EAGLE HARDWARE AND GARDEN

HYDROLOGY

(REVISED AUGUST 11, 1998)

PREPARED FOR: Sconzo/Hallstrom Architects
919-124th Avenue NE
Bellevue, WA 98005

PREPARED BY: Robert R. Blair, Jr.
Michael D. Miller

SEAL

JEFF CODEGA
PLANNING/DESIGN, INC.
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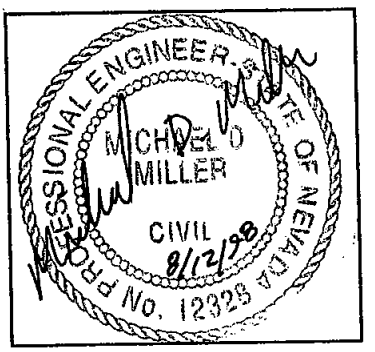

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I. INTRODUCTION

The following report represents the hydraulic and hydrologic analysis for the Eagle Hardware and Garden site. This report will estimate the runoff from a fully developed site for the 100 year, 25 year and 5 year storms and identify 100 year design parameters for the major drainage channel that runs along the Eastern end of the site.

A. Identification Of Street Location, APN's's, Section Reference, And Adjacent Developments.

The proposed Eagle Hardware and Garden project site is located on 16.21 acres of vacant land situated near the intersection of Kietzke Lane and McCarran Boulevard. The assessor's parcel number for the site is APN 040-081-35. It is located in Section 36, Township 19 north, Range 19 east, MDM. The neighboring areas include a medical business park to the northwest, vacant land to the west, a newly constructed business park to the south, Kietzke Lane to the east, and McCarran Boulevard to the north. Refer to Figure 1, Vicinity Map.

B. General Descriptions Of Existing Site Conditions.

The project site is undeveloped and slopes to the east at a grade of 2%. Ground elevations range from 4492 to 4507. Vegetation consists of sparse sagebrush and grass.

C. General Description Of Proposed Project.

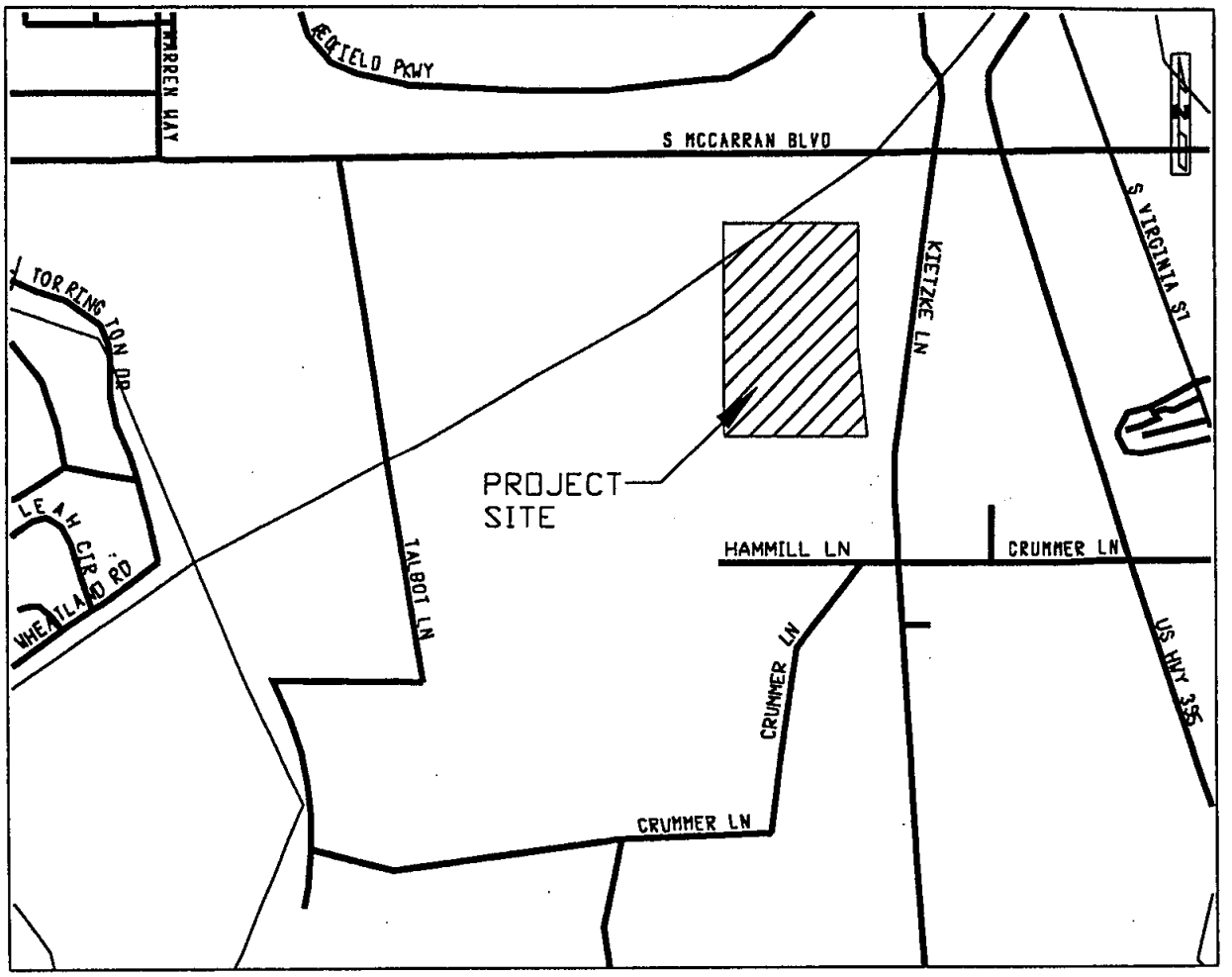
The Eagle Hardware and Garden project consists of 203,888 square foot building which includes a 57,350 square foot drive through lumber yard with 787 parking spaces within the parking lot that fronts the site.

II. PREVIOUS STUDIES

A. Preliminary Hydrology Report for The Hilton Properties, Jeff Codega Planning/Design, October 1997. The report was referenced in prior studies and was reviewed for preparation of this report.

B. Hydrology Report for the Rancharrah Property, Gray & Associates, March 1998.

Figure 1 - Vicinity Map



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VICINITY MAP

EXHIBIT "A"

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III. HISTORIC DRAINAGE SYSTEM

This report incorporates existing and proposed flows from the Eagle Hardware and Garden, near the intersection of Kietzke Lane and McCarran Blvd. The project consists of two drainage sub-areas. Refer to Existing Conditions Hydrology Map, Appendix B.

A. Site Drainage

1. Subarea 1 (Western part) extends to the west side of the Rancharrah property which is bordered by Lake Ditch and drains east through a series of culverts and ditches and into an existing roadside ditch along Kietzke Lane. From here, it travels under Kietzke lane through two culverts that lie within sixty feet of each other.

2. Subarea 2 (Northern end) drains north to an existing roadside ditch along McCarran Blvd. And into a culvert that travels underneath McCarran Blvd and empties into a manhole inside the Albertson's drainage system. This subarea is to remain largely undeveloped for this project.

3. Subarea 3 (Kietzke Lane) drains west from Kietzke Lane into the roadside ditch located within NDOT right-of-way. This subarea is to be centralized via curb and gutter, and discharged directly into one of two culverts located at the northern and southern end of this project which travel underneath Kietzke Lane. These culverts have traditionally handled these flows, and the area is minimal, so no hydraulic analysis has been done for this aspect.

The site is shown on FEMA Flood Insurance Rate Map (FIRM), Panel 32031C3156E dated September 30, 1994. On the FIRM, the majority of the project site is designated as a shaded flood zone X , areas of 500-year flood; area of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. The remaining portion of the project site is designated as an unshaded flood zone X, areas outside the 500-year floodplain. Refer to Appendix A, for relevant portions of the FIRM.

Upstream of this site on the west side of Harrah's property is the Lake Ditch, with several overflow structures located throughout its length. These structures flow into existing ditches that are used to irrigate the existing fields, and in turn, relieve excess flows from the Lake Ditch. For the purpose of this report, these flows have

not been accounted for due to three reasons. The first reason is that once this area is fully developed, no flows will be required for irrigation. The second reason is that typically when these structures are opened to relieve flows, the peak flow for the downstream area has already passed through. And the third reason is that the 100 year event overtops the banks of the Lake Ditch (as indicated in the Rancharrah Hydrology Report) and becomes a sheet flow event, negating the effect of theses overflow structures.

B. Hydrologic And Hydraulic Analysis Results For Existing Drainage Conditions And Facilities

Existing discharges are shown on the Existing Conditions Hydrology Map, Appendix B, and are tabulated in Table 1 for the reader's convenience. A list of assumptions and references follows:

1. Southwest Semi-Arid Precipitation Study used to develop hydrologic data.

2. Rational method used to develop peak flows.

3. Methodologies in *draft* Washoe County Hydrologic Criteria and Drainage Design Manual, 1996, used to estimate other parameters.

Table 1 - Existing Condition Discharges

Sub-Area	Area	Q5	Q100
	(acres)	(cfs)	(cfs)
1	72.6	8.71	23.41
2	2	0.8	2.1

Sample calculations and tabulated summary data for existing conditions hydrology are provided in Existing Conditions Hydrology Computations, Appendix C.

IV. PROPOSED DRAINAGE SYSTEM

A. Proposed Drainage Sub-Basins

The proposed drainage areas are shown on Proposed Conditions Hydrology Map, Appendix D.

B. Description of the proposed drainage system and results of hydrologic and hydraulic analyses.

In the proposed drainage system, storm water will be conveyed away from the building by conventional grading, then collected in the parking lot network, then conveyed to the east end of the project. Here it will be detained on the surface by 10 inch high curb and gutter and allowed to be discharged through three v-notch cuts in the curb and gutter and continue into the NDOT right-of-way and then into the two culverts (culverts 2&3) located underneath Kietzke Lane. The offsite drainage will be directed via a drainage ditch to the southwest corner of the project where it will then be directed into a 24 inch culvert that travels underneath the southern end of the project. Here, it will be connected with the pipe network that drains the roof drain system, and then all flow will discharge into the NDOT right-of-way. From here, it will be split into either the 24 inch culvert (culvert 4) that is currently being extended to the site by the adjoining project to the south, or to the two culverts (culverts 2&3) mentioned above. This 24" culvert has been sized in order to handle the 25 year event with the offsite remaining undeveloped and only minor flooding in one of the manholes. As can be seen in the following Table 2, the existing culverts running underneath Kietzke Lane have ample capacity to handle these discharges in a gravity flow condition. Culvert 1 is intended only to handle flow coming off of Kietzke lane which is being centralized in the proposed curb and gutter, but would pass flows from this site prior to their overtopping of Kietzke Lane. Culverts 2, 3, and 4 are intended to handle storm runoff from this site, and the offsite located to the west of this site.

Table 2 - Existing Culvert Capacity

CULVERT	TYPE	SIZE	SLOPE	CAPACITY
1	RCP	24"	0.5%	14.85 cfs
2	RCP	30"	1.5%	46.64 cfs
3	RCP	24"	0.8%	18.79 cfs
4	RCP	24"	0.5%	14.85 cfs

Three NDOT Type 3 drop inlets have been located within the NDOT right-of-way in order to maintain drainage off of McCarran Blvd and Kietzke Ln. These

discharge directly into the exisitng NDOT drainage network, and drain a small area.

The proposed drainage system sub-areas and peak storm water flowrates are shown on the Proposed Conditions Hydrology Map, Appendix D and are provided in Table 3 for the reader's convenience. Table 3 summarizes inlet flows and capacities. A list of assumptions and references follows:

1. Southwest Semi-arid Precipitation Study used to develop hydrologic data.

2. Rational method used to develop peak flows.

3. Methodologies in draft Washoe County Hydrologic Criteria and Drainage Design Manual, 1996 used to estimate curve numbers and other parameters.

PROPOSED CONDITIONS WITH DETENTION PONDS

		PEAK CULVERT FLOW								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	2.19	0.24	0.74	3.89	0.30	0.74	6.04	0.35	0.97
V-NOTCH-2	1.36	0.57	0.14	0.12	1.01	0.18	0.22	1.56	0.21	0.32
V-NOTCH-3	3.58	1.49	0.21	0.74	2.65	0.26	0.76	4.11	0.31	1.32
ROOF	4.33	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CULVERT**	59.10	n/a	n/a	9.18	n/a	n/a	16.15	n/a	n/a	25.16
Total Qcap				10.78			17.87			27.77
Q-existing				8.71			15.25			23.41

		PEAK OFFSITE BUILD-OUT FLOW (Tc=25.9 min.)								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	3.40	0.27	0.74	5.81	0.35	0.97	9.40	0.42	2.22
V-NOTCH-2	1.36	0.88	0.17	0.19	1.50	0.21	0.32	2.43	0.25	0.50
V-NOTCH-3	3.58	2.31	0.25	0.74	3.96	0.30	1.20	6.39	0.36	2.00
ROOF	4.33	2.80	n/a	n/a	4.78	n/a	n/a	7.73	n/a	n/a
CULVERT**	59.10	n/a	n/a	9.36	n/a	n/a	15.03	n/a	n/a	24.10
Total Qcap				11.03			17.52			28.82
Q-existing				8.71			15.25			23.41

		PEAK ONSITE FLOW (Tc=10 min.)								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	6.26	0.36	1.13	11.40	0.45	2.84	16.54	0.51	4.24
V-NOTCH-2	1.36	1.62	0.22	0.36	2.95	0.27	0.60	4.28	0.31	0.86
V-NOTCH-3	3.58	4.26	0.31	1.32	7.76	0.38	2.31	11.26	0.46	3.75
ROOF	4.33	5.15	n/a	3.36	9.23	n/a	4.63	13.99	n/a	9.01
CULVERT**	59.10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Qcap				6.17			10.38			17.86
Q-existing				8.71			15.25			23.41

Qcap*: This value is relative to the depth of flow that the outlet will see.

CULVERT:** These flows represent the discharge from the culvert originating from both offsite (59.10 AC) and from the roof (4.33AC).

The "Peak Culvert Flow" Table represents the peak flow passing through the proposed 24" culvert as determined by StormCAD, and then using the storm intensities from these calculations to determine the onsite flows through the V-notches. The "Peak Offsite Build-Out Flow" Table represents a build-out condition of the offsite area where flows will be detained to the predevelopment levels, but would be released much sooner, so that the time of concentration would be lowered to 25.9 minutes for this site. The "Peak Onsite Flow" Table represents a time of concentration of only 10 minutes for the onsite area and roof drains as this will produce the heaviest flows, yet the offsite will not begin to really contribute to these flows.

The onsite storm drain system (sheet flow and curb and gutter) was designed so that the developed discharge would not exceed the current undeveloped discharge through the use of V-notch cuts in the curb. Runoff in excess of this amount will be detained on the surface by 10 inch curb and gutter, or a minor detention basin located directly after two of the three V-notches. Please refer to Appendix F for the relative calculations.

C. Easements and maintenance responsibilities.

The project (and thus the storm drainage infrastructure) will be private and maintained by a property owners association, with the exception being the 24" culvert which extends through the project to NDOT right-of-way. This 24" and culvert will be dedicated to and maintained by the City of Reno.

A drainage easement is being obtained from NDOT at the location of the outfalls to their right-of-way.

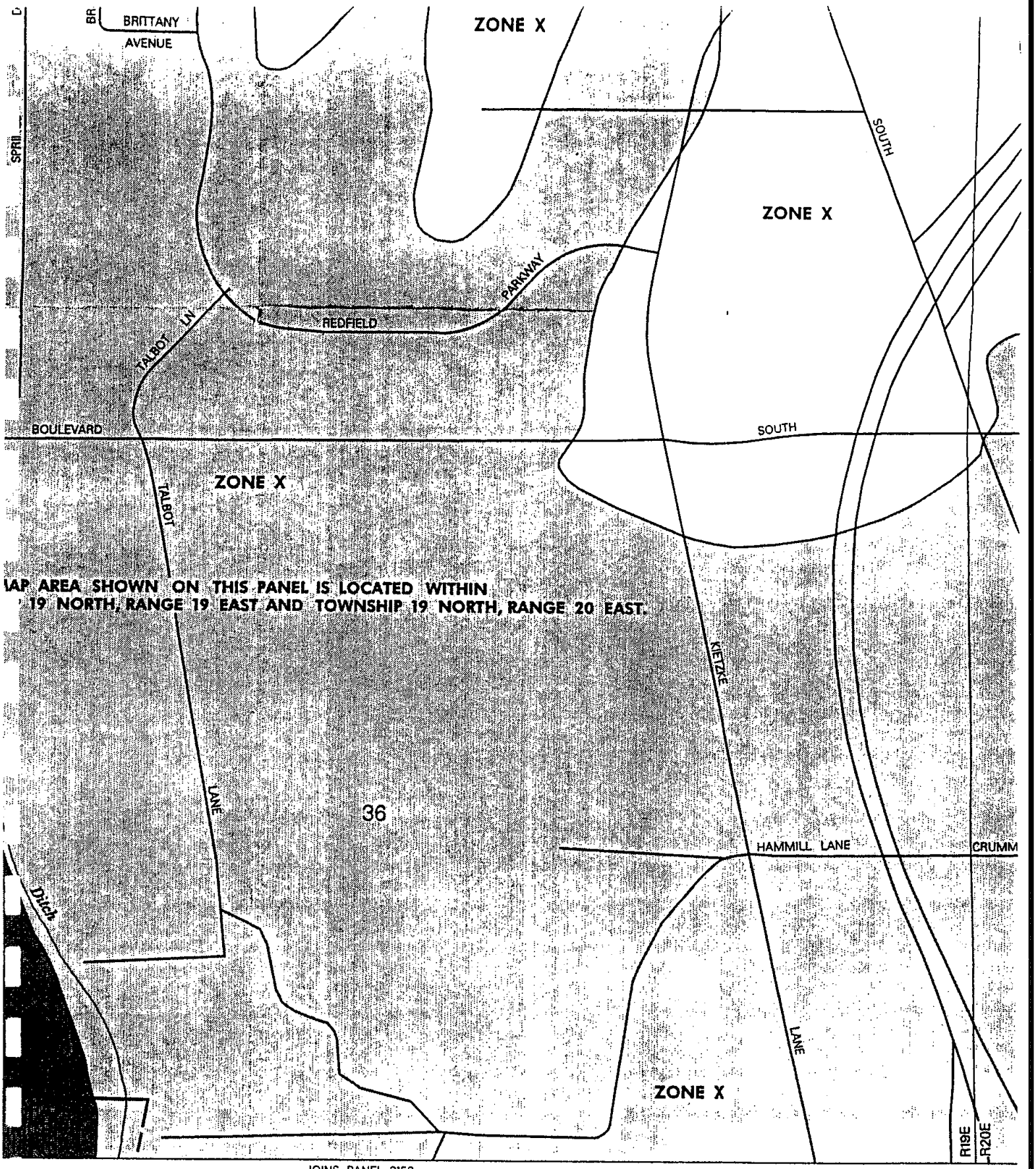
V. Conclusions

A. A 24" culvert has been designed to convey the 25 year event offsite flow through the project and directly into the NDOT right-of-way. The onsite drainage system is designed to convey traditional flows to the NDOT right-of-way, with excess runoff being detained onsite on the surface of the parking lot or in a minor detention pond. Incremental discharge is handled here through the use of V-notch

cuts in the curb and gutter. Drainage from Kietzke Lane and McCarran Boulevard will be centralized into curb and gutter, and then discharged directly into one of three existing culverts whose intended purpose was for this.

An attempt has been made to handle the 100 year event. However, with this site being in the FEMA Zone Shaded "X", inundation up to a foot is to be expected. Review of the Hydrology Report for the Rancharrah property indicates the 100 year event does not overtop Kietzke Lane adjacent to this project. So with the finish floor elevation well above the low point of Kietzke Lane, flooding should not enter the building. Also, the onsite design has allowed for a maximum of .51 feet of flooding in the parking area due to the 100 year event onsite. This, however, can not take into account any overland flows from offsite that might occur.

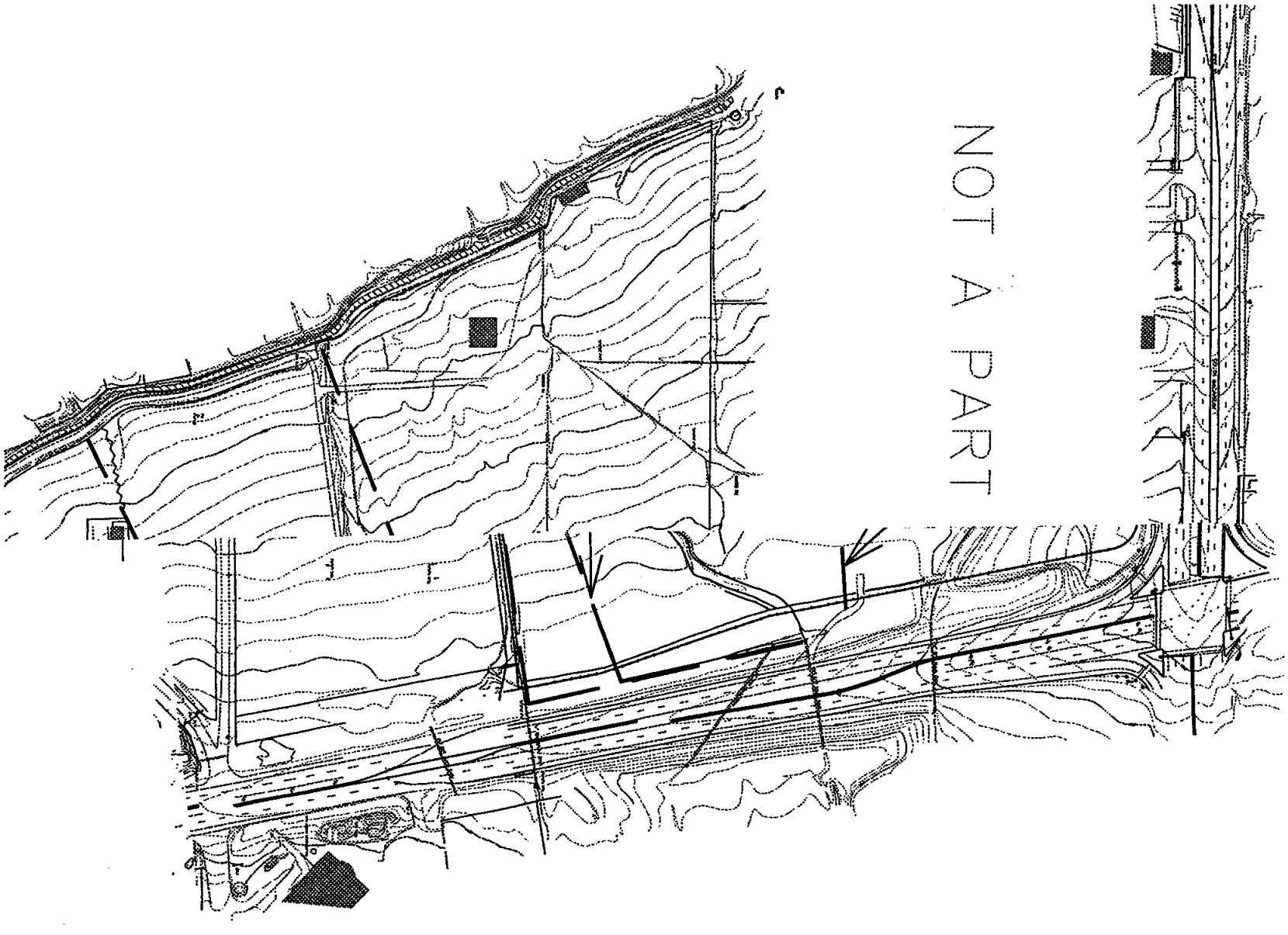
APPENDIX A - FIRM MAP



AP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN
19 NORTH, RANGE 19 EAST AND TOWNSHIP 19 NORTH, RANGE 20 EAST.

JOINS PANEL 3158

APPENDIX B - EXISTING CONDITIONS HYDROLOGY MAP



APPENDIX D - PROPOSED CONDITIONS HYDROLOGY MAP

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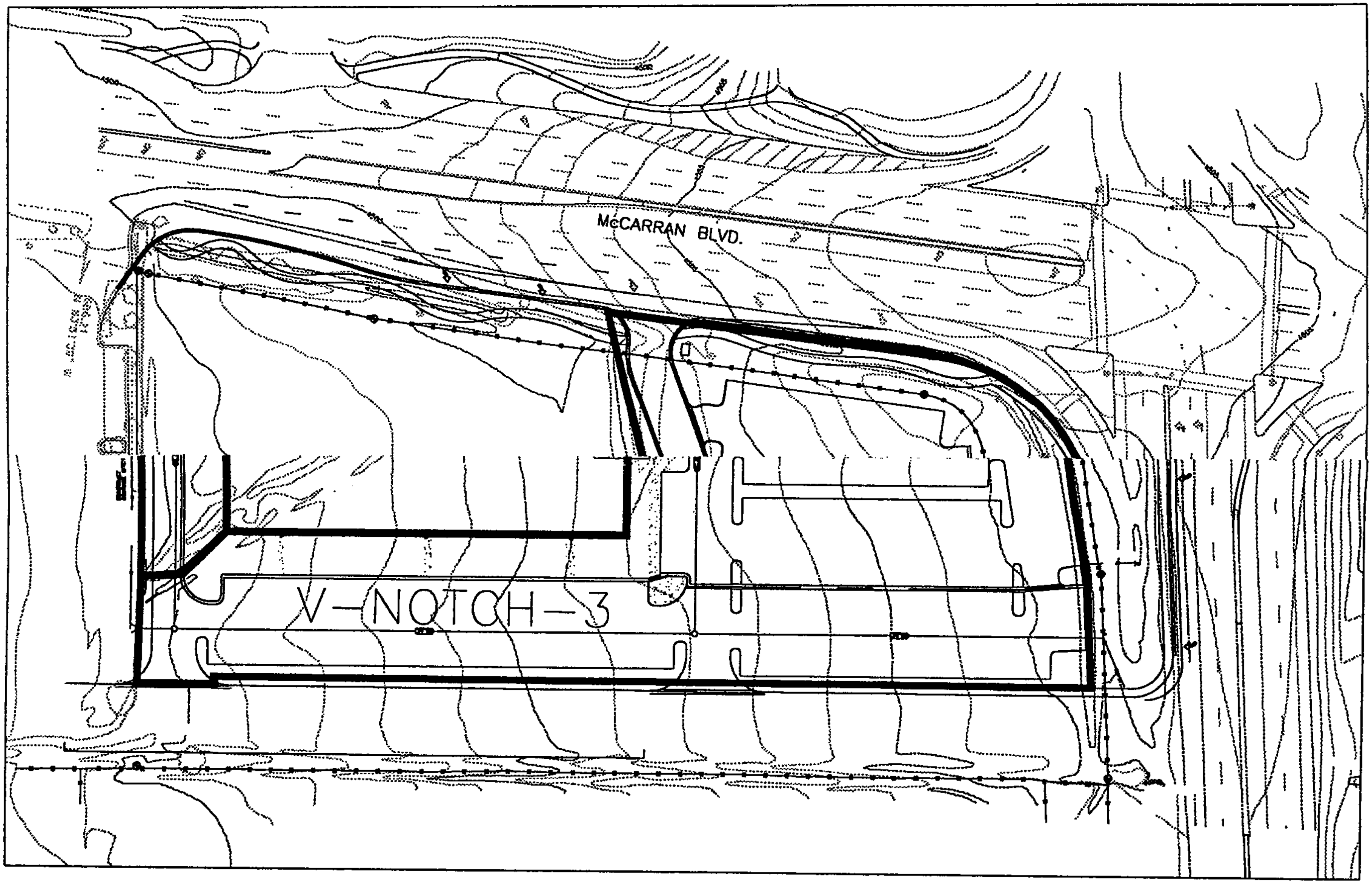

APPENDIX E - PROPOSED CONDITIONS HYDROLOGY AND HYDRAULIC COMPUTATIONS

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PROJECT: _____
SCALE: _____ JOB NO.: _____
CALCULATED BY: _____ DATE: _____
CHECK BY: _____ DATE: _____
COPY TO: _____ SHEET ___ OF _____

Developed

offsite - Mix of commercial and multi-family
assume 0.75 = C

t_c = 25.9 min. ⇒ i_5 = 0.76
i_{25} = 1.3
i_{100} = 2.1

A = 72.6 acres

∴ Q_5 = 41.38 cfs
Q_{25} = 70.79 cfs
Q_{100} = 114.35 cfs

Build-out - Assume t_c = 25.9 min for all offsite to contribute with predeveloped existing flows

∴

V-Notch-1
A = 5.26 ac → Q_5 = 3.40
C = 0.85 Q_{25} = 5.81
Q_{100} = 9.40

V-Notch-2
A = 1.36 ac → Q_5 = 0.88
C = 0.85 Q_{25} = 1.50
Q_{100} = 2.43

V-Notch-3
A = 3.58 ac → Q_5 = 2.31
C = 0.85 Q_{25} = 3.96
Q_{100} = 6.39

Roof
A = 4.33 ac
C = 0.85 → Q_5 = 2.80
Q_{25} = 4.78
Q_{100} = 7.73

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On Site - Developed

Taking the system intensity as computed by StormCAD.

$i_5 = 0.49$

$i_{25} = 0.87$

$i_{100} = 1.35$

V-Notch -1
$A = 5.26$ ac
$C = 0.85 \rightarrow Q_5 = 2.19$
$Q_{25} = 3.84$
$Q_{100} = 6.04$

V-Notch-2
$A = 1.36$ ac
$C = 0.85 \rightarrow Q_5 = 0.57$
$Q_{25} = 1.01$
$Q_{100} = 1.56$

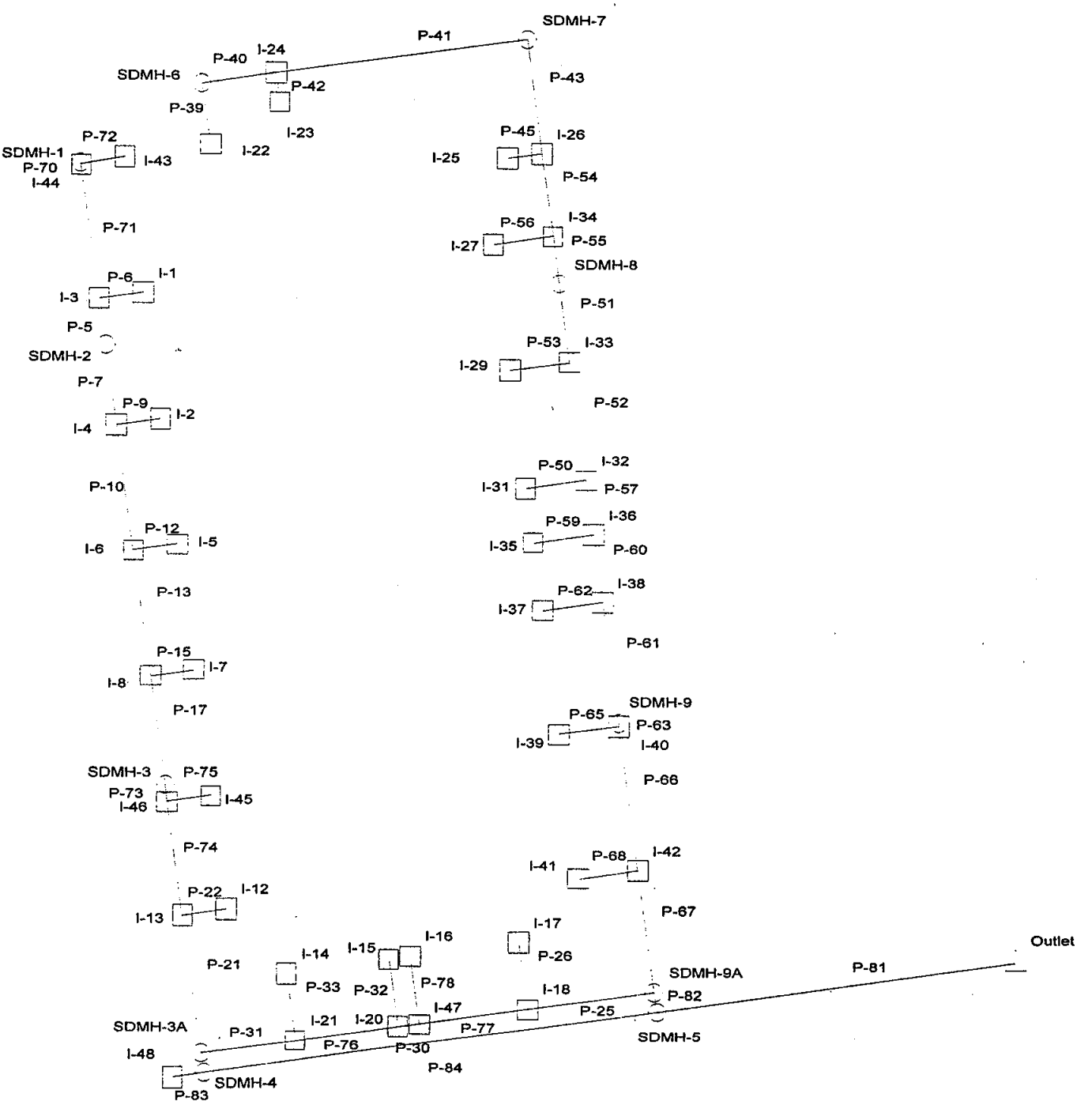
V-Notch-3
$A = 3.58$ ac
$C = 0.85 \rightarrow Q_5 = 1.49$
$Q_{25} = 2.65$
$Q_{100} = 4.11$

Additional Detention Calculations

V-Notch -1 = 1079 c.f.
outflow = 0.74 cfs
using the triangular hydrograph method, this equates to a 2.54 cfs capacity before overtopping
$\therefore Q_{cap} = Q_{cap}$ (of V-notch) $- 2.54 + 0.74$

V-Notch -3 = 333 c.f.
outflow = 0.74 cfs $\Rightarrow$ 1.30 cfs capacity before overtopping
$\therefore Q_{cap} = Q_{cap}$ (of V-notch) $- 1.30 + 0.74$

54,
47.1min/10min



Detailed Report for Outlet

Flows			
Total Discharge	9.18 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	9.18 cfs

Watershed Data			
System Intensity	0.49 in/hr	Upstream CA	18.46 acres
Total CA	18.46 acres		

Flow Times			
System Flow Time	50.00 min	Upstream Flow Time	50.00 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.31	0.47	36.00	0.002778	12 inch	0.013	2.09	4,496.10	4,495.96	4,496.16	4,496.04	2.17	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.04	4,496.26	4,497.14	4,496.55	3.44	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.29	0.47	64.00	0.002656	15 inch	0.010	4.33	4,495.92	4,495.82	4,496.00	4,495.86	1.99	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.75	4,495.97	4,496.85	4,496.26	3.44	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.26	0.68	00.00	0.003000	15 inch	0.010	4.60	4,495.80	4,495.57	4,495.91	4,495.63	2.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.45	4,495.67	4,496.55	4,495.96	3.44	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.22	0.88	00.00	0.003000	15 inch	0.010	4.60	4,495.54	4,495.30	4,495.67	4,495.39	2.61	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.15	4,495.37	4,496.25	4,495.66	3.44	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.17	1.05	86.00	0.003488	15 inch	0.010	4.96	4,495.27	4,495.08	4,495.42	4,495.16	2.66	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.05	1.32	09.00	0.002936	18 inch	0.010	7.40	4,495.02	4,495.02	4,495.06	4,495.03	1.22	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.55	4,495.03	4,495.65	4,495.06	1.97	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.83	1.59	01.00	0.003861	18 inch	0.010	8.49	4,494.98	4,494.97	4,494.99	4,494.98	0.90	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.04	4,494.98	4,495.07	4,495.01	1.28	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.40	0.17	53.00	0.020000	4 inch	0.010	0.35	4,495.24	4,495.00	4,495.30	4,495.06	1.92	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.99	1.24	76.00	0.003816	18 inch	0.010	8.43	4,495.01	4,495.01	4,495.02	4,495.02	0.82	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.94	1.35	82.00	0.003780	18 inch	0.010	8.40	4,495.01	4,495.00	4,495.01	4,495.01	0.78	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.27	4,495.01	4,495.37	4,495.03	1.91	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,498.86	4,497.82	4,498.96	4,498.11	3.44	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.39	0.25	60.00	0.005000	12 inch	0.013	2.81	4,497.81	4,497.61	4,497.87	4,497.63	1.60	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.35	0.49	01.00	0.004925	12 inch	0.013	2.79	4,497.59	4,496.64	4,497.69	4,496.71	2.26	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.40	0.25	23.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.64	4,498.28	4,497.93	3.44	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.26	0.45	90.00	0.004889	12 inch	0.010	3.61	4,496.57	4,496.23	4,496.66	4,496.27	2.07	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.40	0.34	28.00	0.020000	8 inch	0.010	2.22	4,496.85	4,496.20	4,496.95	4,496.52	3.57	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.07	4,495.23	4,496.16	4,495.26	1.85	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.18	0.92	62.00	0.005000	12 inch	0.010	3.65	4,495.72	4,495.48	4,495.86	4,495.57	2.77	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.15	1.10	94.00	0.004894	12 inch	0.010	3.61	4,495.45	4,495.23	4,495.61	4,495.28	2.57	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.54	4,495.50	4,496.63	4,495.78	3.28	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.22	0.73	66.00	0.004848	12 inch	0.010	3.60	4,496.20	4,495.96	4,496.33	4,496.03	2.54	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.19	0.93	38.00	0.005000	12 inch	0.010	3.65	4,495.93	4,495.79	4,496.08	4,495.90	2.86	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,497.07	4,496.03	4,497.17	4,496.32	3.44	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.09	1.25	44.00	0.005000	12 inch	0.010	3.65	4,495.21	4,495.21	4,495.29	4,495.25	1.90	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.40	0.17	48.00	0.020000	4 inch	0.010	0.35	4,496.02	4,495.21	4,496.13	4,495.27	2.26	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.08	1.36	55.00	0.004909	12 inch	0.010	3.62	4,495.20	4,495.18	4,495.25	4,495.22	1.69	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.06	1.53	96.00	0.004896	12 inch	0.010	3.61	4,495.17	4,495.08	4,495.22	4,495.13	1.80	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.60	4,495.18	4,495.70	4,495.20	1.91	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.04	1.50	2.00	0.005000	15 inch	0.010	5.94	4,495.07	4,495.07	4,495.09	4,495.09	1.22	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.10	4,495.07	4,495.20	4,495.10	1.91	4,494.85

Pipe Report

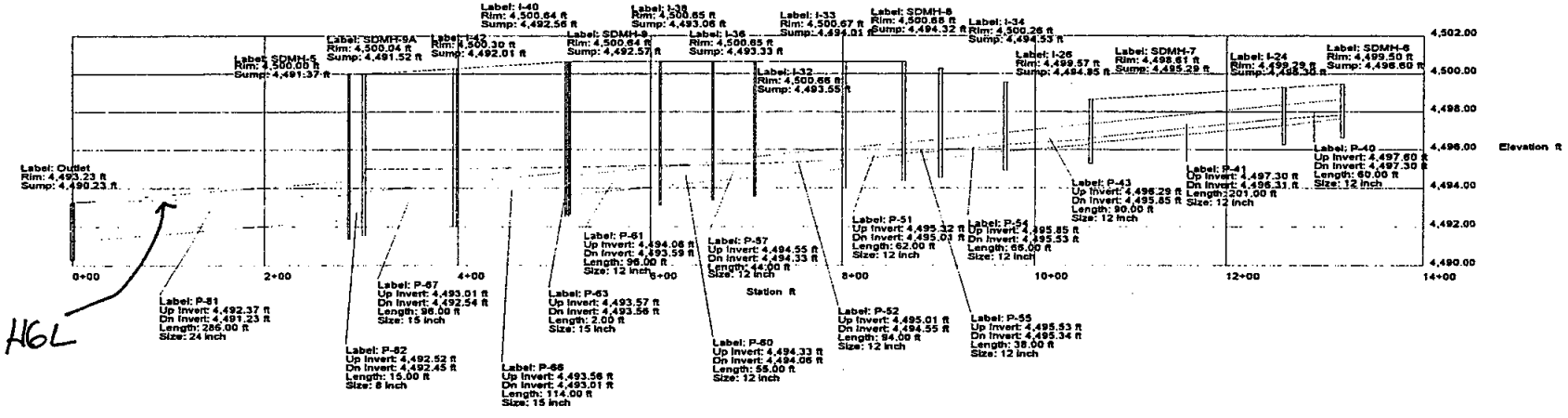
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.04	1.68	14.00	0.004825	15 inch	0.010	5.83	4,495.06	4,495.02	4,495.09	4,495.05	1.37	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.00	1.80	96.00	0.004896	15 inch	0.010	5.88	4,495.01	4,494.97	4,495.05	4,495.00	1.47	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.08	4,495.02	4,495.10	4,495.04	1.28	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.31	4,496.31	4,496.31	4,496.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.39	0.25	06.00	0.002830	12 inch	0.013	2.11	4,496.30	4,496.11	4,496.35	4,496.12	1.34	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.34	4,496.56	4,497.44	4,496.85	3.44	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.11	1.00	13.00	0.003077	18 inch	0.010	7.57	4,495.05	4,495.05	4,495.11	4,495.10	1.96	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.10	1.18	90.00	0.003000	18 inch	0.010	7.48	4,495.03	4,495.03	4,495.11	4,495.06	1.79	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.81	4,495.03	4,495.91	4,495.32	3.44	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.89	1.38	17.00	0.003529	18 inch	0.010	8.11	4,495.00	4,494.99	4,495.01	4,495.00	0.78	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.88	1.52	87.00	0.003793	18 inch	0.010	8.41	4,494.99	4,494.98	4,495.00	4,494.99	0.86	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.05	4,494.99	4,495.08	4,495.02	1.39	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	18.46	0.51	9.40	86.00	0.003986	24 inch	0.013	14.28	4,493.64	4,493.23	4,493.95	4,493.37	3.74	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.78	2.89	15.00	0.004667	8 inch	0.010	1.07	4,494.33	4,493.82	4,495.39	4,494.89	8.27	4,492.52
P-83	I-48	SDMH-4	59.10	0.25	14.78	14.78	0.52	7.75	25.00	0.004000	24 inch	0.013	14.31	4,495.11	4,495.07	4,495.40	4,495.33	4.19	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	14.78	0.52	7.74	63.00	0.003912	24 inch	0.013	14.15	4,494.90	4,493.82	4,495.23	4,493.99	3.96	4,493.85

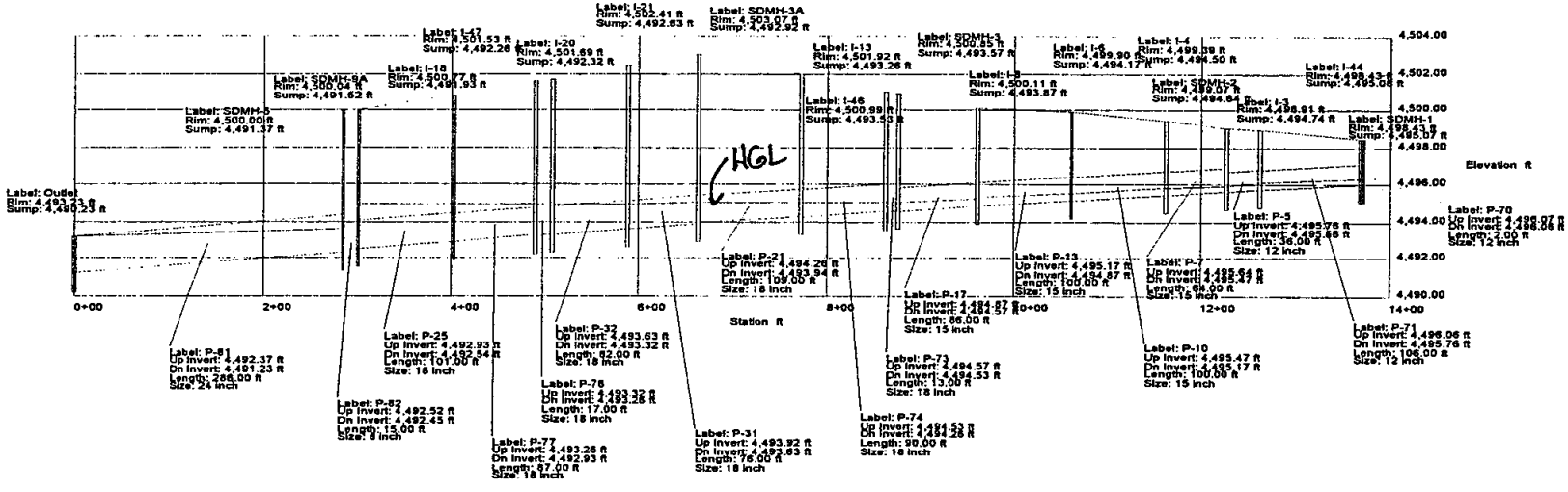
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.04	4,497.04	2.53
I-2	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.75	4,496.75	2.53
I-3	0.00	0.00	2.80	0.00	1.31	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	0.47	0.00	4,496.11	4,496.10	1.99
I-4	0.00	0.00	2.80	0.00	1.26	0.00	0.00	0.54	0.00	0.00	12.31	12.31	0.00	0.68	0.00	4,495.82	4,495.80	2.69
I-5	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.45	4,496.45	2.53
I-6	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.71	0.00	0.00	13.01	13.01	0.00	0.88	0.00	4,495.57	4,495.54	2.89
I-7	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.15	4,496.15	2.53
I-8	0.00	0.00	2.80	0.00	1.17	0.00	0.00	0.89	0.00	0.00	13.65	13.79	0.00	1.05	0.00	4,495.30	4,495.27	3.07
I-12	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.55	4,495.55	2.53
I-13	0.00	0.00	2.80	0.00	1.05	0.00	0.00	1.25	0.00	0.00	15.92	16.79	0.00	1.32	0.00	4,495.03	4,495.02	1.46
I-14	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.27	4,495.27	2.53
I-15	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,495.24	4,495.24	1.92
I-16	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.05	4,495.05	1.50
I-17	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.04	4,495.04	1.28
I-18	0.00	0.00	2.80	0.00	0.83	0.00	0.00	1.90	0.00	0.00	24.69	24.69	0.00	1.59	0.00	4,494.98	4,494.98	0.90
I-20	0.00	0.00	2.80	0.00	0.89	0.00	0.00	1.55	0.00	0.00	22.61	22.65	0.00	1.38	0.00	4,495.00	4,495.00	0.78
I-21	0.00	0.00	2.80	0.00	0.94	0.00	0.00	1.43	0.00	0.00	20.60	20.86	0.00	1.35	0.00	4,495.01	4,495.01	0.79
I-22	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.86	4,498.86	2.53
I-23	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.18	4,498.18	2.53
I-24	0.00	0.00	2.80	0.00	1.35	0.00	0.00	0.36	0.00	0.00	10.86	10.86	0.00	0.49	0.00	4,497.61	4,497.59	2.46
I-25	0.28	0.85	1.40	0.34	1.40	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.34	0.00	4,496.85	4,496.85	2.54
I-26	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.60	0.00	0.00	13.07	13.07	0.00	0.73	0.00	4,496.23	4,496.20	2.88
I-27	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.07	4,497.07	2.53
I-29	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.54	4,496.54	2.33
I-31	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.07	4,496.07	2.33
I-32	0.00	0.00	2.80	0.00	1.09	0.00	0.00	1.13	0.00	0.00	14.79	15.22	0.00	1.25	0.00	4,495.23	4,495.21	2.18
I-33	0.00	0.00	2.80	0.00	1.15	0.00	0.00	0.95	0.00	0.00	14.10	14.18	0.00	1.10	0.00	4,495.48	4,495.45	3.26
I-34	0.00	0.00	2.80	0.00	1.19	0.00	0.00	0.77	0.00	0.00	13.50	13.50	0.00	0.93	0.00	4,495.96	4,495.93	3.09
I-35	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,496.02	4,496.02	2.60
I-36	0.00	0.00	2.80	0.00	1.08	0.00	0.00	1.25	0.00	0.00	15.60	15.72	0.00	1.36	0.00	4,495.21	4,495.20	1.78
I-37	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.60	4,495.60	2.53
I-38	0.00	0.00	2.80	0.00	1.06	0.00	0.00	1.43	0.00	0.00	16.26	16.29	0.00	1.53	0.00	4,495.18	4,495.17	1.80
I-39	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.10	4,495.10	2.53
I-40	0.00	0.00	2.80	0.00	1.04	0.00	0.00	1.61	0.00	0.00	17.21	17.21	0.00	1.68	0.00	4,495.07	4,495.06	1.37
I-41	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.08	4,495.08	1.28
I-42	0.00	0.00	2.80	0.00	1.00	0.00	0.00	1.79	0.00	0.00	18.60	18.60	0.00	1.80	0.00	4,495.02	4,495.01	1.47
I-43	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.34	4,497.34	2.53

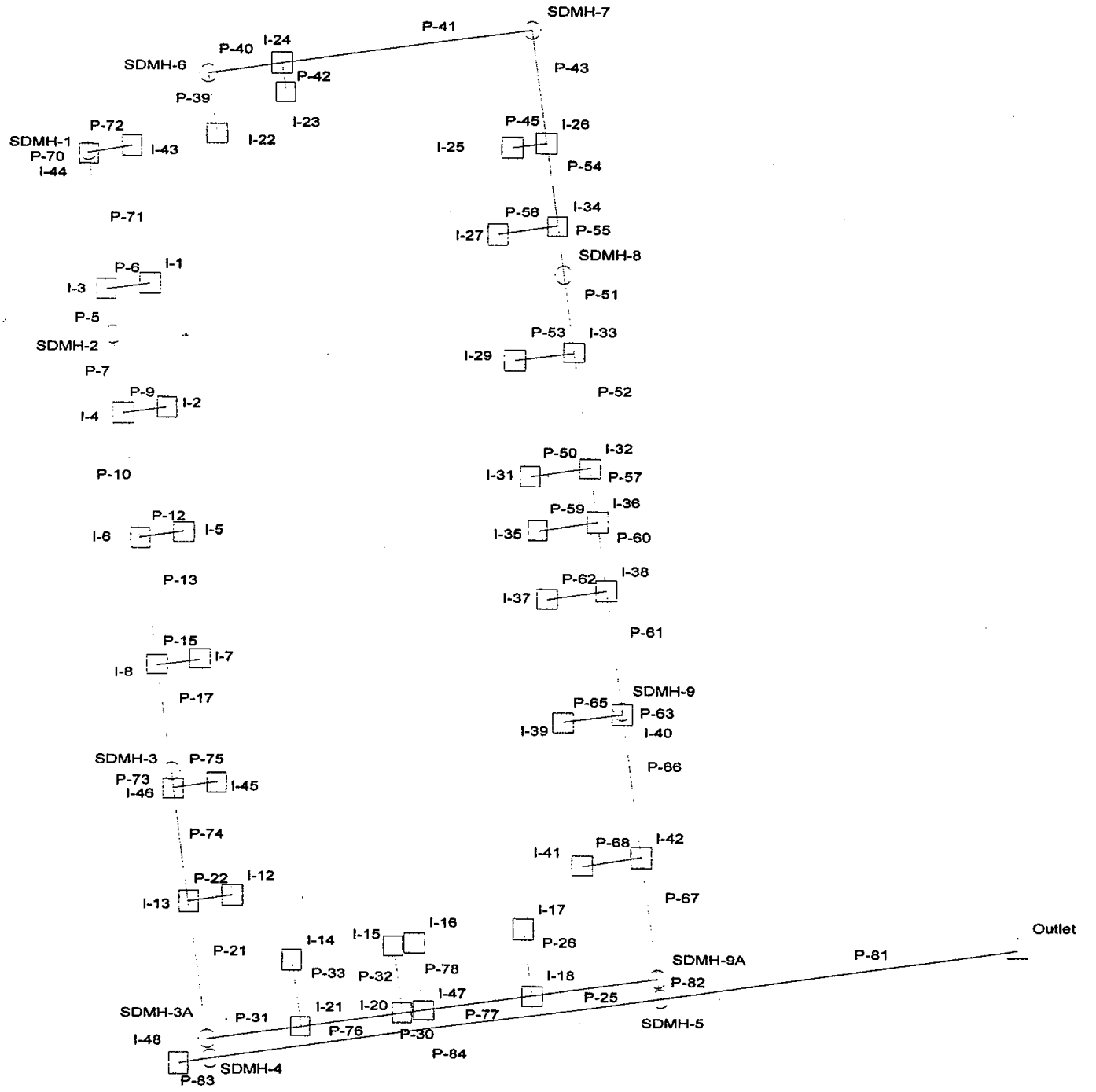
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	1.39	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.25	0.00	4,496.31	4,496.30	1.67
I-45	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.81	4,495.81	2.53
I-46	0.00	0.00	2.80	0.00	1.10	0.00	0.00	1.07	0.00	0.00	14.94	15.08	0.00	1.18	0.00	4,495.05	4,495.03	2.29
I-47	0.00	0.00	2.80	0.00	0.88	0.00	0.00	1.73	0.00	0.00	23.01	23.01	0.00	1.52	0.00	4,494.99	4,494.99	0.86
I-48	59.10	0.25	0.52	7.75	0.52	14.78	0.00	14.78	7.10	0.00	0.00	47.10	0.00	7.75	0.00	4,495.11	4,495.11	4.31
Outlet	N/A	N/A	N/A	N/A	0.49	N/A	N/A	18.46	N/A	0.00	50.00	50.00	N/A	9.18	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.31	4,496.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.29	N/A	N/A	0.36	N/A	0.00	11.77	11.77	N/A	0.47	N/A	4,495.96	4,495.92	2.30
SDMH-3A	N/A	N/A	N/A	N/A	0.99	N/A	N/A	1.25	N/A	0.00	18.28	19.06	N/A	1.24	N/A	4,495.02	4,495.01	0.90
SDMH-3	N/A	N/A	N/A	N/A	1.11	N/A	N/A	0.89	N/A	0.00	14.33	14.83	N/A	1.00	N/A	4,495.08	4,495.05	2.07
SDMH-4	N/A	N/A	N/A	N/A	0.52	N/A	N/A	14.78	N/A	0.00	47.20	47.20	N/A	7.74	N/A	4,495.07	4,494.90	4.60
SDMH-5	N/A	N/A	N/A	N/A	0.51	N/A	N/A	18.46	N/A	0.00	48.73	48.73	N/A	9.40	N/A	4,493.82	4,493.64	4.48
SDMH-6	N/A	N/A	N/A	N/A	1.39	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.25	N/A	4,497.86	4,497.81	2.04
SDMH-7	N/A	N/A	N/A	N/A	1.26	N/A	N/A	0.36	N/A	0.00	12.34	12.34	N/A	0.45	N/A	4,496.64	4,496.57	2.51
SDMH-8	N/A	N/A	N/A	N/A	1.18	N/A	N/A	0.77	N/A	0.00	13.72	13.72	N/A	0.92	N/A	4,495.79	4,495.72	3.08
SDMH-9	N/A	N/A	N/A	N/A	1.04	N/A	N/A	1.43	N/A	0.00	17.18	17.18	N/A	1.50	N/A	4,495.08	4,495.07	1.22
SDMH-9A	N/A	N/A	N/A	N/A	0.78	N/A	N/A	3.69	N/A	0.00	26.57	26.57	N/A	2.89	N/A	4,494.97	4,494.33	8.27





