAYISH-BROWN FINE SAND, (SP)
- ② LIGHT ORANGISH-BROWN FINE SAND, (SP)
- ③ ORANGISH-BROWN TO LIGHT REDDISH-BROWN SILTY FINE SAND, (SM)
- (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL AS DETERMINED BY VISUAL EXAMINATION
- GNE GROUNDWATER NOT ENCOUNTERED TO DEPTH OF BORING
- 200 FINES PASSING NO. 200 SIEVE (%)
- Km COEFFICIENT OF MEAN PERMEABILITY (FT/DAY)

SOIL PROFILES



GEOTECHNICAL ENGINEERING EVALUATION
 PROPOSED STORMWATER POND
 CLERMONT HILLS P.U.D.
 LAKE COUNTY, FLORIDA

LJ *LJ Nodarse & Associates, Inc.*

DRAWN: MG	SCALE: NOTED	PROJ. NO: 94G-0521
CHKD: DWB	DATE: 10-5-94	SHEET: 2

94G-0521.DWG

**Report of Subsurface Exploration &
Geotechnical Engineering Evaluation,
Existing Depression Areas, Kings Point
Subdivision (formerly Clermont Hills),
Lake County, Florida**



**LJ Nodarse
& Associates, Inc.**

February 14, 1995
Project No. 94G-0432

TO: LENNAR HOMES
1110 Douglas Avenue, Suite 240
Altamonte Springs, Florida 32714

ATTN: Mr. Marshall Ames
Mr. Sal Orlando

RE: Report of Subsurface Exploration and Geotechnical Engineering Evaluation for Existing Depression Areas, Kings Point Subdivision (Formerly Clermont Hills), Lake County, Florida

Gentlemen:

At your request and per our proposal dated December 16, 1994, L.J. Nodarse & Associates (LJN) has completed a subsurface exploration of the four (4) existing on-site depression areas at the above referenced project. The purpose of this study is to address the Lake County Comprehensive Plan Policy 1-2.5 regarding the use of the depressions (sinkholes) for stormwater retention. This report presents the results of our field exploration along with an evaluation of the soil and groundwater conditions encountered.

PROJECT LOCATION & DESCRIPTION

The Kings Point site is located off U.S. Highway 27 within Section 4, Township 23 South and Range 26 East in Clermont, Lake County, Florida. The site topography varies significantly from +225 ft NGVD at the northeast to about +125 ft. NGVD at the southwest. Several localized depression areas are located across the site. This study was directed at the four (4) depressions shown on Sheet 1 which are proposed for stormwater retention. We understand that the subject site was a citrus groves for many years. According to the Lake County U.S. D.A./SCS Soil Survey, the surficial soils at the site consist primarily of Astatula and Lake Sands which are deep, excessively well drained sands. The proposed project will consist of single family residential community with an 18-hole golf course. A site plan is shown on Sheet 1.

Geotechnical, Environmental, & Materials Engineers

807 South Orlando Avenue ♦ Suite A ♦ Winter Park, Florida 32789 ♦ Telephone 407.740.6110 ♦ Facsimile 407.740.6112

BACKGROUND

Prior to conducting this study, we reviewed pertinent information related to this site and study which includes:

- Previous on-site geotechnical reports conducted by Westinghouse Environmental and Geotechnical Services, Inc. dated August 14, 1990 and L.J. Nodarse & Associates report dated October 12, 1994.
- SJRWMD, May 1988, Draft Applicants' Handbook - Karst Sensitive Areas.
- Hydrogeologic factors associated with recent sinkhole development in the Orlando area, Florida report no. 87-88-4, Sinkhole Research Initiative, November 1987.

AREA GEOLOGY

The geology of the Central Florida area is characterized by sedimentary strata formed during three distinct geologic periods. The surficial stratum is composed of undifferentiated Holocene/Pleistocene/Pliocene age sands, containing varying amounts of silt and clay, which extend typically to depths on the order of 40 to 60 feet below ground surface. This upper, mostly sandy zone contains the surficial (water table) aquifer. A Miocene age deposit, the Hawthorne Formation, frequently underlies the surficial sand and is typically composed of clay, clayey sands and sandy limestone containing appreciable amounts of phosphate. This relatively impermeable stratum extends to typical depths of 125 to 150 feet beneath ground surface and serves as the confining layer for the underlying Floridan aquifer. The Floridan aquifer, composed of Eocene age Ocala, Avon Park and Lake City Limestones, is one of the most productive aquifers in the world. The extremely high productivity of this aquifer is directly related to its ubiquitous cavities and interconnected channels, some being more than 100 feet in height. These cavities were formed by dissolution of the limestone caused by the movement of slightly acidic water through the rock.

The geology of the area, as described above, is conducive to the development of sinkholes. The solution features within the limestone can collapse or can allow the downward movement of overlying soils, known as ravelling, to produce depressions at the surface which are typically circular in shape (sinkholes). Sinkholes can occur nearly anywhere in Central Florida, but are more likely to occur in areas characterized by thin confining beds, large differences between the water table elevation and the Floridan aquifer potentiometric level and the presence of limestone in relatively close proximity to the ground surface.

SCOPE OF FIELD EXPLORATION

The scope of our field exploration consisted of performing a total of four (4) Standard Penetration Test borings to a depth of 150 ft. below existing grade within the bottom of the subject depression areas. The approximate location at which the borings were performed are shown on the attached Sheet 1.