25 yr;
47.1 min/10 min



Detailed Report for Outlet

Flows			
Total Discharge	16.15 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	16.15 cfs

Watershed Data			
System Intensity	0.87 in/hr	Upstream CA	18.46 acres
Total CA	18.46 acres		

Flow Times			
System Flow Time	49.52 min	Upstream Flow Time	49.52 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	2.14	0.77	36.00	0.002778	12 inch	0.013	2.09	4,498.22	4,498.21	4,498.24	4,498.22	0.90	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.36	4,498.23	4,498.44	4,498.31	2.30	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	2.07	0.75	64.00	0.002656	15 inch	0.010	4.33	4,498.21	4,498.20	4,498.21	4,498.21	0.61	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.34	4,498.20	4,498.42	4,498.28	2.30	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.94	1.05	00.00	0.003000	15 inch	0.010	4.60	4,498.20	4,498.18	4,498.21	4,498.20	0.85	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.32	4,498.18	4,498.40	4,498.27	2.30	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.84	1.32	00.00	0.003000	15 inch	0.010	4.60	4,498.18	4,498.16	4,498.20	4,498.17	1.08	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.29	4,498.16	4,498.37	4,498.24	2.30	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.75	1.58	86.00	0.003488	15 inch	0.010	4.96	4,498.15	4,498.12	4,498.18	4,498.15	1.28	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.60	2.01	09.00	0.002936	18 inch	0.010	7.40	4,498.09	4,498.07	4,498.11	4,498.09	1.14	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.23	4,498.09	4,498.31	4,498.18	2.30	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.31	2.52	01.00	0.003861	18 inch	0.010	8.49	4,497.97	4,497.94	4,498.00	4,497.97	1.42	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.97	4,498.26	4,498.06	2.30	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	2.51	0.30	53.00	0.020000	4 inch	0.010	0.35	4,498.80	4,498.01	4,498.98	4,498.20	3.45	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.51	1.90	76.00	0.003816	18 inch	0.010	8.43	4,498.05	4,498.04	4,498.07	4,498.06	1.08	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.45	2.08	82.00	0.003780	18 inch	0.010	8.40	4,498.03	4,498.01	4,498.05	4,498.04	1.18	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,498.24	4,498.04	4,498.32	4,498.12	2.30	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,499.19	4,499.01	4,499.28	4,499.09	2.30	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	2.47	0.45	60.00	0.005000	12 inch	0.013	2.81	4,499.01	4,499.00	4,499.01	4,499.00	0.52	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	2.28	0.82	01.00	0.004925	12 inch	0.013	2.79	4,499.00	4,498.91	4,499.01	4,498.92	0.96	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	2.51	0.45	23.00	0.020000	6 inch	0.010	1.03	4,499.09	4,499.00	4,499.17	4,499.08	2.30	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.96	0.71	90.00	0.004889	12 inch	0.010	3.61	4,498.93	4,498.91	4,498.94	4,498.92	0.83	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	2.51	0.60	28.00	0.020000	8 inch	0.010	2.22	4,498.95	4,498.91	4,499.00	4,498.96	1.73	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,498.70	4,498.66	4,498.72	4,498.68	1.29	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.79	1.40	62.00	0.005000	12 inch	0.010	3.65	4,498.82	4,498.77	4,498.86	4,498.81	1.64	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.76	1.69	94.00	0.004894	12 inch	0.010	3.61	4,498.76	4,498.66	4,498.82	4,498.72	1.98	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,498.81	4,498.77	4,498.84	4,498.80	1.29	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.86	1.12	66.00	0.004848	12 inch	0.010	3.60	4,498.90	4,498.87	4,498.93	4,498.90	1.31	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.81	1.41	38.00	0.005000	12 inch	0.010	3.65	4,498.87	4,498.84	4,498.91	4,498.88	1.66	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,499.06	4,498.87	4,499.14	4,498.96	2.30	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.72	1.96	44.00	0.005000	12 inch	0.010	3.65	4,498.64	4,498.58	4,498.72	4,498.66	2.29	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	2.51	0.30	48.00	0.020000	4 inch	0.010	0.35	4,499.29	4,498.58	4,499.47	4,498.76	3.45	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.70	2.14	55.00	0.004909	12 inch	0.010	3.62	4,498.56	4,498.46	4,498.66	4,498.56	2.51	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.68	2.42	96.00	0.004896	12 inch	0.010	3.61	4,498.44	4,498.23	4,498.56	4,498.35	2.83	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.65	4,498.46	4,498.73	4,498.55	2.30	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.65	2.37	2.00	0.005000	15 inch	0.010	5.94	4,498.20	4,498.20	4,498.26	4,498.26	1.93	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.38	4,498.20	4,498.46	4,498.28	2.30	4,494.85

Pipe Report

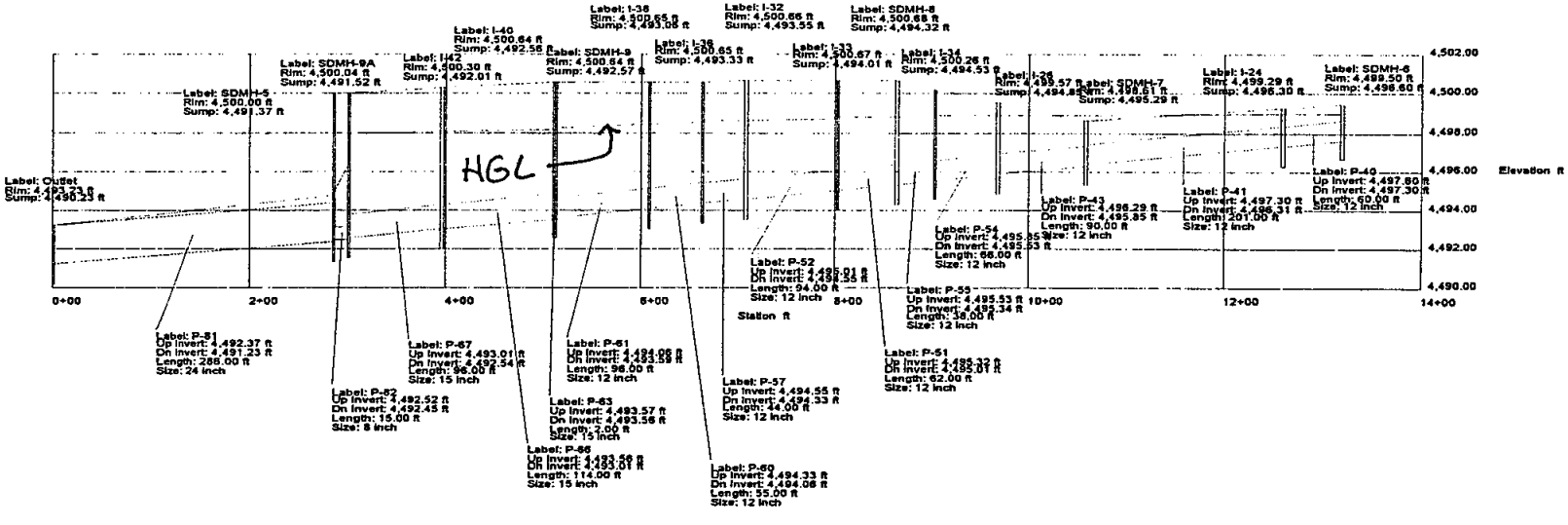
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.65	2.67	14.00	0.004825	15 inch	0.010	5.83	4,498.18	4,498.07	4,498.26	4,498.14	2.17	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.60	2.88	96.00	0.004896	15 inch	0.010	5.88	4,498.05	4,497.94	4,498.14	4,498.02	2.34	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.25	4,498.07	4,498.34	4,498.15	2.30	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,498.24	4,498.24	4,498.24	4,498.24	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	2.48	0.45	06.00	0.002830	12 inch	0.013	2.11	4,498.24	4,498.23	4,498.24	4,498.23	0.52	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.38	4,498.24	4,498.46	4,498.32	2.30	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.69	1.52	13.00	0.003077	18 inch	0.010	7.57	4,498.12	4,498.11	4,498.13	4,498.13	0.86	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.68	1.81	90.00	0.003000	18 inch	0.010	7.48	4,498.11	4,498.09	4,498.13	4,498.11	1.02	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,498.25	4,498.11	4,498.33	4,498.20	2.30	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.38	2.16	17.00	0.003529	18 inch	0.010	8.11	4,498.01	4,498.01	4,498.03	4,498.03	1.22	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.37	2.38	87.00	0.003793	18 inch	0.010	8.41	4,498.00	4,497.97	4,498.03	4,498.00	1.35	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,498.21	4,498.01	4,498.29	4,498.09	2.30	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	18.46	0.88	16.42	86.00	0.003986	24 inch	0.013	14.28	4,494.74	4,493.23	4,495.16	4,493.65	5.23	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	1.25	4.63	15.00	0.004667	8 inch	0.010	1.07	4,496.30	4,494.99	4,499.03	4,497.73	13.27	4,492.52
P-83	I-48	SDMH-4	59.10	0.25	14.78	14.78	0.91	13.50	25.00	0.004000	24 inch	0.013	14.31	4,496.51	4,496.42	4,496.80	4,496.71	4.30	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	14.78	0.90	13.48	63.00	0.003912	24 inch	0.013	14.15	4,496.28	4,494.99	4,496.57	4,495.28	4.29	4,493.85

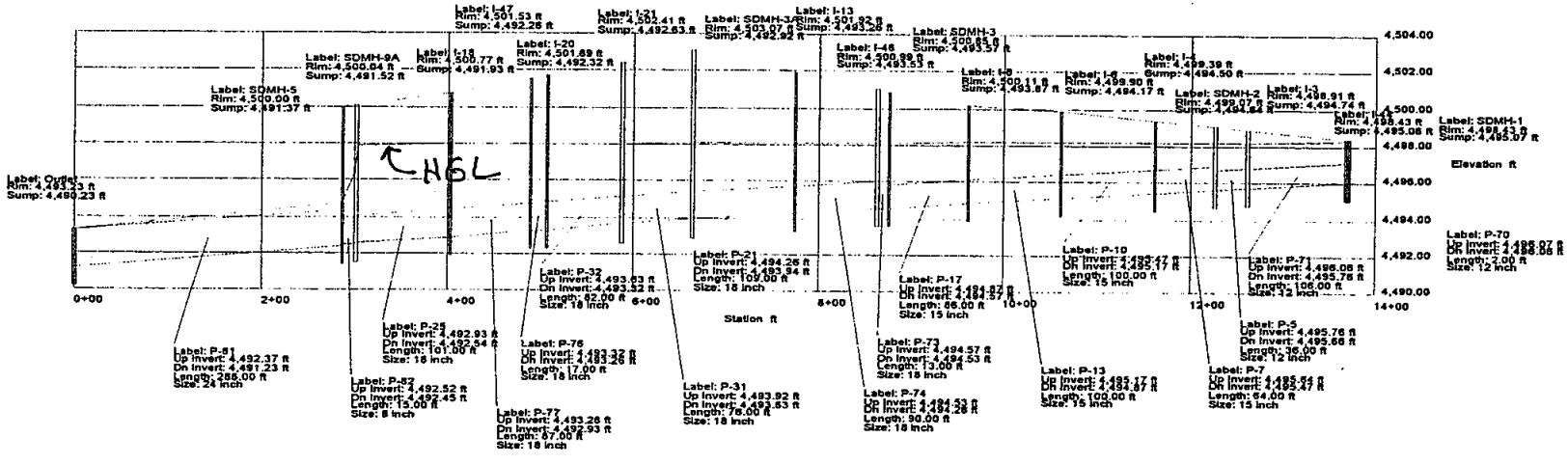
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.36	4,498.36	2.30
I-2	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.34	4,498.34	2.30
I-3	0.00	0.00	5.29	0.00	2.14	0.00	0.00	0.36	0.00	0.00	13.62	13.62	0.00	0.77	0.00	4,498.23	4,498.22	0.90
I-4	0.00	0.00	5.29	0.00	1.94	0.00	0.00	0.54	0.00	0.00	16.04	16.04	0.00	1.05	0.00	4,498.20	4,498.20	0.85
I-5	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.32	4,498.32	2.30
I-6	0.00	0.00	5.29	0.00	1.84	0.00	0.00	0.71	0.00	0.00	17.99	17.99	0.00	1.32	0.00	4,498.18	4,498.18	1.08
I-7	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.29	4,498.29	2.30
I-8	0.00	0.00	5.29	0.00	1.75	0.00	0.00	0.89	0.00	0.00	19.54	19.54	0.00	1.58	0.00	4,498.16	4,498.15	1.28
I-12	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.23	4,498.23	2.30
I-13	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.25	0.00	0.00	22.37	22.37	0.00	2.01	0.00	4,498.09	4,498.09	1.14
I-14	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.24	4,498.24	2.30
I-15	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,498.80	4,498.80	3.45
I-16	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.21	4,498.21	2.30
I-17	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.18	4,498.18	2.30
I-18	0.00	0.00	5.29	0.00	1.31	0.00	0.00	1.90	0.00	0.00	27.61	27.61	0.00	2.52	0.00	4,497.97	4,497.97	1.42
I-20	0.00	0.00	5.29	0.00	1.38	0.00	0.00	1.55	0.00	0.00	26.30	26.30	0.00	2.16	0.00	4,498.01	4,498.01	1.22
I-21	0.00	0.00	5.29	0.00	1.45	0.00	0.00	1.43	0.00	0.00	25.14	25.14	0.00	2.08	0.00	4,498.04	4,498.03	1.18
I-22	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,499.19	4,499.19	2.30
I-23	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,499.09	4,499.09	2.30
I-24	0.00	0.00	5.29	0.00	2.28	0.00	0.00	0.36	0.00	0.00	12.26	12.26	0.00	0.82	0.00	4,499.00	4,499.00	0.96
I-25	0.28	0.85	2.51	0.60	2.51	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.60	0.00	4,498.95	4,498.95	1.73
I-26	0.00	0.00	5.29	0.00	1.86	0.00	0.00	0.60	0.00	0.00	17.56	17.56	0.00	1.12	0.00	4,498.91	4,498.90	1.31
I-27	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,499.06	4,499.06	2.30
I-29	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.81	4,498.81	1.29
I-31	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.70	4,498.70	1.29
I-32	0.00	0.00	5.29	0.00	1.72	0.00	0.00	1.13	0.00	0.00	20.20	20.20	0.00	1.96	0.00	4,498.66	4,498.64	2.29
I-33	0.00	0.00	5.29	0.00	1.76	0.00	0.00	0.95	0.00	0.00	19.41	19.41	0.00	1.69	0.00	4,498.77	4,498.76	1.98
I-34	0.00	0.00	5.29	0.00	1.81	0.00	0.00	0.77	0.00	0.00	18.40	18.40	0.00	1.41	0.00	4,498.87	4,498.87	1.66
I-35	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,499.29	4,499.29	3.45
I-36	0.00	0.00	5.29	0.00	1.70	0.00	0.00	1.25	0.00	0.00	20.52	20.52	0.00	2.14	0.00	4,498.58	4,498.56	2.51
I-37	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.65	4,498.65	2.30
I-38	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.43	0.00	0.00	20.88	20.88	0.00	2.42	0.00	4,498.46	4,498.44	2.83
I-39	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.38	4,498.38	2.30
I-40	0.00	0.00	5.29	0.00	1.65	0.00	0.00	1.61	0.00	0.00	21.46	21.46	0.00	2.67	0.00	4,498.20	4,498.18	2.17
I-41	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.25	4,498.25	2.30
I-42	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.79	0.00	0.00	22.34	22.34	0.00	2.88	0.00	4,498.07	4,498.05	2.34
I-43	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.38	4,498.38	2.30

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	2.48	0.00	0.00	0.18	0.00	0.00	10.25	10.25	0.00	0.45	0.00	4,498.24	4,498.24	0.52
I-45	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.25	4,498.25	2.30
I-46	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.07	0.00	0.00	20.91	20.91	0.00	1.81	0.00	4,498.11	4,498.11	1.02
I-47	0.00	0.00	5.29	0.00	1.37	0.00	0.00	1.73	0.00	0.00	26.54	26.54	0.00	2.38	0.00	4,498.01	4,498.00	1.35
I-48	59.10	0.25	0.91	13.50	0.91	14.78	0.00	14.78	7.10	0.00	0.00	47.10	0.00	13.50	0.00	4,496.51	4,496.51	4.30
Outlet	N/A	N/A	N/A	N/A	0.87	N/A	N/A	18.46	N/A	0.00	49.52	49.52	N/A	16.15	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,498.24	4,498.24	0.00
SDMH-2	N/A	N/A	N/A	N/A	2.07	N/A	N/A	0.36	N/A	0.00	14.29	14.29	N/A	0.75	N/A	4,498.21	4,498.21	0.61
SDMH-3A	N/A	N/A	N/A	N/A	1.51	N/A	N/A	1.25	N/A	0.00	23.97	23.97	N/A	1.90	N/A	4,498.07	4,498.05	1.08
SDMH-3	N/A	N/A	N/A	N/A	1.69	N/A	N/A	0.89	N/A	0.00	20.65	20.65	N/A	1.52	N/A	4,498.12	4,498.12	0.86
SDMH-4	N/A	N/A	N/A	N/A	0.90	N/A	N/A	14.78	N/A	0.00	47.20	47.20	N/A	13.48	N/A	4,496.42	4,496.28	4.29
SDMH-5	N/A	N/A	N/A	N/A	0.88	N/A	N/A	18.46	N/A	0.00	48.61	48.61	N/A	16.42	N/A	4,494.99	4,494.74	5.23
SDMH-6	N/A	N/A	N/A	N/A	2.47	N/A	N/A	0.18	N/A	0.00	10.35	10.35	N/A	0.45	N/A	4,499.01	4,499.01	0.52
SDMH-7	N/A	N/A	N/A	N/A	1.96	N/A	N/A	0.36	N/A	0.00	15.74	15.74	N/A	0.71	N/A	4,498.91	4,498.91	0.83
SDMH-8	N/A	N/A	N/A	N/A	1.79	N/A	N/A	0.77	N/A	0.00	18.78	18.78	N/A	1.40	N/A	4,498.84	4,498.82	1.64
SDMH-9	N/A	N/A	N/A	N/A	1.65	N/A	N/A	1.43	N/A	0.00	21.45	21.45	N/A	2.37	N/A	4,498.23	4,498.20	1.93
SDMH-9A	N/A	N/A	N/A	N/A	1.25	N/A	N/A	3.69	N/A	0.00	28.79	28.79	N/A	4.63	N/A	4,497.94	4,496.30	13.27


HGL
Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-42
Rim: 4,500.30 ft
Sump: 4,492.01 ft
Label: I-40
Rim: 4,500.64 ft
Sump: 4,492.58 ft
Label: SDMH-9
Rim: 4,500.54 ft
Sump: 4,492.57 ft
Label: I-38
Rim: 4,500.65 ft
Sump: 4,493.08 ft
Label: I-36
Rim: 4,500.65 ft
Sump: 4,493.33 ft
Label: I-32
Rim: 4,500.66 ft
Sump: 4,493.55 ft
Label: I-33
Rim: 4,500.67 ft
Sump: 4,494.01 ft
Label: SDMH-8
Rim: 4,500.68 ft
Sump: 4,494.32 ft
Label: I-34
Rim: 4,500.26 ft
Sump: 4,494.53 ft
Label: I-26
Rim: 4,499.57 ft
Sump: 4,494.85 ft
Label: SDMH-7
Rim: 4,498.51 ft
Sump: 4,495.29 ft
Label: I-24
Rim: 4,499.29 ft
Sump: 4,496.30 ft
Label: SDMH-6
Rim: 4,499.50 ft
Sump: 4,496.80 ft
Label: P-40
Up Invert: 4,497.80 ft
Dn Invert: 4,497.30 ft
Length: 60.00 ft
Size: 12 inch
Label: P-41
Up Invert: 4,497.30 ft
Dn Invert: 4,496.31 ft
Length: 201.00 ft
Size: 12 inch
Label: P-43
Up Invert: 4,496.29 ft
Dn Invert: 4,495.85 ft
Length: 90.00 ft
Size: 12 inch
Label: P-54
Up Invert: 4,495.85 ft
Dn Invert: 4,495.53 ft
Length: 66.00 ft
Size: 12 inch
Label: P-55
Up Invert: 4,495.53 ft
Dn Invert: 4,495.34 ft
Length: 38.00 ft
Size: 12 inch
Label: P-51
Up Invert: 4,495.32 ft
Dn Invert: 4,495.01 ft
Length: 62.00 ft
Size: 12 inch
Label: P-52
Up Invert: 4,495.01 ft
Dn Invert: 4,494.54 ft
Length: 94.00 ft
Size: 12 inch
Label: P-57
Up Invert: 4,494.55 ft
Dn Invert: 4,494.33 ft
Length: 44.00 ft
Size: 12 inch
Label: P-60
Up Invert: 4,494.33 ft
Dn Invert: 4,494.08 ft
Length: 55.00 ft
Size: 12 inch
Label: P-61
Up Invert: 4,494.08 ft
Dn Invert: 4,493.59 ft
Length: 96.00 ft
Size: 12 inch
Label: P-63
Up Invert: 4,493.57 ft
Dn Invert: 4,493.56 ft
Length: 2.00 ft
Size: 15 inch
Label: P-66
Up Invert: 4,493.56 ft
Dn Invert: 4,493.07 ft
Length: 114.00 ft
Size: 15 inch
Label: P-67
Up Invert: 4,493.01 ft
Dn Invert: 4,492.54 ft
Length: 96.00 ft
Size: 15 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,491.23 ft
Length: 286.00 ft
Size: 24 inch
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Elevation ft


HGL
Station ft
Elevation ft
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
4,504.00
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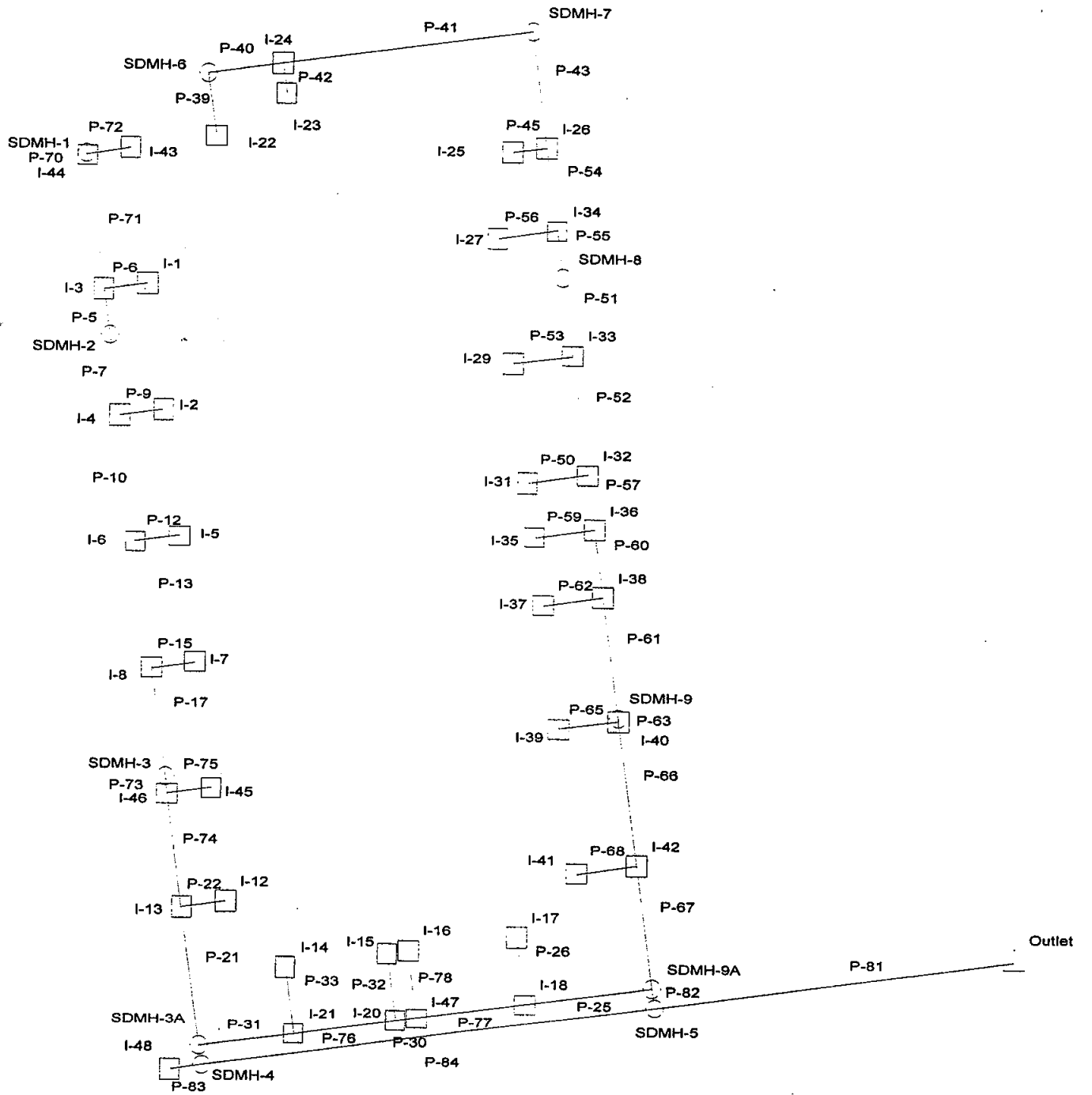
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-18
Rim: 4,500.77 ft
Sump: 4,491.93 ft
Label: I-47
Rim: 4,501.53 ft
Sump: 4,492.26 ft
Label: I-20
Rim: 4,501.69 ft
Sump: 4,492.52 ft
Label: I-21
Rim: 4,502.41 ft
Sump: 4,492.83 ft
Label: SDMH-3A
Rim: 4,503.07 ft
Sump: 4,492.92 ft
Label: I-13
Rim: 4,501.92 ft
Sump: 4,493.26 ft
Label: I-46
Rim: 4,500.99 ft
Sump: 4,493.53 ft
Label: SDMH-3
Rim: 4,500.85 ft
Sump: 4,493.57 ft
Label: I-9
Rim: 4,500.11 ft
Sump: 4,493.87 ft
Label: I-8
Rim: 4,499.90 ft
Sump: 4,494.17 ft
Label: I-5
Rim: 4,499.39 ft
Sump: 4,494.50 ft
Label: SDMH-2
Rim: 4,499.07 ft
Sump: 4,494.42 ft
Label: I-3
Rim: 4,498.91 ft
Sump: 4,494.74 ft
Label: I-4
Rim: 4,498.43 ft
Sump: 4,495.08 ft
Label: SDMH-1
Rim: 4,498.43 ft
Sump: 4,495.07 ft
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,491.23 ft
Length: 285.00 ft
Size: 24 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-25
Up Invert: 4,492.93 ft
Dn Invert: 4,492.54 ft
Length: 101.00 ft
Size: 18 inch
Label: P-77
Up Invert: 4,493.26 ft
Dn Invert: 4,492.93 ft
Length: 67.00 ft
Size: 18 inch
Label: P-76
Dn Invert: 4,493.32 ft
Dn Invert: 4,493.26 ft
Length: 17.00 ft
Size: 18 inch
Label: P-32
Up Invert: 4,493.63 ft
Dn Invert: 4,493.32 ft
Length: 82.00 ft
Size: 18 inch
Label: P-31
Up Invert: 4,493.92 ft
Dn Invert: 4,493.63 ft
Length: 76.00 ft
Size: 18 inch
Label: P-21
Up Invert: 4,494.26 ft
Dn Invert: 4,493.94 ft
Length: 109.00 ft
Size: 18 inch
Label: P-74
Up Invert: 4,494.53 ft
Dn Invert: 4,494.26 ft
Length: 90.00 ft
Size: 18 inch
Label: P-73
Up Invert: 4,494.57 ft
Dn Invert: 4,494.53 ft
Length: 13.00 ft
Size: 18 inch
Label: P-17
Up Invert: 4,494.87 ft
Dn Invert: 4,494.57 ft
Length: 66.00 ft
Size: 15 inch
Label: P-13
Up Invert: 4,495.17 ft
Dn Invert: 4,494.87 ft
Length: 109.00 ft
Size: 15 inch
Label: P-10
Dn Invert: 4,495.47 ft
Dn Invert: 4,495.17 ft
Length: 100.00 ft
Size: 15 inch
Label: P-7
Up Invert: 4,495.47 ft
Dn Invert: 4,495.47 ft
Length: 64.00 ft
Size: 15 inch
Label: P-5
Up Invert: 4,495.76 ft
Dn Invert: 4,495.66 ft
Length: 36.00 ft
Size: 12 inch
Label: P-71
Up Invert: 4,496.06 ft
Dn Invert: 4,495.76 ft
Length: 106.00 ft
Size: 12 inch
Label: P-70
Up Invert: 4,496.07 ft
Dn Invert: 4,496.06 ft
Length: 7.00 ft
Size: 12 inch

100yr,
47.1min/10min



Detailed Report for Outlet

Flows			
Total Discharge	25.16 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	25.16 cfs

Watershed Data			
System Intensity	1.35 in/hr	Upstream CA	18.46 acres
Total CA	18.46 acres		

Flow Times			
System Flow Time	48.67 min	Upstream Flow Time	48.67 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	3.37	1.21	36.00	0.002778	12 inch	0.013	2.09	4,500.64	4,500.61	4,500.68	4,500.64	1.42	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	3.29	1.19	64.00	0.002656	15 inch	0.010	4.33	4,500.62	4,500.61	4,500.64	4,500.63	0.97	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	3.10	1.67	00.00	0.003000	15 inch	0.010	4.60	4,500.65	4,500.61	4,500.68	4,500.64	1.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	2.89	2.08	00.00	0.003000	15 inch	0.010	4.60	4,500.67	4,500.61	4,500.72	4,500.66	1.69	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	2.82	2.54	86.00	0.003488	15 inch	0.010	4.96	4,500.69	4,500.61	4,500.76	4,500.68	2.07	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	2.69	3.39	09.00	0.002936	18 inch	0.010	7.40	4,500.53	4,500.46	4,500.59	4,500.52	1.92	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.85	4,500.54	4,501.04	4,500.73	3.48	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	2.47	4.74	01.00	0.003861	18 inch	0.010	8.49	4,500.16	4,500.04	4,500.27	4,500.15	2.68	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.63	4,500.16	4,500.82	4,500.35	3.48	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	3.80	0.46	53.00	0.020000	4 inch	0.010	0.35	4,502.10	4,500.30	4,502.52	4,500.72	5.22	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	2.62	3.30	76.00	0.003816	18 inch	0.010	8.43	4,500.42	4,500.37	4,500.47	4,500.43	1.87	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	2.57	3.70	82.00	0.003780	18 inch	0.010	8.40	4,500.36	4,500.30	4,500.43	4,500.37	2.09	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.84	4,500.37	4,501.03	4,500.56	3.48	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	3.76	0.68	60.00	0.005000	12 inch	0.013	2.81	4,500.70	4,500.68	4,500.71	4,500.69	0.79	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	3.53	1.27	01.00	0.004925	12 inch	0.013	2.79	4,500.89	4,500.68	4,500.92	4,500.71	1.49	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	3.80	0.68	23.00	0.020000	6 inch	0.010	1.03	4,500.88	4,500.68	4,501.07	4,500.87	3.48	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	3.13	1.13	90.00	0.004889	12 inch	0.010	3.61	4,500.72	4,500.68	4,500.75	4,500.71	1.32	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	3.80	0.91	28.00	0.020000	8 inch	0.010	2.22	4,500.77	4,500.68	4,500.88	4,500.79	2.61	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.75	4,500.66	4,500.81	4,500.72	1.96	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	2.85	2.22	62.00	0.005000	12 inch	0.010	3.65	4,500.79	4,500.67	4,500.89	4,500.78	2.61	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	2.82	2.71	94.00	0.004894	12 inch	0.010	3.61	4,500.92	4,500.66	4,501.08	4,500.82	3.18	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.76	4,500.67	4,500.82	4,500.73	1.96	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	2.92	1.75	66.00	0.004848	12 inch	0.010	3.60	4,500.76	4,500.68	4,500.82	4,500.75	2.06	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	2.87	2.24	38.00	0.005000	12 inch	0.010	3.65	4,500.75	4,500.68	4,500.86	4,500.79	2.63	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	2.79	3.18	44.00	0.005000	12 inch	0.010	3.65	4,500.82	4,500.65	4,501.03	4,500.87	3.73	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	3.80	0.46	48.00	0.020000	4 inch	0.010	0.35	4,502.28	4,500.65	4,502.70	4,501.07	5.22	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	2.77	3.49	55.00	0.004909	12 inch	0.010	3.62	4,500.90	4,500.65	4,501.16	4,500.91	4.10	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	2.76	3.97	96.00	0.004896	12 inch	0.010	3.61	4,501.21	4,500.64	4,501.54	4,500.98	4.66	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.07	4,500.65	4,501.26	4,500.84	3.48	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	2.73	3.93	2.00	0.005000	15 inch	0.010	5.94	4,500.64	4,500.64	4,500.80	4,500.80	3.20	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.06	4,500.64	4,501.25	4,500.83	3.48	4,494.85

Pipe Report

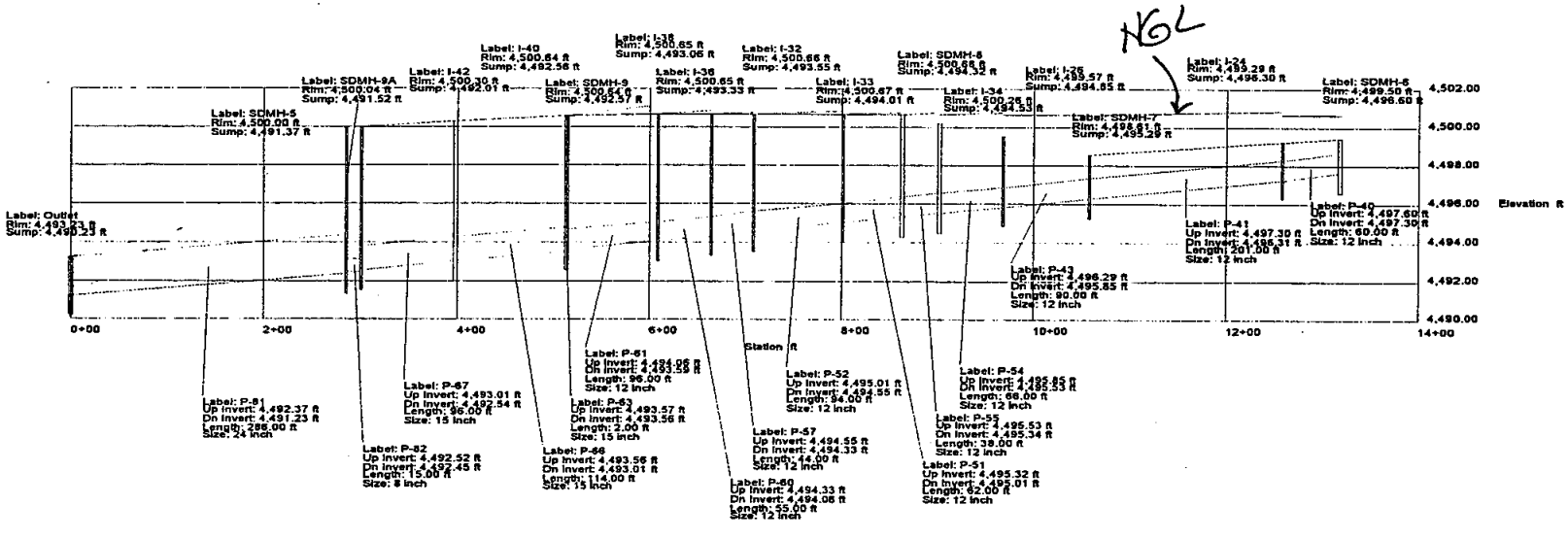
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	2.73	4.42	14.00	0.004825	15 inch	0.010	5.83	4,500.62	4,500.30	4,500.82	4,500.50	3.60	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	2.69	4.84	96.00	0.004896	15 inch	0.010	5.88	4,500.36	4,500.04	4,500.60	4,500.28	3.95	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,500.72	4,500.30	4,500.91	4,500.49	3.48	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,500.61	4,500.61	4,500.61	4,500.61	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	3.77	0.68	06.00	0.002830	12 inch	0.013	2.11	4,500.64	4,500.61	4,500.65	4,500.62	0.80	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	2.77	2.49	13.00	0.003077	18 inch	0.010	7.57	4,500.60	4,500.59	4,500.63	4,500.62	1.41	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	2.76	2.97	90.00	0.003000	18 inch	0.010	7.48	4,500.58	4,500.54	4,500.63	4,500.58	1.68	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.90	4,500.59	4,501.09	4,500.78	3.48	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	2.52	3.93	17.00	0.003529	18 inch	0.010	8.11	4,500.28	4,500.27	4,500.36	4,500.35	2.23	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	2.51	4.37	87.00	0.003793	18 inch	0.010	8.41	4,500.25	4,500.16	4,500.35	4,500.26	2.47	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.74	4,500.27	4,500.92	4,500.46	3.48	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	18.46	1.37	25.42	86.00	0.003986	24 inch	0.013	14.28	4,496.84	4,493.23	4,497.86	4,494.25	8.09	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	2.42	9.02	15.00	0.004667	8 inch	0.010	1.07	4,502.40	4,497.45	4,512.77	4,507.82	25.83	4,492.52
P-83	I-48	SDMH-4	59.10	0.25	14.78	14.78	1.39	20.70	25.00	0.004000	24 inch	0.013	14.31	4,501	4,500.82	4,501.71	4,501.50	6.59	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	14.78	1.39	20.67	63.00	0.003912	24 inch	0.013	14.15	4,500.48	4,497.45	4,501.16	4,498.13	6.58	4,493.85

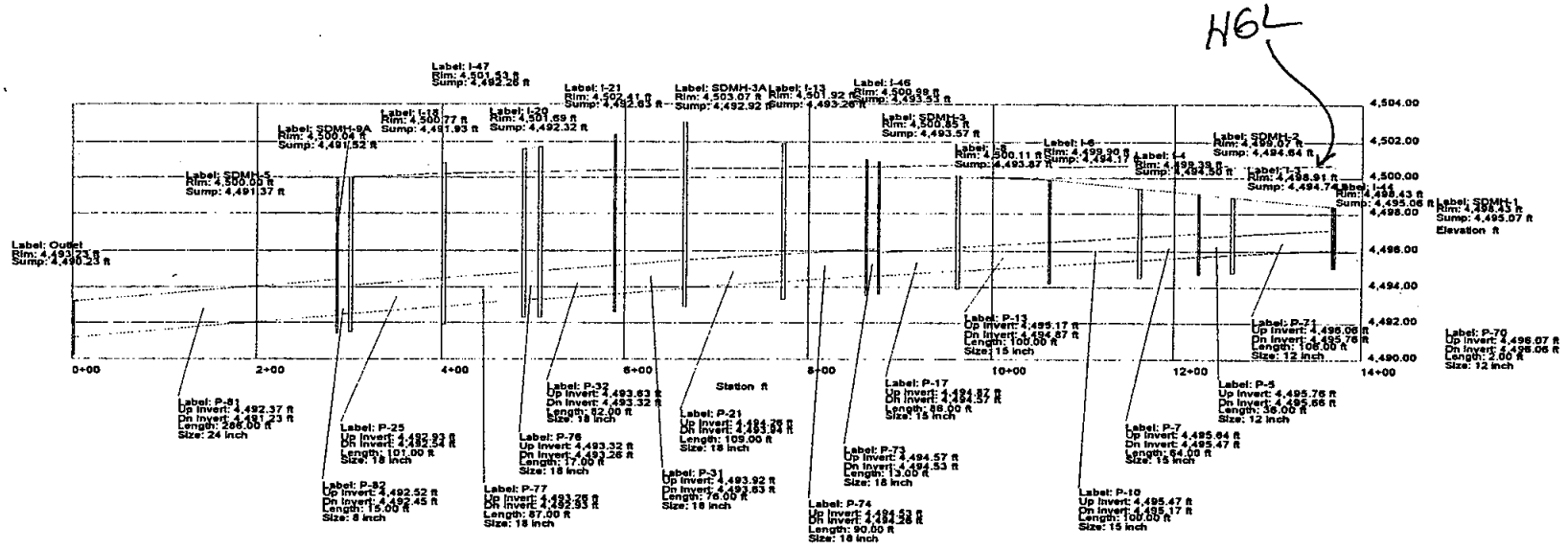
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-2	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-3	0.00	0.00	7.80	0.00	3.37	0.00	0.00	0.36	0.00	0.00	12.39	12.39	0.00	1.21	0.00	4,500.61	4,500.61	1.42
I-4	0.00	0.00	7.80	0.00	3.10	0.00	0.00	0.54	0.00	0.00	13.91	13.91	0.00	1.67	0.00	4,500.61	4,500.61	1.36
I-5	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-6	0.00	0.00	7.80	0.00	2.89	0.00	0.00	0.71	0.00	0.00	15.14	15.14	0.00	2.08	0.00	4,500.61	4,500.61	1.69
I-7	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-8	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.89	0.00	0.00	16.12	16.12	0.00	2.54	0.00	4,500.61	4,500.61	2.07
I-12	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.85	4,500.85	3.48
I-13	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.25	0.00	0.00	17.86	17.86	0.00	3.39	0.00	4,500.54	4,500.53	1.92
I-14	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4;500.84	4,500.84	3.48
I-15	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.10	4,502.10	5.22
I-16	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.74	4,500.74	3.48
I-17	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.63	4,500.63	3.48
I-18	0.00	0.00	7.80	0.00	2.47	0.00	0.00	1.90	0.00	0.00	20.85	20.85	0.00	4.74	0.00	4,500.16	4,500.16	2.68
I-20	0.00	0.00	7.80	0.00	2.52	0.00	0.00	1.55	0.00	0.00	20.14	20.14	0.00	3.93	0.00	4,500.30	4,500.28	2.23
I-21	0.00	0.00	7.80	0.00	2.57	0.00	0.00	1.43	0.00	0.00	19.48	19.48	0.00	3.70	0.00	4,500.37	4,500.36	2.09
I-22	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-23	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.88	4,500.88	3.48
I-24	0.00	0.00	7.80	0.00	3.53	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	1.27	0.00	4,500.68	4,500.68	1.49
I-25	0.28	0.85	3.80	0.91	3.80	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.91	0.00	4,500.77	4,500.77	2.61
I-26	0.00	0.00	7.80	0.00	2.92	0.00	0.00	0.60	0.00	0.00	14.87	14.87	0.00	1.75	0.00	4,500.68	4,500.68	2.06
I-27	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-29	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.76	4,500.76	1.96
I-31	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.75	4,500.75	1.96
I-32	0.00	0.00	7.80	0.00	2.79	0.00	0.00	1.13	0.00	0.00	16.54	16.54	0.00	3.18	0.00	4,500.66	4,500.66	3.73
I-33	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.95	0.00	0.00	16.04	16.04	0.00	2.71	0.00	4,500.67	4,500.67	3.18
I-34	0.00	0.00	7.80	0.00	2.87	0.00	0.00	0.77	0.00	0.00	15.41	15.41	0.00	2.24	0.00	4,500.68	4,500.68	2.63
I-35	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.28	4,502.28	5.22
I-36	0.00	0.00	7.80	0.00	2.77	0.00	0.00	1.25	0.00	0.00	16.73	16.73	0.00	3.49	0.00	4,500.65	4,500.65	4.10
I-37	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.07	4,501.07	3.48
I-38	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.43	0.00	0.00	16.96	16.96	0.00	3.97	0.00	4,500.65	4,500.65	4.66
I-39	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.06	4,501.06	3.48
I-40	0.00	0.00	7.80	0.00	2.73	0.00	0.00	1.61	0.00	0.00	17.31	17.31	0.00	4.42	0.00	4,500.64	4,500.62	3.60
I-41	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.72	4,500.72	3.48
I-42	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.79	0.00	0.00	17.84	17.84	0.00	4.84	0.00	4,500.30	4,500.30	3.95
I-43	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48

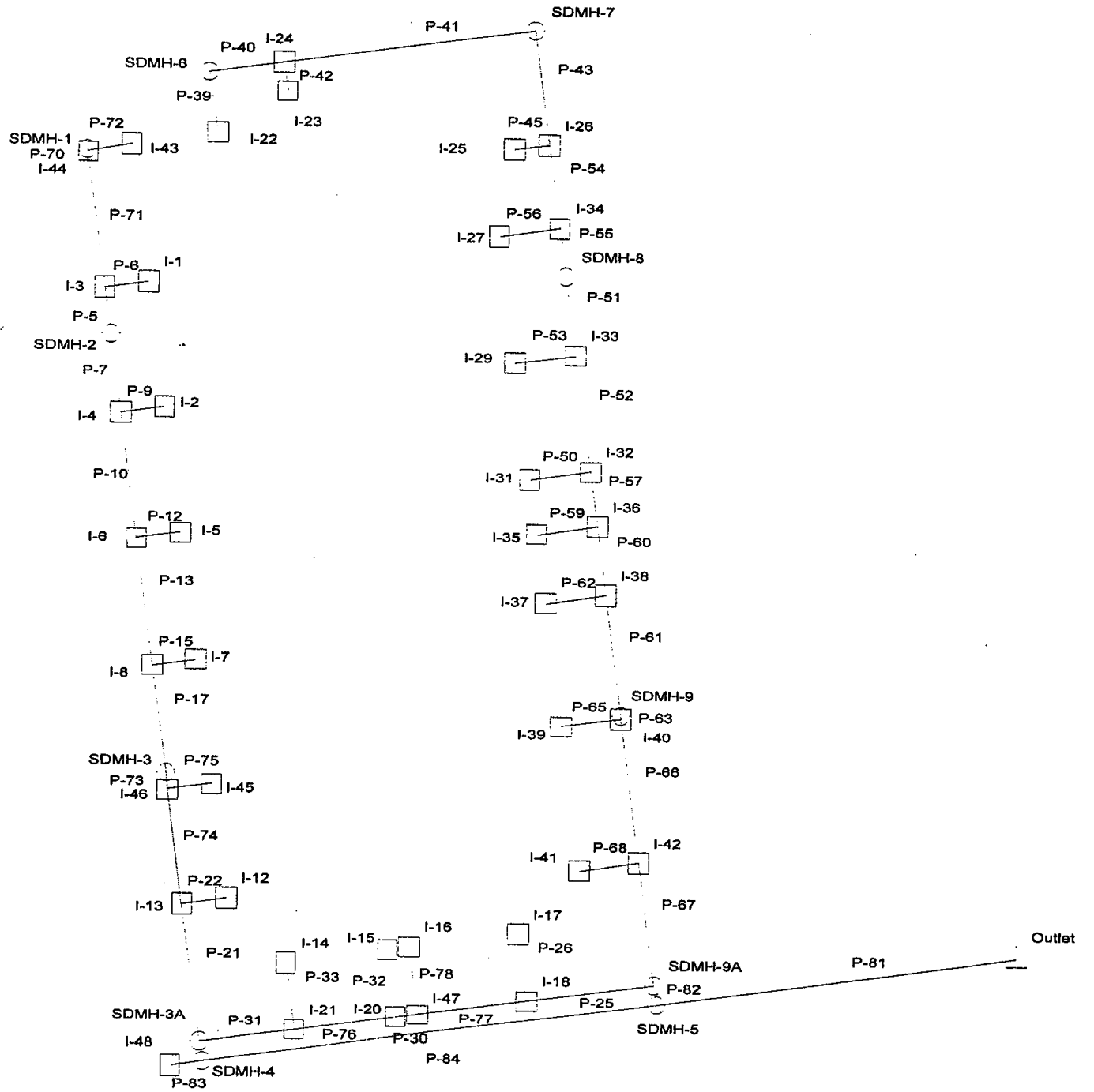
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	3.77	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.68	0.00	4,500.61	4,500.61	0.80
I-45	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.90	4,500.90	3.48
I-46	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.07	0.00	0.00	16.97	16.97	0.00	2.97	0.00	4,500.59	4,500.58	1.68
I-47	0.00	0.00	7.80	0.00	2.51	0.00	0.00	1.73	0.00	0.00	20.26	20.26	0.00	4.37	0.00	4,500.27	4,500.25	2.47
I-48	59.10	0.25	1.39	20.70	1.39	14.78	0.00	14.78	7.10	0.00	0.00	47.10	0.00	20.70	0.00	4,501.03	4,501.03	6.59
Outlet	N/A	N/A	N/A	N/A	1.35	N/A	N/A	18.46	N/A	0.00	48.67	48.67	N/A	25.16	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,500.61	4,500.61	0.00
SDMH-2	N/A	N/A	N/A	N/A	3.29	N/A	N/A	0.36	N/A	0.00	12.81	12.81	N/A	1.19	N/A	4,500.61	4,500.61	0.97
SDMH-3A	N/A	N/A	N/A	N/A	2.62	N/A	N/A	1.25	N/A	0.00	18.81	18.81	N/A	3.30	N/A	4,500.46	4,500.42	1.87
SDMH-3	N/A	N/A	N/A	N/A	2.77	N/A	N/A	0.89	N/A	0.00	16.81	16.81	N/A	2.49	N/A	4,500.61	4,500.60	1.41
SDMH-4	N/A	N/A	N/A	N/A	1.39	N/A	N/A	14.78	N/A	0.00	47.16	47.16	N/A	20.67	N/A	4,500.82	4,500.48	6.58
SDMH-5	N/A	N/A	N/A	N/A	1.37	N/A	N/A	18.46	N/A	0.00	48.08	48.08	N/A	25.42	N/A	4,497.45	4,496.84	8.09
SDMH-6	N/A	N/A	N/A	N/A	3.76	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.68	N/A	4,500.68	4,500.68	0.79
SDMH-7	N/A	N/A	N/A	N/A	3.13	N/A	N/A	0.36	N/A	0.00	13.74	13.74	N/A	1.13	N/A	4,500.68	4,500.68	1.32
SDMH-8	N/A	N/A	N/A	N/A	2.85	N/A	N/A	0.77	N/A	0.00	15.65	15.65	N/A	2.22	N/A	4,500.68	4,500.68	2.61
SDMH-9	N/A	N/A	N/A	N/A	2.73	N/A	N/A	1.43	N/A	0.00	17.30	17.30	N/A	3.93	N/A	4,500.64	4,500.64	3.20
SDMH-9A	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.48	21.48	N/A	9.02	N/A	4,500.04	4,500.04	25.83




HGL
Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-18
Rim: 4,500.77 ft
Sump: 4,491.93 ft
Label: I-47
Rim: 4,501.53 ft
Sump: 4,492.26 ft
Label: I-20
Rim: 4,501.69 ft
Sump: 4,492.32 ft
Label: I-21
Rim: 4,502.41 ft
Sump: 4,492.83 ft
Label: SDMH-3A
Rim: 4,503.07 ft
Sump: 4,492.92 ft
Label: I-13
Rim: 4,501.92 ft
Sump: 4,493.26 ft
Label: I-46
Rim: 4,500.99 ft
Sump: 4,493.53 ft
Label: SDMH-3
Rim: 4,500.85 ft
Sump: 4,493.57 ft
Label: I-5
Rim: 4,500.11 ft
Sump: 4,493.57 ft
Label: I-6
Rim: 4,499.90 ft
Sump: 4,494.17 ft
Label: I-4
Rim: 4,499.39 ft
Sump: 4,494.50 ft
Label: SDMH-2
Rim: 4,499.07 ft
Sump: 4,494.64 ft
Label: I-3
Rim: 4,498.91 ft
Sump: 4,494.74 ft
Label: I-44
Rim: 4,498.43 ft
Sump: 4,495.06 ft
Label: SDMH-1
Rim: 4,496.13 ft
Sump: 4,495.07 ft
Elevation ft
4,504.00
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,491.23 ft
Length: 286.00 ft
Size: 24 inch
Label: P-25
Dn Invert: 4,492.93 ft
Up Invert: 4,492.54 ft
Length: 101.00 ft
Size: 18 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-77
Up Invert: 4,493.26 ft
Dn Invert: 4,492.93 ft
Length: 87.00 ft
Size: 18 inch
Label: P-78
Up Invert: 4,493.32 ft
Dn Invert: 4,493.26 ft
Length: 17.00 ft
Size: 18 inch
Label: P-32
Up Invert: 4,493.63 ft
Dn Invert: 4,493.32 ft
Length: 82.00 ft
Size: 18 inch
Label: P-31
Up Invert: 4,493.92 ft
Dn Invert: 4,493.63 ft
Length: 76.00 ft
Size: 18 inch
Label: P-21
Length: 109.00 ft
Size: 18 inch
Label: P-74
Length: 90.00 ft
Size: 18 inch
Label: P-73
Up Invert: 4,494.57 ft
Dn Invert: 4,494.53 ft
Length: 13.00 ft
Size: 18 inch
Label: P-17
Up Invert: 4,494.87 ft
Dn Invert: 4,494.57 ft
Length: 89.00 ft
Size: 18 inch
Label: P-13
Up Invert: 4,495.17 ft
Dn Invert: 4,494.87 ft
Length: 100.00 ft
Size: 18 inch
Label: P-10
Up Invert: 4,495.47 ft
Dn Invert: 4,495.17 ft
Length: 100.00 ft
Size: 18 inch
Label: P-7
Up Invert: 4,495.64 ft
Dn Invert: 4,495.47 ft
Length: 64.00 ft
Size: 18 inch
Label: P-5
Up Invert: 4,495.76 ft
Dn Invert: 4,495.66 ft
Length: 36.00 ft
Size: 12 inch
Label: P-71
Up Invert: 4,496.06 ft
Dn Invert: 4,495.76 ft
Length: 106.00 ft
Size: 12 inch
Label: P-70
Up Invert: 4,496.07 ft
Dn Invert: 4,496.06 ft
Length: 2.00 ft
Size: 12 inch

5yr,
25.9 min


SDMH-7
P-41
P-40
I-24
SDMH-6
P-42
P-43
P-39
I-23
P-72
P-45
I-26
SDMH-1
P-70
I-44
I-43
I-22
I-25
P-54
P-71
P-56
I-34
I-27
P-55
SDMH-8
P-6
I-1
I-3
P-51
P-5
SDMH-2
P-53
I-33
I-29
P-7
P-52
P-9
I-2
I-4
P-10
P-50
I-32
I-31
P-57
P-12
P-59
I-36
I-6
I-5
I-35
P-60
P-13
P-62
I-38
I-37
P-61
P-15
I-7
I-8
P-17
SDMH-9
P-65
P-63
I-39
I-40
SDMH-3
P-75
P-73
I-46
I-45
P-66
P-74
P-68
I-42
I-41
P-22
I-12
I-13
P-67
I-17
I-14
I-15
I-16
Outlet
P-21
P-26
P-33
P-32
P-78
P-81
SDMH-9A
I-18
P-82
SDMH-3A
P-31
I-21
I-20
I-47
P-25
P-77
I-48
P-76
P-30
SDMH-5
P-84
SDMH-4
P-83

Detailed Report for Outlet

Flows			
Total Discharge	9.36 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	7.24 cfs	Total Watershed (CIA)	2.12 cfs

Watershed Data			
System Intensity	0.57 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	41.81 min	Upstream Flow Time	41.81 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	0.75	0.27	36.00	0.002778	12 inch	0.013	2.09	4,496.01	4,495.88	4,496.06	4,495.94	1.87	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,496.98	4,496.22	4,497.05	4,496.43	2.91	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	0.74	0.27	64.00	0.002656	15 inch	0.010	4.33	4,495.85	4,495.73	4,495.91	4,495.76	1.69	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,496.69	4,495.93	4,496.76	4,496.14	2.91	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	0.72	0.39	00.00	0.003000	15 inch	0.010	4.60	4,495.72	4,495.47	4,495.80	4,495.51	2.01	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,496.39	4,495.63	4,496.46	4,495.84	2.91	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	0.70	0.50	00.00	0.003000	15 inch	0.010	4.60	4,495.45	4,495.20	4,495.54	4,495.26	2.21	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,496.09	4,495.33	4,496.16	4,495.54	2.91	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	0.68	0.61	86.00	0.003488	15 inch	0.010	4.96	4,495.17	4,494.91	4,495.28	4,494.99	2.44	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	0.67	0.84	09.00	0.002936	18 inch	0.010	7.40	4,494.60	4,494.50	4,494.72	4,494.53	2.08	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,495.49	4,494.73	4,495.56	4,494.94	2.91	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.61	1.16	01.00	0.003861	18 inch	0.010	8.49	4,494.47	4,494.47	4,494.48	4,494.47	0.66	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	0.79	0.14	53.00	0.020000	6 inch	0.010	1.03	4,494.51	4,494.47	4,494.58	4,494.48	1.42	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	0.79	0.10	53.00	0.020000	4 inch	0.010	0.35	4,495.05	4,494.48	4,495.12	4,494.50	1.59	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.66	0.83	76.00	0.003816	18 inch	0.010	8.43	4,494.48	4,494.48	4,494.51	4,494.49	1.09	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.65	0.93	82.00	0.003780	18 inch	0.010	8.40	4,494.48	4,494.48	4,494.49	4,494.49	0.77	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	0.79	0.14	53.00	0.020000	6 inch	0.010	1.03	4,495.21	4,494.48	4,495.28	4,494.49	1.42	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	6 inch	0.010	1.03	4,498.80	4,497.78	4,498.87	4,497.99	2.91	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	0.79	0.14	60.00	0.005000	12 inch	0.013	2.81	4,497.76	4,497.53	4,497.81	4,497.55	1.35	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	0.77	0.28	01.00	0.004925	12 inch	0.013	2.79	4,497.52	4,496.55	4,497.59	4,496.61	1.95	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	0.79	0.14	23.00	0.020000	6 inch	0.010	1.03	4,498.12	4,497.60	4,498.19	4,497.81	2.91	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	0.72	0.26	90.00	0.004889	12 inch	0.010	3.61	4,496.50	4,496.13	4,496.57	4,496.16	1.77	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	0.79	0.19	28.00	0.020000	8 inch	0.010	2.22	4,496.78	4,496.15	4,496.85	4,496.39	3.02	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	8 inch	0.010	2.22	4,496.01	4,494.99	4,496.07	4,495.19	2.78	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	0.68	0.53	62.00	0.005000	12 inch	0.010	3.65	4,495.62	4,495.36	4,495.73	4,495.43	2.34	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	0.67	0.65	94.00	0.004894	12 inch	0.010	3.61	4,495.34	4,494.94	4,495.46	4,495.01	2.51	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	8 inch	0.010	2.22	4,496.48	4,495.46	4,496.54	4,495.66	2.78	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	0.69	0.42	66.00	0.004848	12 inch	0.010	3.60	4,496.11	4,495.85	4,496.21	4,495.90	2.16	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	0.68	0.53	38.00	0.005000	12 inch	0.010	3.65	4,495.83	4,495.67	4,495.94	4,495.75	2.45	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	6 inch	0.010	1.03	4,497.01	4,495.99	4,497.08	4,496.20	2.91	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	0.67	0.76	44.00	0.005000	12 inch	0.010	3.65	4,494.91	4,494.74	4,495.04	4,494.83	2.69	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	0.79	0.10	48.00	0.020000	4 inch	0.010	0.35	4,495.96	4,494.95	4,496.03	4,495.13	2.75	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	0.67	0.84	55.00	0.004909	12 inch	0.010	3.62	4,494.71	4,494.50	4,494.85	4,494.59	2.72	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	0.66	0.95	96.00	0.004896	12 inch	0.010	3.61	4,494.47	4,494.51	4,494.62	4,494.53	2.11	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	6 inch	0.010	1.03	4,495.54	4,494.52	4,495.61	4,494.73	2.91	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	0.66	0.94	2.00	0.005000	15 inch	0.010	5.94	4,494.50	4,494.50	4,494.52	4,494.52	0.95	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	6 inch	0.010	1.03	4,495.04	4,494.50	4,495.11	4,494.51	1.42	4,494.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	0.65	1.06	14.00	0.004825	15 inch	0.010	5.83	4,494.50	4,494.49	4,494.52	4,494.50	0.97	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	0.64	1.15	96.00	0.004896	15 inch	0.010	5.88	4,494.48	4,494.47	4,494.50	4,494.48	0.93	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	0.79	0.14	48.00	0.020000	6 inch	0.010	1.03	4,494.66	4,494.49	4,494.73	4,494.50	1.42	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.25	4,496.25	4,496.25	4,496.25	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	0.79	0.14	06.00	0.002830	12 inch	0.013	2.11	4,496.24	4,496.02	4,496.27	4,496.03	1.13	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,497.28	4,496.52	4,497.35	4,496.73	2.91	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	0.67	0.61	13.00	0.003077	18 inch	0.010	7.57	4,494.86	4,494.87	4,494.96	4,494.93	2.24	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	0.67	0.73	90.00	0.003000	18 inch	0.010	7.48	4,494.85	4,494.62	4,494.96	4,494.70	2.42	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	0.79	0.14	35.00	0.020000	6 inch	0.010	1.03	4,495.75	4,494.99	4,495.82	4,495.20	2.91	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.63	0.98	17.00	0.003529	18 inch	0.010	8.11	4,494.48	4,494.48	4,494.49	4,494.49	0.65	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.63	1.09	87.00	0.003793	18 inch	0.010	8.41	4,494.48	4,494.47	4,494.49	4,494.48	0.66	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	0.79	0.14	53.00	0.020000	6 inch	0.010	1.03	4,494.84	4,494.48	4,494.91	4,494.49	1.42	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	3.69	0.58	9.40	86.00	0.003986	24 inch	0.013	14.28	4,493.64	4,493.23	4,493.95	4,493.37	3.74	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.58	2.16	15.00	0.004667	8 inch	0.010	1.07	4,494.11	4,493.82	4,494.71	4,494.42	6.20	4,492.52
P-83	I-48	SDMH-4	0.00	0.00	0.00	0.00	2.80	7.24	25.00	0.004000	24 inch	0.013	14.31	4,495.06	4,495.02	4,495.35	4,495.27	4.12	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	0.00	2.79	7.24	63.00	0.003912	24 inch	0.013	14.15	4,494.86	4,493.82	4,495.18	4,493.97	3.81	4,493.85

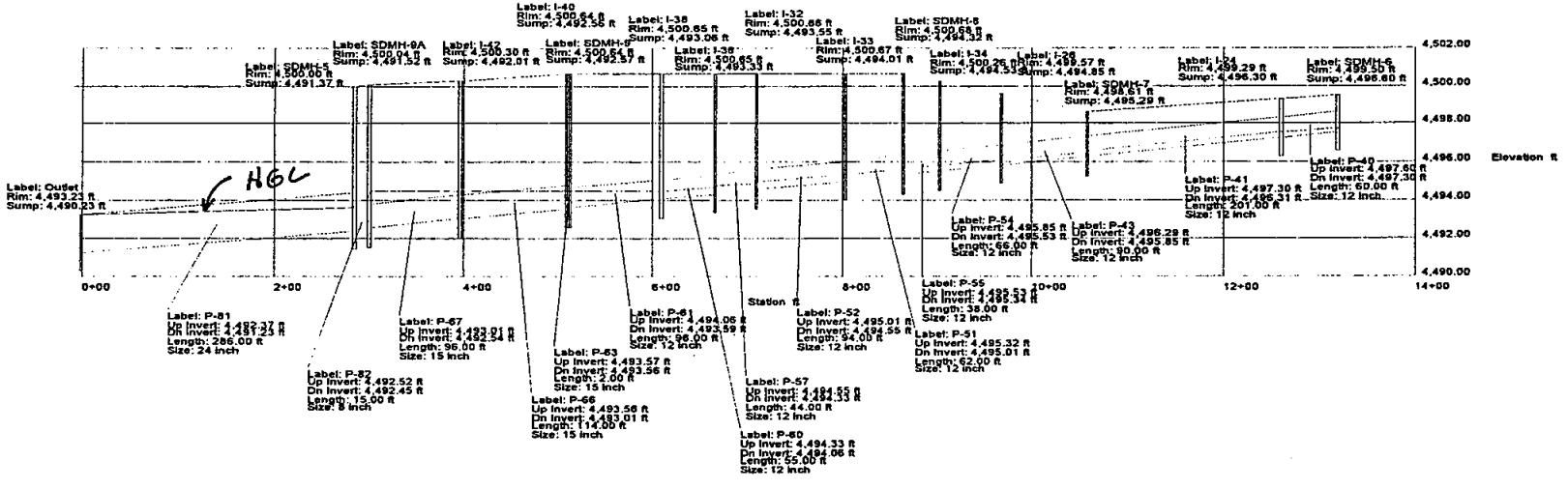
Node Report

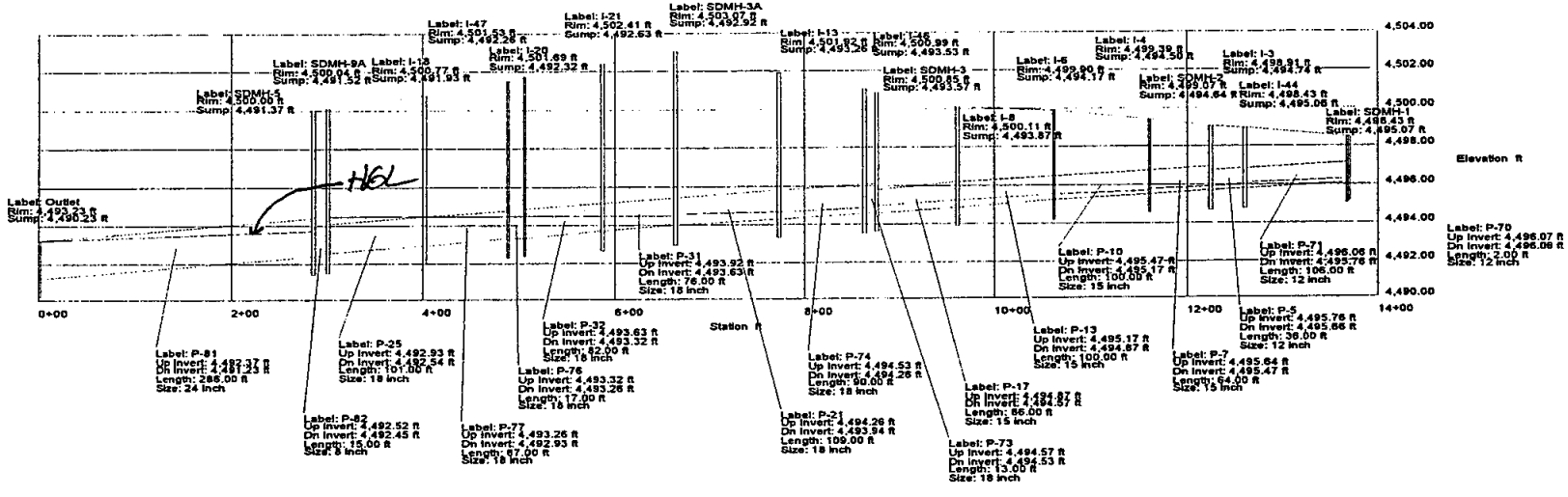
Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.98	4,496.98	2.12
I-2	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.69	4,496.69	2.12
I-3	0.00	0.00	2.80	0.00	0.75	0.00	0.00	0.36	0.00	0.00	27.66	27.66	0.00	0.27	0.00	4,496.02	4,496.01	1.69
I-4	0.00	0.00	2.80	0.00	0.72	0.00	0.00	0.54	0.00	0.00	28.62	28.62	0.00	0.39	0.00	4,495.73	4,495.72	2.28
I-5	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.39	4,496.39	2.12
I-6	0.00	0.00	2.80	0.00	0.70	0.00	0.00	0.71	0.00	0.00	29.45	29.45	0.00	0.50	0.00	4,495.47	4,495.45	2.46
I-7	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.09	4,496.09	2.12
I-8	0.00	0.00	2.80	0.00	0.68	0.00	0.00	0.89	0.00	0.00	30.20	30.20	0.00	0.61	0.00	4,495.20	4,495.17	2.63
I-12	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,495.49	4,495.49	2.12
I-13	0.00	0.00	2.80	0.00	0.67	0.00	0.00	1.25	0.00	0.00	31.50	31.50	0.00	0.84	0.00	4,494.62	4,494.60	2.78
I-14	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,495.21	4,495.21	2.12
I-15	0.14	0.85	0.79	0.10	0.79	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.10	0.00	4,495.05	4,495.05	2.10
I-16	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,494.84	4,494.84	2.12
I-17	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,494.51	4,494.51	2.12
I-18	0.00	0.00	2.80	0.00	0.61	0.00	0.00	1.90	0.00	0.00	37.94	37.94	0.00	1.16	0.00	4,494.47	4,494.47	0.66
I-20	0.00	0.00	2.80	0.00	0.63	0.00	0.00	1.55	0.00	0.00	35.32	35.32	0.00	0.98	0.00	4,494.48	4,494.48	0.67
I-21	0.00	0.00	2.80	0.00	0.65	0.00	0.00	1.43	0.00	0.00	33.54	33.54	0.00	0.93	0.00	4,494.48	4,494.48	0.90
I-22	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,498.80	4,498.80	2.12
I-23	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,498.12	4,498.12	2.12
I-24	0.00	0.00	2.80	0.00	0.77	0.00	0.00	0.36	0.00	0.00	26.91	26.91	0.00	0.28	0.00	4,497.53	4,497.52	2.09
I-25	0.28	0.85	0.79	0.19	0.79	0.24	0.00	0.24	5.90	0.00	0.00	25.90	0.00	0.19	0.00	4,496.78	4,496.78	2.16
I-26	0.00	0.00	2.80	0.00	0.69	0.00	0.00	0.60	0.00	0.00	29.48	29.48	0.00	0.42	0.00	4,496.13	4,496.11	2.46
I-27	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,497.01	4,497.01	2.12
I-29	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.48	4,496.48	1.99
I-31	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,496.01	4,496.01	1.99
I-32	0.00	0.00	2.80	0.00	0.67	0.00	0.00	1.13	0.00	0.00	31.31	31.31	0.00	0.76	0.00	4,494.94	4,494.91	2.91
I-33	0.00	0.00	2.80	0.00	0.67	0.00	0.00	0.95	0.00	0.00	30.69	30.69	0.00	0.65	0.00	4,495.36	4,495.34	2.78
I-34	0.00	0.00	2.80	0.00	0.68	0.00	0.00	0.77	0.00	0.00	29.99	29.99	0.00	0.53	0.00	4,495.85	4,495.83	2.62
I-35	0.14	0.85	0.79	0.10	0.79	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.10	0.00	4,495.96	4,495.96	2.10
I-36	0.00	0.00	2.80	0.00	0.67	0.00	0.00	1.25	0.00	0.00	31.59	31.59	0.00	0.84	0.00	4,494.74	4,494.71	3.00
I-37	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,495.54	4,495.54	2.12
I-38	0.00	0.00	2.80	0.00	0.66	0.00	0.00	1.43	0.00	0.00	31.92	31.92	0.00	0.95	0.00	4,494.50	4,494.47	3.03
I-39	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,495.04	4,495.04	2.12
I-40	0.00	0.00	2.80	0.00	0.65	0.00	0.00	1.61	0.00	0.00	32.71	32.71	0.00	1.06	0.00	4,494.50	4,494.50	1.07
I-41	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,494.66	4,494.66	2.12
I-42	0.00	0.00	2.80	0.00	0.64	0.00	0.00	1.79	0.00	0.00	34.67	34.67	0.00	1.15	0.00	4,494.49	4,494.48	0.93
I-43	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,497.28	4,497.28	2.12

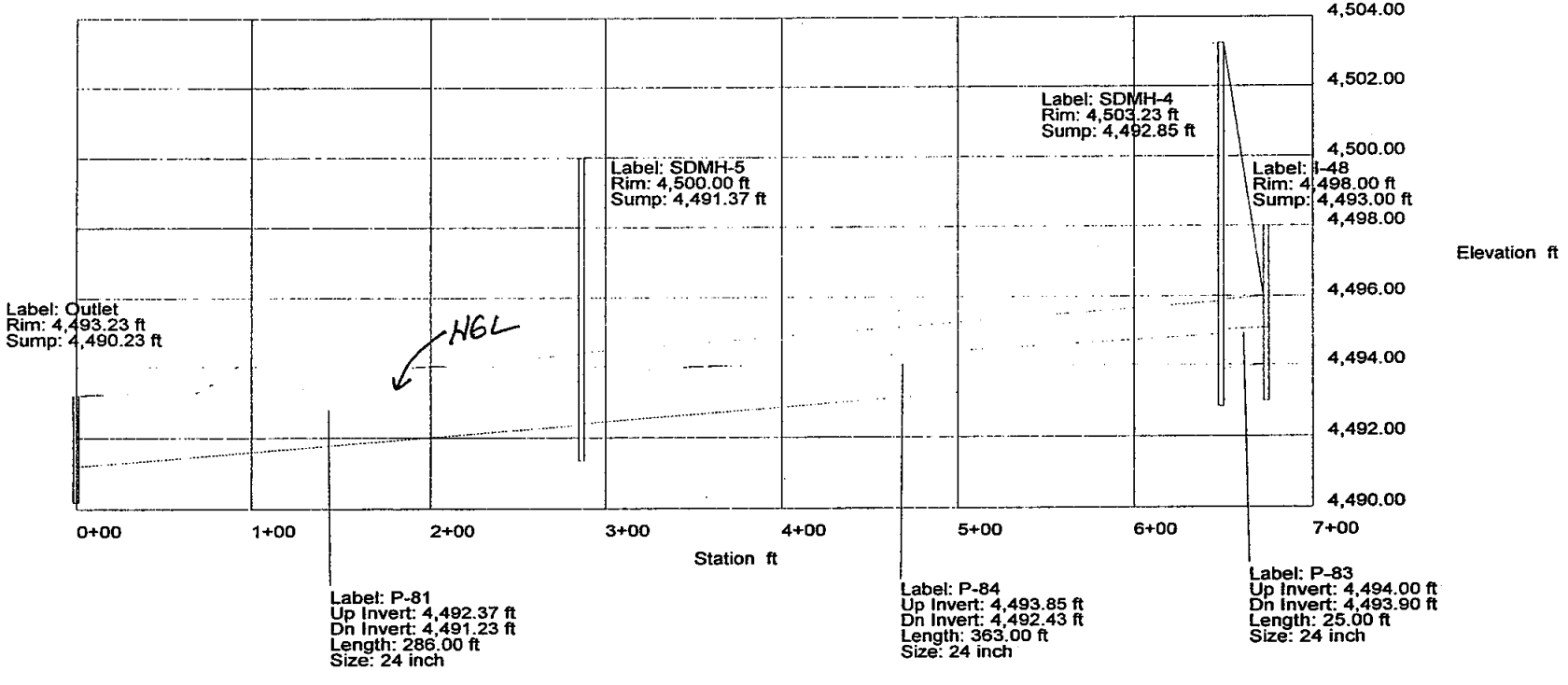
Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Node Report

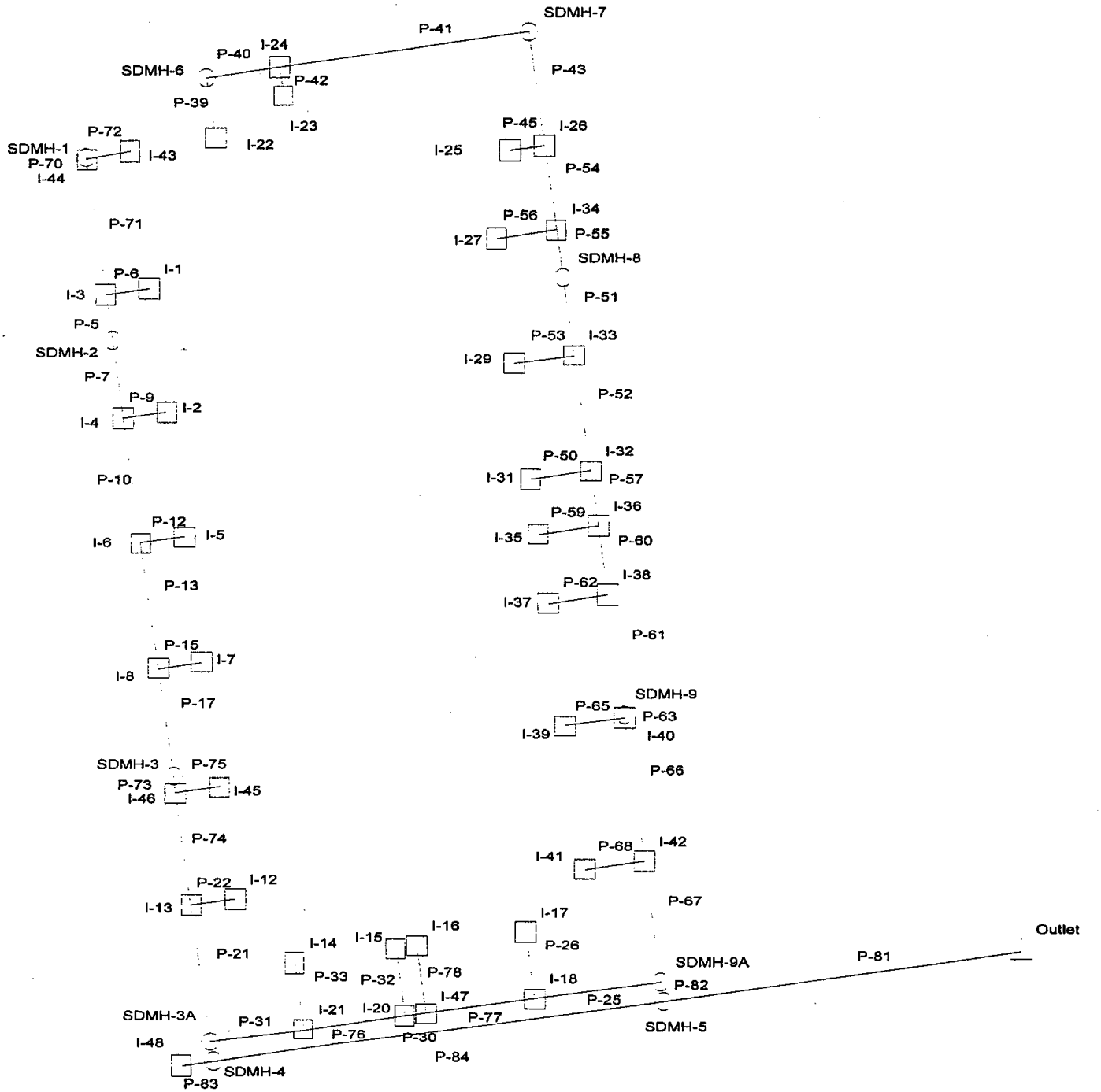
Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	0.79	0.00	0.00	0.18	0.00	0.00	26.10	26.10	0.00	0.14	0.00	4,496.25	4,496.24	1.41
I-45	0.21	0.85	0.79	0.14	0.79	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.14	0.00	4,495.75	4,495.75	2.12
I-46	0.00	0.00	2.80	0.00	0.67	0.00	0.00	1.07	0.00	0.00	30.88	30.88	0.00	0.73	0.00	4,494.87	4,494.85	2.67
I-47	0.00	0.00	2.80	0.00	0.63	0.00	0.00	1.73	0.00	0.00	35.75	35.75	0.00	1.09	0.00	4,494.48	4,494.48	0.71
I-48	0.00	0.00	2.80	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.24	0.00	0.00	4,495.06	4,495.06	4.26
Outlet	N/A	N/A	N/A	N/A	0.57	N/A	N/A	3.69	N/A	0.00	41.81	41.81	N/A	2.12	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.25	4,496.25	0.00
SDMH-2	N/A	N/A	N/A	N/A	0.74	N/A	N/A	0.36	N/A	0.00	27.98	27.98	N/A	0.27	N/A	4,495.88	4,495.85	1.95
SDMH-3A	N/A	N/A	N/A	N/A	0.66	N/A	N/A	1.25	N/A	0.00	32.38	32.38	N/A	0.83	N/A	4,494.50	4,494.48	1.38
SDMH-3	N/A	N/A	N/A	N/A	0.67	N/A	N/A	0.89	N/A	0.00	30.79	30.79	N/A	0.61	N/A	4,494.91	4,494.86	2.46
SDMH-4	N/A	N/A	N/A	N/A	2.79	N/A	N/A	0.00	N/A	0.00	0.10	0.10	N/A	0.00	N/A	4,495.02	4,494.86	4.53
SDMH-5	N/A	N/A	N/A	N/A	0.58	N/A	N/A	3.69	N/A	0.00	40.54	40.54	N/A	2.16	N/A	4,493.82	4,493.64	4.48
SDMH-6	N/A	N/A	N/A	N/A	0.79	N/A	N/A	0.18	N/A	0.00	26.18	26.18	N/A	0.14	N/A	4,497.80	4,497.76	1.72
SDMH-7	N/A	N/A	N/A	N/A	0.72	N/A	N/A	0.36	N/A	0.00	28.63	28.63	N/A	0.26	N/A	4,496.55	4,496.50	2.16
SDMH-8	N/A	N/A	N/A	N/A	0.68	N/A	N/A	0.77	N/A	0.00	30.25	30.25	N/A	0.53	N/A	4,495.67	4,495.62	2.62
SDMH-9	N/A	N/A	N/A	N/A	0.66	N/A	N/A	1.43	N/A	0.00	32.68	32.67	N/A	0.94	N/A	4,494.51	4,494.50	0.96
SDMH-9A	N/A	N/A	N/A	N/A	0.58	N/A	N/A	3.69	N/A	0.00	40.50	40.50	N/A	2.16	N/A	4,494.47	4,494.11	6.20







25 yr,
25.9 min


SDMH-7
P-41
P-40
I-24
SDMH-6
P-42
P-43
P-39
I-23
P-72
SDMH-1
P-70
I-44
I-43
I-22
P-45
I-26
I-25
P-54
P-71
P-56
I-34
I-27
P-55
SDMH-8
P-6
I-1
I-3
P-51
P-5
SDMH-2
P-53
I-33
I-29
P-7
P-52
P-9
I-2
I-4
P-50
I-32
P-10
I-31
P-57
P-59
I-36
P-12
I-35
P-60
I-6
I-5
P-62
I-38
P-13
I-37
P-61
P-15
I-7
I-8
P-17
SDMH-9
P-65
P-63
I-39
I-40
SDMH-3
P-75
P-66
P-73
I-46
I-45
P-74
I-41
P-68
I-42
P-22
I-12
P-67
I-13
I-17
I-16
I-15
Outlet
P-21
I-14
P-26
SDMH-9A
P-81
P-33
P-32
P-78
I-18
P-82
SDMH-3A
P-31
I-21
I-20
I-47
P-25
P-77
SDMH-5
I-48
P-76
P-30
P-84
SDMH-4
P-83

Detailed Report for Outlet

Flows					
Total Discharge	15.03	cfs	Known Flow	0.00	cfs
Upstream Additional + Carryover	12.41	cfs	Total Watershed (CIA)	2.62	cfs

Watershed Data					
System Intensity	0.71	in/hr	Upstream CA	3.69	acres
Total CA	3.69	acres			

Flow Times					
System Flow Time	59.64	min	Upstream Flow Time	59.64	min

Elevations					
HGL In	4,493.23	ft	HGL Out	4,493.23	ft
Ground Elevation	4,491.23	ft	Rim Elevation	4,493.23	ft
Sump Elevation	4,490.23	ft			

Other Properties					
X	158,763.87	ft	Y	722,082.58	ft
Velocity	0.00	ft/s	Headloss	0.00	ft
Headloss Coefficient	0.00		Station	0+00	ft
External Flow	0.00	cfs			

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.15	0.42	36.00	0.002778	12 inch	0.013	2.09	4,496.07	4,495.94	4,496.13	4,496.02	2.10	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.04	4,496.26	4,497.14	4,496.55	3.44	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.13	0.41	64.00	0.002656	15 inch	0.010	4.33	4,495.90	4,495.81	4,495.98	4,495.84	1.87	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.75	4,495.97	4,496.85	4,496.26	3.44	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.08	0.58	00.00	0.003000	15 inch	0.010	4.60	4,495.79	4,495.78	4,495.88	4,495.80	1.66	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.45	4,495.78	4,496.55	4,495.86	2.37	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.03	0.74	00.00	0.003000	15 inch	0.010	4.60	4,495.78	4,495.77	4,495.80	4,495.78	1.01	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.15	4,495.77	4,496.25	4,495.80	1.91	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	0.98	0.88	86.00	0.003488	15 inch	0.010	4.96	4,495.77	4,495.77	4,495.78	4,495.77	0.83	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	0.90	1.14	09.00	0.002936	18 inch	0.010	7.40	4,495.76	4,495.75	4,495.76	4,495.76	0.64	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.80	4,495.76	4,495.83	4,495.78	1.29	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.75	1.45	01.00	0.003861	18 inch	0.010	8.49	4,495.72	4,495.71	4,495.73	4,495.72	0.82	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.78	4,495.72	4,495.81	4,495.75	1.29	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.40	0.17	53.00	0.020000	4 inch	0.010	0.35	4,495.98	4,495.73	4,496.04	4,495.79	1.93	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.86	1.08	76.00	0.003816	18 inch	0.010	8.43	4,495.75	4,495.74	4,495.75	4,495.75	0.61	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.82	1.19	82.00	0.003780	18 inch	0.010	8.40	4,495.74	4,495.73	4,495.75	4,495.74	0.67	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.80	4,495.74	4,495.83	4,495.77	1.29	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,498.86	4,497.82	4,498.96	4,498.11	3.44	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.39	0.25	60.00	0.005000	12 inch	0.013	2.81	4,497.81	4,497.61	4,497.87	4,497.63	1.60	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.36	0.49	01.00	0.004925	12 inch	0.013	2.79	4,497.60	4,496.64	4,497.69	4,496.71	2.28	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.40	0.25	23.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.64	4,498.28	4,497.93	3.44	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.24	0.45	90.00	0.004889	12 inch	0.010	3.61	4,496.56	4,496.22	4,496.66	4,496.26	2.08	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.40	0.34	28.00	0.020000	8 inch	0.010	2.22	4,496.85	4,496.20	4,496.95	4,496.52	3.57	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.07	4,496.00	4,496.16	4,496.01	1.53	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.12	0.88	62.00	0.005000	12 inch	0.010	3.65	4,496.05	4,496.05	4,496.08	4,496.06	1.20	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.11	1.06	94.00	0.004894	12 inch	0.010	3.61	4,496.04	4,496.00	4,496.07	4,496.03	1.25	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.54	4,496.05	4,496.63	4,496.05	1.53	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.15	0.69	66.00	0.004848	12 inch	0.010	3.60	4,496.19	4,496.07	4,496.32	4,496.11	2.19	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.13	0.88	38.00	0.005000	12 inch	0.010	3.65	4,496.06	4,496.07	4,496.12	4,496.10	1.71	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,497.07	4,496.03	4,497.17	4,496.32	3.44	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.09	1.24	44.00	0.005000	12 inch	0.010	3.65	4,495.99	4,495.97	4,496.03	4,496.00	1.45	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.40	0.17	48.00	0.020000	4 inch	0.010	0.35	4,496.19	4,495.97	4,496.25	4,496.03	1.93	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.08	1.36	55.00	0.004909	12 inch	0.010	3.62	4,495.96	4,495.92	4,496.00	4,495.96	1.59	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.07	1.54	96.00	0.004896	12 inch	0.010	3.61	4,495.91	4,495.83	4,495.96	4,495.88	1.81	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.98	4,495.92	4,496.01	4,495.95	1.29	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.06	1.52	2.00	0.005000	15 inch	0.010	5.94	4,495.82	4,495.82	4,495.84	4,495.84	1.24	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.87	4,495.82	4,495.90	4,495.84	1.29	4,494.85

Pipe Report

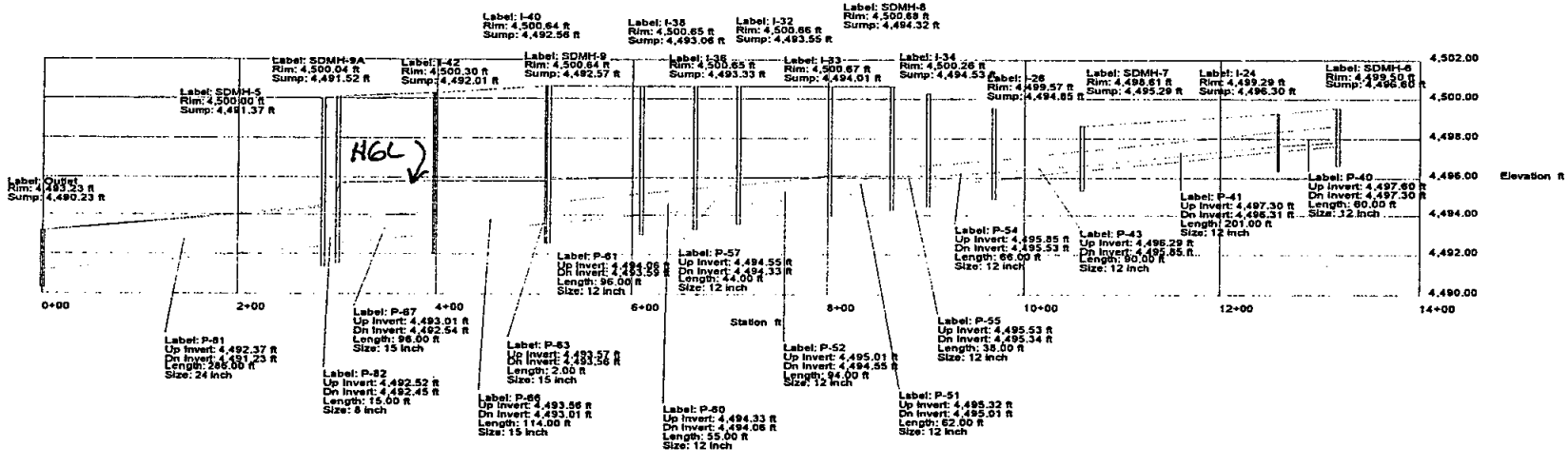
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.05	1.71	14.00	0.004825	15 inch	0.010	5.83	4,495.81	4,495.76	4,495.84	4,495.79	1.39	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.03	1.86	96.00	0.004896	15 inch	0.010	5.88	4,495.76	4,495.71	4,495.79	4,495.74	1.51	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.82	4,495.76	4,495.85	4,495.79	1.29	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.31	4,496.31	4,496.31	4,496.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.39	0.25	06.00	0.002830	12 inch	0.013	2.11	4,496.30	4,496.09	4,496.34	4,496.10	1.38	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.34	4,496.56	4,497.44	4,496.85	3.44	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	0.95	0.86	13.00	0.003077	18 inch	0.010	7.57	4,495.76	4,495.76	4,495.77	4,495.77	0.56	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	0.94	1.02	90.00	0.003000	18 inch	0.010	7.48	4,495.76	4,495.76	4,495.77	4,495.76	0.62	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.81	4,495.76	4,495.91	4,495.79	1.91	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.79	1.23	17.00	0.003529	18 inch	0.010	8.11	4,495.73	4,495.73	4,495.74	4,495.74	0.70	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.78	1.37	87.00	0.003793	18 inch	0.010	8.41	4,495.73	4,495.72	4,495.74	4,495.73	0.77	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.79	4,495.73	4,495.82	4,495.76	1.29	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	3.69	0.72	15.09	86.00	0.003986	24 inch	0.013	14.28	4,494.50	4,493.23	4,494.86	4,493.59	4.80	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.72	2.69	15.00	0.004667	8 inch	0.010	1.07	4,495.16	4,494.72	4,496.08	4,495.64	7.69	4,492.52
P-83	I-48	SDMH-4	0.00	0.00	0.00	0.00	5.29	12.41	25.00	0.004000	24 inch	0.013	14.31	4,496.00	4,495.92	4,496.24	4,496.17	3.95	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	0.00	5.26	12.41	63.00	0.003912	24 inch	0.013	14.15	4,495.80	4,494.72	4,496.05	4,494.96	3.96	4,493.85

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,497.04	4,497.04	2.53
I-2	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,496.75	4,496.75	2.53
I-3	0.00	0.00	5.29	0.00	1.15	0.00	0.00	0.36	0.00	0.00	27.48	31.63	0.00	0.42	0.00	4,496.09	4,496.07	1.92
I-4	0.00	0.00	5.29	0.00	1.08	0.00	0.00	0.54	0.00	0.00	33.43	36.05	0.00	0.58	0.00	4,495.81	4,495.79	2.34
I-5	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,496.45	4,496.45	2.53
I-6	0.00	0.00	5.29	0.00	1.03	0.00	0.00	0.71	0.00	0.00	37.05	39.55	0.00	0.74	0.00	4,495.78	4,495.78	1.25
I-7	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,496.15	4,496.15	2.53
I-8	0.00	0.00	5.29	0.00	0.98	0.00	0.00	0.89	0.00	0.00	41.19	42.31	0.00	0.88	0.00	4,495.77	4,495.77	0.93
I-12	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.80	4,495.80	1.29
I-13	0.00	0.00	5.29	0.00	0.90	0.00	0.00	1.25	0.00	0.00	47.18	47.35	0.00	1.14	0.00	4,495.76	4,495.76	0.64
I-14	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.80	4,495.80	1.29
I-15	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.17	0.00	4,495.98	4,495.98	1.93
I-16	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.79	4,495.79	1.29
I-17	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.78	4,495.78	1.29
I-18	0.00	0.00	5.29	0.00	0.75	0.00	0.00	1.90	0.00	0.00	56.57	56.57	0.00	1.45	0.00	4,495.72	4,495.72	0.82
I-20	0.00	0.00	5.29	0.00	0.79	0.00	0.00	1.55	0.00	0.00	54.28	54.28	0.00	1.23	0.00	4,495.73	4,495.73	0.70
I-21	0.00	0.00	5.29	0.00	0.82	0.00	0.00	1.43	0.00	0.00	52.25	52.25	0.00	1.19	0.00	4,495.74	4,495.74	0.67
I-22	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,498.86	4,498.86	2.53
I-23	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,498.18	4,498.18	2.53
I-24	0.00	0.00	5.29	0.00	1.36	0.00	0.00	0.36	0.00	0.00	26.76	26.76	0.00	0.49	0.00	4,497.61	4,497.60	2.46
I-25	0.28	0.85	1.40	0.34	1.40	0.24	0.00	0.24	5.90	0.00	0.00	25.90	0.00	0.34	0.00	4,496.85	4,496.85	2.55
I-26	0.00	0.00	5.29	0.00	1.15	0.00	0.00	0.60	0.00	0.00	29.63	31.61	0.00	0.69	0.00	4,496.22	4,496.19	2.84
I-27	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,497.07	4,497.07	2.53
I-29	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,496.54	4,496.54	2.34
I-31	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,496.07	4,496.07	2.34
I-32	0.00	0.00	5.29	0.00	1.09	0.00	0.00	1.13	0.00	0.00	35.84	35.84	0.00	1.24	0.00	4,496.00	4,495.99	1.45
I-33	0.00	0.00	5.29	0.00	1.11	0.00	0.00	0.95	0.00	0.00	34.44	34.58	0.00	1.06	0.00	4,496.05	4,496.04	1.25
I-34	0.00	0.00	5.29	0.00	1.13	0.00	0.00	0.77	0.00	0.00	32.11	32.96	0.00	0.88	0.00	4,496.07	4,496.06	2.04
I-35	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.17	0.00	4,496.19	4,496.19	1.93
I-36	0.00	0.00	5.29	0.00	1.08	0.00	0.00	1.25	0.00	0.00	36.34	36.34	0.00	1.36	0.00	4,495.97	4,495.96	1.59
I-37	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.98	4,495.98	1.29
I-38	0.00	0.00	5.29	0.00	1.07	0.00	0.00	1.43	0.00	0.00	36.92	36.92	0.00	1.54	0.00	4,495.92	4,495.91	1.81
I-39	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.87	4,495.87	1.29
I-40	0.00	0.00	5.29	0.00	1.05	0.00	0.00	1.61	0.00	0.00	37.83	37.83	0.00	1.71	0.00	4,495.82	4,495.81	1.39
I-41	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.82	4,495.82	1.29
I-42	0.00	0.00	5.29	0.00	1.03	0.00	0.00	1.79	0.00	0.00	39.20	39.20	0.00	1.86	0.00	4,495.76	4,495.76	1.51
I-43	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,497.34	4,497.34	2.53

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	1.39	0.00	0.00	0.18	0.00	0.00	26.07	26.20	0.00	0.25	0.00	4,496.31	4,496.30	1.66
I-45	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,495.81	4,495.81	2.53
I-46	0.00	0.00	5.29	0.00	0.94	0.00	0.00	1.07	0.00	0.00	44.69	44.75	0.00	1.02	0.00	4,495.76	4,495.76	0.66
I-47	0.00	0.00	5.29	0.00	0.78	0.00	0.00	1.73	0.00	0.00	54.69	54.69	0.00	1.37	0.00	4,495.73	4,495.73	0.77
I-48	0.00	0.00	5.29	0.00	5.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.41	0.00	0.00	4,496.00	4,496.00	3.95
Outlet	N/A	N/A	N/A	N/A	0.71	N/A	N/A	3.69	N/A	0.00	59.64	59.64	N/A	2.62	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.31	4,496.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.13	N/A	N/A	0.36	N/A	0.00	31.91	32.86	N/A	0.41	N/A	4,495.94	4,495.90	2.22
SDMH-3A	N/A	N/A	N/A	N/A	0.86	N/A	N/A	1.25	N/A	0.00	50.17	50.17	N/A	1.08	N/A	4,495.75	4,495.75	0.61
SDMH-3	N/A	N/A	N/A	N/A	0.95	N/A	N/A	0.89	N/A	0.00	44.03	44.30	N/A	0.86	N/A	4,495.77	4,495.76	0.57
SDMH-4	N/A	N/A	N/A	N/A	5.26	N/A	N/A	0.00	N/A	0.00	0.11	0.11	N/A	0.00	N/A	4,495.92	4,495.80	3.98
SDMH-5	N/A	N/A	N/A	N/A	0.72	N/A	N/A	3.69	N/A	0.00	58.65	58.65	N/A	2.68	N/A	4,494.72	4,494.50	4.80
SDMH-6	N/A	N/A	N/A	N/A	1.39	N/A	N/A	0.18	N/A	0.00	26.13	26.13	N/A	0.25	N/A	4,497.86	4,497.81	2.04
SDMH-7	N/A	N/A	N/A	N/A	1.24	N/A	N/A	0.36	N/A	0.00	28.23	28.91	N/A	0.45	N/A	4,496.64	4,496.56	2.50
SDMH-8	N/A	N/A	N/A	N/A	1.12	N/A	N/A	0.77	N/A	0.00	33.33	33.58	N/A	0.88	N/A	4,496.07	4,496.05	1.37
SDMH-9	N/A	N/A	N/A	N/A	1.06	N/A	N/A	1.43	N/A	0.00	37.80	37.80	N/A	1.52	N/A	4,495.83	4,495.82	1.24
SDMH-9A	N/A	N/A	N/A	N/A	0.72	N/A	N/A	3.69	N/A	0.00	58.62	58.62	N/A	2.69	N/A	4,495.71	4,495.16	7.69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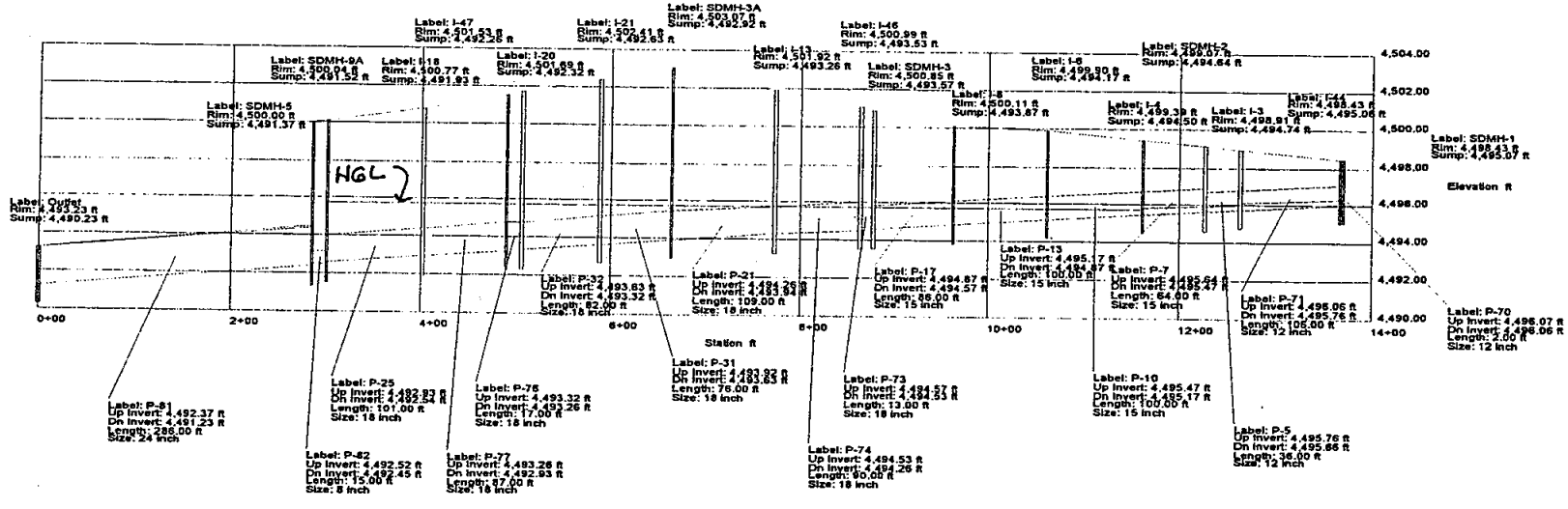
Rim: 4,500.64 ft
Sump: 4,492.56 ft
Label: I-38
Rim: 4,500.65 ft
Sump: 4,493.06 ft
Label: I-32
Rim: 4,500.66 ft
Sump: 4,493.55 ft
Label: SDMH-8
Rim: 4,500.68 ft
Sump: 4,494.32 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-42
Rim: 4,500.30 ft
Sump: 4,492.01 ft
Label: SDMH-9
Rim: 4,500.64 ft
Sump: 4,492.57 ft
Label: I-36
Rim: 4,500.65 ft
Sump: 4,493.33 ft
Label: I-33
Rim: 4,500.67 ft
Sump: 4,494.01 ft
Label: I-34
Rim: 4,500.26 ft
Sump: 4,494.53 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
HGL
Label: I-26
Rim: 4,499.57 ft
Sump: 4,494.85 ft
Label: SDMH-7
Rim: 4,498.61 ft
Sump: 4,495.29 ft
Label: I-24
Rim: 4,499.29 ft
Sump: 4,496.30 ft
Label: SDMH-6
Rim: 4,499.50 ft
Sump: 4,496.80 ft
Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: P-54
Up Invert: 4,495.85 ft
Dn Invert: 4,495.53 ft
Length: 66.00 ft
Size: 12 inch
Label: P-43
Up Invert: 4,496.29 ft
Dn Invert: 4,495.85 ft
Length: 90.00 ft
Size: 12 inch
Label: P-41
Up Invert: 4,497.30 ft
Dn Invert: 4,496.31 ft
Length: 201.00 ft
Size: 12 inch
Label: P-40
Up Invert: 4,497.60 ft
Dn Invert: 4,497.30 ft
Length: 60.00 ft
Size: 12 inch
Label: P-61
Up Invert: 4,494.06 ft
Dn Invert: 4,493.59 ft
Length: 96.00 ft
Size: 12 inch
Label: P-57
Up Invert: 4,494.55 ft
Dn Invert: 4,494.33 ft
Length: 44.00 ft
Size: 12 inch
Label: P-87
Up Invert: 4,493.01 ft
Dn Invert: 4,492.54 ft
Length: 96.00 ft
Size: 15 inch
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,491.23 ft
Length: 288.00 ft
Size: 24 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-83
Up Invert: 4,493.57 ft
Dn Invert: 4,493.56 ft
Length: 2.00 ft
Size: 15 inch
Label: P-86
Up Invert: 4,493.56 ft
Dn Invert: 4,493.01 ft
Length: 114.00 ft
Size: 15 inch
Label: P-80
Up Invert: 4,494.33 ft
Dn Invert: 4,494.06 ft
Length: 55.00 ft
Size: 12 inch
Label: P-52
Up Invert: 4,495.01 ft
Dn Invert: 4,494.55 ft
Length: 94.00 ft
Size: 12 inch
Label: P-51
Up Invert: 4,495.32 ft
Dn Invert: 4,495.01 ft
Length: 62.00 ft
Size: 12 inch
Label: P-55
Up Invert: 4,495.53 ft
Dn Invert: 4,495.34 ft
Length: 38.00 ft
Size: 12 inch
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Elevation ft
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft



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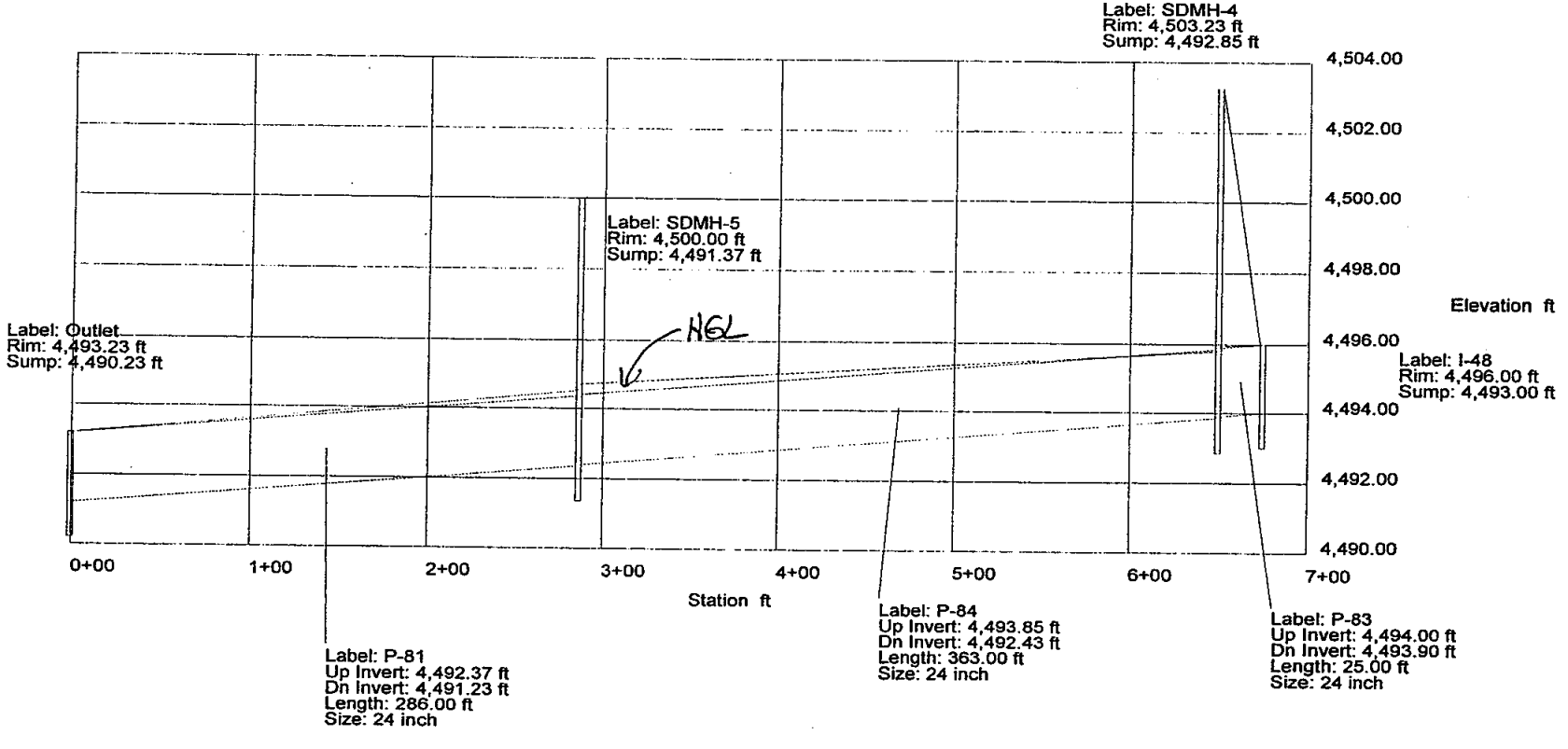
Jeff Codega Planning & Design
 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]



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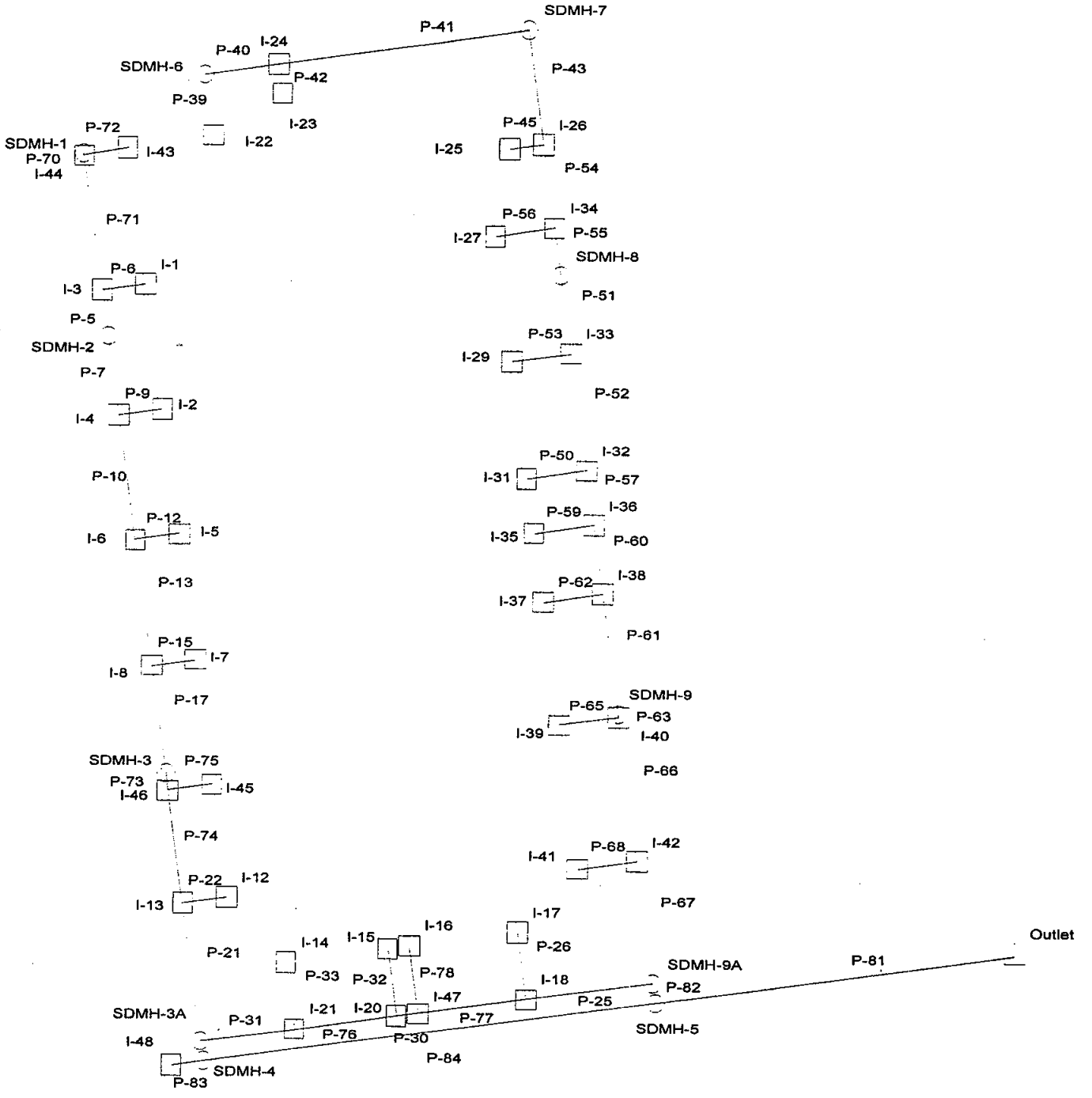


Detailed Report for Outlet

Flows			
Total Discharge	24.10 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	18.91 cfs	Total Watershed (CIA)	5.19 cfs

Watershed Data			
System Intensity	1.40 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	46.83 min	Upstream Flow Time	46.83 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.79	0.65	36.00	0.002778	12 inch	0.013	2.09	4,500.24	4,500.23	4,500.25	4,500.24	0.76	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.33	4,500.23	4,500.38	4,500.29	1.92	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.78	0.64	64.00	0.002656	15 inch	0.010	4.33	4,500.24	4,500.23	4,500.24	4,500.24	0.52	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.33	4,500.23	4,500.38	4,500.29	1.92	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.73	0.93	00.00	0.003000	15 inch	0.010	4.60	4,500.25	4,500.23	4,500.25	4,500.24	0.76	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.33	4,500.23	4,500.38	4,500.29	1.92	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.67	1.20	00.00	0.003000	15 inch	0.010	4.60	4,500.25	4,500.23	4,500.27	4,500.25	0.98	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.33	4,500.23	4,500.38	4,500.29	1.92	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.63	1.47	86.00	0.003488	15 inch	0.010	4.96	4,500.26	4,500.23	4,500.28	4,500.25	1.20	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.56	1.97	09.00	0.002936	18 inch	0.010	7.40	4,500.20	4,500.18	4,500.22	4,500.20	1.11	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.30	4,500.21	4,500.36	4,500.27	1.92	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.44	2.76	01.00	0.003861	18 inch	0.010	8.49	4,500.08	4,500.04	4,500.12	4,500.08	1.56	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	2.10	0.38	53.00	0.020000	6 inch	0.010	1.03	4,500.22	4,500.08	4,500.28	4,500.14	1.92	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	2.10	0.25	53.00	0.020000	4 inch	0.010	0.35	4,500.68	4,500.13	4,500.81	4,500.26	2.89	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.52	1.92	76.00	0.003816	18 inch	0.010	8.43	4,500.17	4,500.15	4,500.19	4,500.17	1.08	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.49	2.15	82.00	0.003780	18 inch	0.010	8.40	4,500.15	4,500.13	4,500.17	4,500.15	1.22	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	2.10	0.38	53.00	0.020000	6 inch	0.010	1.03	4,500.30	4,500.15	4,500.35	4,500.21	1.92	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	6 inch	0.010	1.03	4,500.81	4,500.68	4,500.87	4,500.74	1.92	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	2.07	0.37	60.00	0.005000	12 inch	0.013	2.81	4,500.69	4,500.68	4,500.69	4,500.68	0.44	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.90	0.68	01.00	0.004925	12 inch	0.013	2.79	4,500.74	4,500.68	4,500.75	4,500.69	0.80	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	2.10	0.38	23.00	0.020000	6 inch	0.010	1.03	4,500.74	4,500.68	4,500.80	4,500.74	1.92	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.73	0.62	90.00	0.004889	12 inch	0.010	3.61	4,500.69	4,500.68	4,500.70	4,500.69	0.73	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	2.10	0.50	28.00	0.020000	8 inch	0.010	2.22	4,500.71	4,500.68	4,500.74	4,500.71	1.44	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	8 inch	0.010	2.22	4,500.69	4,500.66	4,500.71	4,500.68	1.08	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.65	1.29	62.00	0.005000	12 inch	0.010	3.65	4,500.71	4,500.67	4,500.74	4,500.71	1.51	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.64	1.57	94.00	0.004894	12 inch	0.010	3.61	4,500.75	4,500.66	4,500.80	4,500.71	1.84	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	8 inch	0.010	2.22	4,500.70	4,500.67	4,500.72	4,500.69	1.08	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.68	1.01	66.00	0.004848	12 inch	0.010	3.60	4,500.71	4,500.68	4,500.73	4,500.70	1.19	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.66	1.30	38.00	0.005000	12 inch	0.010	3.65	4,500.70	4,500.68	4,500.74	4,500.72	1.52	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	6 inch	0.010	1.03	4,500.81	4,500.68	4,500.87	4,500.74	1.92	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.62	1.84	44.00	0.005000	12 inch	0.010	3.65	4,500.68	4,500.63	4,500.76	4,500.70	2.16	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	2.10	0.25	48.00	0.020000	4 inch	0.010	0.35	4,501.12	4,500.63	4,501.25	4,500.76	2.89	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.61	2.02	55.00	0.004909	12 inch	0.010	3.62	4,500.61	4,500.52	4,500.70	4,500.61	2.38	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.60	2.30	96.00	0.004896	12 inch	0.010	3.61	4,500.50	4,500.31	4,500.62	4,500.42	2.70	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	6 inch	0.010	1.03	4,500.65	4,500.52	4,500.71	4,500.58	1.92	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.58	2.28	2.00	0.005000	15 inch	0.010	5.94	4,500.29	4,500.28	4,500.34	4,500.34	1.86	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	6 inch	0.010	1.03	4,500.41	4,500.28	4,500.47	4,500.34	1.92	4,494.85

Pipe Report

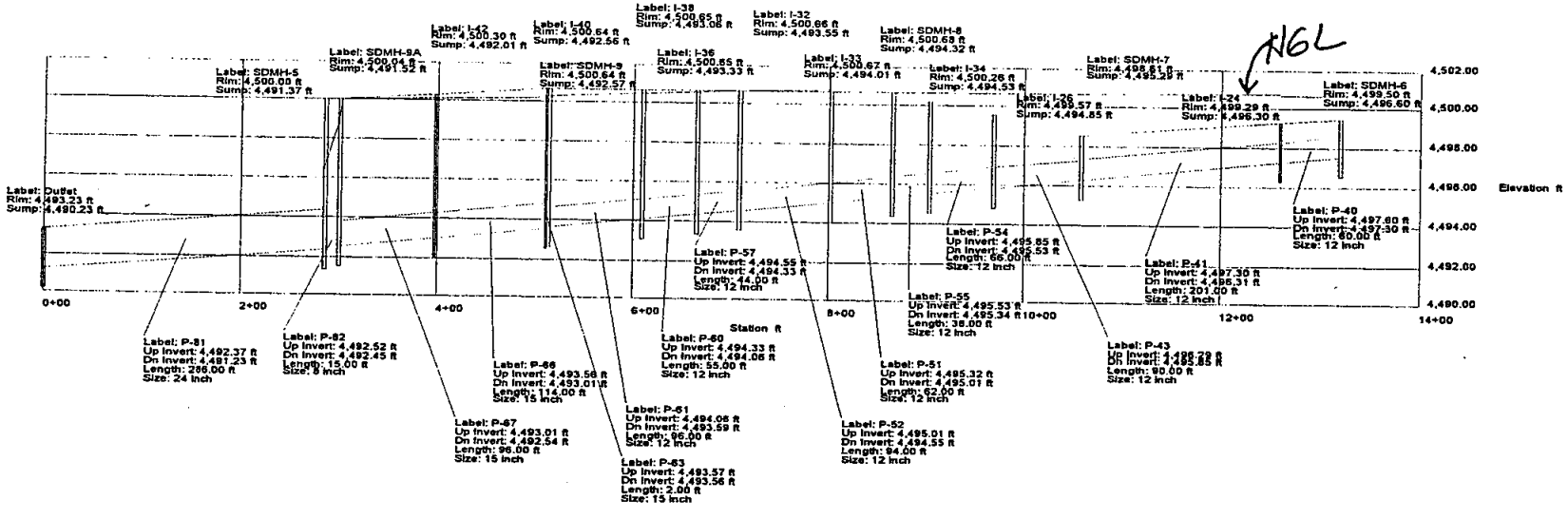
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Lengt (ft)	Constructe Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstrean Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.58	2.56	14.00	0.004825	15 inch	0.010	5.83	4,500.27	4,500.16	4,500.34	4,500.23	2.09	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.56	2.81	96.00	0.004896	15 inch	0.010	5.88	4,500.15	4,500.04	4,500.23	4,500.12	2.29	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	2.10	0.38	48.00	0.020000	6 inch	0.010	1.03	4,500.29	4,500.16	4,500.35	4,500.22	1.92	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,500.23	4,500.23	4,500.23	4,500.23	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	2.08	0.37	06.00	0.002830	12 inch	0.013	2.11	4,500.24	4,500.23	4,500.25	4,500.24	0.44	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.33	4,500.23	4,500.38	4,500.29	1.92	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.60	1.44	13.00	0.003077	18 inch	0.010	7.57	4,500.23	4,500.23	4,500.24	4,500.24	0.82	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.60	1.72	90.00	0.003000	18 inch	0.010	7.48	4,500.22	4,500.21	4,500.24	4,500.22	0.98	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	2.10	0.38	35.00	0.020000	6 inch	0.010	1.03	4,500.32	4,500.23	4,500.38	4,500.28	1.92	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.47	2.29	17.00	0.003529	18 inch	0.010	8.11	4,500.12	4,500.12	4,500.15	4,500.14	1.29	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.46	2.54	87.00	0.003793	18 inch	0.010	8.41	4,500.11	4,500.08	4,500.14	4,500.11	1.44	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	2.10	0.38	53.00	0.020000	6 inch	0.010	1.03	4,500.26	4,500.12	4,500.32	4,500.18	1.92	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	3.69	1.41	24.16	86.00	0.003986	24 inch	0.013	14.28	4,496.49	4,493.23	4,497.41	4,494.15	7.69	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	1.41	5.25	15.00	0.004667	8 inch	0.010	1.07	4,498.72	4,497.04	4,502.23	4,500.56	15.04	4,492.52
P-83	I-48	SDMH-4	0.00	0.00	0.00	0.00	7.80	18.91	25.00	0.004000	24 inch	0.013	14.31	4,500.04	4,499.86	4,500.60	4,500.42	6.02	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	0.00	7.77	18.91	63.00	0.003912	24 inch	0.013	14.15	4,499.58	4,497.04	4,500.14	4,497.61	6.02	4,493.85

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.33	4,500.33	1.92
I-2	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.33	4,500.33	1.92
I-3	0.00	0.00	7.80	0.00	1.79	0.00	0.00	0.36	0.00	0.00	30.23	30.23	0.00	0.65	0.00	4,500.23	4,500.23	0.76
I-4	0.00	0.00	7.80	0.00	1.73	0.00	0.00	0.54	0.00	0.00	33.07	33.07	0.00	0.93	0.00	4,500.23	4,500.23	0.76
I-5	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.33	4,500.33	1.92
I-6	0.00	0.00	7.80	0.00	1.67	0.00	0.00	0.71	0.00	0.00	35.26	35.26	0.00	1.20	0.00	4,500.23	4,500.23	0.98
I-7	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.33	4,500.33	1.92
I-8	0.00	0.00	7.80	0.00	1.63	0.00	0.00	0.89	0.00	0.00	36.96	36.96	0.00	1.47	0.00	4,500.23	4,500.23	1.20
I-12	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.30	4,500.30	1.92
I-13	0.00	0.00	7.80	0.00	1.56	0.00	0.00	1.25	0.00	0.00	39.96	39.96	0.00	1.97	0.00	4,500.21	4,500.20	1.11
I-14	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.30	4,500.30	1.92
I-15	0.14	0.85	2.10	0.25	2.10	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,500.68	4,500.68	2.89
I-16	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.26	4,500.26	1.92
I-17	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.22	4,500.22	1.92
I-18	0.00	0.00	7.80	0.00	1.44	0.00	0.00	1.90	0.00	0.00	45.11	45.11	0.00	2.76	0.00	4,500.08	4,500.08	1.56
I-20	0.00	0.00	7.80	0.00	1.47	0.00	0.00	1.55	0.00	0.00	43.89	43.89	0.00	2.29	0.00	4,500.13	4,500.12	1.29
I-21	0.00	0.00	7.80	0.00	1.49	0.00	0.00	1.43	0.00	0.00	42.76	42.76	0.00	2.15	0.00	4,500.15	4,500.15	1.22
I-22	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.81	4,500.81	1.92
I-23	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.74	4,500.74	1.92
I-24	0.00	0.00	7.80	0.00	1.90	0.00	0.00	0.36	0.00	0.00	28.60	28.60	0.00	0.68	0.00	4,500.68	4,500.68	0.80
I-25	0.28	0.85	2.10	0.50	2.10	0.24	0.00	0.24	5.90	0.00	0.00	25.90	0.00	0.50	0.00	4,500.71	4,500.71	1.44
I-26	0.00	0.00	7.80	0.00	1.68	0.00	0.00	0.60	0.00	0.00	34.82	34.82	0.00	1.01	0.00	4,500.68	4,500.68	1.19
I-27	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.81	4,500.81	1.92
I-29	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.70	4,500.70	1.08
I-31	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.69	4,500.69	1.08
I-32	0.00	0.00	7.80	0.00	1.62	0.00	0.00	1.13	0.00	0.00	37.70	37.70	0.00	1.84	0.00	4,500.66	4,500.66	2.16
I-33	0.00	0.00	7.80	0.00	1.64	0.00	0.00	0.95	0.00	0.00	36.85	36.85	0.00	1.57	0.00	4,500.67	4,500.67	1.84
I-34	0.00	0.00	7.80	0.00	1.66	0.00	0.00	0.77	0.00	0.00	35.75	35.75	0.00	1.30	0.00	4,500.68	4,500.68	1.52
I-35	0.14	0.85	2.10	0.25	2.10	0.12	0.00	0.12	5.90	0.00	0.00	25.90	0.00	0.25	0.00	4,501.12	4,501.12	2.89
I-36	0.00	0.00	7.80	0.00	1.61	0.00	0.00	1.25	0.00	0.00	38.04	38.04	0.00	2.02	0.00	4,500.63	4,500.61	2.38
I-37	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.65	4,500.65	1.92
I-38	0.00	0.00	7.80	0.00	1.60	0.00	0.00	1.43	0.00	0.00	38.43	38.43	0.00	2.30	0.00	4,500.52	4,500.50	2.70
I-39	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.41	4,500.41	1.92
I-40	0.00	0.00	7.80	0.00	1.58	0.00	0.00	1.61	0.00	0.00	39.04	39.04	0.00	2.56	0.00	4,500.28	4,500.27	2.09
I-41	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.29	4,500.29	1.92
I-42	0.00	0.00	7.80	0.00	1.56	0.00	0.00	1.79	0.00	0.00	39.95	39.95	0.00	2.81	0.00	4,500.16	4,500.15	2.29
I-43	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.33	4,500.33	1.92

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	2.08	0.00	0.00	0.18	0.00	0.00	26.20	26.20	0.00	0.37	0.00	4,500.23	4,500.23	0.44
I-45	0.21	0.85	2.10	0.38	2.10	0.18	0.00	0.18	5.90	0.00	0.00	25.90	0.00	0.38	0.00	4,500.32	4,500.32	1.92
I-46	0.00	0.00	7.80	0.00	1.60	0.00	0.00	1.07	0.00	0.00	38.43	38.43	0.00	1.72	0.00	4,500.23	4,500.22	0.98
I-47	0.00	0.00	7.80	0.00	1.46	0.00	0.00	1.73	0.00	0.00	44.10	44.10	0.00	2.54	0.00	4,500.12	4,500.11	1.44
I-48	0.00	0.00	7.80	0.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.91	0.00	0.00	4,500.04	4,500.04	6.02
Outlet	N/A	N/A	N/A	N/A	1.40	N/A	N/A	3.69	N/A	0.00	46.83	46.83	N/A	5.19	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,500.23	4,500.23	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.78	N/A	N/A	0.36	N/A	0.00	31.02	31.02	N/A	0.64	N/A	4,500.23	4,500.23	0.52
SDMH-3A	N/A	N/A	N/A	N/A	1.52	N/A	N/A	1.25	N/A	0.00	41.59	41.59	N/A	1.92	N/A	4,500.18	4,500.17	1.08
SDMH-3	N/A	N/A	N/A	N/A	1.60	N/A	N/A	0.89	N/A	0.00	38.16	38.16	N/A	1.44	N/A	4,500.23	4,500.23	0.82
SDMH-4	N/A	N/A	N/A	N/A	7.77	N/A	N/A	0.00	N/A	0.00	0.07	0.07	N/A	0.00	N/A	4,499.86	4,499.58	6.02
SDMH-5	N/A	N/A	N/A	N/A	1.41	N/A	N/A	3.69	N/A	0.00	46.21	46.21	N/A	5.25	N/A	4,497.04	4,496.49	7.69
SDMH-6	N/A	N/A	N/A	N/A	2.07	N/A	N/A	0.18	N/A	0.00	26.32	26.32	N/A	0.37	N/A	4,500.68	4,500.68	0.44
SDMH-7	N/A	N/A	N/A	N/A	1.73	N/A	N/A	0.36	N/A	0.00	32.77	32.77	N/A	0.62	N/A	4,500.68	4,500.68	0.73
SDMH-8	N/A	N/A	N/A	N/A	1.65	N/A	N/A	0.77	N/A	0.00	36.17	36.17	N/A	1.29	N/A	4,500.68	4,500.68	1.51
SDMH-9	N/A	N/A	N/A	N/A	1.58	N/A	N/A	1.43	N/A	0.00	39.02	39.02	N/A	2.28	N/A	4,500.31	4,500.29	1.86
SDMH-9A	N/A	N/A	N/A	N/A	1.41	N/A	N/A	3.69	N/A	0.00	46.19	46.19	N/A	5.25	N/A	4,500.04	4,498.72	15.04



Project Title: Eagle Hardware and Garden
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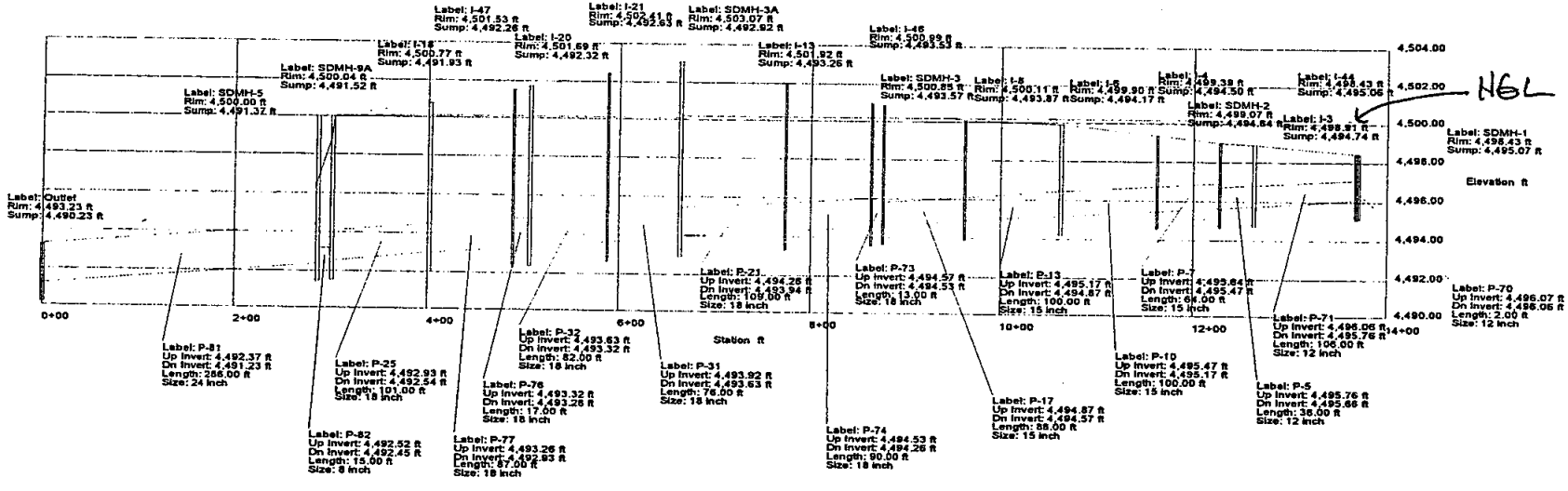
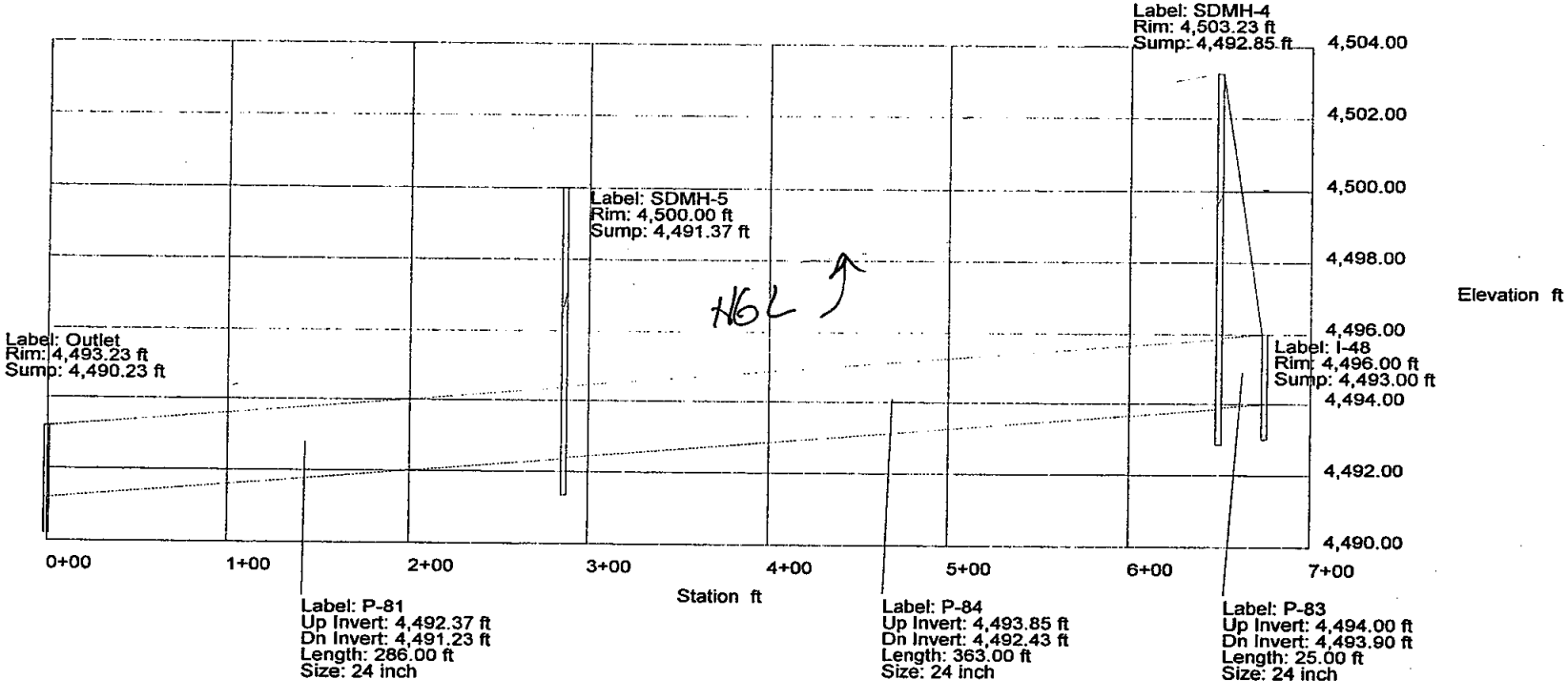
Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]





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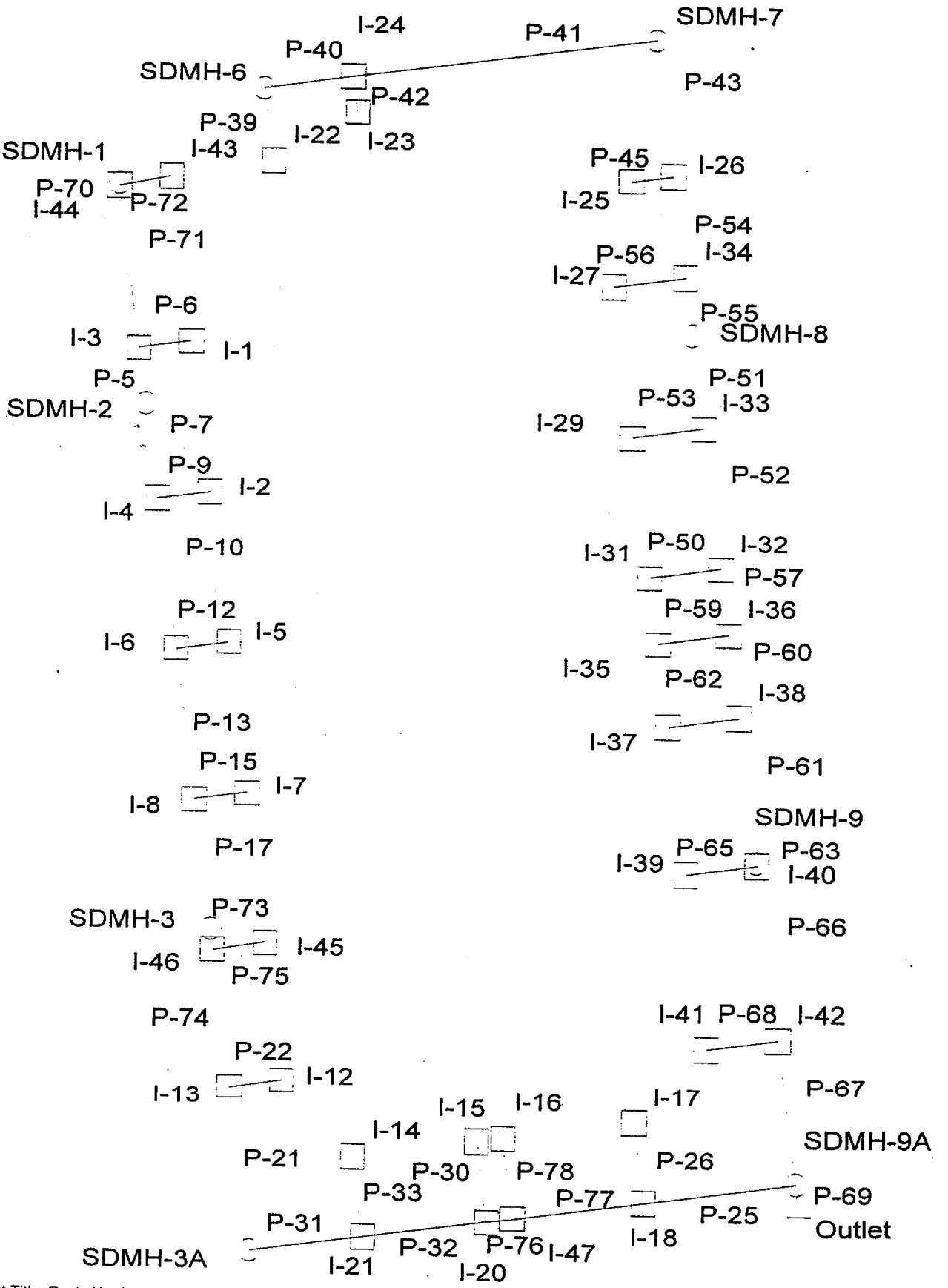

Project Title: Eagle Hardware and Garden
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Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]
Page 1 of 1

Detailed Report for Outlet

Flows			
Total Discharge	3.36 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	3.36 cfs

Watershed Data			
System Intensity	0.90 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	21.98 min	Upstream Flow Time	21.98 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.31	0.47	36.00	0.002778	12 inch	0.013	2.09	4,496.10	4,495.96	4,496.16	4,496.04	2.17	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.04	4,496.26	4,497.14	4,496.55	3.44	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.29	0.47	64.00	0.002656	15 inch	0.010	4.33	4,495.92	4,495.82	4,496.00	4,495.86	1.99	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.75	4,495.97	4,496.85	4,496.26	3.44	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.26	0.68	00.00	0.003000	15 inch	0.010	4.60	4,495.80	4,495.57	4,495.91	4,495.63	2.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.45	4,495.67	4,496.55	4,495.96	3.44	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.22	0.88	00.00	0.003000	15 inch	0.010	4.60	4,495.54	4,495.30	4,495.67	4,495.39	2.60	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.15	4,495.37	4,496.25	4,495.66	3.44	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.18	1.06	86.00	0.003488	15 inch	0.010	4.96	4,495.28	4,495.03	4,495.42	4,495.13	2.84	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.11	1.40	09.00	0.002936	18 inch	0.010	7.40	4,494.75	4,494.74	4,494.87	4,494.78	2.13	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.55	4,494.77	4,495.65	4,495.06	3.44	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.95	1.83	01.00	0.003861	18 inch	0.010	8.49	4,494.69	4,494.67	4,494.71	4,494.69	1.03	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,494.75	4,494.69	4,494.78	4,494.72	1.34	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.40	0.17	53.00	0.020000	4 inch	0.010	0.35	4,495.11	4,494.71	4,495.22	4,494.77	2.26	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.08	1.35	76.00	0.003816	18 inch	0.010	8.43	4,494.72	4,494.72	4,494.75	4,494.73	1.20	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.04	1.50	82.00	0.003780	18 inch	0.010	8.40	4,494.71	4,494.71	4,494.73	4,494.72	0.99	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.27	4,494.72	4,495.37	4,494.74	1.91	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,498.86	4,497.82	4,498.96	4,498.11	3.44	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.39	0.25	60.00	0.005000	12 inch	0.013	2.81	4,497.81	4,497.61	4,497.87	4,497.63	1.60	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.35	0.49	01.00	0.004925	12 inch	0.013	2.79	4,497.59	4,496.64	4,497.69	4,496.71	2.26	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.40	0.25	23.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.64	4,498.28	4,497.93	3.44	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.26	0.45	90.00	0.004889	12 inch	0.010	3.61	4,496.57	4,496.23	4,496.66	4,496.27	2.07	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.40	0.34	28.00	0.020000	8 inch	0.010	2.22	4,496.85	4,496.20	4,496.95	4,496.52	3.57	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.07	4,495.03	4,496.16	4,495.31	3.28	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.18	0.92	62.00	0.005000	12 inch	0.010	3.65	4,495.72	4,495.48	4,495.86	4,495.57	2.77	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.15	1.11	94.00	0.004894	12 inch	0.010	3.61	4,495.45	4,495.06	4,495.61	4,495.17	2.97	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.54	4,495.50	4,496.63	4,495.78	3.28	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.22	0.73	66.00	0.004848	12 inch	0.010	3.60	4,496.20	4,495.96	4,496.33	4,496.03	2.54	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.19	0.93	38.00	0.005000	12 inch	0.010	3.65	4,495.93	4,495.79	4,496.08	4,495.90	2.86	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,497.07	4,496.03	4,497.17	4,496.32	3.44	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.12	1.28	44.00	0.005000	12 inch	0.010	3.65	4,495.02	4,494.86	4,495.20	4,494.99	3.17	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.40	0.17	48.00	0.020000	4 inch	0.010	0.35	4,496.02	4,494.99	4,496.13	4,495.24	3.29	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.11	1.39	55.00	0.004909	12 inch	0.010	3.62	4,494.82	4,494.87	4,495.01	4,494.93	2.73	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.09	1.57	96.00	0.004896	12 inch	0.010	3.61	4,494.86	4,494.79	4,494.93	4,494.85	2.05	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.60	4,494.87	4,495.70	4,494.90	1.92	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.07	1.54	2.00	0.005000	15 inch	0.010	5.94	4,494.78	4,494.78	4,494.81	4,494.81	1.26	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.10	4,494.78	4,495.20	4,494.81	1.91	4,494.85

Pipe Report

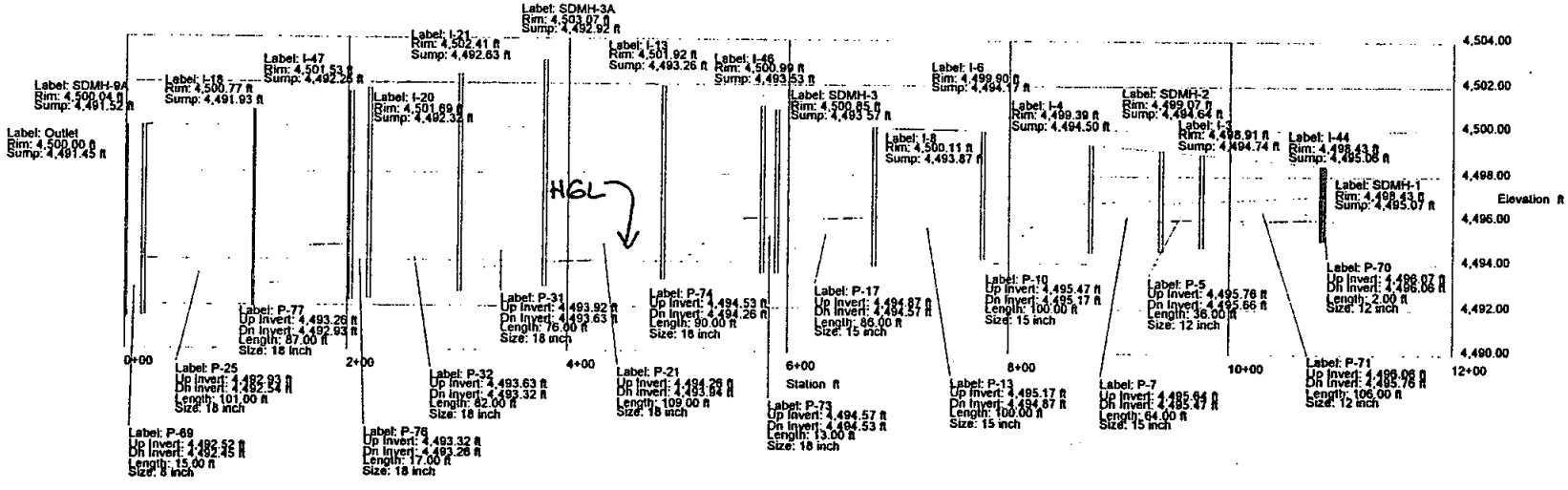
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.07	1.73	14.00	0.004825	15 inch	0.010	5.83	4,494.77	4,494.73	4,494.81	4,494.76	1.41	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.03	1.85	96.00	0.004896	15 inch	0.010	5.88	4,494.72	4,494.67	4,494.76	4,494.71	1.51	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,494.72	4,494.73	4,494.82	4,494.75	1.91	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	0.91	3.37	15.00	0.004667	8 inch	0.010	1.07	4,493.81	4,493.12	4,495.25	4,494.56	9.64	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.31	4,496.31	4,496.31	4,496.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.39	0.25	06.00	0.002830	12 inch	0.013	2.11	4,496.30	4,496.11	4,496.35	4,496.12	1.34	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.34	4,496.56	4,497.44	4,496.85	3.44	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.15	1.04	13.00	0.003077	18 inch	0.010	7.57	4,494.97	4,494.98	4,495.09	4,495.06	2.54	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.15	1.24	90.00	0.003000	18 inch	0.010	7.48	4,494.95	4,494.77	4,495.09	4,494.86	2.71	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.81	4,495.03	4,495.91	4,495.32	3.44	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.00	1.56	17.00	0.003529	18 inch	0.010	8.11	4,494.71	4,494.71	4,494.72	4,494.72	0.90	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.99	1.73	87.00	0.003793	18 inch	0.010	8.41	4,494.70	4,494.69	4,494.72	4,494.71	0.98	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,494.90	4,494.71	4,495.00	4,494.73	1.91	4,494.65

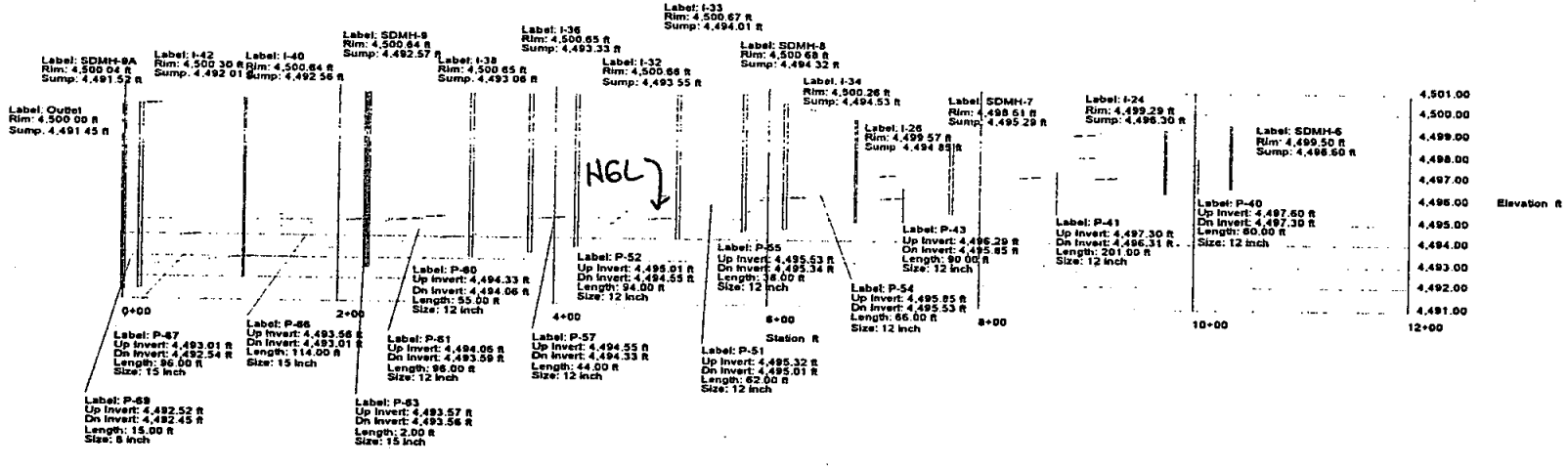
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.04	4,497.04	2.53
I-2	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.75	4,496.75	2.53
I-3	0.00	0.00	2.80	0.00	1.31	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	0.47	0.00	4,496.11	4,496.10	1.99
I-4	0.00	0.00	2.80	0.00	1.26	0.00	0.00	0.54	0.00	0.00	12.31	12.31	0.00	0.68	0.00	4,495.82	4,495.80	2.69
I-5	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.45	4,496.45	2.53
I-6	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.71	0.00	0.00	13.01	13.01	0.00	0.88	0.00	4,495.57	4,495.54	2.89
I-7	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.15	4,496.15	2.53
I-8	0.00	0.00	2.80	0.00	1.18	0.00	0.00	0.89	0.00	0.00	13.65	13.65	0.00	1.06	0.00	4,495.30	4,495.28	3.08
I-12	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.55	4,495.55	2.53
I-13	0.00	0.00	2.80	0.00	1.11	0.00	0.00	1.25	0.00	0.00	14.80	14.84	0.00	1.40	0.00	4,494.77	4,494.75	2.80
I-14	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.27	4,495.27	2.53
I-15	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,495.11	4,495.11	2.60
I-16	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.90	4,494.90	2.53
I-17	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.75	4,494.75	1.41
I-18	0.00	0.00	2.80	0.00	0.95	0.00	0.00	1.90	0.00	0.00	20.31	20.32	0.00	1.83	0.00	4,494.69	4,494.69	1.03
I-20	0.00	0.00	2.80	0.00	1.00	0.00	0.00	1.55	0.00	0.00	18.43	18.52	0.00	1.56	0.00	4,494.71	4,494.71	0.91
I-21	0.00	0.00	2.80	0.00	1.04	0.00	0.00	1.43	0.00	0.00	16.92	17.05	0.00	1.50	0.00	4,494.72	4,494.71	1.10
I-22	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.86	4,498.86	2.53
I-23	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.18	4,498.18	2.53
I-24	0.00	0.00	2.80	0.00	1.35	0.00	0.00	0.36	0.00	0.00	10.86	10.86	0.00	0.49	0.00	4,497.61	4,497.59	2.46
I-25	0.28	0.85	1.40	0.34	1.40	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.34	0.00	4,496.85	4,496.85	2.54
I-26	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.60	0.00	0.00	13.07	13.07	0.00	0.73	0.00	4,496.23	4,496.20	2.88
I-27	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.07	4,497.07	2.53
I-29	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.54	4,496.54	2.33
I-31	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.07	4,496.07	2.33
I-32	0.00	0.00	2.80	0.00	1.12	0.00	0.00	1.13	0.00	0.00	14.62	14.62	0.00	1.28	0.00	4,495.06	4,495.02	3.41
I-33	0.00	0.00	2.80	0.00	1.15	0.00	0.00	0.95	0.00	0.00	14.10	14.10	0.00	1.11	0.00	4,495.48	4,495.45	3.26
I-34	0.00	0.00	2.80	0.00	1.19	0.00	0.00	0.77	0.00	0.00	13.50	13.50	0.00	0.93	0.00	4,495.96	4,495.93	3.09
I-35	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,496.02	4,496.02	2.60
I-36	0.00	0.00	2.80	0.00	1.11	0.00	0.00	1.25	0.00	0.00	14.86	14.88	0.00	1.39	0.00	4,494.86	4,494.82	3.51
I-37	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.60	4,495.60	2.53
I-38	0.00	0.00	2.80	0.00	1.09	0.00	0.00	1.43	0.00	0.00	15.22	15.31	0.00	1.57	0.00	4,494.87	4,494.86	2.25
I-39	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.10	4,495.10	2.53
I-40	0.00	0.00	2.80	0.00	1.07	0.00	0.00	1.61	0.00	0.00	16.17	16.17	0.00	1.73	0.00	4,494.78	4,494.77	1.42
I-41	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.72	4,494.72	2.53
I-42	0.00	0.00	2.80	0.00	1.03	0.00	0.00	1.79	0.00	0.00	17.51	17.52	0.00	1.85	0.00	4,494.73	4,494.72	1.51
I-43	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.34	4,497.34	2.53