In addition to the field borings, site reconnaissance was made to visually observe the four (4) depression areas. Our visual observation noted gentle side slopes which do allow vehicles to drive across. As an exception, the northern depression had steeper slopes with mature vegetation in the bottom. The vegetation consisted of trees that range in diameter between 2 to 6 inches. All depressions were dry with no standing water or signs of saturation.

Standard Penetration Tests were performed continuously in the SPT borings to a depth of 10 feet and at 5-foot depth intervals thereafter. Each sample was removed from the sampler in the field and was examined and visually classified by an engineering technician. Representative portions of each sample were packaged and sealed for transportation to our laboratory for further examination and visual classification. Water levels were measured in the boreholes at the time of our field exploration to evaluate the depth to groundwater.

SOIL & GROUNDWATER CONDITIONS

The soil types encountered at the boring locations are presented in the form of soil profiles on the attached Sheet 1. The stratification presented is based on visual examination of the recovered soil samples and the interpretation of the field logs by a geotechnical engineer. Also included adjacent to the soil profile are the "N-Values". The "N-Values" have been empirically correlated with various soil properties and are considered to be indicative of the relative density of cohesionless soil and consistency of cohesive material.

In general, the borings encountered thick layers of light brown to orangish brown fine sand ranging in thickness between 115 to 150 feet thick. Boring TB-1 revealed intermittent layers of silt with traces of cemented silt starting at about 118 feet below existing grade. Boring TB-3 encountered a layer of silt at about 112 ft. to 127 ft. below grade underlain by a layer of limestone about 21 feet thick. The limestone layer starts at about elevation +14 feet NGVD. Limestone was not encountered at boring TB-1, TB-2 & TB-4. Based on the Lake County Soil Survey, the surficial soils at the site consist primarily of Astatula and Lake Sands. These soils are characterized as excessively drained soils.

Based on the SPT Blow Counts (N-Values), the upper 10 ft. of the soil profile exists in a loose condition (N=2 to 9). Below this, the blow counts encountered show that the sand layer is medium dense grading to very dense with depth (N= 14 to 50+). The silt layer was found to be in medium dense to very dense condition. The limestone is in very dense condition with 50+ blow counts. Loss of circulation was encountered at borings TB-1 and TB-3 directly above the silt and limestone layers. The depth where loss of circulation occurred are shown adjacent to the soil profiles.

At the time of our exploration (January 9th through 16, 1995) the groundwater table was encountered at depths ranging between 14 and 43.5 ft. below existing grade (approximate elevation +79.5 ft. to +133 ft. NGVD). The elevations were taken from topographic map provided by Farner Barley & Associates. Based on the U.S. Department of the interior U.S. geological survey, the potentiometric surface of the upper Floridan Aquifer is at approximate elevation +80 ft. NGVD (map dated May, 1994).

EVALUATION AND RECOMMENDATION

Based on the results of our study, it appears that the subject depressions are stable and can be used for stormwater retention areas. Our opinion is based on the following:

- The relative flatness of the depression slopes and the continuity of the soil types.
- The soil strata and density obtained from the SPT borings which indicate that the subsurface soil becomes more dense with depth. This indicates that the subject depressions are stable with no recent surface movement.
- The SPT borings did not encounter any ravelled zones of loose soils or significant drilling fluid losses. Minor losses of circulation were noted above the silt layer at borings TB-1 and TB-3.
- The groundwater profile across the site appears to be generally parallel to the ground surface with no noted cone of depressions.

Based on these findings, we are of the opinion that the potential for collapse due to utilization of these areas for stormwater retention is low. In addition, the significant distance to the Floridan aquifer and the sandy profile suggests that stormwater will receive adequate treatment and even may exceed the quality standards as specified in Chapter 17-3, FAC, prior to entering the Floridan aquifer.


We would like the opportunity to review the conceptual stormwater management plans with Farner Barley. The purpose of this review would be to compare the predevelopment vs. post development surface water runoff quantities being directed to the four depressions.

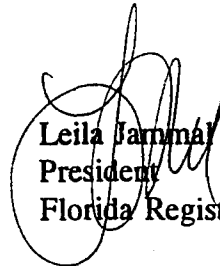
In closing, we recommend that development plans for this site carefully evaluate the need (if any) for water wells. While known cases for sinkhole advancement in existing depressions used for stormwater are relatively rare, pumpage through the use of wells is a common cause for sinkhole formation. As such, on-site wells should be limited or avoided if possible. We would be pleased to discuss this further with you.

LJN appreciates the opportunity to be of service to you on this project. If you should have any questions concerning the contents of this report, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,

L.J. NODARSE & ASSOCIATES, INC.


Gabi Stephan
Project Engineer


Leila Jammal Nodarse, P.E.
President
Florida Registration No. 38675
2/17/95

GS/LJN:jh

Enclosures

94G-0432.rpt

cc: Farner Barley Associates, Inc.

KINGS RIDGE PHASE III SOIL BORINGS

LEGEND

- ① GRAYISH BROWN FINE SAND WITH SMALL ROOTS (TOPSOIL) (SP)
 - ② LIGHT BROWN TO ORANGISH BROWN FINE SAND (SP)
 - ③ LIGHT BROWN TO ORANGISH BROWN SLIGHTLY SILTY TO SILTY FINE SAND (SP-SM)(SM)
 - ④ GRAY SLIT WITH TRACES OF CEMENTED SILTS (ML)
 - ⑤ TAN LIMESTONE
- (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