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	1.39	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.25	0.00	4,496.31	4,496.30	1.67
I-45	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.81	4,495.81	2.53
I-46	0.00	0.00	2.80	0.00	1.15	0.00	0.00	1.07	0.00	0.00	14.24	14.24	0.00	1.24	0.00	4,494.98	4,494.95	3.09
I-47	0.00	0.00	2.80	0.00	0.99	0.00	0.00	1.73	0.00	0.00	18.83	18.84	0.00	1.73	0.00	4,494.71	4,494.70	0.99
Outlet	N/A	N/A	N/A	N/A	0.90	N/A	N/A	3.69	N/A	0.00	21.98	21.98	N/A	3.36	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.31	4,496.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.29	N/A	N/A	0.36	N/A	0.00	11.77	11.77	N/A	0.47	N/A	4,495.96	4,495.92	2.30
SDMH-3	N/A	N/A	N/A	N/A	1.15	N/A	N/A	0.89	N/A	0.00	14.16	14.16	N/A	1.04	N/A	4,495.03	4,494.97	2.73
SDMH-3A	N/A	N/A	N/A	N/A	1.08	N/A	N/A	1.25	N/A	0.00	15.70	15.87	N/A	1.35	N/A	4,494.74	4,494.72	1.42
SDMH-6	N/A	N/A	N/A	N/A	1.39	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.25	N/A	4,497.86	4,497.81	2.04
SDMH-7	N/A	N/A	N/A	N/A	1.26	N/A	N/A	0.36	N/A	0.00	12.34	12.34	N/A	0.45	N/A	4,496.64	4,496.57	2.51
SDMH-8	N/A	N/A	N/A	N/A	1.18	N/A	N/A	0.77	N/A	0.00	13.72	13.72	N/A	0.92	N/A	4,495.79	4,495.72	3.08
SDMH-9A	N/A	N/A	N/A	N/A	0.91	N/A	N/A	3.69	N/A	0.00	21.95	21.95	N/A	3.37	N/A	4,494.67	4,493.81	9.64
SDMH-9	N/A	N/A	N/A	N/A	1.07	N/A	N/A	1.43	N/A	0.00	16.09	16.14	N/A	1.54	N/A	4,494.79	4,494.78	1.26

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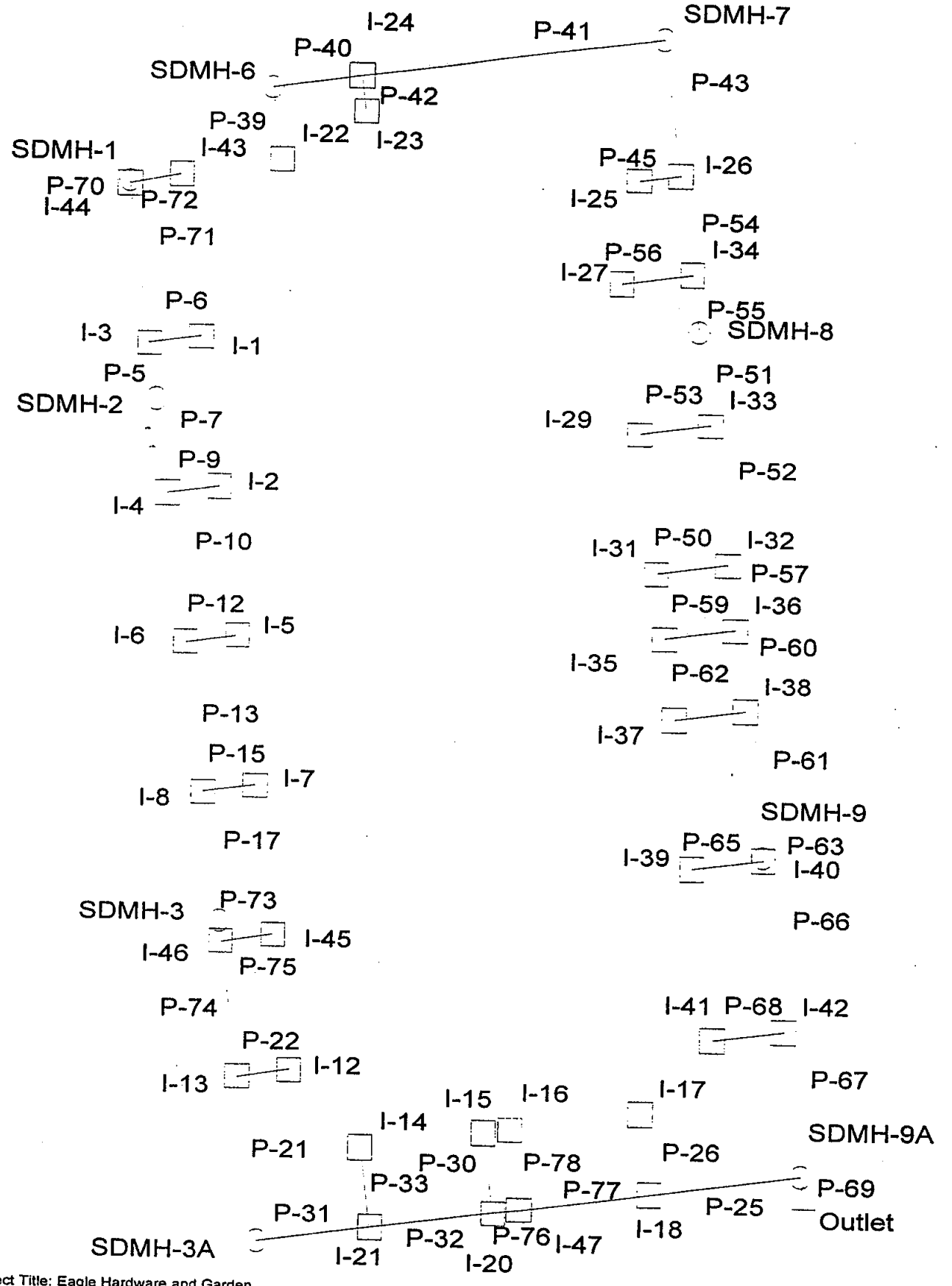
Rim: 4,500.00 ft
Sump: 4,491.45 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-42
Rim: 4,500.30 ft
Sump: 4,492.01 ft
Label: I-40
Rim: 4,500.64 ft
Sump: 4,492.56 ft
Label: SDMH-9
Rim: 4,500.84 ft
Sump: 4,492.57 ft
Label: I-38
Rim: 4,500.65 ft
Sump: 4,493.08 ft
Label: I-36
Rim: 4,500.65 ft
Sump: 4,493.33 ft
Label: I-32
Rim: 4,500.66 ft
Sump: 4,493.55 ft
Label: I-33
Rim: 4,500.67 ft
Sump: 4,494.01 ft
Label: SDMH-8
Rim: 4,500.68 ft
Sump: 4,494.32 ft
Label: I-34
Rim: 4,500.26 ft
Sump: 4,494.53 ft
Label: I-26
Rim: 4,499.57 ft
Sump: 4,494.85 ft
Label: SDMH-7
Rim: 4,498.61 ft
Sump: 4,495.29 ft
Label: I-24
Rim: 4,499.29 ft
Sump: 4,496.30 ft
Label: SDMH-6
Rim: 4,499.50 ft
Sump: 4,496.60 ft
HGL
Label: P-67
Up Invert: 4,493.01 ft
Dn Invert: 4,492.54 ft
Length: 96.00 ft
Size: 15 inch
Label: P-68
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 6 inch
Label: P-66
Up Invert: 4,493.58 ft
Dn Invert: 4,493.01 ft
Length: 114.00 ft
Size: 15 inch
Label: P-63
Up Invert: 4,493.57 ft
Dn Invert: 4,493.56 ft
Length: 2.00 ft
Size: 15 inch
Label: P-61
Up Invert: 4,494.06 ft
Dn Invert: 4,493.59 ft
Length: 96.00 ft
Size: 12 inch
Label: P-60
Up Invert: 4,494.33 ft
Dn Invert: 4,494.06 ft
Length: 55.00 ft
Size: 12 inch
Label: P-57
Up Invert: 4,494.55 ft
Dn Invert: 4,494.33 ft
Length: 44.00 ft
Size: 12 inch
Label: P-52
Up Invert: 4,495.01 ft
Dn Invert: 4,494.55 ft
Length: 94.00 ft
Size: 12 inch
Label: P-51
Up Invert: 4,495.32 ft
Dn Invert: 4,495.01 ft
Length: 62.00 ft
Size: 12 inch
Label: P-55
Up Invert: 4,495.53 ft
Dn Invert: 4,495.34 ft
Length: 18.00 ft
Size: 12 inch
Label: P-54
Up Invert: 4,495.85 ft
Dn Invert: 4,495.53 ft
Length: 66.00 ft
Size: 12 inch
Label: P-43
Up Invert: 4,496.29 ft
Dn Invert: 4,495.85 ft
Length: 90.00 ft
Size: 12 inch
Label: P-41
Up Invert: 4,497.30 ft
Dn Invert: 4,496.31 ft
Length: 201.00 ft
Size: 12 inch
Label: P-40
Up Invert: 4,497.60 ft
Dn Invert: 4,497.30 ft
Length: 60.00 ft
Size: 12 inch
0+00
2+00
4+00
6+00
8+00
10+00
12+00
Station ft
4,501.00
4,500.00
4,499.00
4,498.00
4,497.00
4,496.00
4,495.00
4,494.00
4,493.00
4,492.00
4,491.00
Elevation ft

25 yr, 10 min


I-24
P-40
P-41
SDMH-7
SDMH-6
P-42
P-43
P-39
I-22
I-23
SDMH-1
I-43
P-45
I-26
P-70
P-72
I-25
I-44
P-54
P-71
P-56
I-34
I-27
P-6
P-55
I-3
I-1
SDMH-8
P-5
P-51
SDMH-2
P-53
I-33
P-7
I-29
P-9
P-52
I-2
I-4
P-10
I-31
P-50
I-32
P-57
P-12
P-59
I-36
I-6
I-5
P-60
I-35
P-62
I-38
P-13
I-37
P-15
P-61
I-7
I-8
SDMH-9
P-17
P-65
P-63
I-39
I-40
SDMH-3
P-73
P-66
I-45
I-46
P-75
P-74
I-41
P-68
I-42
P-22
P-67
I-12
I-13
I-15
I-16
I-17
I-14
SDMH-9A
P-21
P-30
P-78
P-26
P-33
P-77
P-69
P-31
P-25
Outlet
P-32
P-76
I-47
I-18
SDMH-3A
I-21
I-20

Detailed Report for Outlet

Flows			
Total Discharge	4.63 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	4.63 cfs

Watershed Data			
System Intensity	1.24 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	28.81 min	Upstream Flow Time	28.81 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	2.14	0.77	36.00	0.002778	12 inch	0.013	2.09	4,496.35	4,496.33	4,496.39	4,496.36	1.43	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.13	4,496.32	4,497.29	4,496.72	4.11	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	2.07	0.75	64.00	0.002656	15 inch	0.010	4.33	4,496.32	4,496.32	4,496.34	4,496.33	0.96	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.84	4,496.32	4,497.00	4,496.40	2.72	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.94	1.05	00.00	0.003000	15 inch	0.010	4.60	4,496.32	4,496.31	4,496.34	4,496.32	1.04	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.54	4,496.31	4,496.70	4,496.39	2.72	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.84	1.32	00.00	0.003000	15 inch	0.010	4.60	4,496.30	4,496.28	4,496.32	4,496.30	1.10	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.42	4,496.28	4,496.50	4,496.36	2.30	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.75	1.58	86.00	0.003488	15 inch	0.010	4.96	4,496.28	4,496.25	4,496.30	4,496.27	1.28	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.60	2.01	09.00	0.002936	18 inch	0.010	7.40	4,496.22	4,496.19	4,496.24	4,496.21	1.14	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.35	4,496.22	4,496.44	4,496.30	2.30	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.31	2.52	01.00	0.003861	18 inch	0.010	8.49	4,496.10	4,496.06	4,496.13	4,496.10	1.42	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.30	4,496.10	4,496.38	4,496.18	2.30	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	2.51	0.30	53.00	0.020000	4 inch	0.010	0.35	4,496.92	4,496.14	4,497.11	4,496.32	3.45	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.51	1.90	76.00	0.003816	18 inch	0.010	8.43	4,496.18	4,496.16	4,496.20	4,496.18	1.08	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.45	2.08	82.00	0.003780	18 inch	0.010	8.40	4,496.16	4,496.14	4,496.18	4,496.16	1.18	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.37	4,496.16	4,496.45	4,496.24	2.30	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.95	4,497.88	4,499.11	4,498.28	4.11	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	2.47	0.45	60.00	0.005000	12 inch	0.013	2.81	4,497.88	4,497.71	4,497.97	4,497.74	1.91	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	2.28	0.82	01.00	0.004925	12 inch	0.013	2.79	4,497.69	4,497.06	4,497.81	4,497.08	2.05	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	2.51	0.45	23.00	0.020000	6 inch	0.010	1.03	4,498.27	4,497.71	4,498.43	4,498.09	4.06	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.96	0.71	90.00	0.004889	12 inch	0.010	3.61	4,497.04	4,497.03	4,497.06	4,497.05	0.95	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	2.51	0.60	28.00	0.020000	8 inch	0.010	2.22	4,497.04	4,497.03	4,497.12	4,497.08	2.05	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,496.82	4,496.78	4,496.85	4,496.81	1.29	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.79	1.40	62.00	0.005000	12 inch	0.010	3.65	4,496.94	4,496.90	4,496.98	4,496.94	1.64	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.76	1.69	94.00	0.004894	12 inch	0.010	3.61	4,496.88	4,496.78	4,496.94	4,496.84	1.98	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,496.93	4,496.90	4,496.96	4,496.92	1.31	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.86	1.12	66.00	0.004848	12 inch	0.010	3.60	4,497.03	4,497.00	4,497.06	4,497.03	1.31	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.81	1.41	38.00	0.005000	12 inch	0.010	3.65	4,496.99	4,496.96	4,497.03	4,497.00	1.66	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,497.16	4,497.00	4,497.32	4,497.08	2.72	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.72	1.96	44.00	0.005000	12 inch	0.010	3.65	4,496.77	4,496.70	4,496.85	4,496.78	2.29	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	2.51	0.30	48.00	0.020000	4 inch	0.010	0.35	4,497.41	4,496.70	4,497.60	4,496.89	3.45	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.70	2.14	55.00	0.004909	12 inch	0.010	3.62	4,496.68	4,496.59	4,496.78	4,496.69	2.51	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.68	2.42	96.00	0.004896	12 inch	0.010	3.61	4,496.56	4,496.35	4,496.69	4,496.48	2.83	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.77	4,496.59	4,496.86	4,496.67	2.30	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.65	2.37	2.00	0.005000	15 inch	0.010	5.94	4,496.32	4,496.32	4,496.38	4,496.38	1.93	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.51	4,496.32	4,496.59	4,496.41	2.30	4,494.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.65	2.67	14.00	0.004825	15 inch	0.010	5.83	4,496.31	4,496.19	4,496.38	4,496.27	2.17	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.60	2.88	96.00	0.004896	15 inch	0.010	5.88	4,496.18	4,496.06	4,496.26	4,496.15	2.34	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.38	4,496.19	4,496.46	4,496.28	2.30	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	1.25	4.63	15.00	0.004667	8 inch	0.010	1.07	4,494.42	4,493.12	4,497.16	4,495.85	13.27	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.43	4,496.43	4,496.43	4,496.43	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	2.48	0.45	06.00	0.002830	12 inch	0.013	2.11	4,496.42	4,496.36	4,496.47	4,496.37	1.29	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.43	4,496.62	4,497.59	4,497.02	4.11	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.69	1.52	13.00	0.003077	18 inch	0.010	7.57	4,496.24	4,496.24	4,496.25	4,496.25	0.86	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.68	1.81	90.00	0.003000	18 inch	0.010	7.48	4,496.24	4,496.22	4,496.25	4,496.24	1.02	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.37	4,496.24	4,496.45	4,496.32	2.30	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.38	2.16	17.00	0.003529	18 inch	0.010	8.11	4,496.13	4,496.13	4,496.16	4,496.15	1.22	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.37	2.38	87.00	0.003793	18 inch	0.010	8.41	4,496.12	4,496.10	4,496.15	4,496.13	1.35	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.33	4,496.13	4,496.42	4,496.21	2.30	4,494.65

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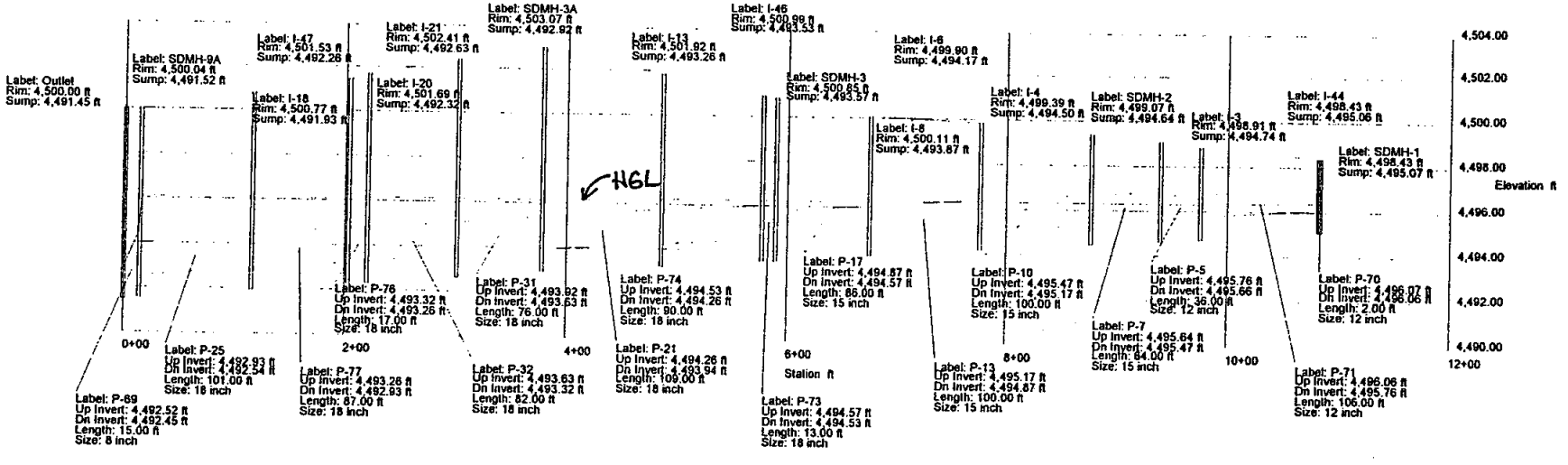
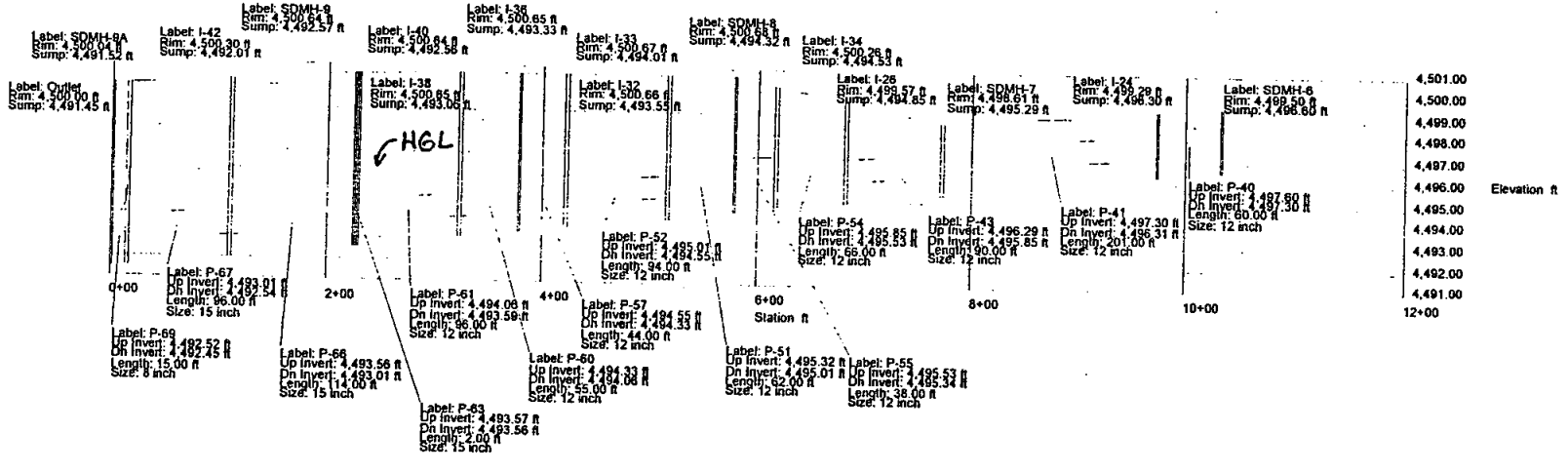
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.13	4,497.13	3.15
I-2	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.84	4,496.84	3.15
I-3	0.00	0.00	5.29	0.00	2.14	0.00	0.00	0.36	0.00	0.00	11.62	13.62	0.00	0.77	0.00	4,496.36	4,496.35	1.54
I-4	0.00	0.00	5.29	0.00	1.94	0.00	0.00	0.54	0.00	0.00	15.39	16.04	0.00	1.05	0.00	4,496.32	4,496.32	1.19
I-5	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.54	4,496.54	3.15
I-6	0.00	0.00	5.29	0.00	1.84	0.00	0.00	0.71	0.00	0.00	17.64	17.99	0.00	1.32	0.00	4,496.31	4,496.30	1.13
I-7	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.42	4,496.42	2.30
I-8	0.00	0.00	5.29	0.00	1.75	0.00	0.00	0.89	0.00	0.00	19.50	19.54	0.00	1.58	0.00	4,496.28	4,496.28	1.28
I-12	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.35	4,496.35	2.30
I-13	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.25	0.00	0.00	22.37	22.37	0.00	2.01	0.00	4,496.22	4,496.22	1.14
I-14	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.37	4,496.37	2.30
I-15	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,496.92	4,496.92	3.45
I-16	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.33	4,496.33	2.30
I-17	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.30	4,496.30	2.30
I-18	0.00	0.00	5.29	0.00	1.31	0.00	0.00	1.90	0.00	0.00	27.61	27.61	0.00	2.52	0.00	4,496.10	4,496.10	1.42
I-20	0.00	0.00	5.29	0.00	1.38	0.00	0.00	1.55	0.00	0.00	26.30	26.30	0.00	2.16	0.00	4,496.14	4,496.13	1.22
I-21	0.00	0.00	5.29	0.00	1.45	0.00	0.00	1.43	0.00	0.00	25.14	25.14	0.00	2.08	0.00	4,496.16	4,496.16	1.18
I-22	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.95	4,498.95	3.15
I-23	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.27	4,498.27	3.15
I-24	0.00	0.00	5.29	0.00	2.28	0.00	0.00	0.36	0.00	0.00	10.87	12.26	0.00	0.82	0.00	4,497.71	4,497.69	2.84
I-25	0.28	0.85	2.51	0.60	2.51	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.60	0.00	4,497.04	4,497.04	2.37
I-26	0.00	0.00	5.29	0.00	1.86	0.00	0.00	0.60	0.00	0.00	17.33	17.56	0.00	1.12	0.00	4,497.03	4,497.03	1.31
I-27	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.16	4,497.16	3.15
I-29	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.93	4,496.93	1.33
I-31	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.82	4,496.82	1.29
I-32	0.00	0.00	5.29	0.00	1.72	0.00	0.00	1.13	0.00	0.00	20.20	20.20	0.00	1.96	0.00	4,496.78	4,496.77	2.29
I-33	0.00	0.00	5.29	0.00	1.76	0.00	0.00	0.95	0.00	0.00	19.41	19.41	0.00	1.69	0.00	4,496.90	4,496.88	1.98
I-34	0.00	0.00	5.29	0.00	1.81	0.00	0.00	0.77	0.00	0.00	18.40	18.40	0.00	1.41	0.00	4,497.00	4,496.99	1.66
I-35	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,497.41	4,497.41	3.45
I-36	0.00	0.00	5.29	0.00	1.70	0.00	0.00	1.25	0.00	0.00	20.52	20.52	0.00	2.14	0.00	4,496.70	4,496.68	2.51
I-37	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.77	4,496.77	2.30
I-38	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.43	0.00	0.00	20.88	20.88	0.00	2.42	0.00	4,496.59	4,496.56	2.83
I-39	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.51	4,496.51	2.30
I-40	0.00	0.00	5.29	0.00	1.65	0.00	0.00	1.61	0.00	0.00	21.46	21.46	0.00	2.67	0.00	4,496.32	4,496.31	2.17
I-41	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.38	4,496.38	2.30
I-42	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.79	0.00	0.00	22.34	22.34	0.00	2.88	0.00	4,496.19	4,496.18	2.34
I-43	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.43	4,497.43	3.15

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	2.48	0.00	0.00	0.18	0.00	0.00	10.14	10.25	0.00	0.45	0.00	4,496.43	4,496.42	1.71
I-45	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.37	4,496.37	2.30
I-46	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.07	0.00	0.00	20.91	20.91	0.00	1.81	0.00	4,496.24	4,496.24	1.02
I-47	0.00	0.00	5.29	0.00	1.37	0.00	0.00	1.73	0.00	0.00	26.54	26.54	0.00	2.38	0.00	4,496.13	4,496.12	1.35
Outlet	N/A	N/A	N/A	N/A	1.24	N/A	N/A	3.69	N/A	0.00	28.81	28.81	N/A	4.63	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.43	4,496.43	0.00
SDMH-2	N/A	N/A	N/A	N/A	2.07	N/A	N/A	0.36	N/A	0.00	14.04	14.29	N/A	0.75	N/A	4,496.33	4,496.32	1.09
SDMH-3A	N/A	N/A	N/A	N/A	1.51	N/A	N/A	1.25	N/A	0.00	23.97	23.97	N/A	1.90	N/A	4,496.19	4,496.18	1.08
SDMH-3	N/A	N/A	N/A	N/A	1.69	N/A	N/A	0.89	N/A	0.00	20.65	20.65	N/A	1.52	N/A	4,496.25	4,496.24	0.86
SDMH-6	N/A	N/A	N/A	N/A	2.47	N/A	N/A	0.18	N/A	0.00	10.19	10.35	N/A	0.45	N/A	4,497.95	4,497.88	2.41
SDMH-7	N/A	N/A	N/A	N/A	1.96	N/A	N/A	0.36	N/A	0.00	13.90	15.74	N/A	0.71	N/A	4,497.06	4,497.04	1.07
SDMH-8	N/A	N/A	N/A	N/A	1.79	N/A	N/A	0.77	N/A	0.00	18.78	18.78	N/A	1.40	N/A	4,496.96	4,496.94	1.64
SDMH-9	N/A	N/A	N/A	N/A	1.65	N/A	N/A	1.43	N/A	0.00	21.45	21.45	N/A	2.37	N/A	4,496.35	4,496.32	1.93
SDMH-9A	N/A	N/A	N/A	N/A	1.25	N/A	N/A	3.69	N/A	0.00	28.79	28.79	N/A	4.63	N/A	4,496.06	4,494.42	13.27

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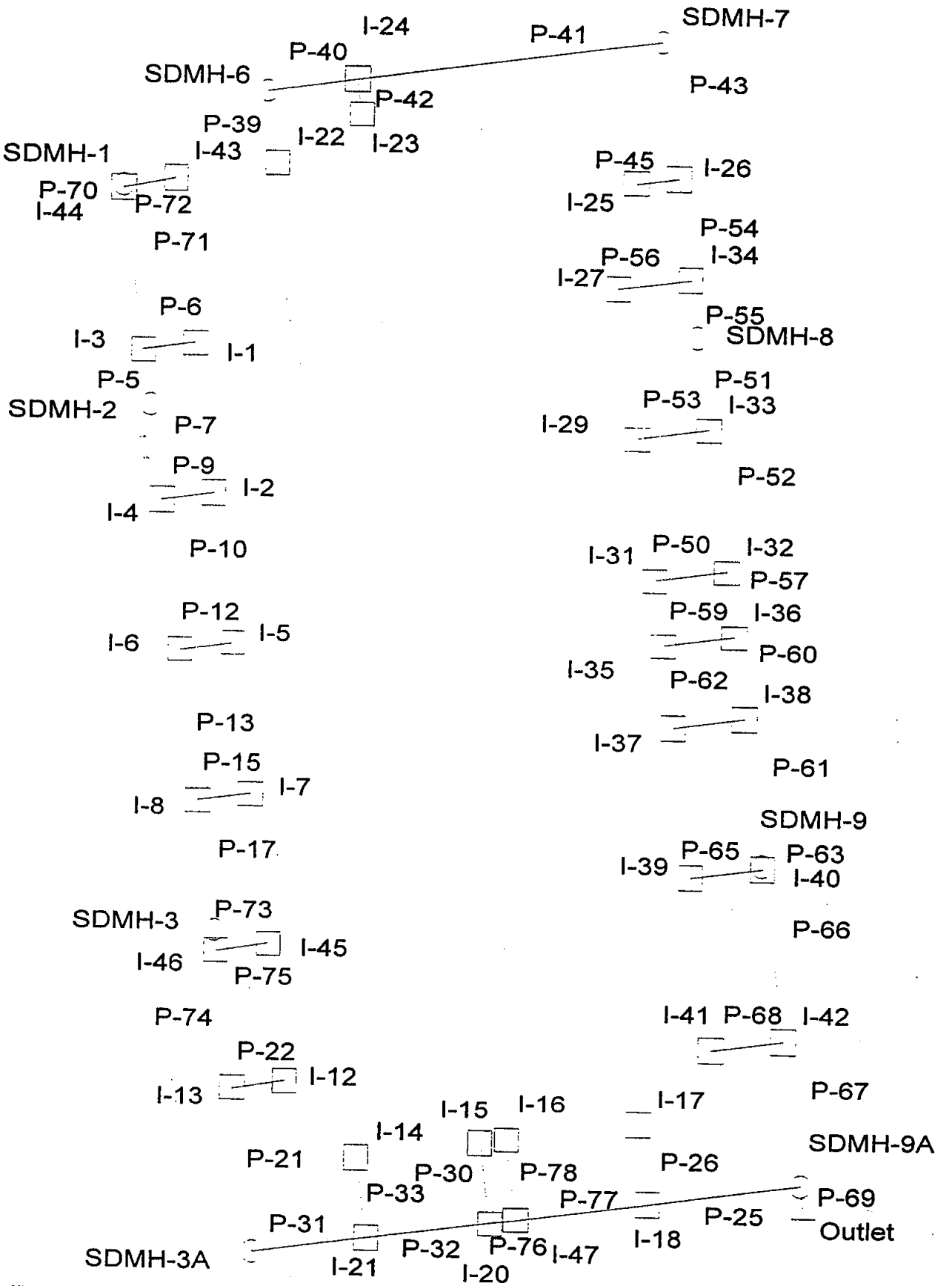
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: Outlet
Rim: 4,500.00 ft
Sump: 4,491.45 ft
Label: I-42
Rim: 4,500.30 ft
Sump: 4,492.01 ft
Label: SDMH-9
Rim: 4,500.64 ft
Sump: 4,492.57 ft
Label: I-40
Rim: 4,500.64 ft
Sump: 4,492.58 ft
Label: I-38
Rim: 4,500.65 ft
Sump: 4,493.06 ft
Label: I-36
Rim: 4,500.65 ft
Sump: 4,493.33 ft
Label: I-33
Rim: 4,500.67 ft
Sump: 4,494.01 ft
Label: I-32
Rim: 4,500.66 ft
Sump: 4,493.55 ft
Label: SDMH-8
Rim: 4,500.68 ft
Sump: 4,494.32 ft
Label: I-34
Rim: 4,500.26 ft
Sump: 4,494.53 ft
Label: I-26
Rim: 4,499.57 ft
Sump: 4,494.85 ft
Label: SDMH-7
Rim: 4,498.61 ft
Sump: 4,495.29 ft
Label: I-24
Rim: 4,498.29 ft
Sump: 4,496.30 ft
Label: SDMH-6
Rim: 4,498.50 ft
Sump: 4,496.60 ft
HGL
Label: P-67
Up Invert: 4,493.01 ft
Dn Invert: 4,492.54 ft
Length: 96.00 ft
Size: 15 inch
Label: P-69
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-66
Up Invert: 4,493.56 ft
Dn Invert: 4,493.01 ft
Length: 11.00 ft
Size: 15 inch
Label: P-63
Up Invert: 4,493.57 ft
Dn Invert: 4,493.56 ft
Length: 2.00 ft
Size: 15 inch
Label: P-61
Up Invert: 4,494.06 ft
Dn Invert: 4,493.59 ft
Length: 96.00 ft
Size: 12 inch
Label: P-60
Up Invert: 4,494.33 ft
Dn Invert: 4,494.08 ft
Length: 55.00 ft
Size: 12 inch
Label: P-57
Up Invert: 4,494.55 ft
Dn Invert: 4,494.33 ft
Length: 44.00 ft
Size: 12 inch
Label: P-52
Up Invert: 4,495.01 ft
Dn Invert: 4,494.55 ft
Length: 94.00 ft
Size: 12 inch
Label: P-51
Up Invert: 4,495.32 ft
Dn Invert: 4,495.01 ft
Length: 62.00 ft
Size: 12 inch
Label: P-55
Up Invert: 4,495.53 ft
Dn Invert: 4,495.34 ft
Length: 38.00 ft
Size: 12 inch
Label: P-54
Up Invert: 4,495.85 ft
Dn Invert: 4,495.53 ft
Length: 66.00 ft
Size: 12 inch
Label: P-43
Up Invert: 4,496.29 ft
Dn Invert: 4,495.85 ft
Length: 90.00 ft
Size: 12 inch
Label: P-41
Up Invert: 4,497.30 ft
Dn Invert: 4,496.31 ft
Length: 201.00 ft
Size: 12 inch
Label: P-40
Up Invert: 4,497.60 ft
Dn Invert: 4,497.30 ft
Length: 60.00 ft
Size: 12 inch
0+00
2+00
4+00
6+00
8+00
10+00
12+00
Station ft
4,501.00
4,500.00
4,499.00
4,498.00
4,497.00
4,496.00
4,495.00
4,494.00
4,493.00
4,492.00
4,491.00
Elevation ft

100yr, 10min



Project Title: Eagle Hardware and Garden
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07/14/98 05:10:08 PM © Haestad Methods, Inc.

Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]
Page 1 of 1

Detailed Report for Outlet

Flows			
Total Discharge	9.01 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	9.01 cfs

Watershed Data			
System Intensity	2.42 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	21.49 min	Upstream Flow Time	21.49 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	3.37	1.21	36.00	0.002778	12 inch	0.013	2.09	4,500.64	4,500.61	4,500.68	4,500.64	1.42	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	3.29	1.19	64.00	0.002656	15 inch	0.010	4.33	4,500.62	4,500.61	4,500.64	4,500.63	0.97	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	3.10	1.67	00.00	0.003000	15 inch	0.010	4.60	4,500.65	4,500.61	4,500.68	4,500.64	1.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	2.89	2.08	00.00	0.003000	15 inch	0.010	4.60	4,500.67	4,500.61	4,500.72	4,500.66	1.69	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	2.82	2.54	86.00	0.003488	15 inch	0.010	4.96	4,500.69	4,500.61	4,500.76	4,500.68	2.07	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	2.69	3.39	09.00	0.002936	18 inch	0.010	7.40	4,500.53	4,500.46	4,500.59	4,500.52	1.92	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.85	4,500.54	4,501.04	4,500.73	3.48	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	2.47	4.74	01.00	0.003861	18 inch	0.010	8.49	4,500.16	4,500.04	4,500.27	4,500.15	2.68	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.63	4,500.16	4,500.82	4,500.35	3.48	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	3.80	0.46	53.00	0.020000	4 inch	0.010	0.35	4,502.10	4,500.30	4,502.52	4,500.72	5.22	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	2.62	3.30	76.00	0.003816	18 inch	0.010	8.43	4,500.42	4,500.37	4,500.47	4,500.43	1.87	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	2.57	3.70	82.00	0.003780	18 inch	0.010	8.40	4,500.36	4,500.30	4,500.43	4,500.37	2.09	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.84	4,500.37	4,501.03	4,500.56	3.48	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	3.76	0.68	60.00	0.005000	12 inch	0.013	2.81	4,500.70	4,500.68	4,500.71	4,500.69	0.79	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	3.53	1.27	01.00	0.004925	12 inch	0.013	2.79	4,500.89	4,500.68	4,500.92	4,500.71	1.49	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	3.80	0.68	23.00	0.020000	6 inch	0.010	1.03	4,500.88	4,500.68	4,501.07	4,500.87	3.48	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	3.13	1.13	90.00	0.004889	12 inch	0.010	3.61	4,500.72	4,500.68	4,500.75	4,500.71	1.32	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	3.80	0.91	28.00	0.020000	8 inch	0.010	2.22	4,500.77	4,500.68	4,500.88	4,500.79	2.61	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.75	4,500.66	4,500.81	4,500.72	1.96	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	2.85	2.22	62.00	0.005000	12 inch	0.010	3.65	4,500.79	4,500.67	4,500.89	4,500.78	2.61	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	2.82	2.71	94.00	0.004894	12 inch	0.010	3.61	4,500.92	4,500.66	4,501.08	4,500.82	3.18	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.76	4,500.67	4,500.82	4,500.73	1.96	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	2.92	1.75	66.00	0.004848	12 inch	0.010	3.60	4,500.76	4,500.68	4,500.82	4,500.75	2.06	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	2.87	2.24	38.00	0.005000	12 inch	0.010	3.65	4,500.75	4,500.68	4,500.86	4,500.79	2.63	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	2.79	3.18	44.00	0.005000	12 inch	0.010	3.65	4,500.82	4,500.65	4,501.03	4,500.87	3.73	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	3.80	0.46	48.00	0.020000	4 inch	0.010	0.35	4,502.28	4,500.65	4,502.70	4,501.07	5.22	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	2.77	3.49	55.00	0.004909	12 inch	0.010	3.62	4,500.90	4,500.65	4,501.16	4,500.91	4.10	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	2.76	3.97	96.00	0.004896	12 inch	0.010	3.61	4,501.21	4,500.64	4,501.54	4,500.98	4.66	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.07	4,500.65	4,501.26	4,500.84	3.48	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	2.73	3.93	2.00	0.005000	15 inch	0.010	5.94	4,500.64	4,500.64	4,500.80	4,500.80	3.20	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.06	4,500.64	4,501.25	4,500.83	3.48	4,494.85

Pipe Report

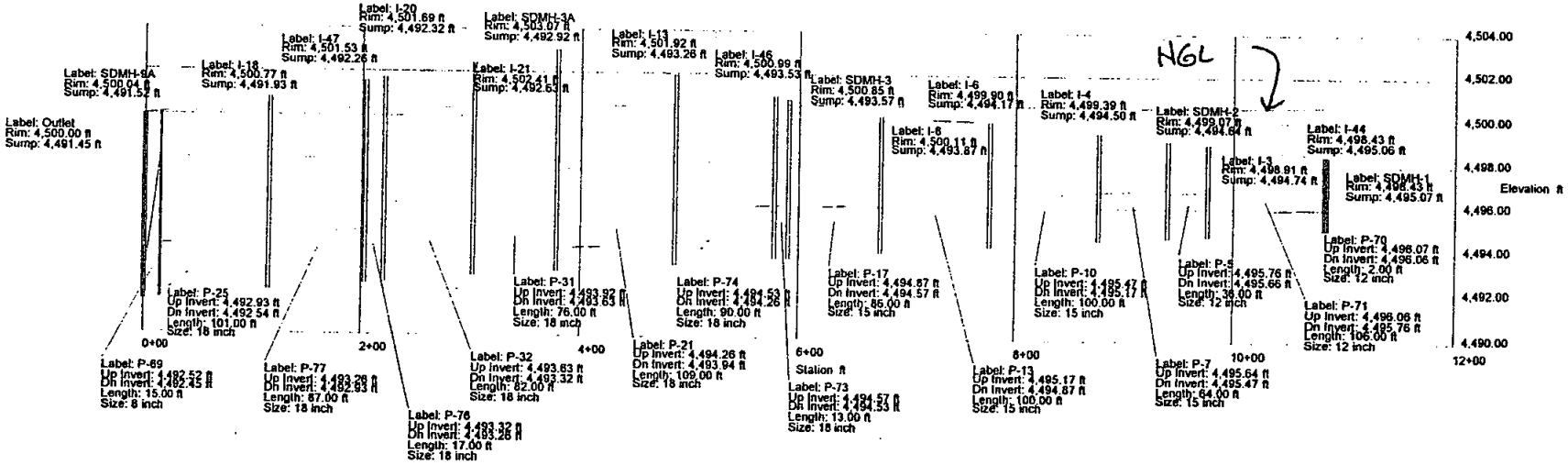
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	2.73	4.42	14.00	0.004825	15 inch	0.010	5.83	4,500.62	4,500.30	4,500.82	4,500.50	3.60	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	2.69	4.84	96.00	0.004896	15 inch	0.010	5.88	4,500.36	4,500.04	4,500.60	4,500.28	3.95	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,500.72	4,500.30	4,500.91	4,500.49	3.48	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	2.42	9.02	15.00	0.004667	8 inch	0.010	1.07	4,498.06	4,493.12	4,508.43	4,503.49	25.83	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,500.61	4,500.61	4,500.61	4,500.61	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	3.77	0.68	06.00	0.002830	12 inch	0.013	2.11	4,500.64	4,500.61	4,500.65	4,500.62	0.80	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	2.77	2.49	13.00	0.003077	18 inch	0.010	7.57	4,500.60	4,500.59	4,500.63	4,500.62	1.41	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	2.76	2.97	90.00	0.003000	18 inch	0.010	7.48	4,500.58	4,500.54	4,500.63	4,500.58	1.68	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.90	4,500.59	4,501.09	4,500.78	3.48	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	2.52	3.93	17.00	0.003529	18 inch	0.010	8.11	4,500.28	4,500.27	4,500.36	4,500.35	2.23	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	2.51	4.37	87.00	0.003793	18 inch	0.010	8.41	4,500.25	4,500.16	4,500.35	4,500.26	2.47	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.74	4,500.27	4,500.92	4,500.46	3.48	4,494.65

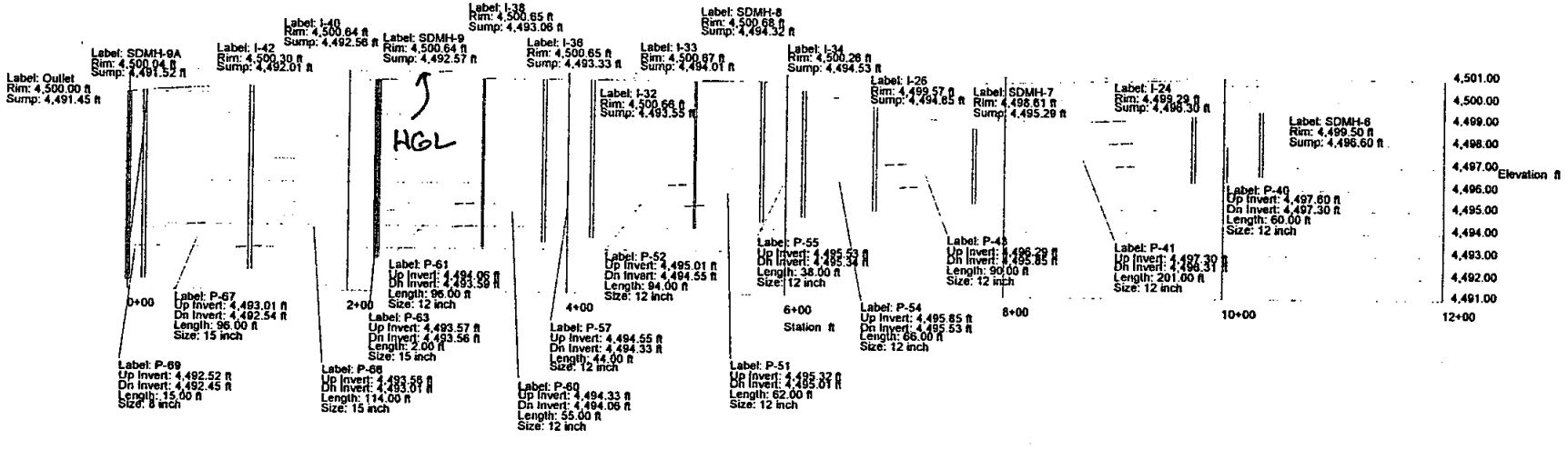
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-2	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-3	0.00	0.00	7.80	0.00	3.37	0.00	0.00	0.36	0.00	0.00	12.39	12.39	0.00	1.21	0.00	4,500.61	4,500.61	1.42
I-4	0.00	0.00	7.80	0.00	3.10	0.00	0.00	0.54	0.00	0.00	13.91	13.91	0.00	1.67	0.00	4,500.61	4,500.61	1.36
I-5	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-6	0.00	0.00	7.80	0.00	2.89	0.00	0.00	0.71	0.00	0.00	15.14	15.14	0.00	2.08	0.00	4,500.61	4,500.61	1.69
I-7	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-8	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.89	0.00	0.00	16.12	16.12	0.00	2.54	0.00	4,500.61	4,500.61	2.07
I-12	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.85	4,500.85	3.48
I-13	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.25	0.00	0.00	17.86	17.86	0.00	3.39	0.00	4,500.54	4,500.53	1.92
I-14	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.84	4,500.84	3.48
I-15	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.10	4,502.10	5.22
I-16	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.74	4,500.74	3.48
I-17	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.63	4,500.63	3.48
I-18	0.00	0.00	7.80	0.00	2.47	0.00	0.00	1.90	0.00	0.00	20.85	20.85	0.00	4.74	0.00	4,500.16	4,500.16	2.68
I-20	0.00	0.00	7.80	0.00	2.52	0.00	0.00	1.55	0.00	0.00	20.14	20.14	0.00	3.93	0.00	4,500.30	4,500.28	2.23
I-21	0.00	0.00	7.80	0.00	2.57	0.00	0.00	1.43	0.00	0.00	19.48	19.48	0.00	3.70	0.00	4,500.37	4,500.36	2.09
I-22	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-23	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.88	4,500.88	3.48
I-24	0.00	0.00	7.80	0.00	3.53	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	1.27	0.00	4,500.68	4,500.68	1.49
I-25	0.28	0.85	3.80	0.91	3.80	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.91	0.00	4,500.77	4,500.77	2.61
I-26	0.00	0.00	7.80	0.00	2.92	0.00	0.00	0.60	0.00	0.00	14.87	14.87	0.00	1.75	0.00	4,500.68	4,500.68	2.06
I-27	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-29	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.76	4,500.76	1.96
I-31	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.75	4,500.75	1.96
I-32	0.00	0.00	7.80	0.00	2.79	0.00	0.00	1.13	0.00	0.00	16.54	16.54	0.00	3.18	0.00	4,500.66	4,500.66	3.73
I-33	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.95	0.00	0.00	16.04	16.04	0.00	2.71	0.00	4,500.67	4,500.67	3.18
I-34	0.00	0.00	7.80	0.00	2.87	0.00	0.00	0.77	0.00	0.00	15.41	15.41	0.00	2.24	0.00	4,500.68	4,500.68	2.63
I-35	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.28	4,502.28	5.22
I-36	0.00	0.00	7.80	0.00	2.77	0.00	0.00	1.25	0.00	0.00	16.73	16.73	0.00	3.49	0.00	4,500.65	4,500.65	4.10
I-37	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.07	4,501.07	3.48
I-38	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.43	0.00	0.00	16.96	16.96	0.00	3.97	0.00	4,500.65	4,500.65	4.66
I-39	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.06	4,501.06	3.48
I-40	0.00	0.00	7.80	0.00	2.73	0.00	0.00	1.61	0.00	0.00	17.31	17.31	0.00	4.42	0.00	4,500.64	4,500.62	3.60
I-41	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.72	4,500.72	3.48
I-42	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.79	0.00	0.00	17.84	17.84	0.00	4.84	0.00	4,500.30	4,500.30	3.95
I-43	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	3.77	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.68	0.00	4,500.61	4,500.61	0.80
I-45	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.90	4,500.90	3.48
I-46	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.07	0.00	0.00	16.97	16.97	0.00	2.97	0.00	4,500.59	4,500.58	1.68
I-47	0.00	0.00	7.80	0.00	2.51	0.00	0.00	1.73	0.00	0.00	20.26	20.26	0.00	4.37	0.00	4,500.27	4,500.25	2.47
Outlet	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.49	21.49	N/A	9.01	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,500.61	4,500.61	0.00
SDMH-2	N/A	N/A	N/A	N/A	3.29	N/A	N/A	0.36	N/A	0.00	12.81	12.81	N/A	1.19	N/A	4,500.61	4,500.61	0.97
SDMH-3	N/A	N/A	N/A	N/A	2.77	N/A	N/A	0.89	N/A	0.00	16.81	16.81	N/A	2.49	N/A	4,500.61	4,500.60	1.41
SDMH-3A	N/A	N/A	N/A	N/A	2.62	N/A	N/A	1.25	N/A	0.00	18.81	18.81	N/A	3.30	N/A	4,500.46	4,500.42	1.87
SDMH-6	N/A	N/A	N/A	N/A	3.76	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.68	N/A	4,500.68	4,500.68	0.79
SDMH-7	N/A	N/A	N/A	N/A	3.13	N/A	N/A	0.36	N/A	0.00	13.74	13.74	N/A	1.13	N/A	4,500.68	4,500.68	1.32
SDMH-8	N/A	N/A	N/A	N/A	2.85	N/A	N/A	0.77	N/A	0.00	15.65	15.65	N/A	2.22	N/A	4,500.68	4,500.68	2.61
SDMH-9A	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.48	21.48	N/A	9.02	N/A	4,500.04	4,498.06	25.83
SDMH-9	N/A	N/A	N/A	N/A	2.73	N/A	N/A	1.43	N/A	0.00	17.30	17.30	N/A	3.93	N/A	4,500.64	4,500.64	3.20





JEFF CODEGA
PLANNING/DESIGN, INC.
engineers ■ landscape architects ■ planners
433 W. Plumb Lane • Reno, NV 89509 • (702) 322-5100 • (702) 322-1551

PROJECT: Eagle Hardware
SCALE: _____ JOB NO.: 1774.0001
CALCULATED BY: RRB DATE: 4-8-98
CHECK BY: _____ DATE: _____
COPY TO: _____ SHEET ___ OF ___

Proposed On-site hydrology

Areas:		t_c	C	i_5	i_{100}	Q_5	Q_{100}
V-notch-1 =	5.26 acres	10	.85	1.4	3.7	6.26	16.54
V-notch-2 =	1.36 acres	10	.85	1.4	3.7	1.62	4.28
V-notch-3 =	3.58 acres	10	.85	1.4	3.7	4.26	11.26
culvert =	37.8 acres	42.5	.25	0.52	1.4	4.91	13.23

APPENDIX F - DETENTION CALCULATIONS

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PROJECT: _____
SCALE: _____ JOB NO.: _____
CALCULATED BY: _____ DATE: _____
CHECK BY: _____ DATE: _____
COPY TO: _____ SHEET ___ OF ___

On Site - Developed

Taking the system intensity as computed by StormCAD.

$i_5 = 0.49$

$i_{25} = 0.87$

$i_{100} = 1.35$

V-Notch-1
A = 5.26 ac
c = 0.85 → $Q_5 = 2.19$
$Q_{25} = 3.89$
$Q_{100} = 6.04$

V-Notch-2
A = 1.36 ac
c = 0.85 → $Q_5 = 0.57$
$Q_{25} = 1.01$
$Q_{100} = 1.56$

V-Notch-3
A = 3.58 ac
c = 0.85 → $Q_5 = 1.49$
$Q_{25} = 2.65$
$Q_{100} = 4.11$

Additional Retention Calculations

V-Notch-1 = 1079 c.f.
outflow = 0.74 cfs
using the triangular hydrograph method, this equates to a 2.54 cfs capacity before overtopping
∴ $Q_{cap} = Q_{cap}$ (of V-notch) − 2.54 + 0.74

V-Notch-3 = 333 c.f.
outflow = 0.74 cfs ⇒ 1.30 cfs capacity before overtopping
∴ $Q_{cap} = Q_{cap}$ (of V-notch) − 1.30 + 0.74

Worksheet
Worksheet for Circular Channel

Detention Outlet

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coefficient	0.014	
Channel Slope	0.020000	ft/ft
Diameter	6.00	in

Results		
Depth	6.0	in
Discharge	0.74	cfs
Flow Area	0.20	ft^2
Wetted Perimeter	1.57	ft
Top Width	0.00	ft
Critical Depth	0.43	ft
Percent Full	100.00	
Critical Slope	0.018473	ft/ft
Velocity	3.75	ft/s
Velocity Head	0.22	ft
Specific Energy	FULL	ft
Froude Number	FULL	
Maximum Discharge	0.79	cfs
Full Flow Capacity	0.74	cfs
Full Flow Slope	0.020000	ft/ft

V-Notch - 1

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	Eagle Hardware and Garden
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.75 ft

Input Data

	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.55	3.46
0.16	0.61	3.59
0.17	0.69	3.71
0.18	0.76	3.82
0.19	0.84	3.93
0.20	0.93	4.04
0.21	1.02	4.15
0.22	1.11	4.26
0.23	1.21	4.36
0.24	1.32	4.46
0.25	1.42	4.56
0.26	1.54	4.65
0.27	1.65	4.75
0.28	1.78	4.84
0.29	1.90	4.93
0.30	2.03	5.02
0.31	2.17	5.11
0.32	2.31	5.20
0.33	2.46	5.29
0.34	2.61	5.37
0.35	2.77	5.46
0.36	2.93	5.54

Table
Rating Table for Trapezoidal Channel

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	3.10	5.62
0.38	3.27	5.70
0.39	3.45	5.78
0.40	3.64	5.86
0.41	3.83	5.94
0.42	4.02	6.02
0.43	4.22	6.10
0.44	4.43	6.18
0.45	4.64	6.25
0.46	4.86	6.33
0.47	5.08	6.40
0.48	5.32	6.48
0.49	5.55	6.55
0.50	5.79	6.62
0.51	6.04	6.69
0.52	6.30	6.77
0.53	6.56	6.84
0.54	6.83	6.91
0.55	7.10	6.98

V-Notch-2

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE AND GARDEN
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.05 ft

Input Data			
	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.14	2.62
0.16	0.16	2.72
0.17	0.19	2.83
0.18	0.22	2.93
0.19	0.25	3.03
0.20	0.28	3.13
0.21	0.32	3.23
0.22	0.36	3.33
0.23	0.40	3.42
0.24	0.45	3.51
0.25	0.50	3.61
0.26	0.55	3.70
0.27	0.60	3.79
0.28	0.66	3.87
0.29	0.72	3.96
0.30	0.79	4.05
0.31	0.86	4.14
0.32	0.93	4.22
0.33	1.01	4.30
0.34	1.09	4.39
0.35	1.17	4.47
0.36	1.26	4.55

Table
Rating Table for Trapezoidal Channel

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	1.35	4.63
0.38	1.45	4.71
0.39	1.55	4.79
0.40	1.66	4.87
0.41	1.77	4.95
0.42	1.88	5.03
0.43	2.00	5.10
0.44	2.12	5.18
0.45	2.25	5.26
0.46	2.38	5.33
0.47	2.52	5.41
0.48	2.66	5.48
0.49	2.80	5.56
0.50	2.96	5.63
0.51	3.11	5.70
0.52	3.27	5.77
0.53	3.44	5.85
0.54	3.61	5.92
0.55	3.79	5.99

V-Notch - 3

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE AND GARDEN
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.60 ft

Input Data			
	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

Rating Table

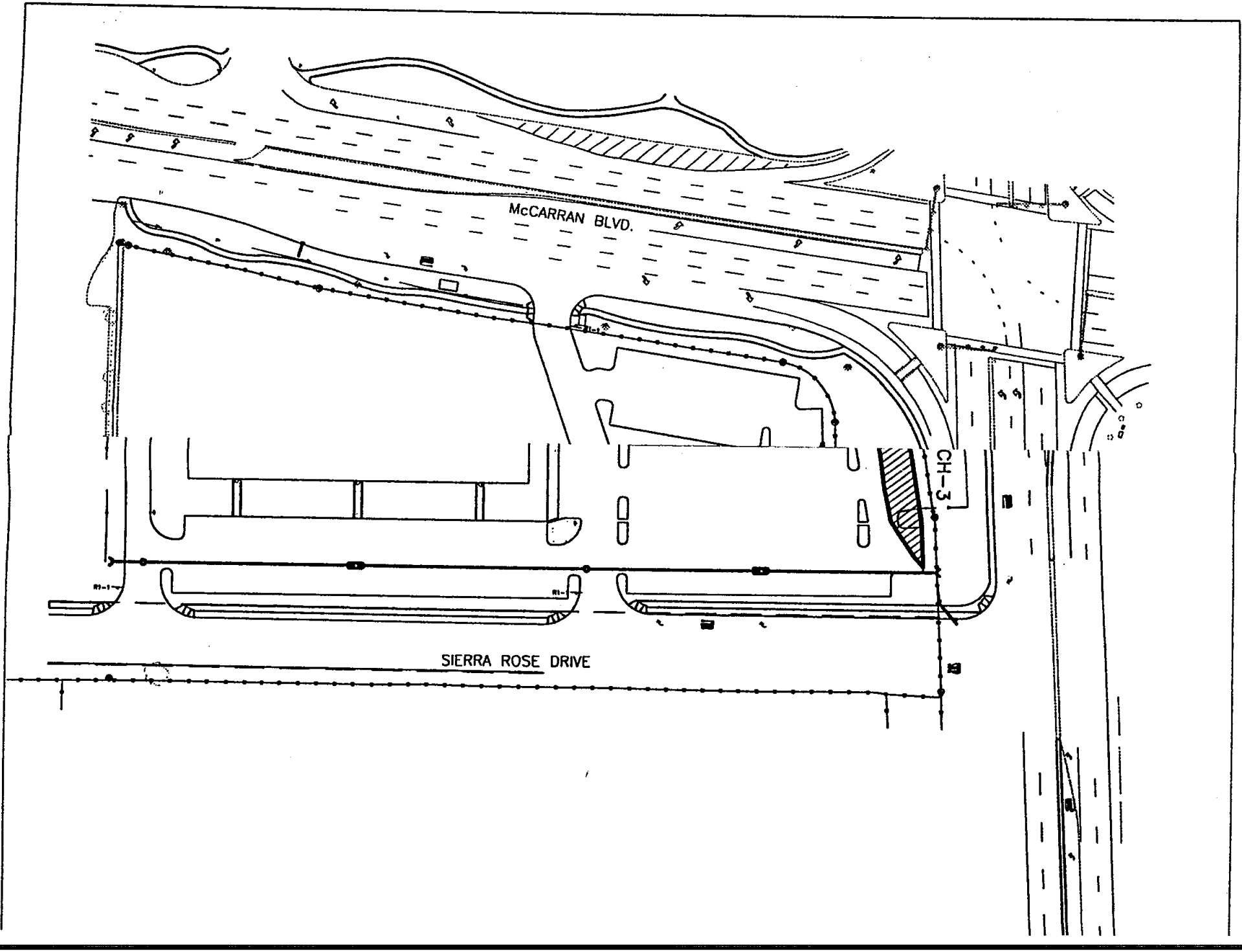
Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.45	3.37
0.16	0.51	3.49
0.17	0.58	3.60
0.18	0.64	3.71
0.19	0.71	3.82
0.20	0.79	3.93
0.21	0.86	4.03
0.22	0.95	4.13
0.23	1.03	4.23
0.24	1.12	4.33
0.25	1.22	4.43
0.26	1.32	4.52
0.27	1.42	4.61
0.28	1.53	4.70
0.29	1.64	4.79
0.30	1.76	4.88
0.31	1.88	4.97
0.32	2.01	5.05
0.33	2.14	5.14
0.34	2.27	5.22
0.35	2.41	5.31
0.36	2.56	5.39

Table
Rating Table for Trapezoidal Channel

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	2.71	5.47
0.38	2.87	5.55
0.39	3.03	5.63
0.40	3.20	5.71
0.41	3.37	5.78
0.42	3.55	5.86
0.43	3.73	5.94
0.44	3.92	6.01
0.45	4.11	6.09
0.46	4.31	6.16
0.47	4.51	6.24
0.48	4.73	6.31
0.49	4.94	6.38
0.50	5.16	6.46
0.51	5.39	6.53
0.52	5.63	6.60
0.53	5.87	6.67
0.54	6.11	6.74
0.55	6.37	6.81

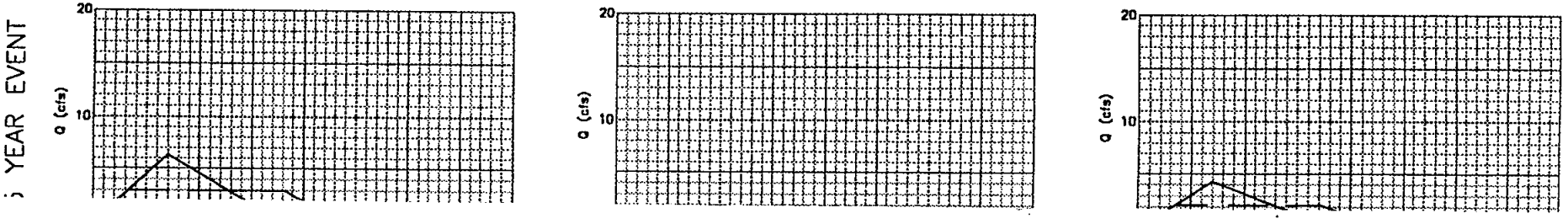
P:\17--\177-\1774\1774-01\HYDRO\5-YEAR.dwg Thu May 21 07:51:49 1998



V-NOTCH-1

V-NOTCH-2

V-NOTCH-3



STORM HYDROGRAPH

DRAINAGE HYDROGRAPH

Developed By The Washoe County GIS Program
For additional assistance, click here to e-mail GIS Support

Printing Help

Parcel Data

Rec	APN	Assessors Map Tiff Image Link	First Name	Last Name	Number	Dir	Street	City	Acre
Map It!	3911237	ftp://wcftp.co.washoe.nv.us/outtoworld/assessor-books/bk039/39_11.tif		SHARON CORPORATION			AMBASSADOR DR	RENO	0.62

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Printing Help

Parcel Data

Rec	APN	Assessors Map Tiff Image Link	First Name	Last Name	Number	Dir	Street	City	Acres
Map It!	3911238	ftp://wcftp.co.washoe.nv.us/outtoworld/assessor-books/bk039/39_11.tif		WELLS FARGO BANK NA			SHARLANDS AVE	RENO	0.918

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Parcel Data

Rec	APN	Assessors Map Tiff Image Link	First Name	Last Name	Number	Dir	Street	City	Acre
Map It!	3911236	ftp://wcftp.co.washoe.nv.us/outtoworld/assessor-books/bk039/39_11.tif		SHARON CORPORATION			AMBASSADOR DR	RENO	1.52

EAGLE HARDWARE AND GARDEN

HYDROLOGY ADDENDUM

PREPARED FOR: Sconzo/Hallstrom Architects
919-124th Avenue NE
Bellevue, WA 98005

PREPARED BY: Robert R. Blair, Jr.
Michael D. Miller

SEAL

JEFF CODEGA
PLANNING/DESIGN, INC.
planners • landscape architects • engineers
433 West Plumb Lane Reno, Nevada 89509 (702) 322-5100 fax (702) 322-1551

July 23, 1998

1774.0001

EAGLE HARDWARE AND GARDEN

HYDROLOGY ADDENDUM

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I. INTRODUCTION

The following report is an Addendum to Appendix F of the Eagle Hardware and Garden Hydrology Report dated May 14, 1998. This Addendum utilizes StormCAD to model the proposed pipe system for Eagle Hardware and Garden. Upon completion of the modeling, it was apparent that on-site detention needed to be increased in order to meet requirements. This was handled by adjusting the configuration of the V-notches (Table 1), and by the addition of two minor detention basins (Table 2). A check was then performed on the flow through the V-notches by using a form of the Weir Equation (Table 3). However, due to the unique configurations of each individual V-notch, the Weir Equation does not directly translate, hence calculations have been shown for the bottom, top, and average widths. These calculations seem to indicate that the numbers used within this report are conservitive and therefore acceptable.

PROPOSED CONDITIONS WITHOUT DETENTION PONDS

		TIME OF CONCENTRATION = 10 MINUTES								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	6.26	0.36	2.93	11.40	0.45	4.64	16.54	0.51	6.04
V-NOTCH-2	1.36	1.62	0.22	0.36	2.95	0.27	0.60	4.28	0.31	0.86
V-NOTCH-3	3.58	4.26	0.31	1.88	7.76	0.38	2.87	11.26	0.46	4.31
ROOF	4.33	5.15	n/a	3.36	9.23	n/a	4.63	13.99	n/a	9.01
CULVERT**	33.10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Qcap				8.53			12.74			20.22
Q-existing				6.20			10.80			16.80

		TIME OF CONCENTRATION = 42.5 MINUTES								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	2.32	0.25	1.42	3.98	0.30	2.03	6.26	0.36	2.93
V-NOTCH-2	1.36	0.60	0.15	0.14	1.03	0.18	0.22	1.62	0.22	0.36
V-NOTCH-3	3.58	1.58	0.22	0.95	2.71	0.26	1.32	4.26	0.31	1.88
ROOF	4.33	1.92	n/a	n/a	3.28	n/a	n/a	5.15	n/a	n/a
CULVERT**	33.10	4.30	n/a	5.19	7.36	n/a	8.71	11.59	n/a	9.15
Total Qcap				7.70			12.28			14.32
Q-existing				6.20			10.80			16.80

		PEAK CULVERT FLOW								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	2.37	0.25	1.42	4.16	0.30	2.03	6.44	0.36	2.93
V-NOTCH-2	1.36	0.61	0.15	0.14	1.08	0.18	0.22	1.66	0.22	0.36
V-NOTCH-3	3.58	1.61	0.21	0.86	2.83	0.26	1.32	4.38	0.31	1.88
ROOF	4.33	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CULVERT**	33.10	n/a	n/a	6.40	n/a	n/a	11.27	n/a	n/a	17.37
Total Qcap				8.82			14.84			22.54
Q-existing				6.20			10.80			16.80

Qcap*: This value is relative to the depth of flow that the outlet will see.

CULVERT:** These flows represent the discharge from the culvert originating from both offsite (33.10 AC) and from the roof (4.33AC).

PROPOSED CONDITIONS WITH DETENTION PONDS

		TIME OF CONCENTRATION = 10 MINUTES								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	6.26	0.36	1.13	11.40	0.45	2.84	16.54	0.51	4.24
V-NOTCH-2	1.36	1.62	0.22	0.36	2.95	0.27	0.60	4.28	0.31	0.86
V-NOTCH-3	3.58	4.26	0.31	1.32	7.76	0.38	2.31	11.26	0.46	3.75
ROOF	4.33	5.15	n/a	3.36	9.23	n/a	4.63	13.99	n/a	9.01
CULVERT**	33.10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Qcap				6.17			10.38			17.86
Q-existing				6.20			10.80			16.80

		TIME OF CONCENTRATION = 42.5 MINUTES								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	2.32	0.25	0.74	3.98	0.30	0.74	6.26	0.36	1.13
V-NOTCH-2	1.36	0.60	0.15	0.14	1.03	0.18	0.22	1.62	0.22	0.36
V-NOTCH-3	3.58	1.58	0.22	0.74	2.71	0.26	0.76	4.26	0.31	1.32
ROOF	4.33	1.92	n/a	n/a	3.28	n/a	n/a	5.15	n/a	n/a
CULVERT**	33.10	4.30	n/a	5.19	7.36	n/a	8.71	11.59	n/a	9.15
Total Qcap				6.81			10.43			11.96
Q-existing				6.20			10.80			16.80

		PEAK CULVERT FLOW								
		5-YEAR			25-YEAR			100-YEAR		
OUTLET	AREA (acres)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)	Q (cfs)	DEPTH (feet)	Qcap* (cfs)
V-NOTCH-1	5.26	2.37	0.25	0.74	4.16	0.30	0.74	6.44	0.36	1.13
V-NOTCH-2	1.36	0.61	0.15	0.14	1.08	0.18	0.22	1.66	0.22	0.36
V-NOTCH-3	3.58	1.61	0.21	0.74	2.83	0.26	0.76	4.38	0.31	1.32
ROOF	4.33	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CULVERT**	33.10	n/a	n/a	6.40	n/a	n/a	11.27	n/a	n/a	17.37
Total Qcap				8.02			12.99			20.18
Q-existing				6.20			10.80			16.80

Qcap*: This value is relative to the depth of flow that the outlet will see.

CULVERT:** These flows represent the discharge from the culvert originating from both offsite (33.10 AC) and from the roof (4.33AC).

V-NOTCH CHECK USING WEIR EQUATION

Q=CLH^(3/2)

V-NOTCH-1

C	H	L	L	L	Q	Q	Q
	(depth)	(bottom)	(top)	(average)	(bottom)	(top)	(average)
3.30	0.25	0.75	1.75	1.25	0.31	2.17	0.52
3.30	0.30	0.75	1.95	1.35	0.41	2.90	0.73
3.30	0.36	0.75	2.19	1.47	0.53	3.90	1.05
3.30	0.45	0.75	2.55	1.65	0.75	5.68	1.64
3.30	0.51	0.75	2.79	1.77	0.90	7.04	2.13

V-NOTCH-2

C	H	L	L	L	Q	Q	Q
	(depth)	(bottom)	(top)	(average)	(bottom)	(top)	(average)
3.30	0.15	0.005	1.35	0.68	0.00	1.00	0.13
3.30	0.18	0.005	1.47	0.74	0.00	1.31	0.19
3.30	0.22	0.005	1.63	0.82	0.00	1.78	0.28
3.30	0.27	0.005	1.83	0.92	0.00	2.45	0.42
3.30	0.31	0.005	1.99	1.00	0.00	3.05	0.57

V-NOTCH-3

C	H	L	L	L	Q	Q	Q
	(depth)	(bottom)	(top)	(average)	(bottom)	(top)	(average)
3.30	0.21	0.60	1.59	1.10	0.19	1.65	0.35
3.30	0.22	0.60	1.63	1.12	0.20	1.78	0.38
3.30	0.26	0.60	1.79	1.20	0.26	2.30	0.52
3.30	0.31	0.60	1.99	1.30	0.34	3.05	0.74
3.30	0.38	0.60	2.27	1.44	0.46	4.27	1.11
3.30	0.46	0.60	2.59	1.60	0.62	5.90	1.64

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PROJECT: Eagle Hardware
SCALE: _____ JOB NO.: 1774.01
CALCULATED BY: RRB DATE: 7-14-15
CHECK BY: _____ DATE: _____
COPY TO: _____ SHEET ___ OF ___

Peak Culvert Flow (as determined by StormCAD) gave the following system intensities: (reference StormCAD calculations for 42.5 min / 10 min)

$i_5 = 0.53$ in/hr

$i_{25} = 0.93$ in/hr

$i_{100} = 1.44$ in/hr

∴

V-Notch-1
$A = 5.26$ ac
$C = .85 \rightarrow Q_5 = 2.37$
$Q_{25} = 4.16$
$Q_{100} = 6.44$

V-Notch-2
$A = 1.36$ ac
$C = .85 \rightarrow Q_5 = 0.61$
$Q_{25} = 1.08$
$Q_{100} = 1.66$

V-Notch-3
$A = 3.58$ ac
$C = .85 \rightarrow Q_5 = 1.61$
$Q_{25} = 2.83$
$Q_{100} = 4.38$

Additional Detention Calculations

V-Notch-1 detention basin = 1071 c.f.
outflow = 0.74 cfs
using the triangular hydrograph method, this equates to a 2.54 cfs capacity before overtopping
∴ $Q_{capacity}$ will equal Q_{cap} (of V-Notch) = 2.54 + 0.74

V-Notch-3 detention basin = 333 c.f.
outflow = 0.74 cfs ⇒ 1.30 cfs capacity before overtopping
∴ $Q_{capacity}$ will equal Q_{cap} (of V-notch) = 1.30 + 0.74

Worksheet
Worksheet for Circular Channel

Detention Outlet

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coefficient	0.014	
Channel Slope	0.020000	ft/ft
Diameter	6.00	in

Results		
Depth	6.0	in
Discharge	0.74	cfs
Flow Area	0.20	ft²
Wetted Perimeter	1.57	ft
Top Width	0.00	ft
Critical Depth	0.43	ft
Percent Full	100.00	
Critical Slope	0.018473	ft/ft
Velocity	3.75	ft/s
Velocity Head	0.22	ft
Specific Energy	FULL	ft
Froude Number	FULL	
Maximum Discharge	0.79	cfs
Full Flow Capacity	0.74	cfs
Full Flow Slope	0.020000	ft/ft

V-Notch - 1

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	Eagle Hardware and Garden
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.75 ft

Input Data			
	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.55	3.46
0.16	0.61	3.59
0.17	0.69	3.71
0.18	0.76	3.82
0.19	0.84	3.93
0.20	0.93	4.04
0.21	1.02	4.15
0.22	1.11	4.26
0.23	1.21	4.36
0.24	1.32	4.46
0.25	1.42	4.56
0.26	1.54	4.65
0.27	1.65	4.75
0.28	1.78	4.84
0.29	1.90	4.93
0.30	2.03	5.02
0.31	2.17	5.11
0.32	2.31	5.20
0.33	2.46	5.29
0.34	2.61	5.37
0.35	2.77	5.46
0.36	2.93	5.54

Table
Rating Table for Trapezoidal Channel

Rating Table		
Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	3.10	5.62
0.38	3.27	5.70
0.39	3.45	5.78
0.40	3.64	5.86
0.41	3.83	5.94
0.42	4.02	6.02
0.43	4.22	6.10
0.44	4.43	6.18
0.45	4.64	6.25
0.46	4.86	6.33
0.47	5.08	6.40
0.48	5.32	6.48
0.49	5.55	6.55
0.50	5.79	6.62
0.51	6.04	6.69
0.52	6.30	6.77
0.53	6.56	6.84
0.54	6.83	6.91
0.55	7.10	6.98

V-Notch-2

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE AND GARDEN
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.05 ft

Input Data			
	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.14	2.62
0.16	0.16	2.72
0.17	0.19	2.83
0.18	0.22	2.93
0.19	0.25	3.03
0.20	0.28	3.13
0.21	0.32	3.23
0.22	0.36	3.33
0.23	0.40	3.42
0.24	0.45	3.51
0.25	0.50	3.61
0.26	0.55	3.70
0.27	0.60	3.79
0.28	0.66	3.87
0.29	0.72	3.96
0.30	0.79	4.05
0.31	0.86	4.14
0.32	0.93	4.22
0.33	1.01	4.30
0.34	1.09	4.39
0.35	1.17	4.47
0.36	1.26	4.55

Table
Rating Table for Trapezoidal Channel

Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	1.35	4.63
0.38	1.45	4.71
0.39	1.55	4.79
0.40	1.66	4.87
0.41	1.77	4.95
0.42	1.88	5.03
0.43	2.00	5.10
0.44	2.12	5.18
0.45	2.25	5.26
0.46	2.38	5.33
0.47	2.52	5.41
0.48	2.66	5.48
0.49	2.80	5.56
0.50	2.96	5.63
0.51	3.11	5.70
0.52	3.27	5.77
0.53	3.44	5.85
0.54	3.61	5.92
0.55	3.79	5.99

V-Notch - 3

Table
Rating Table for Trapezoidal Channel

Project Description	
Project File	untitled.fm2
Worksheet	EAGLE HARDWARE AND GARDEN
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Constant Data	
Mannings Coefficient	0.014
Channel Slope	0.020000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	2.000000 H : V
Bottom Width	0.60 ft

Input Data			
	Minimum	Maximum	Increment
Depth	0.15	0.55	0.01 ft

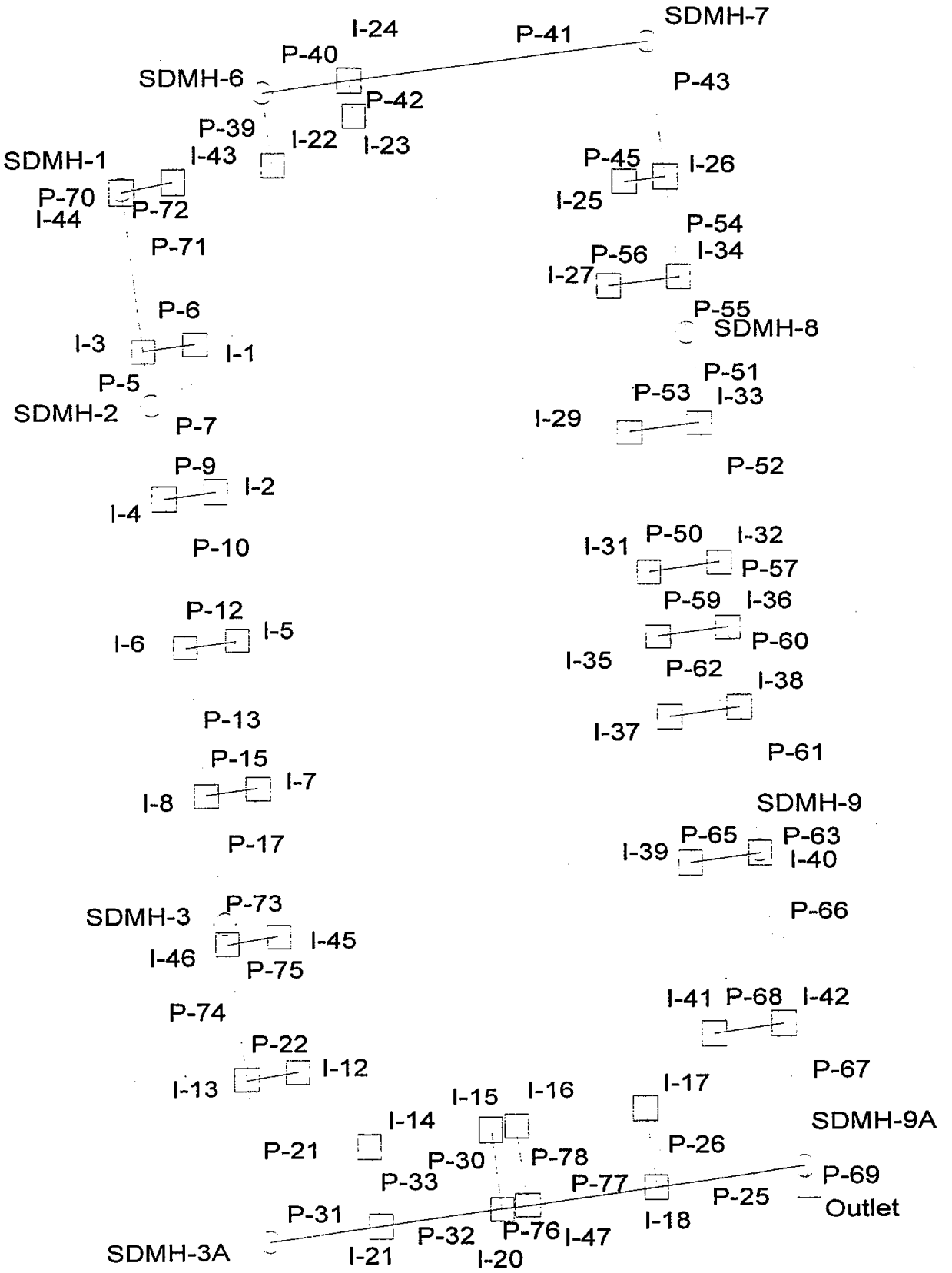
Rating Table

Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.15	0.45	3.37
0.16	0.51	3.49
0.17	0.58	3.60
0.18	0.64	3.71
0.19	0.71	3.82
0.20	0.79	3.93
0.21	0.86	4.03
0.22	0.95	4.13
0.23	1.03	4.23
0.24	1.12	4.33
0.25	1.22	4.43
0.26	1.32	4.52
0.27	1.42	4.61
0.28	1.53	4.70
0.29	1.64	4.79
0.30	1.76	4.88
0.31	1.88	4.97
0.32	2.01	5.05
0.33	2.14	5.14
0.34	2.27	5.22
0.35	2.41	5.31
0.36	2.56	5.39

Table
Rating Table for Trapezoidal Channel

Rating Table		
Depth (ft)	Discharge (cfs)	Velocity (ft/s)
0.37	2.71	5.47
0.38	2.87	5.55
0.39	3.03	5.63
0.40	3.20	5.71
0.41	3.37	5.78
0.42	3.55	5.86
0.43	3.73	5.94
0.44	3.92	6.01
0.45	4.11	6.09
0.46	4.31	6.16
0.47	4.51	6.24
0.48	4.73	6.31
0.49	4.94	6.38
0.50	5.16	6.46
0.51	5.39	6.53
0.52	5.63	6.60
0.53	5.87	6.67
0.54	6.11	6.74
0.55	6.37	6.81

5yr, 10min



Project Title: Eagle Hardware and Garden
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07/14/98 05:10:08 PM © Haestad Methods, Inc.

Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]
Page 1 of 1

Detailed Report for Outlet

Flows			
Total Discharge	3.36 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	3.36 cfs

Watershed Data			
System Intensity	0.90 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	21.98 min	Upstream Flow Time	21.98 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.31	0.47	36.00	0.002778	12 inch	0.013	2.09	4,496.10	4,495.96	4,496.16	4,496.04	2.17	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.04	4,496.26	4,497.14	4,496.55	3.44	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.29	0.47	64.00	0.002656	15 inch	0.010	4.33	4,495.92	4,495.82	4,496.00	4,495.86	1.99	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.75	4,495.97	4,496.85	4,496.26	3.44	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.26	0.68	00.00	0.003000	15 inch	0.010	4.60	4,495.80	4,495.57	4,495.91	4,495.63	2.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.45	4,495.67	4,496.55	4,495.96	3.44	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.22	0.88	00.00	0.003000	15 inch	0.010	4.60	4,495.54	4,495.30	4,495.67	4,495.39	2.60	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.15	4,495.37	4,496.25	4,495.66	3.44	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.18	1.06	86.00	0.003488	15 inch	0.010	4.96	4,495.28	4,495.03	4,495.42	4,495.13	2.84	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.11	1.40	09.00	0.002936	18 inch	0.010	7.40	4,494.75	4,494.74	4,494.87	4,494.78	2.13	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.55	4,494.77	4,495.65	4,495.06	3.44	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.95	1.83	01.00	0.003861	18 inch	0.010	8.49	4,494.69	4,494.67	4,494.71	4,494.69	1.03	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,494.75	4,494.69	4,494.78	4,494.72	1.34	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.40	0.17	53.00	0.020000	4 inch	0.010	0.35	4,495.11	4,494.71	4,495.22	4,494.77	2.26	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.08	1.35	76.00	0.003816	18 inch	0.010	8.43	4,494.72	4,494.72	4,494.75	4,494.73	1.20	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.04	1.50	82.00	0.003780	18 inch	0.010	8.40	4,494.71	4,494.71	4,494.73	4,494.72	0.99	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.27	4,494.72	4,495.37	4,494.74	1.91	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,498.86	4,497.82	4,498.96	4,498.11	3.44	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.39	0.25	60.00	0.005000	12 inch	0.013	2.81	4,497.81	4,497.61	4,497.87	4,497.63	1.60	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.35	0.49	01.00	0.004925	12 inch	0.013	2.79	4,497.59	4,496.64	4,497.69	4,496.71	2.26	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.40	0.25	23.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.64	4,498.28	4,497.93	3.44	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.26	0.45	90.00	0.004889	12 inch	0.010	3.61	4,496.57	4,496.23	4,496.66	4,496.27	2.07	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.40	0.34	28.00	0.020000	8 inch	0.010	2.22	4,496.85	4,496.20	4,496.95	4,496.52	3.57	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.07	4,495.03	4,496.16	4,495.31	3.28	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.18	0.92	62.00	0.005000	12 inch	0.010	3.65	4,495.72	4,495.48	4,495.86	4,495.57	2.77	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.15	1.11	94.00	0.004894	12 inch	0.010	3.61	4,495.45	4,495.06	4,495.61	4,495.17	2.97	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.54	4,495.50	4,496.63	4,495.78	3.28	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.22	0.73	66.00	0.004848	12 inch	0.010	3.60	4,496.20	4,495.96	4,496.33	4,496.03	2.54	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.19	0.93	38.00	0.005000	12 inch	0.010	3.65	4,495.93	4,495.79	4,496.08	4,495.90	2.86	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,497.07	4,496.03	4,497.17	4,496.32	3.44	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.12	1.28	44.00	0.005000	12 inch	0.010	3.65	4,495.02	4,494.86	4,495.20	4,494.99	3.17	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.40	0.17	48.00	0.020000	4 inch	0.010	0.35	4,496.02	4,494.99	4,496.13	4,495.24	3.29	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.11	1.39	55.00	0.004909	12 inch	0.010	3.62	4,494.82	4,494.87	4,495.01	4,494.93	2.73	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.09	1.57	96.00	0.004896	12 inch	0.010	3.61	4,494.86	4,494.79	4,494.93	4,494.85	2.05	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.60	4,494.87	4,495.70	4,494.90	1.92	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.07	1.54	2.00	0.005000	15 inch	0.010	5.94	4,494.78	4,494.78	4,494.81	4,494.81	1.26	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.10	4,494.78	4,495.20	4,494.81	1.91	4,494.85

Pipe Report

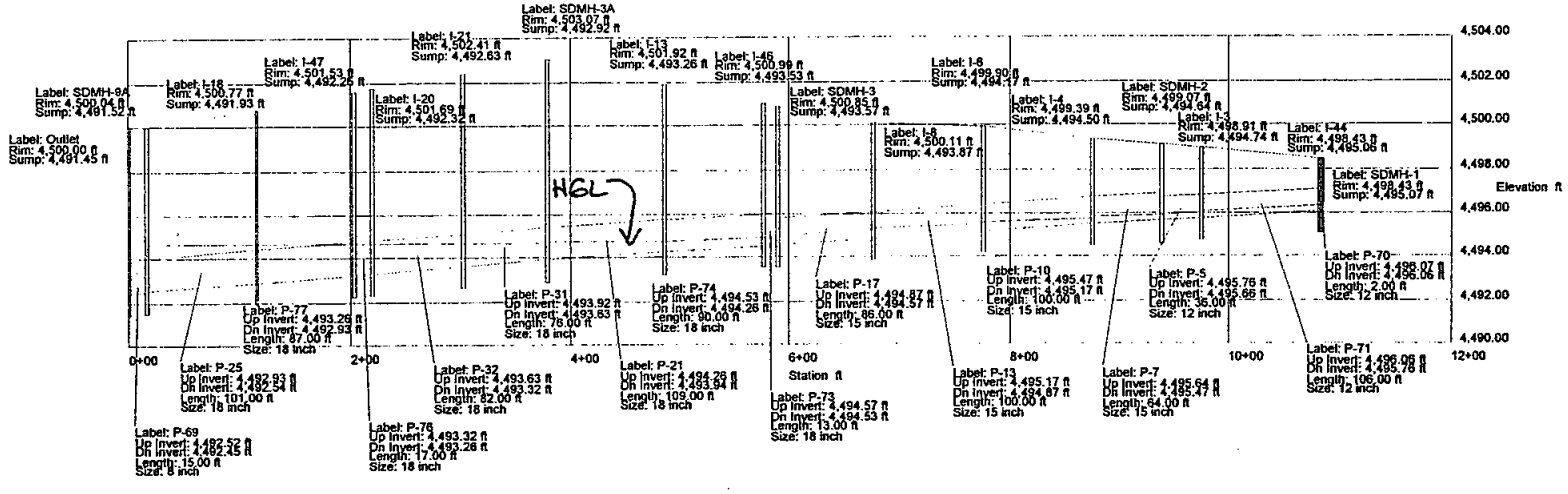
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.07	1.73	14.00	0.004825	15 inch	0.010	5.83	4,494.77	4,494.73	4,494.81	4,494.76	1.41	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.03	1.85	96.00	0.004896	15 inch	0.010	5.88	4,494.72	4,494.67	4,494.76	4,494.71	1.51	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,494.72	4,494.73	4,494.82	4,494.75	1.91	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	0.91	3.37	15.00	0.004667	8 inch	0.010	1.07	4,493.81	4,493.12	4,495.25	4,494.56	9.64	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.31	4,496.31	4,496.31	4,496.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.39	0.25	06.00	0.002830	12 inch	0.013	2.11	4,496.30	4,496.11	4,496.35	4,496.12	1.34	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.34	4,496.56	4,497.44	4,496.85	3.44	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.15	1.04	13.00	0.003077	18 inch	0.010	7.57	4,494.97	4,494.98	4,495.09	4,495.06	2.54	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.15	1.24	90.00	0.003000	18 inch	0.010	7.48	4,494.95	4,494.77	4,495.09	4,494.86	2.71	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.81	4,495.03	4,495.91	4,495.32	3.44	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.00	1.56	17.00	0.003529	18 inch	0.010	8.11	4,494.71	4,494.71	4,494.72	4,494.72	0.90	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.99	1.73	87.00	0.003793	18 inch	0.010	8.41	4,494.70	4,494.69	4,494.72	4,494.71	0.98	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,494.90	4,494.71	4,495.00	4,494.73	1.91	4,494.65

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.04	4,497.04	2.53
I-2	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.75	4,496.75	2.53
I-3	0.00	0.00	2.80	0.00	1.31	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	0.47	0.00	4,496.11	4,496.10	1.99
I-4	0.00	0.00	2.80	0.00	1.26	0.00	0.00	0.54	0.00	0.00	12.31	12.31	0.00	0.68	0.00	4,495.82	4,495.80	2.69
I-5	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.45	4,496.45	2.53
I-6	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.71	0.00	0.00	13.01	13.01	0.00	0.88	0.00	4,495.57	4,495.54	2.89
I-7	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.15	4,496.15	2.53
I-8	0.00	0.00	2.80	0.00	1.18	0.00	0.00	0.89	0.00	0.00	13.65	13.65	0.00	1.06	0.00	4,495.30	4,495.28	3.08
I-12	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.55	4,495.55	2.53
I-13	0.00	0.00	2.80	0.00	1.11	0.00	0.00	1.25	0.00	0.00	14.80	14.84	0.00	1.40	0.00	4,494.77	4,494.75	2.80
I-14	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.27	4,495.27	2.53
I-15	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,495.11	4,495.11	2.60
I-16	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.90	4,494.90	2.53
I-17	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.75	4,494.75	1.41
I-18	0.00	0.00	2.80	0.00	0.95	0.00	0.00	1.90	0.00	0.00	20.31	20.32	0.00	1.83	0.00	4,494.69	4,494.69	1.03
I-20	0.00	0.00	2.80	0.00	1.00	0.00	0.00	1.55	0.00	0.00	18.43	18.52	0.00	1.56	0.00	4,494.71	4,494.71	0.91
I-21	0.00	0.00	2.80	0.00	1.04	0.00	0.00	1.43	0.00	0.00	16.92	17.05	0.00	1.50	0.00	4,494.72	4,494.71	1.10
I-22	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.86	4,498.86	2.53
I-23	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.18	4,498.18	2.53
I-24	0.00	0.00	2.80	0.00	1.35	0.00	0.00	0.36	0.00	0.00	10.86	10.86	0.00	0.49	0.00	4,497.61	4,497.59	2.46
I-25	0.28	0.85	1.40	0.34	1.40	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.34	0.00	4,496.85	4,496.85	2.54
I-26	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.60	0.00	0.00	13.07	13.07	0.00	0.73	0.00	4,496.23	4,496.20	2.88
I-27	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.07	4,497.07	2.53
I-29	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.54	4,496.54	2.33
I-31	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.07	4,496.07	2.33
I-32	0.00	0.00	2.80	0.00	1.12	0.00	0.00	1.13	0.00	0.00	14.62	14.62	0.00	1.28	0.00	4,495.06	4,495.02	3.41
I-33	0.00	0.00	2.80	0.00	1.15	0.00	0.00	0.95	0.00	0.00	14.10	14.10	0.00	1.11	0.00	4,495.48	4,495.45	3.26
I-34	0.00	0.00	2.80	0.00	1.19	0.00	0.00	0.77	0.00	0.00	13.50	13.50	0.00	0.93	0.00	4,495.96	4,495.93	3.09
I-35	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,496.02	4,496.02	2.60
I-36	0.00	0.00	2.80	0.00	1.11	0.00	0.00	1.25	0.00	0.00	14.86	14.88	0.00	1.39	0.00	4,494.86	4,494.82	3.51
I-37	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.60	4,495.60	2.53
I-38	0.00	0.00	2.80	0.00	1.09	0.00	0.00	1.43	0.00	0.00	15.22	15.31	0.00	1.57	0.00	4,494.87	4,494.86	2.25
I-39	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.10	4,495.10	2.53
I-40	0.00	0.00	2.80	0.00	1.07	0.00	0.00	1.61	0.00	0.00	16.17	16.17	0.00	1.73	0.00	4,494.78	4,494.77	1.42
I-41	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,494.72	4,494.72	2.53
I-42	0.00	0.00	2.80	0.00	1.03	0.00	0.00	1.79	0.00	0.00	17.51	17.52	0.00	1.85	0.00	4,494.73	4,494.72	1.51
I-43	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.34	4,497.34	2.53

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	1.39	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.25	0.00	4,496.31	4,496.30	1.67
I-45	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.81	4,495.81	2.53
I-46	0.00	0.00	2.80	0.00	1.15	0.00	0.00	1.07	0.00	0.00	14.24	14.24	0.00	1.24	0.00	4,494.98	4,494.95	3.09
I-47	0.00	0.00	2.80	0.00	0.99	0.00	0.00	1.73	0.00	0.00	18.83	18.84	0.00	1.73	0.00	4,494.71	4,494.70	0.99
Outlet	N/A	N/A	N/A	N/A	0.90	N/A	N/A	3.69	N/A	0.00	21.98	21.98	N/A	3.36	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.31	4,496.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.29	N/A	N/A	0.36	N/A	0.00	11.77	11.77	N/A	0.47	N/A	4,495.96	4,495.92	2.30
SDMH-3	N/A	N/A	N/A	N/A	1.15	N/A	N/A	0.89	N/A	0.00	14.16	14.16	N/A	1.04	N/A	4,495.03	4,494.97	2.73
SDMH-3A	N/A	N/A	N/A	N/A	1.08	N/A	N/A	1.25	N/A	0.00	15.70	15.87	N/A	1.35	N/A	4,494.74	4,494.72	1.42
SDMH-6	N/A	N/A	N/A	N/A	1.39	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.25	N/A	4,497.86	4,497.81	2.04
SDMH-7	N/A	N/A	N/A	N/A	1.26	N/A	N/A	0.36	N/A	0.00	12.34	12.34	N/A	0.45	N/A	4,496.64	4,496.57	2.51
SDMH-8	N/A	N/A	N/A	N/A	1.18	N/A	N/A	0.77	N/A	0.00	13.72	13.72	N/A	0.92	N/A	4,495.79	4,495.72	3.08
SDMH-9A	N/A	N/A	N/A	N/A	0.91	N/A	N/A	3.69	N/A	0.00	21.95	21.95	N/A	3.37	N/A	4,494.67	4,493.81	9.64
SDMH-9	N/A	N/A	N/A	N/A	1.07	N/A	N/A	1.43	N/A	0.00	16.09	16.14	N/A	1.54	N/A	4,494.79	4,494.78	1.26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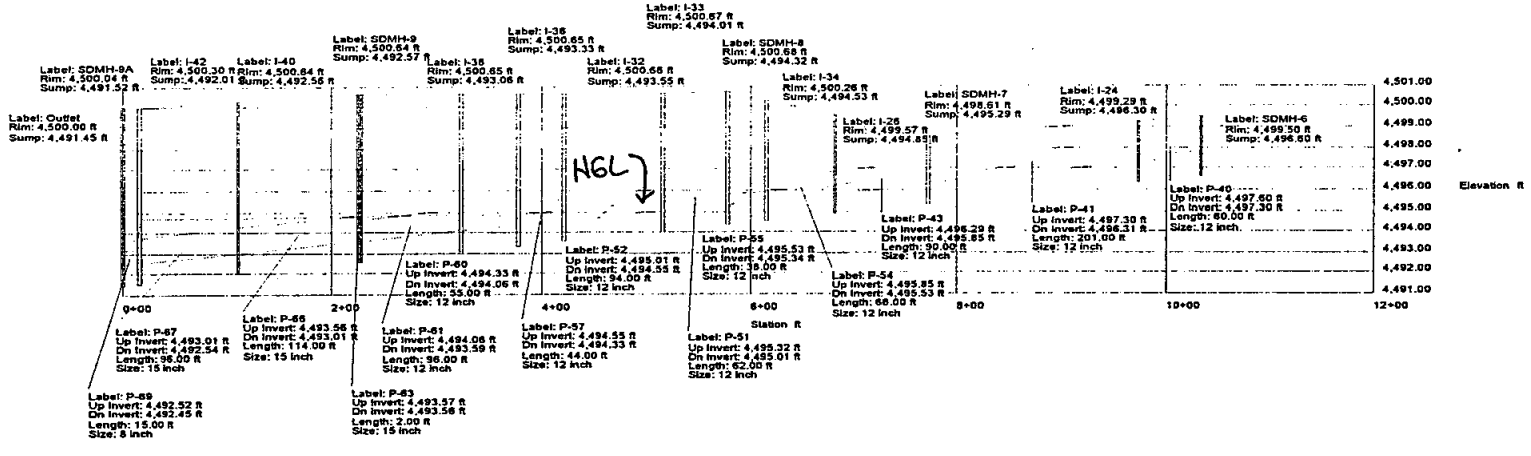
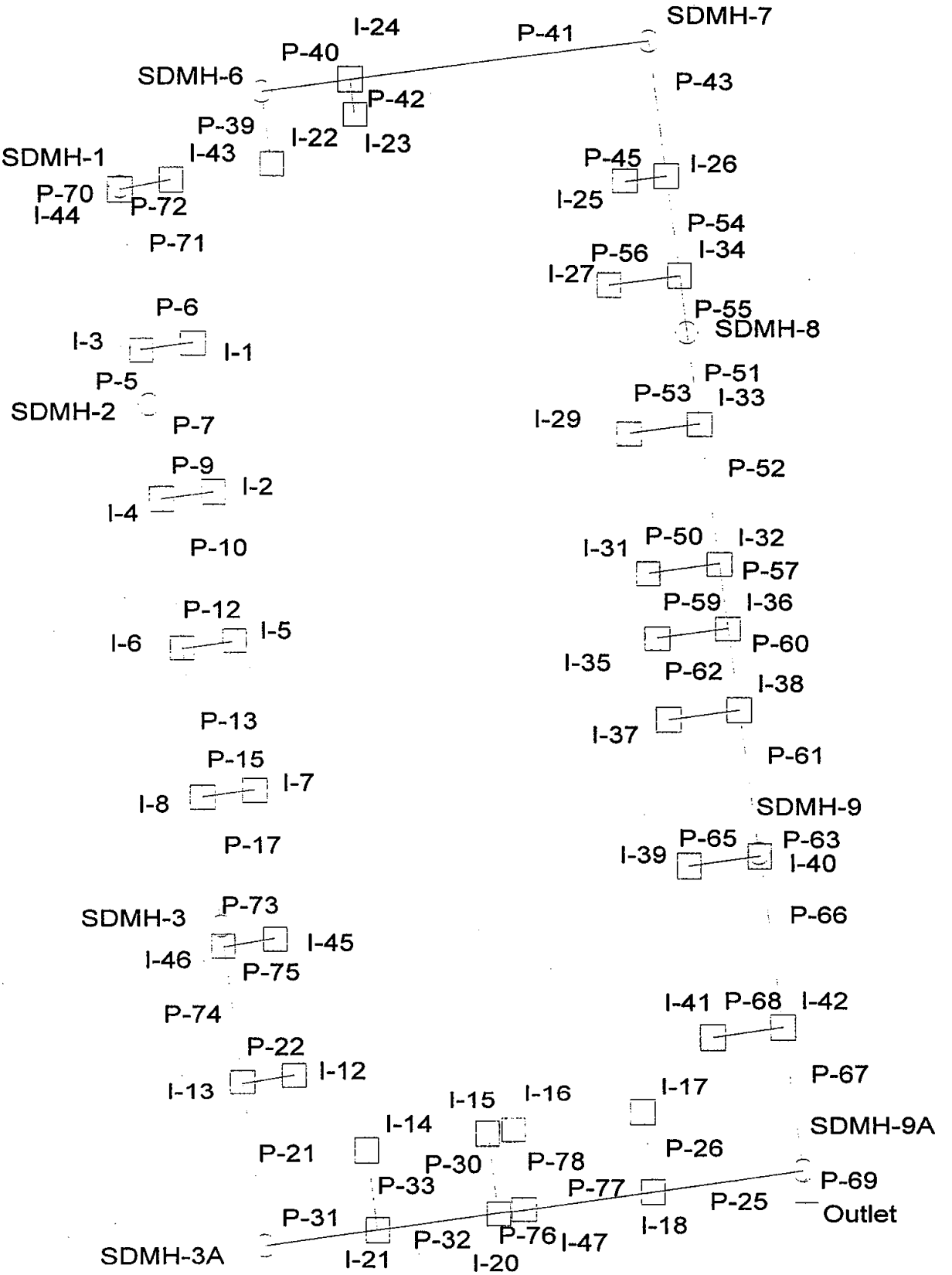
Rim: 4,503.07 ft
Sump: 4,492.92 ft
Label: I-21
Rim: 4,502.41 ft
Sump: 4,492.63 ft
Label: I-13
Rim: 4,501.92 ft
Sump: 4,493.26 ft
Label: I-46
Rim: 4,500.99 ft
Sump: 4,493.53 ft
Label: I-47
Rim: 4,501.53 ft
Sump: 4,492.25 ft
Label: I-18
Rim: 4,500.77 ft
Sump: 4,491.93 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-20
Rim: 4,501.69 ft
Sump: 4,492.32 ft
Label: Outlet
Rim: 4,500.00 ft
Sump: 4,491.45 ft
Label: I-6
Rim: 4,499.90 ft
Sump: 4,494.17 ft
Label: SDMH-3
Rim: 4,500.85 ft
Sump: 4,493.57 ft
Label: I-4
Rim: 4,499.39 ft
Sump: 4,494.50 ft
Label: SDMH-2
Rim: 4,499.07 ft
Sump: 4,494.94 ft
Label: I-8
Rim: 4,500.11 ft
Sump: 4,493.87 ft
Label: I-3
Rim: 4,498.91 ft
Sump: 4,494.74 ft
Label: I-44
Rim: 4,498.43 ft
Sump: 4,495.06 ft
Label: SDMH-1
Rim: 4,498.43 ft
Sump: 4,495.07 ft
HGL
Label: P-77
Up Invert: 4,493.29 ft
Dn Invert: 4,492.93 ft
Length: 97.00 ft
Size: 18 inch
Label: P-31
Up Invert: 4,493.92 ft
Dn Invert: 4,493.63 ft
Length: 78.00 ft
Size: 18 inch
Label: P-74
Up Invert: 4,494.53 ft
Dn Invert: 4,494.26 ft
Length: 90.00 ft
Size: 18 inch
Label: P-17
Up Invert: 4,494.87 ft
Dn Invert: 4,494.57 ft
Length: 86.00 ft
Size: 15 inch
Label: P-10
Up Invert: 4,495.47 ft
Dn Invert: 4,495.17 ft
Length: 100.00 ft
Size: 15 inch
Label: P-5
Up Invert: 4,495.76 ft
Dn Invert: 4,495.66 ft
Length: 35.00 ft
Size: 12 inch
Label: P-70
Up Invert: 4,496.07 ft
Dn Invert: 4,496.06 ft
Length: 2.00 ft
Size: 12 inch
Label: P-25
Up Invert: 4,492.83 ft
Dn Invert: 4,492.54 ft
Length: 101.00 ft
Size: 18 inch
Label: P-32
Up Invert: 4,493.63 ft
Dn Invert: 4,493.32 ft
Length: 82.00 ft
Size: 18 inch
Label: P-21
Up Invert: 4,494.26 ft
Dn Invert: 4,493.94 ft
Length: 109.00 ft
Size: 18 inch
Label: P-73
Up Invert: 4,494.57 ft
Dn Invert: 4,494.53 ft
Length: 13.00 ft
Size: 18 inch
Label: P-13
Up Invert: 4,495.17 ft
Dn Invert: 4,494.87 ft
Length: 100.00 ft
Size: 15 inch
Label: P-7
Up Invert: 4,495.64 ft
Dn Invert: 4,495.47 ft
Length: 64.00 ft
Size: 15 inch
Label: P-71
Up Invert: 4,496.06 ft
Dn Invert: 4,495.76 ft
Length: 106.00 ft
Size: 12 inch
Label: P-69
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-76
Up Invert: 4,493.32 ft
Dn Invert: 4,493.26 ft
Length: 17.00 ft
Size: 18 inch
4,504.00
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Elevation ft
0+00
2+00
4+00
6+00
8+00
10+00
12+00
Station ft



25 yr, 10 min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SDMH-7
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P-45
I-26
P-70
P-72
I-25
I-44
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P-56
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P-55
I-3
I-1
SDMH-8
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P-53
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P-9
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P-66
I-45
I-46
P-75
P-74
I-41
P-68
I-42
P-22
P-67
I-12
I-13
I-15
I-16
I-17
I-14
SDMH-9A
P-21
P-30
P-78
P-26
P-33
P-77
P-69
P-25
P-31
I-18
Outlet
P-32
P-76
I-47
SDMH-3A
I-21
I-20

Detailed Report for Outlet

Flows			
Total Discharge	4.63 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	4.63 cfs

Watershed Data			
System Intensity	1.24 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	28.81 min	Upstream Flow Time	28.81 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

25-yr

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	2.14	0.77	36.00	0.002778	12 inch	0.013	2.09	4,496.35	4,496.33	4,496.39	4,496.36	1.43	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.13	4,496.32	4,497.29	4,496.72	4.11	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	2.07	0.75	64.00	0.002656	15 inch	0.010	4.33	4,496.32	4,496.32	4,496.34	4,496.33	0.96	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.84	4,496.32	4,497.00	4,496.40	2.72	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.94	1.05	00.00	0.003000	15 inch	0.010	4.60	4,496.32	4,496.31	4,496.34	4,496.32	1.04	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.54	4,496.31	4,496.70	4,496.39	2.72	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.84	1.32	00.00	0.003000	15 inch	0.010	4.60	4,496.30	4,496.28	4,496.32	4,496.30	1.10	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.42	4,496.28	4,496.50	4,496.36	2.30	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.75	1.58	86.00	0.003488	15 inch	0.010	4.96	4,496.28	4,496.25	4,496.30	4,496.27	1.28	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.60	2.01	09.00	0.002936	18 inch	0.010	7.40	4,496.22	4,496.19	4,496.24	4,496.21	1.14	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.35	4,496.22	4,496.44	4,496.30	2.30	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.31	2.52	01.00	0.003861	18 inch	0.010	8.49	4,496.10	4,496.06	4,496.13	4,496.10	1.42	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.30	4,496.10	4,496.38	4,496.18	2.30	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	2.51	0.30	53.00	0.020000	4 inch	0.010	0.35	4,496.92	4,496.14	4,497.11	4,496.32	3.45	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.51	1.90	76.00	0.003816	18 inch	0.010	8.43	4,496.18	4,496.16	4,496.20	4,496.18	1.08	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.45	2.08	82.00	0.003780	18 inch	0.010	8.40	4,496.16	4,496.14	4,496.18	4,496.16	1.18	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.37	4,496.16	4,496.45	4,496.24	2.30	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.95	4,497.88	4,499.11	4,498.28	4.11	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	2.47	0.45	60.00	0.005000	12 inch	0.013	2.81	4,497.88	4,497.71	4,497.97	4,497.74	1.91	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	2.28	0.82	01.00	0.004925	12 inch	0.013	2.79	4,497.69	4,497.06	4,497.81	4,497.08	2.05	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	2.51	0.45	23.00	0.020000	6 inch	0.010	1.03	4,498.27	4,497.71	4,498.43	4,498.09	4.06	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.96	0.71	90.00	0.004889	12 inch	0.010	3.61	4,497.04	4,497.03	4,497.06	4,497.05	0.95	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	2.51	0.60	28.00	0.020000	8 inch	0.010	2.22	4,497.04	4,497.03	4,497.12	4,497.08	2.05	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,496.82	4,496.78	4,496.85	4,496.81	1.29	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.79	1.40	62.00	0.005000	12 inch	0.010	3.65	4,496.94	4,496.90	4,496.98	4,496.94	1.64	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.76	1.69	94.00	0.004894	12 inch	0.010	3.61	4,496.88	4,496.78	4,496.94	4,496.84	1.98	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,496.93	4,496.90	4,496.96	4,496.92	1.31	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.86	1.12	66.00	0.004848	12 inch	0.010	3.60	4,497.03	4,497.00	4,497.06	4,497.03	1.31	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.81	1.41	38.00	0.005000	12 inch	0.010	3.65	4,496.99	4,496.96	4,497.03	4,497.00	1.66	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,497.16	4,497.00	4,497.32	4,497.08	2.72	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.72	1.96	44.00	0.005000	12 inch	0.010	3.65	4,496.77	4,496.70	4,496.85	4,496.78	2.29	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	2.51	0.30	48.00	0.020000	4 inch	0.010	0.35	4,497.41	4,496.70	4,497.60	4,496.89	3.45	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.70	2.14	55.00	0.004909	12 inch	0.010	3.62	4,496.68	4,496.59	4,496.78	4,496.69	2.51	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.68	2.42	96.00	0.004896	12 inch	0.010	3.61	4,496.56	4,496.35	4,496.69	4,496.48	2.83	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.77	4,496.59	4,496.86	4,496.67	2.30	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.65	2.37	2.00	0.005000	15 inch	0.010	5.94	4,496.32	4,496.32	4,496.38	4,496.38	1.93	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.51	4,496.32	4,496.59	4,496.41	2.30	4,494.85

Pipe Report

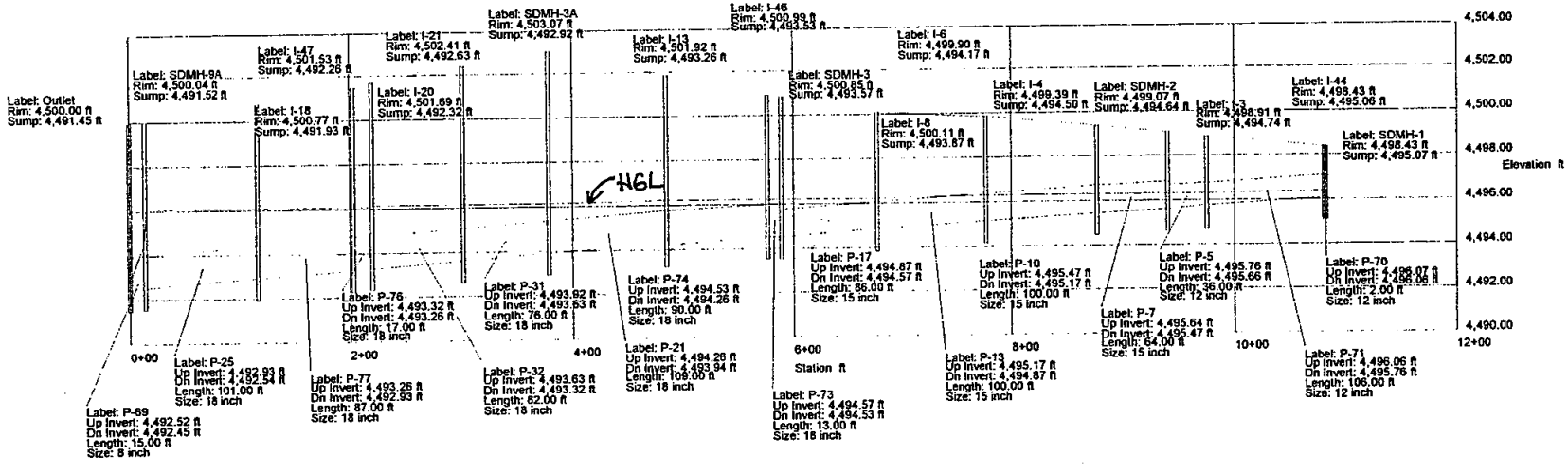
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.65	2.67	14.00	0.004825	15 inch	0.010	5.83	4,496.31	4,496.19	4,496.38	4,496.27	2.17	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.60	2.88	96.00	0.004896	15 inch	0.010	5.88	4,496.18	4,496.06	4,496.26	4,496.15	2.34	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,496.38	4,496.19	4,496.46	4,496.28	2.30	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	1.25	4.63	15.00	0.004667	8 inch	0.010	1.07	4,494.42	4,493.12	4,497.16	4,495.85	13.27	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.43	4,496.43	4,496.43	4,496.43	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	2.48	0.45	06.00	0.002830	12 inch	0.013	2.11	4,496.42	4,496.36	4,496.47	4,496.37	1.29	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.43	4,496.62	4,497.59	4,497.02	4.11	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.69	1.52	13.00	0.003077	18 inch	0.010	7.57	4,496.24	4,496.24	4,496.25	4,496.25	0.86	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.68	1.81	90.00	0.003000	18 inch	0.010	7.48	4,496.24	4,496.22	4,496.25	4,496.24	1.02	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,496.37	4,496.24	4,496.45	4,496.32	2.30	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.38	2.16	17.00	0.003529	18 inch	0.010	8.11	4,496.13	4,496.13	4,496.16	4,496.15	1.22	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.37	2.38	87.00	0.003793	18 inch	0.010	8.41	4,496.12	4,496.10	4,496.15	4,496.13	1.35	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,496.33	4,496.13	4,496.42	4,496.21	2.30	4,494.65

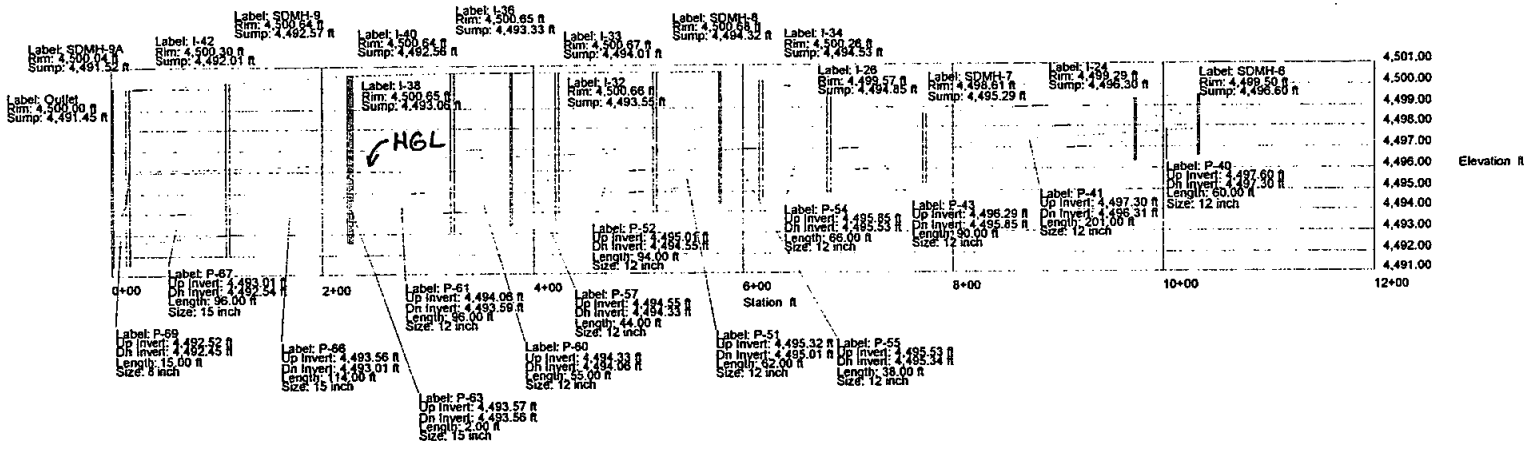
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.13	4,497.13	3.15
I-2	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.84	4,496.84	3.15
I-3	0.00	0.00	5.29	0.00	2.14	0.00	0.00	0.36	0.00	0.00	11.62	13.62	0.00	0.77	0.00	4,496.36	4,496.35	1.54
I-4	0.00	0.00	5.29	0.00	1.94	0.00	0.00	0.54	0.00	0.00	15.39	16.04	0.00	1.05	0.00	4,496.32	4,496.32	1.19
I-5	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.54	4,496.54	3.15
I-6	0.00	0.00	5.29	0.00	1.84	0.00	0.00	0.71	0.00	0.00	17.64	17.99	0.00	1.32	0.00	4,496.31	4,496.30	1.13
I-7	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.42	4,496.42	2.30
I-8	0.00	0.00	5.29	0.00	1.75	0.00	0.00	0.89	0.00	0.00	19.50	19.54	0.00	1.58	0.00	4,496.28	4,496.28	1.28
I-12	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.35	4,496.35	2.30
I-13	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.25	0.00	0.00	22.37	22.37	0.00	2.01	0.00	4,496.22	4,496.22	1.14
I-14	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.37	4,496.37	2.30
I-15	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,496.92	4,496.92	3.45
I-16	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.33	4,496.33	2.30
I-17	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.30	4,496.30	2.30
I-18	0.00	0.00	5.29	0.00	1.31	0.00	0.00	1.90	0.00	0.00	27.61	27.61	0.00	2.52	0.00	4,496.10	4,496.10	1.42
I-20	0.00	0.00	5.29	0.00	1.38	0.00	0.00	1.55	0.00	0.00	26.30	26.30	0.00	2.16	0.00	4,496.14	4,496.13	1.22
I-21	0.00	0.00	5.29	0.00	1.45	0.00	0.00	1.43	0.00	0.00	25.14	25.14	0.00	2.08	0.00	4,496.16	4,496.16	1.18
I-22	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.95	4,498.95	3.15
I-23	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.27	4,498.27	3.15
I-24	0.00	0.00	5.29	0.00	2.28	0.00	0.00	0.36	0.00	0.00	10.87	12.26	0.00	0.82	0.00	4,497.71	4,497.69	2.84
I-25	0.28	0.85	2.51	0.60	2.51	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.60	0.00	4,497.04	4,497.04	2.37
I-26	0.00	0.00	5.29	0.00	1.86	0.00	0.00	0.60	0.00	0.00	17.33	17.56	0.00	1.12	0.00	4,497.03	4,497.03	1.31
I-27	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.16	4,497.16	3.15
I-29	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.93	4,496.93	1.33
I-31	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.82	4,496.82	1.29
I-32	0.00	0.00	5.29	0.00	1.72	0.00	0.00	1.13	0.00	0.00	20.20	20.20	0.00	1.96	0.00	4,496.78	4,496.77	2.29
I-33	0.00	0.00	5.29	0.00	1.76	0.00	0.00	0.95	0.00	0.00	19.41	19.41	0.00	1.69	0.00	4,496.90	4,496.88	1.98
I-34	0.00	0.00	5.29	0.00	1.81	0.00	0.00	0.77	0.00	0.00	18.40	18.40	0.00	1.41	0.00	4,497.00	4,496.99	1.66
I-35	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,497.41	4,497.41	3.45
I-36	0.00	0.00	5.29	0.00	1.70	0.00	0.00	1.25	0.00	0.00	20.52	20.52	0.00	2.14	0.00	4,496.70	4,496.68	2.51
I-37	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.77	4,496.77	2.30
I-38	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.43	0.00	0.00	20.88	20.88	0.00	2.42	0.00	4,496.59	4,496.56	2.83
I-39	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.51	4,496.51	2.30
I-40	0.00	0.00	5.29	0.00	1.65	0.00	0.00	1.61	0.00	0.00	21.46	21.46	0.00	2.67	0.00	4,496.32	4,496.31	2.17
I-41	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.38	4,496.38	2.30
I-42	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.79	0.00	0.00	22.34	22.34	0.00	2.88	0.00	4,496.19	4,496.18	2.34
I-43	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.43	4,497.43	3.15

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	2.48	0.00	0.00	0.18	0.00	0.00	10.14	10.25	0.00	0.45	0.00	4,496.43	4,496.42	1.71
I-45	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,496.37	4,496.37	2.30
I-46	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.07	0.00	0.00	20.91	20.91	0.00	1.81	0.00	4,496.24	4,496.24	1.02
I-47	0.00	0.00	5.29	0.00	1.37	0.00	0.00	1.73	0.00	0.00	26.54	26.54	0.00	2.38	0.00	4,496.13	4,496.12	1.35
Outlet	N/A	N/A	N/A	N/A	1.24	N/A	N/A	3.69	N/A	0.00	28.81	28.81	N/A	4.63	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.43	4,496.43	0.00
SDMH-2	N/A	N/A	N/A	N/A	2.07	N/A	N/A	0.36	N/A	0.00	14.04	14.29	N/A	0.75	N/A	4,496.33	4,496.32	1.09
SDMH-3A	N/A	N/A	N/A	N/A	1.51	N/A	N/A	1.25	N/A	0.00	23.97	23.97	N/A	1.90	N/A	4,496.19	4,496.18	1.08
SDMH-3	N/A	N/A	N/A	N/A	1.69	N/A	N/A	0.89	N/A	0.00	20.65	20.65	N/A	1.52	N/A	4,496.25	4,496.24	0.86
SDMH-6	N/A	N/A	N/A	N/A	2.47	N/A	N/A	0.18	N/A	0.00	10.19	10.35	N/A	0.45	N/A	4,497.95	4,497.88	2.41
SDMH-7	N/A	N/A	N/A	N/A	1.96	N/A	N/A	0.36	N/A	0.00	13.90	15.74	N/A	0.71	N/A	4,497.06	4,497.04	1.07
SDMH-8	N/A	N/A	N/A	N/A	1.79	N/A	N/A	0.77	N/A	0.00	18.78	18.78	N/A	1.40	N/A	4,496.96	4,496.94	1.64
SDMH-9	N/A	N/A	N/A	N/A	1.65	N/A	N/A	1.43	N/A	0.00	21.45	21.45	N/A	2.37	N/A	4,496.35	4,496.32	1.93
SDMH-9A	N/A	N/A	N/A	N/A	1.25	N/A	N/A	3.69	N/A	0.00	28.79	28.79	N/A	4.63	N/A	4,496.06	4,494.42	13.27





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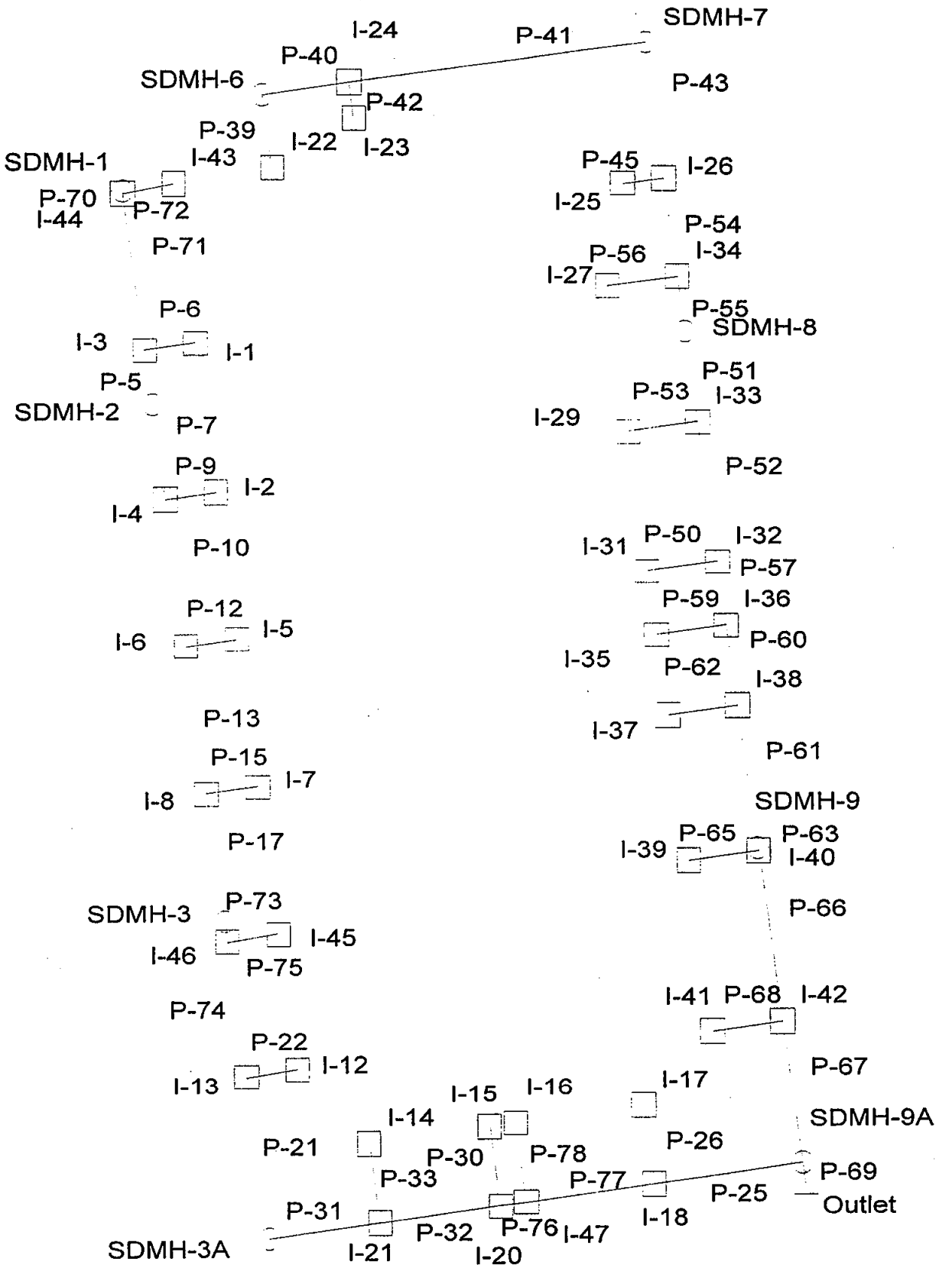

Project Title: Eagle Hardware and Garden
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Jeff Codega Planning & Design
37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Project Engineer: Jeff Codega Planning/Design
StormCAD v1.5 [158]
Page 1 of 1

Detailed Report for Outlet

Flows			
Total Discharge	9.01 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	9.01 cfs

Watershed Data			
System Intensity	2.42 in/hr	Upstream CA	3.69 acres
Total CA	3.69 acres		

Flow Times			
System Flow Time	21.49 min	Upstream Flow Time	21.49 min

Elevations			
HGL In	4,493.12 ft	HGL Out	4,493.12 ft
Ground Elevation	4,500.00 ft	Rim Elevation	4,500.00 ft
Sump Elevation	4,491.45 ft		

Other Properties			
X	158,480.44 ft	Y	722,044.15 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	3.37	1.21	36.00	0.002778	12 inch	0.013	2.09	4,500.64	4,500.61	4,500.68	4,500.64	1.42	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	3.29	1.19	64.00	0.002656	15 inch	0.010	4.33	4,500.62	4,500.61	4,500.64	4,500.63	0.97	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	3.10	1.67	00.00	0.003000	15 inch	0.010	4.60	4,500.65	4,500.61	4,500.68	4,500.64	1.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	2.89	2.08	00.00	0.003000	15 inch	0.010	4.60	4,500.67	4,500.61	4,500.72	4,500.66	1.69	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	2.82	2.54	86.00	0.003488	15 inch	0.010	4.96	4,500.69	4,500.61	4,500.76	4,500.68	2.07	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	2.69	3.39	09.00	0.002936	18 inch	0.010	7.40	4,500.53	4,500.46	4,500.59	4,500.52	1.92	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.85	4,500.54	4,501.04	4,500.73	3.48	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	2.47	4.74	01.00	0.003861	18 inch	0.010	8.49	4,500.16	4,500.04	4,500.27	4,500.15	2.68	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.63	4,500.16	4,500.82	4,500.35	3.48	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	3.80	0.46	53.00	0.020000	4 inch	0.010	0.35	4,502.10	4,500.30	4,502.52	4,500.72	5.22	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	2.62	3.30	76.00	0.003816	18 inch	0.010	8.43	4,500.42	4,500.37	4,500.47	4,500.43	1.87	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	2.57	3.70	82.00	0.003780	18 inch	0.010	8.40	4,500.36	4,500.30	4,500.43	4,500.37	2.09	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.84	4,500.37	4,501.03	4,500.56	3.48	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	3.76	0.68	60.00	0.005000	12 inch	0.013	2.81	4,500.70	4,500.68	4,500.71	4,500.69	0.79	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	3.53	1.27	01.00	0.004925	12 inch	0.013	2.79	4,500.89	4,500.68	4,500.92	4,500.71	1.49	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	3.80	0.68	23.00	0.020000	6 inch	0.010	1.03	4,500.88	4,500.68	4,501.07	4,500.87	3.48	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	3.13	1.13	90.00	0.004889	12 inch	0.010	3.61	4,500.72	4,500.68	4,500.75	4,500.71	1.32	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	3.80	0.91	28.00	0.020000	8 inch	0.010	2.22	4,500.77	4,500.68	4,500.88	4,500.79	2.61	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.75	4,500.66	4,500.81	4,500.72	1.96	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	2.85	2.22	62.00	0.005000	12 inch	0.010	3.65	4,500.79	4,500.67	4,500.89	4,500.78	2.61	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	2.82	2.71	94.00	0.004894	12 inch	0.010	3.61	4,500.92	4,500.66	4,501.08	4,500.82	3.18	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.76	4,500.67	4,500.82	4,500.73	1.96	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	2.92	1.75	66.00	0.004848	12 inch	0.010	3.60	4,500.76	4,500.68	4,500.82	4,500.75	2.06	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	2.87	2.24	38.00	0.005000	12 inch	0.010	3.65	4,500.75	4,500.68	4,500.86	4,500.79	2.63	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	2.79	3.18	44.00	0.005000	12 inch	0.010	3.65	4,500.82	4,500.65	4,501.03	4,500.87	3.73	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	3.80	0.46	48.00	0.020000	4 inch	0.010	0.35	4,502.28	4,500.65	4,502.70	4,501.07	5.22	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	2.77	3.49	55.00	0.004909	12 inch	0.010	3.62	4,500.90	4,500.65	4,501.16	4,500.91	4.10	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	2.76	3.97	96.00	0.004896	12 inch	0.010	3.61	4,501.21	4,500.64	4,501.54	4,500.98	4.66	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.07	4,500.65	4,501.26	4,500.84	3.48	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	2.73	3.93	2.00	0.005000	15 inch	0.010	5.94	4,500.64	4,500.64	4,500.80	4,500.80	3.20	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.06	4,500.64	4,501.25	4,500.83	3.48	4,494.85

Pipe Report

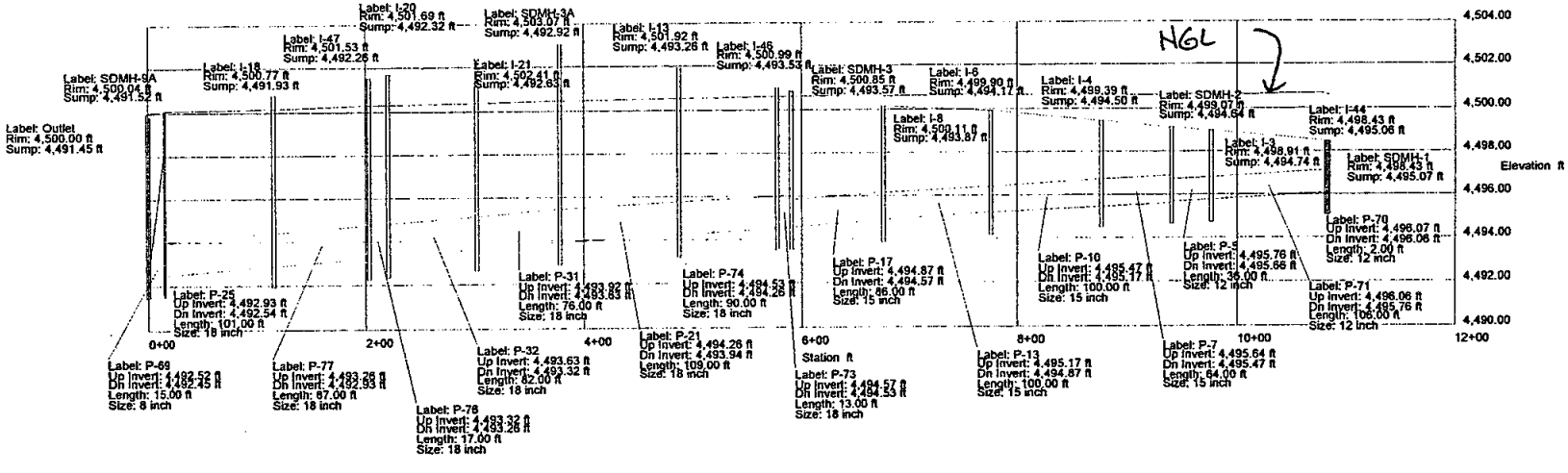
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	2.73	4.42	14.00	0.004825	15 inch	0.010	5.83	4,500.62	4,500.30	4,500.82	4,500.50	3.60	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	2.69	4.84	96.00	0.004896	15 inch	0.010	5.88	4,500.36	4,500.04	4,500.60	4,500.28	3.95	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,500.72	4,500.30	4,500.91	4,500.49	3.48	4,494.47
P-69	SDMH-9A	Outlet	N/A	N/A	N/A	3.69	2.42	9.02	15.00	0.004667	8 inch	0.010	1.07	4,498.06	4,493.12	4,508.43	4,503.49	25.83	4,492.52
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,500.61	4,500.61	4,500.61	4,500.61	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	3.77	0.68	06.00	0.002830	12 inch	0.013	2.11	4,500.64	4,500.61	4,500.65	4,500.62	0.80	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	2.77	2.49	13.00	0.003077	18 inch	0.010	7.57	4,500.60	4,500.59	4,500.63	4,500.62	1.41	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	2.76	2.97	90.00	0.003000	18 inch	0.010	7.48	4,500.58	4,500.54	4,500.63	4,500.58	1.68	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.90	4,500.59	4,501.09	4,500.78	3.48	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	2.52	3.93	17.00	0.003529	18 inch	0.010	8.11	4,500.28	4,500.27	4,500.36	4,500.35	2.23	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	2.51	4.37	87.00	0.003793	18 inch	0.010	8.41	4,500.25	4,500.16	4,500.35	4,500.26	2.47	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.74	4,500.27	4,500.92	4,500.46	3.48	4,494.65

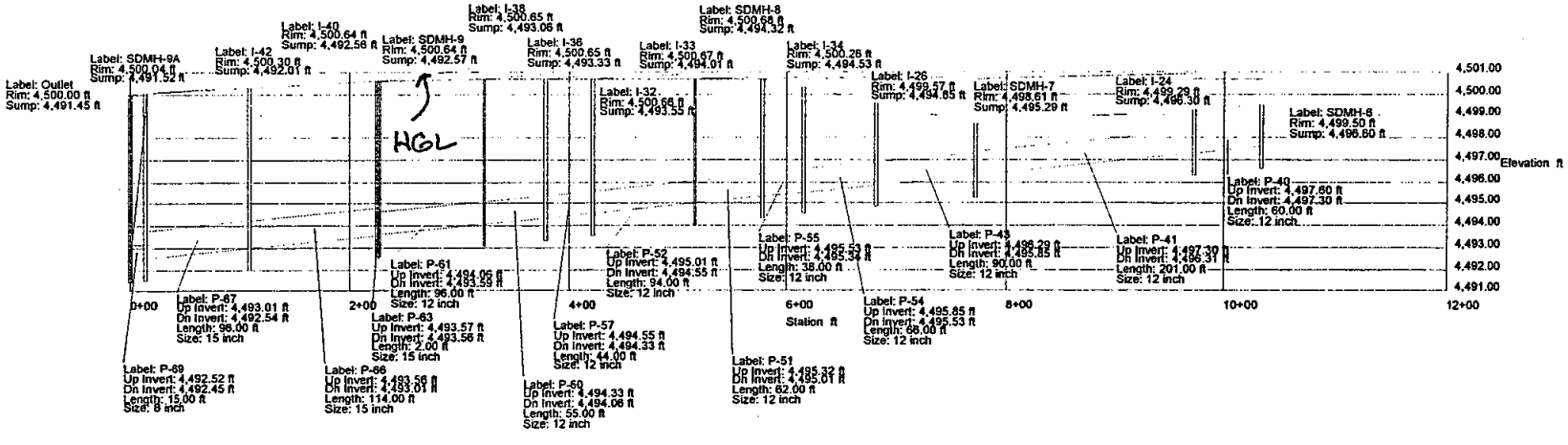
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-2	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-3	0.00	0.00	7.80	0.00	3.37	0.00	0.00	0.36	0.00	0.00	12.39	12.39	0.00	1.21	0.00	4,500.61	4,500.61	1.42
I-4	0.00	0.00	7.80	0.00	3.10	0.00	0.00	0.54	0.00	0.00	13.91	13.91	0.00	1.67	0.00	4,500.61	4,500.61	1.36
I-5	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-6	0.00	0.00	7.80	0.00	2.89	0.00	0.00	0.71	0.00	0.00	15.14	15.14	0.00	2.08	0.00	4,500.61	4,500.61	1.69
I-7	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-8	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.89	0.00	0.00	16.12	16.12	0.00	2.54	0.00	4,500.61	4,500.61	2.07
I-12	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.85	4,500.85	3.48
I-13	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.25	0.00	0.00	17.86	17.86	0.00	3.39	0.00	4,500.54	4,500.53	1.92
I-14	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.84	4,500.84	3.48
I-15	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.10	4,502.10	5.22
I-16	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.74	4,500.74	3.48
I-17	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.63	4,500.63	3.48
I-18	0.00	0.00	7.80	0.00	2.47	0.00	0.00	1.90	0.00	0.00	20.85	20.85	0.00	4.74	0.00	4,500.16	4,500.16	2.68
I-20	0.00	0.00	7.80	0.00	2.52	0.00	0.00	1.55	0.00	0.00	20.14	20.14	0.00	3.93	0.00	4,500.30	4,500.28	2.23
I-21	0.00	0.00	7.80	0.00	2.57	0.00	0.00	1.43	0.00	0.00	19.48	19.48	0.00	3.70	0.00	4,500.37	4,500.36	2.09
I-22	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-23	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.88	4,500.88	3.48
I-24	0.00	0.00	7.80	0.00	3.53	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	1.27	0.00	4,500.68	4,500.68	1.49
I-25	0.28	0.85	3.80	0.91	3.80	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.91	0.00	4,500.77	4,500.77	2.61
I-26	0.00	0.00	7.80	0.00	2.92	0.00	0.00	0.60	0.00	0.00	14.87	14.87	0.00	1.75	0.00	4,500.68	4,500.68	2.06
I-27	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-29	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.76	4,500.76	1.96
I-31	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.75	4,500.75	1.96
I-32	0.00	0.00	7.80	0.00	2.79	0.00	0.00	1.13	0.00	0.00	16.54	16.54	0.00	3.18	0.00	4,500.66	4,500.66	3.73
I-33	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.95	0.00	0.00	16.04	16.04	0.00	2.71	0.00	4,500.67	4,500.67	3.18
I-34	0.00	0.00	7.80	0.00	2.87	0.00	0.00	0.77	0.00	0.00	15.41	15.41	0.00	2.24	0.00	4,500.68	4,500.68	2.63
I-35	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.28	4,502.28	5.22
I-36	0.00	0.00	7.80	0.00	2.77	0.00	0.00	1.25	0.00	0.00	16.73	16.73	0.00	3.49	0.00	4,500.65	4,500.65	4.10
I-37	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.07	4,501.07	3.48
I-38	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.43	0.00	0.00	16.96	16.96	0.00	3.97	0.00	4,500.65	4,500.65	4.66
I-39	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.06	4,501.06	3.48
I-40	0.00	0.00	7.80	0.00	2.73	0.00	0.00	1.61	0.00	0.00	17.31	17.31	0.00	4.42	0.00	4,500.64	4,500.62	3.60
I-41	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.72	4,500.72	3.48
I-42	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.79	0.00	0.00	17.84	17.84	0.00	4.84	0.00	4,500.30	4,500.30	3.95
I-43	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48

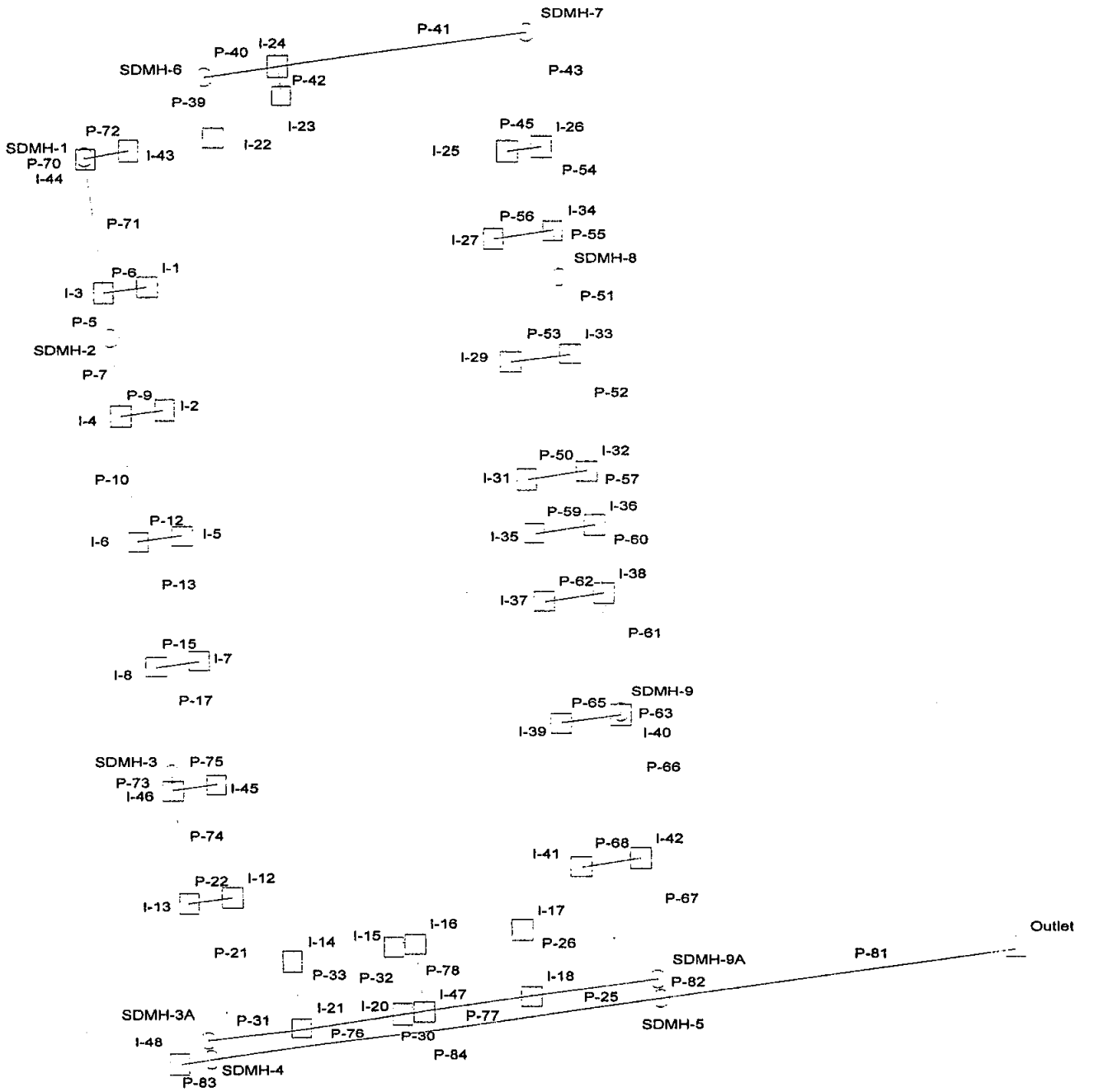
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	3.77	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.68	0.00	4,500.61	4,500.61	0.80
I-45	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.90	4,500.90	3.48
I-46	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.07	0.00	0.00	16.97	16.97	0.00	2.97	0.00	4,500.59	4,500.58	1.68
I-47	0.00	0.00	7.80	0.00	2.51	0.00	0.00	1.73	0.00	0.00	20.26	20.26	0.00	4.37	0.00	4,500.27	4,500.25	2.47
Outlet	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.49	21.49	N/A	9.01	N/A	4,493.12	4,493.12	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,500.61	4,500.61	0.00
SDMH-2	N/A	N/A	N/A	N/A	3.29	N/A	N/A	0.36	N/A	0.00	12.81	12.81	N/A	1.19	N/A	4,500.61	4,500.61	0.97
SDMH-3	N/A	N/A	N/A	N/A	2.77	N/A	N/A	0.89	N/A	0.00	16.81	16.81	N/A	2.49	N/A	4,500.61	4,500.60	1.41
SDMH-3A	N/A	N/A	N/A	N/A	2.62	N/A	N/A	1.25	N/A	0.00	18.81	18.81	N/A	3.30	N/A	4,500.46	4,500.42	1.87
SDMH-6	N/A	N/A	N/A	N/A	3.76	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.68	N/A	4,500.68	4,500.68	0.79
SDMH-7	N/A	N/A	N/A	N/A	3.13	N/A	N/A	0.36	N/A	0.00	13.74	13.74	N/A	1.13	N/A	4,500.68	4,500.68	1.32
SDMH-8	N/A	N/A	N/A	N/A	2.85	N/A	N/A	0.77	N/A	0.00	15.65	15.65	N/A	2.22	N/A	4,500.68	4,500.68	2.61
SDMH-9A	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.48	21.48	N/A	9.02	N/A	4,500.04	4,498.06	25.83
SDMH-9	N/A	N/A	N/A	N/A	2.73	N/A	N/A	1.43	N/A	0.00	17.30	17.30	N/A	3.93	N/A	4,500.64	4,500.64	3.20





5 yr, 42.5 min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SDMH-1
P-70
I-43
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SDMH-2
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Outlet
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P-33
P-32
P-78
I-18
P-82
I-47
P-25
SDMH-3A
P-31
I-21
I-20
P-77
SDMH-5
I-48
P-76
P-30
P-84
SDMH-4
P-83

Detailed Report for Outlet

Flows					
Total Discharge	5.19	cfs	Known Flow	0.00	cfs
Upstream Additional + Carryover	0.00	cfs	Total Watershed (CIA)	5.19	cfs

Watershed Data					
System Intensity	0.43	in/hr	Upstream CA	11.96	acres
Total CA	11.96	acres			

Flow Times					
System Flow Time	56.70	min	Upstream Flow Time	56.70	min

Elevations					
HGL In	4,493.23	ft	HGL Out	4,493.23	ft
Ground Elevation	4,491.23	ft	Rim Elevation	4,491.23	ft
Sump Elevation	4,490.23	ft			

Other Properties					
X	158,763.87	ft	Y	722,082.58	ft
Velocity	0.00	ft/s	Headloss	0.00	ft
Headloss Coefficient	0.00		Station	0+00	ft
External Flow	0.00	cfs			

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	0.55	0.20	36.00	0.002778	12 inch	0.013	2.09	4,495.98	4,495.85	4,496.01	4,495.90	1.73	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,496.95	4,496.20	4,497.00	4,496.37	2.63	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	0.54	0.19	64.00	0.002656	15 inch	0.010	4.33	4,495.82	4,495.70	4,495.87	4,495.72	1.54	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,496.66	4,495.91	4,496.71	4,496.08	2.63	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	0.54	0.29	00.00	0.003000	15 inch	0.010	4.60	4,495.68	4,495.43	4,495.75	4,495.47	1.83	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,496.36	4,495.61	4,496.41	4,495.78	2.63	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	0.53	0.38	00.00	0.003000	15 inch	0.010	4.60	4,495.41	4,495.15	4,495.49	4,495.20	2.04	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,496.06	4,495.31	4,496.11	4,495.48	2.63	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	0.52	0.47	86.00	0.003488	15 inch	0.010	4.96	4,495.14	4,494.87	4,495.23	4,494.93	2.28	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	0.51	0.64	09.00	0.002936	18 inch	0.010	7.40	4,494.56	4,494.30	4,494.66	4,494.36	2.27	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,495.46	4,494.71	4,495.51	4,494.88	2.63	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.47	0.91	01.00	0.003861	18 inch	0.010	8.49	4,493.85	4,493.85	4,493.86	4,493.86	0.67	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	0.56	0.10	53.00	0.020000	6 inch	0.010	1.03	4,494.48	4,493.85	4,494.53	4,493.86	1.22	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	0.56	0.07	53.00	0.020000	4 inch	0.010	0.35	4,495.02	4,493.92	4,495.08	4,494.07	2.48	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.50	0.63	76.00	0.003816	18 inch	0.010	8.43	4,494.21	4,493.97	4,494.32	4,494.04	2.35	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.49	0.71	82.00	0.003780	18 inch	0.010	8.40	4,493.94	4,493.86	4,494.05	4,493.88	1.95	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	0.56	0.10	53.00	0.020000	6 inch	0.010	1.03	4,495.18	4,494.07	4,495.23	4,494.24	2.63	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	6 inch	0.010	1.03	4,498.77	4,497.76	4,498.82	4,497.93	2.63	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	0.56	0.10	60.00	0.005000	12 inch	0.013	2.81	4,497.73	4,497.50	4,497.77	4,497.51	1.22	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	0.55	0.20	01.00	0.004925	12 inch	0.013	2.79	4,497.49	4,496.52	4,497.54	4,496.56	1.77	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	0.56	0.10	23.00	0.020000	6 inch	0.010	1.03	4,498.09	4,497.58	4,498.14	4,497.75	2.63	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	0.54	0.19	90.00	0.004889	12 inch	0.010	3.61	4,496.47	4,496.10	4,496.53	4,496.12	1.62	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	0.56	0.14	28.00	0.020000	8 inch	0.010	2.22	4,496.75	4,496.13	4,496.81	4,496.32	2.74	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	8 inch	0.010	2.22	4,495.99	4,494.98	4,496.04	4,495.14	2.52	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	0.52	0.40	62.00	0.005000	12 inch	0.010	3.65	4,495.58	4,495.32	4,495.67	4,495.38	2.18	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	0.51	0.49	94.00	0.004894	12 inch	0.010	3.61	4,495.30	4,494.89	4,495.40	4,494.95	2.33	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	8 inch	0.010	2.22	4,496.46	4,495.45	4,496.51	4,495.61	2.52	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	0.53	0.32	66.00	0.004848	12 inch	0.010	3.60	4,496.08	4,495.81	4,496.16	4,495.86	2.00	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	0.52	0.41	38.00	0.005000	12 inch	0.010	3.65	4,495.79	4,495.63	4,495.88	4,495.70	2.29	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	6 inch	0.010	1.03	4,496.98	4,495.97	4,497.03	4,496.14	2.63	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	0.51	0.58	44.00	0.005000	12 inch	0.010	3.65	4,494.86	4,494.68	4,494.98	4,494.76	2.49	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	0.56	0.07	48.00	0.020000	4 inch	0.010	0.35	4,495.93	4,494.93	4,495.99	4,495.08	2.48	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	0.51	0.64	55.00	0.004909	12 inch	0.010	3.62	4,494.66	4,494.44	4,494.78	4,494.52	2.53	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	0.50	0.72	96.00	0.004896	12 inch	0.010	3.61	4,494.41	4,493.98	4,494.54	4,494.07	2.69	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	6 inch	0.010	1.03	4,495.51	4,494.50	4,495.56	4,494.67	2.63	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	0.50	0.71	2.00	0.005000	15 inch	0.010	5.94	4,493.93	4,493.94	4,494.02	4,494.02	2.38	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	6 inch	0.010	1.03	4,495.01	4,494.00	4,495.06	4,494.17	2.63	4,494.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	0.50	0.80	14.00	0.004825	15 inch	0.010	5.83	4,493.91	4,493.86	4,494.04	4,493.87	1.87	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	0.49	0.88	96.00	0.004896	15 inch	0.010	5.88	4,493.86	4,493.85	4,493.87	4,493.86	0.85	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	0.56	0.10	48.00	0.020000	6 inch	0.010	1.03	4,494.63	4,493.86	4,494.68	4,493.87	1.30	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.22	4,496.22	4,496.22	4,496.22	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	0.56	0.10	06.00	0.002830	12 inch	0.013	2.11	4,496.21	4,495.98	4,496.24	4,495.99	1.02	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,497.25	4,496.50	4,497.30	4,496.67	2.63	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	0.51	0.46	13.00	0.003077	18 inch	0.010	7.57	4,494.82	4,494.83	4,494.91	4,494.88	2.11	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	0.51	0.55	90.00	0.003000	18 inch	0.010	7.48	4,494.81	4,494.58	4,494.90	4,494.64	2.25	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	0.56	0.10	35.00	0.020000	6 inch	0.010	1.03	4,495.72	4,494.97	4,495.77	4,495.14	2.63	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.49	0.76	17.00	0.003529	18 inch	0.010	8.11	4,493.86	4,493.86	4,493.88	4,493.88	1.25	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.48	0.84	87.00	0.003793	18 inch	0.010	8.41	4,493.85	4,493.85	4,493.88	4,493.86	1.02	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	0.56	0.10	53.00	0.020000	6 inch	0.010	1.03	4,494.81	4,493.86	4,494.86	4,493.87	1.43	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	0.45	5.40	86.00	0.003986	24 inch	0.013	14.28	4,493.36	4,493.23	4,493.55	4,493.28	2.60	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.45	1.67	15.00	0.004667	8 inch	0.010	1.07	4,493.64	4,493.47	4,494.00	4,493.83	4.78	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	0.56	4.70	25.00	0.004000	24 inch	0.013	14.31	4,494.81	4,494.77	4,495.05	4,494.97	3.77	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	0.56	4.69	63.00	0.003912	24 inch	0.013	14.15	4,494.64	4,493.47	4,494.90	4,493.60	3.44	4,493.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.36	0.49	36.00	0.002778	12 inch	0.013	2.09	4,496.10	4,495.96	4,496.16	4,496.05	2.19	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,497.05	4,496.26	4,497.16	4,496.57	3.51	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.33	0.48	64.00	0.002656	15 inch	0.010	4.33	4,495.92	4,495.82	4,496.00	4,495.86	2.02	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,496.76	4,495.97	4,496.87	4,496.28	3.51	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.26	0.68	00.00	0.003000	15 inch	0.010	4.60	4,495.80	4,495.56	4,495.91	4,495.63	2.38	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,496.46	4,495.67	4,496.57	4,495.98	3.51	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.19	0.86	00.00	0.003000	15 inch	0.010	4.60	4,495.54	4,495.30	4,495.66	4,495.38	2.60	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,496.16	4,495.37	4,496.27	4,495.68	3.51	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.14	1.02	86.00	0.003488	15 inch	0.010	4.96	4,495.27	4,495.12	4,495.41	4,495.18	2.51	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.03	1.30	09.00	0.002936	18 inch	0.010	7.40	4,495.07	4,495.07	4,495.10	4,495.08	1.12	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,495.56	4,495.08	4,495.67	4,495.11	1.99	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.83	1.60	01.00	0.003861	18 inch	0.010	8.49	4,495.03	4,495.02	4,495.04	4,495.03	0.91	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.50	0.27	53.00	0.020000	6 inch	0.010	1.03	4,495.10	4,495.03	4,495.13	4,495.06	1.37	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.50	0.18	53.00	0.020000	4 inch	0.010	0.35	4,495.33	4,495.05	4,495.40	4,495.11	2.06	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.97	1.22	76.00	0.003816	18 inch	0.010	8.43	4,495.06	4,495.06	4,495.07	4,495.07	0.78	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.93	1.33	82.00	0.003780	18 inch	0.010	8.40	4,495.06	4,495.05	4,495.07	4,495.06	0.76	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.50	0.27	53.00	0.020000	6 inch	0.010	1.03	4,495.28	4,495.06	4,495.39	4,495.09	1.98	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	6 inch	0.010	1.03	4,498.87	4,497.82	4,498.98	4,498.13	3.51	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.49	0.27	60.00	0.005000	12 inch	0.013	2.81	4,497.82	4,497.62	4,497.88	4,497.64	1.64	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.43	0.51	01.00	0.004925	12 inch	0.013	2.79	4,497.60	4,496.65	4,497.70	4,496.72	2.31	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.50	0.27	23.00	0.020000	6 inch	0.010	1.03	4,498.19	4,497.65	4,498.30	4,497.95	3.50	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.30	0.47	90.00	0.004889	12 inch	0.010	3.61	4,496.57	4,496.23	4,496.67	4,496.27	2.10	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.50	0.36	28.00	0.020000	8 inch	0.010	2.22	4,496.86	4,496.20	4,496.96	4,496.54	3.64	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	8 inch	0.010	2.22	4,496.08	4,495.31	4,496.17	4,495.33	1.76	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.19	0.93	62.00	0.005000	12 inch	0.010	3.65	4,495.72	4,495.48	4,495.87	4,495.58	2.77	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.16	1.12	94.00	0.004894	12 inch	0.010	3.61	4,495.45	4,495.31	4,495.62	4,495.36	2.47	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	8 inch	0.010	2.22	4,496.55	4,495.51	4,496.64	4,495.80	3.35	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.23	0.74	66.00	0.004848	12 inch	0.010	3.60	4,496.20	4,495.96	4,496.33	4,496.04	2.55	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.20	0.94	38.00	0.005000	12 inch	0.010	3.65	4,495.93	4,495.79	4,496.08	4,495.90	2.87	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	6 inch	0.010	1.03	4,497.08	4,496.03	4,497.19	4,496.34	3.51	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.14	1.29	44.00	0.005000	12 inch	0.010	3.65	4,495.30	4,495.29	4,495.36	4,495.33	1.77	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.50	0.18	48.00	0.020000	4 inch	0.010	0.35	4,496.03	4,495.29	4,496.14	4,495.36	2.37	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.12	1.42	55.00	0.004909	12 inch	0.010	3.62	4,495.28	4,495.25	4,495.33	4,495.29	1.70	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.11	1.60	96.00	0.004896	12 inch	0.010	3.61	4,495.24	4,495.15	4,495.29	4,495.20	1.88	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	6 inch	0.010	1.03	4,495.61	4,495.25	4,495.72	4,495.28	1.98	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.09	1.57	2.00	0.005000	15 inch	0.010	5.94	4,495.13	4,495.13	4,495.16	4,495.16	1.28	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	6 inch	0.010	1.03	4,495.16	4,495.13	4,495.23	4,495.16	1.75	4,494.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.09	1.77	14.00	0.004825	15 inch	0.010	5.83	4,495.13	4,495.08	4,495.16	4,495.11	1.44	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.06	1.90	96.00	0.004896	15 inch	0.010	5.88	4,495.07	4,495.02	4,495.11	4,495.06	1.55	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.50	0.27	48.00	0.020000	6 inch	0.010	1.03	4,495.14	4,495.08	4,495.17	4,495.10	1.37	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.32	4,496.32	4,496.32	4,496.32	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.49	0.27	06.00	0.002830	12 inch	0.013	2.11	4,496.31	4,496.11	4,496.36	4,496.13	1.38	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,497.35	4,496.56	4,497.46	4,496.87	3.51	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.09	0.98	13.00	0.003077	18 inch	0.010	7.57	4,495.09	4,495.09	4,495.14	4,495.13	1.71	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.08	1.17	90.00	0.003000	18 inch	0.010	7.48	4,495.08	4,495.08	4,495.14	4,495.10	1.59	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.50	0.27	35.00	0.020000	6 inch	0.010	1.03	4,495.82	4,495.03	4,495.93	4,495.34	3.51	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.88	1.38	17.00	0.003529	18 inch	0.010	8.11	4,495.05	4,495.05	4,495.06	4,495.05	0.78	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.87	1.52	87.00	0.003793	18 inch	0.010	8.41	4,495.04	4,495.03	4,495.05	4,495.04	0.86	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.50	0.27	53.00	0.020000	6 inch	0.010	1.03	4,495.12	4,495.05	4,495.15	4,495.07	1.40	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	0.79	9.51	86.00	0.003986	24 inch	0.013	14.28	4,493.65	4,493.23	4,493.96	4,493.37	3.76	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.79	2.94	15.00	0.004667	8 inch	0.010	1.07	4,494.36	4,493.83	4,495.46	4,494.93	8.41	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	1.50	12.51	25.00	0.004000	24 inch	0.013	14.31	4,495.58	4,495.51	4,495.92	4,495.84	4.66	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	1.50	12.49	63.00	0.003912	24 inch	0.013	14.15	4,495.31	4,493.83	4,495.71	4,494.27	5.19	4,493.85

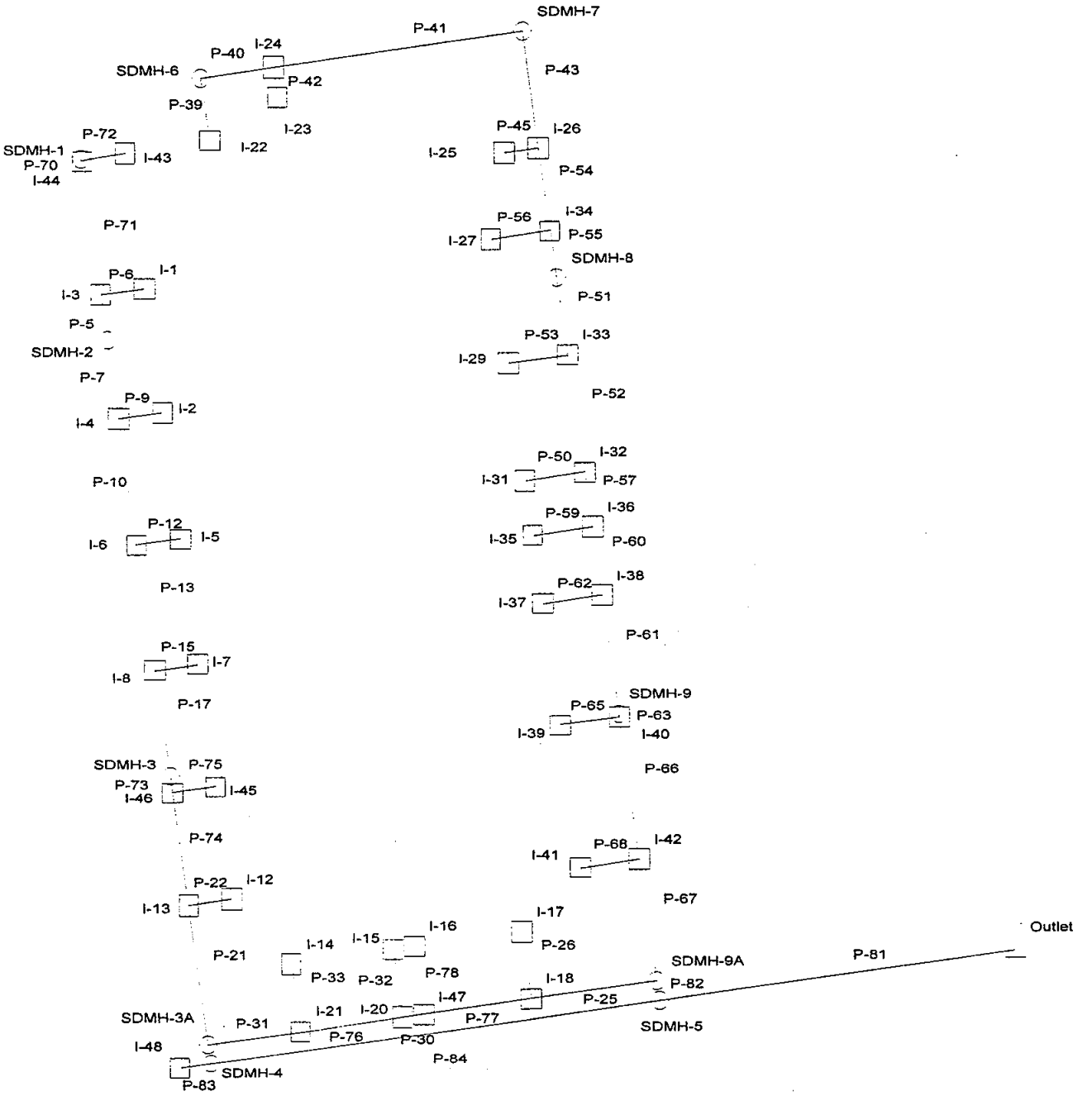
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,497.05	4,497.05	2.59
I-2	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,496.76	4,496.76	2.59
I-3	0.00	0.00	7.80	0.00	1.36	0.00	0.00	0.36	0.00	0.00	44.21	48.54	0.00	0.49	0.00	4,496.11	4,496.10	2.01
I-4	0.00	0.00	7.80	0.00	1.26	0.00	0.00	0.54	0.00	0.00	50.12	52.32	0.00	0.68	0.00	4,495.82	4,495.80	2.69
I-5	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,496.46	4,496.46	2.59
I-6	0.00	0.00	7.80	0.00	1.19	0.00	0.00	0.71	0.00	0.00	53.02	55.32	0.00	0.86	0.00	4,495.56	4,495.54	2.87
I-7	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,496.16	4,496.16	2.59
I-8	0.00	0.00	7.80	0.00	1.14	0.00	0.00	0.89	0.00	0.00	55.96	57.71	0.00	1.02	0.00	4,495.30	4,495.27	3.04
I-12	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.56	4,495.56	2.59
I-13	0.00	0.00	7.80	0.00	1.03	0.00	0.00	1.25	0.00	0.00	60.76	62.08	0.00	1.30	0.00	4,495.08	4,495.07	1.32
I-14	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.28	4,495.28	2.59
I-15	0.14	0.85	1.50	0.18	1.50	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.33	4,495.33	2.06
I-16	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.12	4,495.12	1.42
I-17	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.10	4,495.10	1.37
I-18	0.00	0.00	7.80	0.00	0.83	0.00	0.00	1.90	0.00	0.00	70.25	70.25	0.00	1.60	0.00	4,495.03	4,495.03	0.91
I-20	0.00	0.00	7.80	0.00	0.88	0.00	0.00	1.55	0.00	0.00	68.18	68.20	0.00	1.38	0.00	4,495.05	4,495.05	0.78
I-21	0.00	0.00	7.80	0.00	0.93	0.00	0.00	1.43	0.00	0.00	66.19	66.39	0.00	1.33	0.00	4,495.06	4,495.06	0.77
I-22	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,498.87	4,498.87	2.59
I-23	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,498.19	4,498.19	2.59
I-24	0.00	0.00	7.80	0.00	1.43	0.00	0.00	0.36	0.00	0.00	43.51	45.46	0.00	0.51	0.00	4,497.62	4,497.60	2.50
I-25	0.28	0.85	1.50	0.36	1.50	0.24	0.00	0.24	2.50	0.00	0.00	42.50	0.00	0.36	0.00	4,496.86	4,496.86	2.60
I-26	0.00	0.00	7.80	0.00	1.23	0.00	0.00	0.60	0.00	0.00	51.64	53.67	0.00	0.74	0.00	4,496.23	4,496.20	2.89
I-27	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,497.08	4,497.08	2.59
I-29	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,496.55	4,496.55	2.39
I-31	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,496.08	4,496.08	2.39
I-32	0.00	0.00	7.80	0.00	1.14	0.00	0.00	1.13	0.00	0.00	57.10	57.66	0.00	1.29	0.00	4,495.31	4,495.30	1.97
I-33	0.00	0.00	7.80	0.00	1.16	0.00	0.00	0.95	0.00	0.00	55.88	56.46	0.00	1.12	0.00	4,495.48	4,495.45	3.27
I-34	0.00	0.00	7.80	0.00	1.20	0.00	0.00	0.77	0.00	0.00	54.10	54.93	0.00	0.94	0.00	4,495.96	4,495.93	3.10
I-35	0.14	0.85	1.50	0.18	1.50	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.03	4,496.03	2.68
I-36	0.00	0.00	7.80	0.00	1.12	0.00	0.00	1.25	0.00	0.00	58.07	58.14	0.00	1.42	0.00	4,495.29	4,495.28	1.73
I-37	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.61	4,495.61	2.59
I-38	0.00	0.00	7.80	0.00	1.11	0.00	0.00	1.43	0.00	0.00	58.68	58.69	0.00	1.60	0.00	4,495.25	4,495.24	1.88
I-39	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.16	4,495.16	2.12
I-40	0.00	0.00	7.80	0.00	1.09	0.00	0.00	1.61	0.00	0.00	59.57	59.57	0.00	1.77	0.00	4,495.13	4,495.13	1.44
I-41	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.14	4,495.14	1.37
I-42	0.00	0.00	7.80	0.00	1.06	0.00	0.00	1.79	0.00	0.00	60.89	60.89	0.00	1.90	0.00	4,495.08	4,495.07	1.55
I-43	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,497.35	4,497.35	2.59

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	1.49	0.00	0.00	0.18	0.00	0.00	42.67	42.92	0.00	0.27	0.00	4,496.32	4,496.31	1.70
I-45	0.21	0.85	1.50	0.27	1.50	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.27	0.00	4,495.82	4,495.82	2.59
I-46	0.00	0.00	7.80	0.00	1.08	0.00	0.00	1.07	0.00	0.00	59.55	59.82	0.00	1.17	0.00	4,495.09	4,495.08	1.99
I-47	0.00	0.00	7.80	0.00	0.87	0.00	0.00	1.73	0.00	0.00	68.56	68.56	0.00	1.52	0.00	4,495.05	4,495.04	0.86
I-48	33.10	0.25	1.50	12.51	1.50	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	12.51	0.00	4,495.58	4,495.58	4.71
Outlet	N/A	N/A	N/A	N/A	0.76	N/A	N/A	11.96	N/A	0.00	73.40	73.40	N/A	9.15	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.32	4,496.32	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.33	N/A	N/A	0.36	N/A	0.00	48.81	49.59	N/A	0.48	N/A	4,495.96	4,495.92	2.32
SDMH-3A	N/A	N/A	N/A	N/A	0.97	N/A	N/A	1.25	N/A	0.00	63.71	64.56	N/A	1.22	N/A	4,495.07	4,495.06	0.85
SDMH-3	N/A	N/A	N/A	N/A	1.09	N/A	N/A	0.89	N/A	0.00	58.28	59.43	N/A	0.98	N/A	4,495.12	4,495.09	1.80
SDMH-4	N/A	N/A	N/A	N/A	1.50	N/A	N/A	8.28	N/A	0.00	42.59	42.60	N/A	12.49	N/A	4,495.51	4,495.31	5.08
SDMH-5	N/A	N/A	N/A	N/A	0.79	N/A	N/A	11.96	N/A	0.00	72.13	72.13	N/A	9.51	N/A	4,493.83	4,493.65	4.49
SDMH-6	N/A	N/A	N/A	N/A	1.49	N/A	N/A	0.18	N/A	0.00	42.73	42.90	N/A	0.27	N/A	4,497.87	4,497.82	2.08
SDMH-7	N/A	N/A	N/A	N/A	1.30	N/A	N/A	0.36	N/A	0.00	46.91	50.93	N/A	0.47	N/A	4,496.65	4,496.57	2.53
SDMH-8	N/A	N/A	N/A	N/A	1.19	N/A	N/A	0.77	N/A	0.00	55.16	55.51	N/A	0.93	N/A	4,495.79	4,495.72	3.09
SDMH-9	N/A	N/A	N/A	N/A	1.09	N/A	N/A	1.43	N/A	0.00	59.54	59.54	N/A	1.57	N/A	4,495.15	4,495.13	1.28
SDMH-9A	N/A	N/A	N/A	N/A	0.79	N/A	N/A	3.69	N/A	0.00	72.10	72.10	N/A	2.94	N/A	4,495.02	4,494.36	8.41

5yr.
42.5min/10min



Detailed Report for Outlet

Flows			
Total Discharge	6.40 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	6.40 cfs

Watershed Data			
System Intensity	0.53 in/hr	Upstream CA	11.96 acres
Total CA	11.96 acres		

Flow Times			
System Flow Time	46.04 min	Upstream Flow Time	46.04 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	1.31	0.47	36.00	0.002778	12 inch	0.013	2.09	4,496.10	4,495.96	4,496.16	4,496.04	2.17	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.04	4,496.26	4,497.14	4,496.55	3.44	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	1.29	0.47	64.00	0.002656	15 inch	0.010	4.33	4,495.92	4,495.82	4,496.00	4,495.86	1.99	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.75	4,495.97	4,496.85	4,496.26	3.44	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.26	0.68	00.00	0.003000	15 inch	0.010	4.60	4,495.80	4,495.57	4,495.91	4,495.63	2.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.45	4,495.67	4,496.55	4,495.96	3.44	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.22	0.88	00.00	0.003000	15 inch	0.010	4.60	4,495.54	4,495.41	4,495.67	4,495.45	2.31	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,496.15	4,495.37	4,496.25	4,495.66	3.44	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.18	1.06	86.00	0.003488	15 inch	0.010	4.96	4,495.39	4,495.39	4,495.47	4,495.42	1.71	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.12	1.41	09.00	0.002936	18 inch	0.010	7.40	4,495.37	4,495.37	4,495.39	4,495.38	0.91	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.55	4,495.38	4,495.65	4,495.40	1.91	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.00	1.91	01.00	0.003861	18 inch	0.010	8.49	4,495.32	4,495.30	4,495.33	4,495.31	1.08	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.38	4,495.32	4,495.40	4,495.34	1.28	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	1.40	0.17	53.00	0.020000	4 inch	0.010	0.35	4,495.58	4,495.34	4,495.64	4,495.40	1.92	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.09	1.37	76.00	0.003816	18 inch	0.010	8.43	4,495.36	4,495.35	4,495.37	4,495.36	0.78	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.07	1.54	82.00	0.003780	18 inch	0.010	8.40	4,495.35	4,495.34	4,495.36	4,495.35	0.87	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.40	4,495.35	4,495.44	4,495.38	1.42	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,498.86	4,497.82	4,498.96	4,498.11	3.44	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	1.39	0.25	60.00	0.005000	12 inch	0.013	2.81	4,497.81	4,497.61	4,497.87	4,497.63	1.60	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	1.35	0.49	01.00	0.004925	12 inch	0.013	2.79	4,497.59	4,496.64	4,497.69	4,496.71	2.26	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	1.40	0.25	23.00	0.020000	6 inch	0.010	1.03	4,498.18	4,497.64	4,498.28	4,497.93	3.44	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	1.26	0.45	90.00	0.004889	12 inch	0.010	3.61	4,496.57	4,496.23	4,496.66	4,496.27	2.07	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	1.40	0.34	28.00	0.020000	8 inch	0.010	2.22	4,496.85	4,496.20	4,496.95	4,496.52	3.57	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.07	4,495.60	4,496.16	4,495.61	1.53	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.18	0.92	62.00	0.005000	12 inch	0.010	3.65	4,495.72	4,495.63	4,495.86	4,495.67	2.41	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.15	1.11	94.00	0.004894	12 inch	0.010	3.61	4,495.61	4,495.60	4,495.69	4,495.63	1.74	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	8 inch	0.010	2.22	4,496.54	4,495.63	4,496.63	4,495.68	2.09	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.22	0.73	66.00	0.004848	12 inch	0.010	3.60	4,496.20	4,495.96	4,496.33	4,496.03	2.55	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.19	0.93	38.00	0.005000	12 inch	0.010	3.65	4,495.93	4,495.79	4,496.08	4,495.90	2.86	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,497.07	4,496.03	4,497.17	4,496.32	3.44	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.12	1.28	44.00	0.005000	12 inch	0.010	3.65	4,495.60	4,495.57	4,495.63	4,495.60	1.50	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	1.40	0.17	48.00	0.020000	4 inch	0.010	0.35	4,496.02	4,495.57	4,496.13	4,495.63	2.26	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.11	1.40	55.00	0.004909	12 inch	0.010	3.62	4,495.56	4,495.52	4,495.60	4,495.56	1.64	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.10	1.58	96.00	0.004896	12 inch	0.010	3.61	4,495.51	4,495.42	4,495.56	4,495.47	1.85	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.60	4,495.52	4,495.70	4,495.55	1.91	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.08	1.56	2.00	0.005000	15 inch	0.010	5.94	4,495.41	4,495.41	4,495.43	4,495.43	1.27	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.46	4,495.41	4,495.49	4,495.43	1.28	4,494.85

Pipe Report

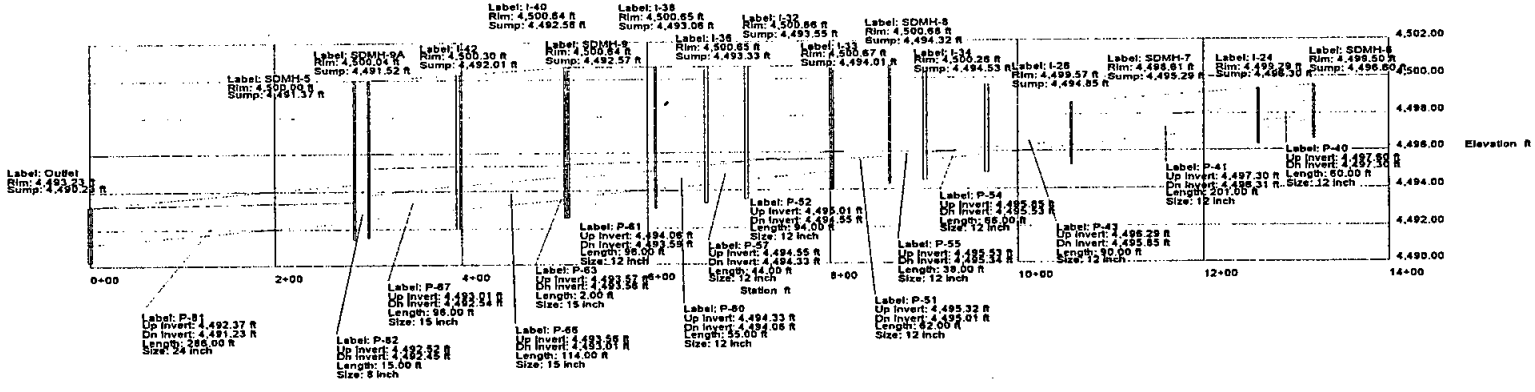
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.08	1.75	14.00	0.004825	15 inch	0.010	5.83	4,495.40	4,495.35	4,495.43	4,495.38	1.43	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.05	1.88	96.00	0.004896	15 inch	0.010	5.88	4,495.34	4,495.30	4,495.38	4,495.33	1.53	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	1.40	0.25	48.00	0.020000	6 inch	0.010	1.03	4,495.41	4,495.35	4,495.43	4,495.38	1.28	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	2.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.31	4,496.31	4,496.31	4,496.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	1.39	0.25	06.00	0.002830	12 inch	0.013	2.11	4,496.30	4,496.11	4,496.35	4,496.12	1.34	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,497.34	4,496.56	4,497.44	4,496.85	3.44	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.15	1.04	13.00	0.003077	18 inch	0.010	7.57	4,495.38	4,495.38	4,495.40	4,495.40	1.03	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.15	1.24	90.00	0.003000	18 inch	0.010	7.48	4,495.38	4,495.38	4,495.40	4,495.39	1.04	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	1.40	0.25	35.00	0.020000	6 inch	0.010	1.03	4,495.81	4,495.38	4,495.91	4,495.41	1.91	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.04	1.62	17.00	0.003529	18 inch	0.010	8.11	4,495.34	4,495.33	4,495.35	4,495.35	0.92	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.03	1.80	87.00	0.003793	18 inch	0.010	8.41	4,495.33	4,495.32	4,495.35	4,495.33	1.02	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	1.40	0.25	53.00	0.020000	6 inch	0.010	1.03	4,495.40	4,495.33	4,495.42	4,495.36	1.28	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	0.55	6.57	86.00	0.003986	24 inch	0.013	14.28	4,493.42	4,493.23	4,493.66	4,493.30	3.00	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.95	3.55	15.00	0.004667	8 inch	0.010	1.07	4,494.33	4,493.57	4,495.94	4,495.17	10.16	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	0.56	4.70	25.00	0.004000	24 inch	0.013	14.31	4,494.81	4,494.77	4,495.05	4,494.97	3.77	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	0.56	4.69	63.00	0.003912	24 inch	0.013	14.15	4,494.64	4,493.57	4,494.90	4,493.67	3.29	4,493.85

Node Report

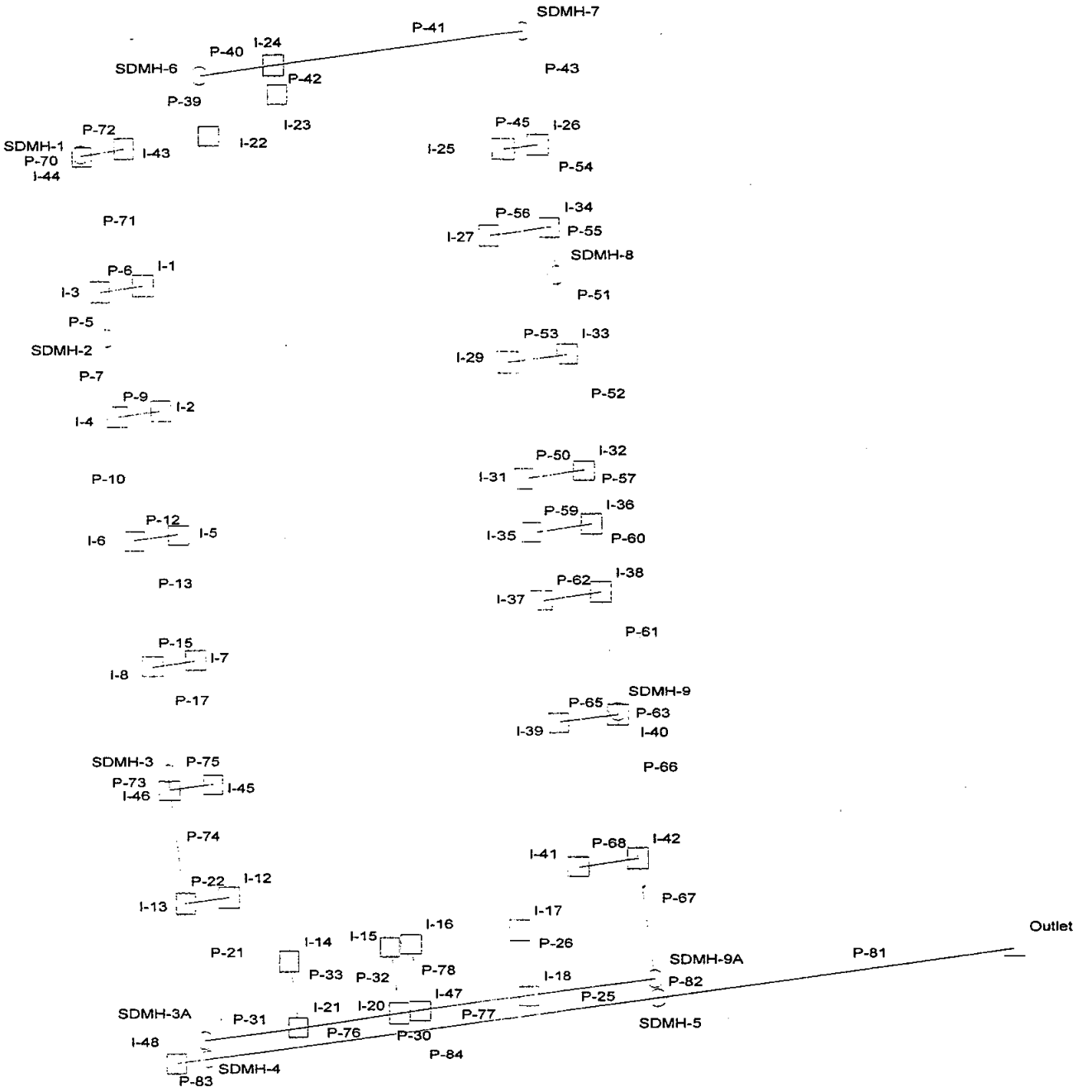
Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.04	4,497.04	2.53
I-2	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.75	4,496.75	2.53
I-3	0.00	0.00	2.80	0.00	1.31	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	0.47	0.00	4,496.11	4,496.10	1.99
I-4	0.00	0.00	2.80	0.00	1.26	0.00	0.00	0.54	0.00	0.00	12.31	12.31	0.00	0.68	0.00	4,495.82	4,495.80	2.69
I-5	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.45	4,496.45	2.53
I-6	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.71	0.00	0.00	13.01	13.01	0.00	0.88	0.00	4,495.57	4,495.54	2.89
I-7	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.15	4,496.15	2.53
I-8	0.00	0.00	2.80	0.00	1.18	0.00	0.00	0.89	0.00	0.00	13.73	13.63	0.00	1.06	0.00	4,495.41	4,495.39	2.19
I-12	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.55	4,495.55	2.53
I-13	0.00	0.00	2.80	0.00	1.12	0.00	0.00	1.25	0.00	0.00	15.64	14.71	0.00	1.41	0.00	4,495.38	4,495.37	1.00
I-14	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.40	4,495.40	1.56
I-15	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,495.58	4,495.58	1.92
I-16	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.40	4,495.40	1.28
I-17	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.38	4,495.38	1.28
I-18	0.00	0.00	2.80	0.00	1.00	0.00	0.00	1.90	0.00	0.00	18.77	18.66	0.00	1.91	0.00	4,495.32	4,495.32	1.08
I-20	0.00	0.00	2.80	0.00	1.04	0.00	0.00	1.55	0.00	0.00	17.60	17.08	0.00	1.62	0.00	4,495.34	4,495.34	0.92
I-21	0.00	0.00	2.80	0.00	1.07	0.00	0.00	1.43	0.00	0.00	16.99	16.03	0.00	1.54	0.00	4,495.35	4,495.35	0.87
I-22	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.86	4,498.86	2.53
I-23	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,498.18	4,498.18	2.53
I-24	0.00	0.00	2.80	0.00	1.35	0.00	0.00	0.36	0.00	0.00	10.86	10.86	0.00	0.49	0.00	4,497.61	4,497.59	2.46
I-25	0.28	0.85	1.40	0.34	1.40	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.34	0.00	4,496.85	4,496.85	2.54
I-26	0.00	0.00	2.80	0.00	1.22	0.00	0.00	0.60	0.00	0.00	13.07	13.07	0.00	0.73	0.00	4,496.23	4,496.20	2.88
I-27	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.07	4,497.07	2.53
I-29	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.54	4,496.54	2.33
I-31	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,496.07	4,496.07	2.33
I-32	0.00	0.00	2.80	0.00	1.12	0.00	0.00	1.13	0.00	0.00	14.99	14.61	0.00	1.28	0.00	4,495.60	4,495.60	1.50
I-33	0.00	0.00	2.80	0.00	1.15	0.00	0.00	0.95	0.00	0.00	14.15	14.09	0.00	1.11	0.00	4,495.63	4,495.61	2.17
I-34	0.00	0.00	2.80	0.00	1.19	0.00	0.00	0.77	0.00	0.00	13.50	13.50	0.00	0.93	0.00	4,495.96	4,495.93	3.09
I-35	0.14	0.85	1.40	0.17	1.40	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.17	0.00	4,496.02	4,496.02	2.60
I-36	0.00	0.00	2.80	0.00	1.11	0.00	0.00	1.25	0.00	0.00	15.10	14.84	0.00	1.40	0.00	4,495.57	4,495.56	1.64
I-37	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.60	4,495.60	2.53
I-38	0.00	0.00	2.80	0.00	1.10	0.00	0.00	1.43	0.00	0.00	15.40	15.12	0.00	1.58	0.00	4,495.52	4,495.51	1.85
I-39	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.46	4,495.46	1.28
I-40	0.00	0.00	2.80	0.00	1.08	0.00	0.00	1.61	0.00	0.00	15.72	15.71	0.00	1.75	0.00	4,495.41	4,495.40	1.43
I-41	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.41	4,495.41	1.28
I-42	0.00	0.00	2.80	0.00	1.05	0.00	0.00	1.79	0.00	0.00	17.04	16.92	0.00	1.88	0.00	4,495.35	4,495.34	1.53
I-43	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,497.34	4,497.34	2.53

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	1.39	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.25	0.00	4,496.31	4,496.30	1.67
I-45	0.21	0.85	1.40	0.25	1.40	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.25	0.00	4,495.81	4,495.81	2.53
I-46	0.00	0.00	2.80	0.00	1.15	0.00	0.00	1.07	0.00	0.00	14.33	14.20	0.00	1.24	0.00	4,495.38	4,495.38	1.20
I-47	0.00	0.00	2.80	0.00	1.03	0.00	0.00	1.73	0.00	0.00	17.39	17.34	0.00	1.80	0.00	4,495.33	4,495.33	1.02
I-48	33.10	0.25	0.56	4.70	0.56	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	4.70	0.00	4,494.81	4,494.81	3.95
Outlet	N/A	N/A	N/A	N/A	0.53	N/A	N/A	11.96	N/A	0.00	46.04	46.04	N/A	6.40	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.31	4,496.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	1.29	N/A	N/A	0.36	N/A	0.00	11.77	11.77	N/A	0.47	N/A	4,495.96	4,495.92	2.30
SDMH-3A	N/A	N/A	N/A	N/A	1.09	N/A	N/A	1.25	N/A	0.00	16.71	15.37	N/A	1.37	N/A	4,495.37	4,495.36	0.79
SDMH-3	N/A	N/A	N/A	N/A	1.15	N/A	N/A	0.89	N/A	0.00	14.47	14.12	N/A	1.04	N/A	4,495.39	4,495.38	1.06
SDMH-4	N/A	N/A	N/A	N/A	0.56	N/A	N/A	8.28	N/A	0.00	42.61	42.61	N/A	4.69	N/A	4,494.77	4,494.64	4.05
SDMH-5	N/A	N/A	N/A	N/A	0.55	N/A	N/A	11.96	N/A	0.00	44.45	44.45	N/A	6.57	N/A	4,493.57	4,493.42	3.91
SDMH-6	N/A	N/A	N/A	N/A	1.39	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.25	N/A	4,497.86	4,497.81	2.04
SDMH-7	N/A	N/A	N/A	N/A	1.26	N/A	N/A	0.36	N/A	0.00	12.34	12.34	N/A	0.45	N/A	4,496.64	4,496.57	2.51
SDMH-8	N/A	N/A	N/A	N/A	1.18	N/A	N/A	0.77	N/A	0.00	13.72	13.72	N/A	0.92	N/A	4,495.79	4,495.72	3.08
SDMH-9	N/A	N/A	N/A	N/A	1.08	N/A	N/A	1.43	N/A	0.00	15.98	15.69	N/A	1.56	N/A	4,495.42	4,495.41	1.27
SDMH-9A	N/A	N/A	N/A	N/A	0.95	N/A	N/A	3.69	N/A	0.00	20.21	20.21	N/A	3.55	N/A	4,495.30	4,494.33	10.16



25 yr.
42.5 mm/10min



Detailed Report for Outlet

Flows					
Total Discharge	11.27	cfs	Known Flow	0.00	cfs
Upstream Additional + Carryover	0.00	cfs	Total Watershed (CIA)	11.27	cfs

Watershed Data					
System Intensity	0.93	in/hr	Upstream CA	11.96	acres
Total CA	11.96	acres			

Flow Times					
System Flow Time	45.32	min	Upstream Flow Time	45.32	min

Elevations					
HGL In	4,493.23	ft	HGL Out	4,493.23	ft
Ground Elevation	4,491.23	ft	Rim Elevation	4,493.23	ft
Sump Elevation	4,490.23	ft			

Other Properties					
X	158,763.87	ft	Y	722,082.58	ft
Velocity	0.00	ft/s	Headloss	0.00	ft
Headloss Coefficient	0.00		Station	0+00	ft
External Flow	0.00	cfs			

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficien	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructe Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	2.15	0.77	36.00	0.002778	12 inch	0.013	2.09	4,497.29	4,497.28	4,497.31	4,497.29	0.91	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.43	4,497.29	4,497.51	4,497.38	2.30	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	2.08	0.75	64.00	0.002656	15 inch	0.010	4.33	4,497.28	4,497.27	4,497.28	4,497.28	0.61	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.41	4,497.27	4,497.49	4,497.35	2.30	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	1.95	1.05	00.00	0.003000	15 inch	0.010	4.60	4,497.27	4,497.25	4,497.28	4,497.26	0.86	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.39	4,497.25	4,497.47	4,497.34	2.30	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	1.84	1.32	00.00	0.003000	15 inch	0.010	4.60	4,497.25	4,497.22	4,497.27	4,497.24	1.08	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.36	4,497.22	4,497.44	4,497.31	2.30	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	1.75	1.58	86.00	0.003488	15 inch	0.010	4.96	4,497.22	4,497.19	4,497.25	4,497.21	1.29	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	1.60	2.02	09.00	0.002936	18 inch	0.010	7.40	4,497.16	4,497.13	4,497.18	4,497.15	1.14	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.30	4,497.16	4,497.38	4,497.24	2.30	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	1.31	2.52	01.00	0.003861	18 inch	0.010	8.49	4,497.04	4,497.01	4,497.07	4,497.04	1.43	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,497.24	4,497.04	4,497.33	4,497.12	2.30	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	2.51	0.30	53.00	0.020000	4 inch	0.010	0.35	4,497.87	4,497.08	4,498.05	4,497.27	3.45	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	1.51	1.91	76.00	0.003816	18 inch	0.010	8.43	4,497.12	4,497.11	4,497.14	4,497.12	1.08	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	1.45	2.09	82.00	0.003780	18 inch	0.010	8.40	4,497.10	4,497.08	4,497.12	4,497.10	1.18	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,497.31	4,497.11	4,497.39	4,497.19	2.30	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.95	4,498.22	4,499.11	4,498.30	2.72	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	2.48	0.45	60.00	0.005000	12 inch	0.013	2.81	4,498.21	4,498.21	4,498.22	4,498.21	0.71	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	2.37	0.85	01.00	0.004925	12 inch	0.013	2.79	4,498.20	4,498.11	4,498.22	4,498.13	1.04	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	2.51	0.45	23.00	0.020000	6 inch	0.010	1.03	4,498.27	4,498.21	4,498.43	4,498.29	2.72	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	2.07	0.75	90.00	0.004889	12 inch	0.010	3.61	4,498.10	4,498.08	4,498.12	4,498.10	0.87	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	2.51	0.60	28.00	0.020000	8 inch	0.010	2.22	4,498.13	4,498.08	4,498.17	4,498.13	1.73	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,497.85	4,497.81	4,497.87	4,497.83	1.29	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	1.88	1.47	62.00	0.005000	12 inch	0.010	3.65	4,497.98	4,497.93	4,498.03	4,497.98	1.72	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	1.85	1.77	94.00	0.004894	12 inch	0.010	3.61	4,497.92	4,497.81	4,497.99	4,497.87	2.08	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	8 inch	0.010	2.22	4,497.97	4,497.93	4,498.00	4,497.96	1.29	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	1.94	1.17	66.00	0.004848	12 inch	0.010	3.60	4,498.08	4,498.05	4,498.11	4,498.07	1.37	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	1.90	1.48	38.00	0.005000	12 inch	0.010	3.65	4,498.04	4,498.00	4,498.08	4,498.05	1.74	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,498.23	4,498.05	4,498.31	4,498.13	2.30	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	1.81	2.06	44.00	0.005000	12 inch	0.010	3.65	4,497.79	4,497.72	4,497.88	4,497.81	2.42	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	2.51	0.30	48.00	0.020000	4 inch	0.010	0.35	4,498.43	4,497.72	4,498.62	4,497.90	3.45	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	1.79	2.25	55.00	0.004909	12 inch	0.010	3.62	4,497.70	4,497.59	4,497.81	4,497.70	2.64	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	1.77	2.55	96.00	0.004896	12 inch	0.010	3.61	4,497.56	4,497.33	4,497.70	4,497.47	2.99	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,497.78	4,497.59	4,497.86	4,497.67	2.30	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	1.74	2.51	2.00	0.005000	15 inch	0.010	5.94	4,497.30	4,497.30	4,497.36	4,497.36	2.04	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,497.48	4,497.30	4,497.56	4,497.38	2.30	4,494.85

Pipe Report

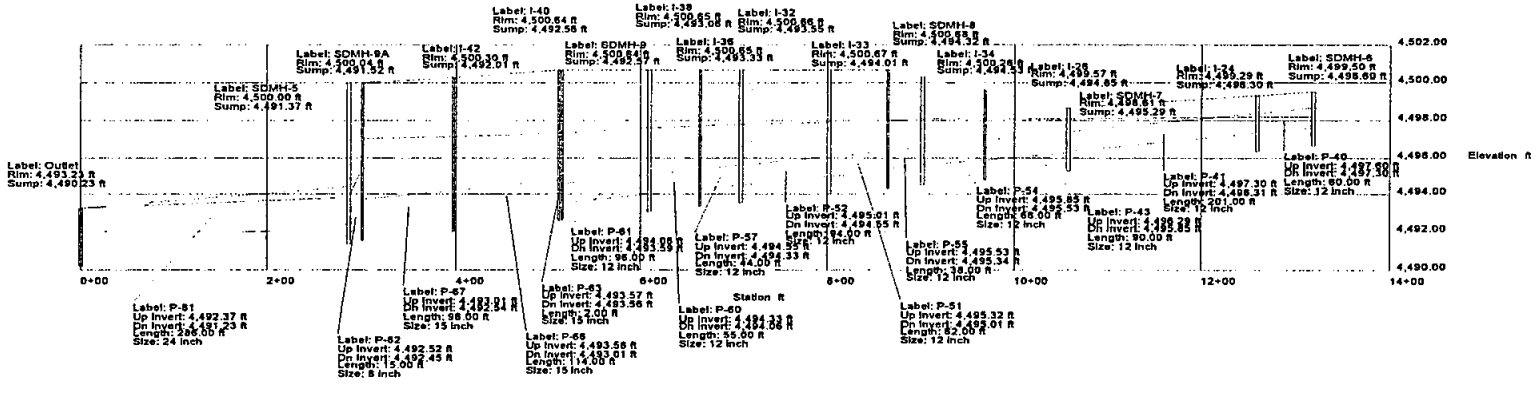
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	1.74	2.82	14.00	0.004825	15 inch	0.010	5.83	4,497.28	4,497.15	4,497.36	4,497.23	2.30	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	1.70	3.05	96.00	0.004896	15 inch	0.010	5.88	4,497.13	4,497.01	4,497.23	4,497.10	2.49	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	2.51	0.45	48.00	0.020000	6 inch	0.010	1.03	4,497.34	4,497.15	4,497.42	4,497.23	2.30	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,497.31	4,497.31	4,497.31	4,497.31	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	2.49	0.45	06.00	0.002830	12 inch	0.013	2.11	4,497.31	4,497.29	4,497.31	4,497.30	0.53	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.43	4,497.31	4,497.59	4,497.39	2.72	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	1.69	1.52	13.00	0.003077	18 inch	0.010	7.57	4,497.18	4,497.18	4,497.19	4,497.19	0.86	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	1.68	1.81	90.00	0.003000	18 inch	0.010	7.48	4,497.18	4,497.16	4,497.19	4,497.18	1.03	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	2.51	0.45	35.00	0.020000	6 inch	0.010	1.03	4,497.32	4,497.18	4,497.40	4,497.26	2.30	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	1.39	2.16	17.00	0.003529	18 inch	0.010	8.11	4,497.08	4,497.07	4,497.10	4,497.10	1.22	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	1.37	2.39	87.00	0.003793	18 inch	0.010	8.41	4,497.07	4,497.04	4,497.10	4,497.07	1.35	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	2.51	0.45	53.00	0.020000	6 inch	0.010	1.03	4,497.28	4,497.07	4,497.36	4,497.16	2.30	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	0.95	11.50	86.00	0.003986	24 inch	0.013	14.28	4,493.84	4,493.23	4,494.17	4,493.44	4.16	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	1.25	4.65	15.00	0.004667	8 inch	0.010	1.07	4,495.35	4,494.04	4,498.11	4,496.80	13.32	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	0.98	8.17	25.00	0.004000	24 inch	0.013	14.31	4,495.15	4,495.11	4,495.45	4,495.37	4.24	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	0.98	8.16	63.00	0.003912	24 inch	0.013	14.15	4,494.94	4,494.04	4,495.28	4,494.18	3.84	4,493.85

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.43	4,497.43	2.30
I-2	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.41	4,497.41	2.30
I-3	0.00	0.00	5.29	0.00	2.15	0.00	0.00	0.36	0.00	0.00	13.58	13.58	0.00	0.77	0.00	4,497.29	4,497.29	0.91
I-4	0.00	0.00	5.29	0.00	1.95	0.00	0.00	0.54	0.00	0.00	15.99	15.99	0.00	1.05	0.00	4,497.27	4,497.27	0.86
I-5	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.39	4,497.39	2.30
I-6	0.00	0.00	5.29	0.00	1.84	0.00	0.00	0.71	0.00	0.00	17.94	17.94	0.00	1.32	0.00	4,497.25	4,497.25	1.08
I-7	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.36	4,497.36	2.30
I-8	0.00	0.00	5.29	0.00	1.75	0.00	0.00	0.89	0.00	0.00	19.48	19.48	0.00	1.58	0.00	4,497.22	4,497.22	1.29
I-12	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.30	4,497.30	2.30
I-13	0.00	0.00	5.29	0.00	1.60	0.00	0.00	1.25	0.00	0.00	22.31	22.31	0.00	2.02	0.00	4,497.16	4,497.16	1.14
I-14	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.31	4,497.31	2.30
I-15	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,497.87	4,497.87	3.45
I-16	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.28	4,497.28	2.30
I-17	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.24	4,497.24	2.30
I-18	0.00	0.00	5.29	0.00	1.31	0.00	0.00	1.90	0.00	0.00	27.54	27.54	0.00	2.52	0.00	4,497.04	4,497.04	1.43
I-20	0.00	0.00	5.29	0.00	1.39	0.00	0.00	1.55	0.00	0.00	26.23	26.23	0.00	2.16	0.00	4,497.08	4,497.08	1.22
I-21	0.00	0.00	5.29	0.00	1.45	0.00	0.00	1.43	0.00	0.00	25.08	25.08	0.00	2.09	0.00	4,497.11	4,497.10	1.18
I-22	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.95	4,498.95	3.15
I-23	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.27	4,498.27	3.15
I-24	0.00	0.00	5.29	0.00	2.37	0.00	0.00	0.36	0.00	0.00	11.69	11.36	0.00	0.85	0.00	4,498.21	4,498.20	1.09
I-25	0.28	0.85	2.51	0.60	2.51	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.60	0.00	4,498.13	4,498.13	1.73
I-26	0.00	0.00	5.29	0.00	1.94	0.00	0.00	0.60	0.00	0.00	16.02	16.02	0.00	1.17	0.00	4,498.08	4,498.08	1.37
I-27	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,498.23	4,498.23	2.30
I-29	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.97	4,497.97	1.29
I-31	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.85	4,497.85	1.29
I-32	0.00	0.00	5.29	0.00	1.81	0.00	0.00	1.13	0.00	0.00	18.54	18.54	0.00	2.06	0.00	4,497.81	4,497.79	2.42
I-33	0.00	0.00	5.29	0.00	1.85	0.00	0.00	0.95	0.00	0.00	17.79	17.79	0.00	1.77	0.00	4,497.93	4,497.92	2.08
I-34	0.00	0.00	5.29	0.00	1.90	0.00	0.00	0.77	0.00	0.00	16.83	16.83	0.00	1.48	0.00	4,498.05	4,498.04	1.74
I-35	0.14	0.85	2.51	0.30	2.51	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.30	0.00	4,498.43	4,498.43	3.45
I-36	0.00	0.00	5.29	0.00	1.79	0.00	0.00	1.25	0.00	0.00	18.85	18.85	0.00	2.25	0.00	4,497.72	4,497.70	2.64
I-37	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.78	4,497.78	2.30
I-38	0.00	0.00	5.29	0.00	1.77	0.00	0.00	1.43	0.00	0.00	19.19	19.19	0.00	2.55	0.00	4,497.59	4,497.56	2.99
I-39	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.48	4,497.48	2.30
I-40	0.00	0.00	5.29	0.00	1.74	0.00	0.00	1.61	0.00	0.00	19.75	19.75	0.00	2.82	0.00	4,497.30	4,497.28	2.30
I-41	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.34	4,497.34	2.30
I-42	0.00	0.00	5.29	0.00	1.70	0.00	0.00	1.79	0.00	0.00	20.57	20.57	0.00	3.05	0.00	4,497.15	4,497.13	2.49
I-43	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.43	4,497.43	3.15

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	2.49	0.00	0.00	0.18	0.00	0.00	10.21	10.21	0.00	0.45	0.00	4,497.31	4,497.31	0.53
I-45	0.21	0.85	2.51	0.45	2.51	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.45	0.00	4,497.32	4,497.32	2.30
I-46	0.00	0.00	5.29	0.00	1.68	0.00	0.00	1.07	0.00	0.00	20.85	20.85	0.00	1.81	0.00	4,497.18	4,497.18	1.03
I-47	0.00	0.00	5.29	0.00	1.37	0.00	0.00	1.73	0.00	0.00	26.47	26.47	0.00	2.39	0.00	4,497.07	4,497.07	1.35
I-48	33.10	0.25	0.98	8.17	0.98	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	8.17	0.00	4,495.15	4,495.15	4.36
Outlet	N/A	N/A	N/A	N/A	0.93	N/A	N/A	11.96	N/A	0.00	45.32	45.32	N/A	11.27	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,497.31	4,497.31	0.00
SDMH-2	N/A	N/A	N/A	N/A	2.08	N/A	N/A	0.36	N/A	0.00	14.24	14.24	N/A	0.75	N/A	4,497.28	4,497.28	0.61
SDMH-3A	N/A	N/A	N/A	N/A	1.51	N/A	N/A	1.25	N/A	0.00	23.90	23.90	N/A	1.91	N/A	4,497.13	4,497.12	1.08
SDMH-3	N/A	N/A	N/A	N/A	1.69	N/A	N/A	0.89	N/A	0.00	20.60	20.60	N/A	1.52	N/A	4,497.19	4,497.18	0.86
SDMH-4	N/A	N/A	N/A	N/A	0.98	N/A	N/A	8.28	N/A	0.00	42.60	42.60	N/A	8.16	N/A	4,495.11	4,494.94	4.66
SDMH-5	N/A	N/A	N/A	N/A	0.95	N/A	N/A	11.96	N/A	0.00	44.17	44.17	N/A	11.50	N/A	4,494.04	4,493.84	4.65
SDMH-6	N/A	N/A	N/A	N/A	2.48	N/A	N/A	0.18	N/A	0.00	10.29	10.28	N/A	0.45	N/A	4,498.22	4,498.21	0.86
SDMH-7	N/A	N/A	N/A	N/A	2.07	N/A	N/A	0.36	N/A	0.00	14.56	14.31	N/A	0.75	N/A	4,498.11	4,498.10	0.87
SDMH-8	N/A	N/A	N/A	N/A	1.88	N/A	N/A	0.77	N/A	0.00	17.19	17.19	N/A	1.47	N/A	4,498.00	4,497.98	1.72
SDMH-9	N/A	N/A	N/A	N/A	1.74	N/A	N/A	1.43	N/A	0.00	19.73	19.73	N/A	2.51	N/A	4,497.33	4,497.30	2.04
SDMH-9A	N/A	N/A	N/A	N/A	1.25	N/A	N/A	3.69	N/A	0.00	28.72	28.72	N/A	4.65	N/A	4,497.01	4,495.35	13.32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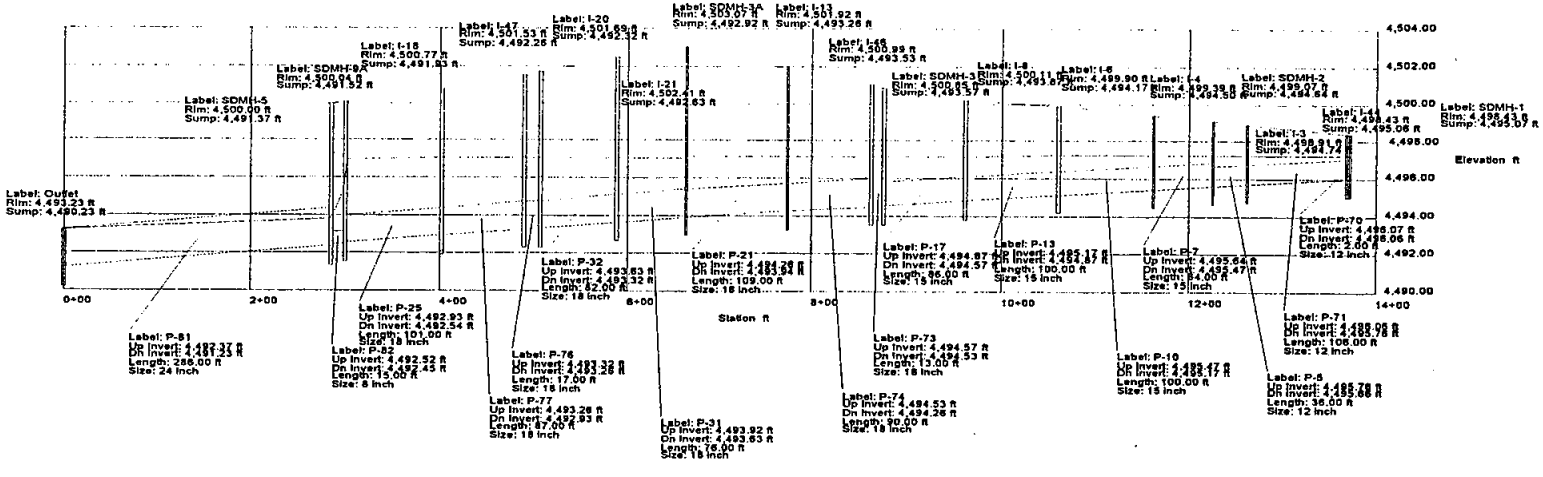
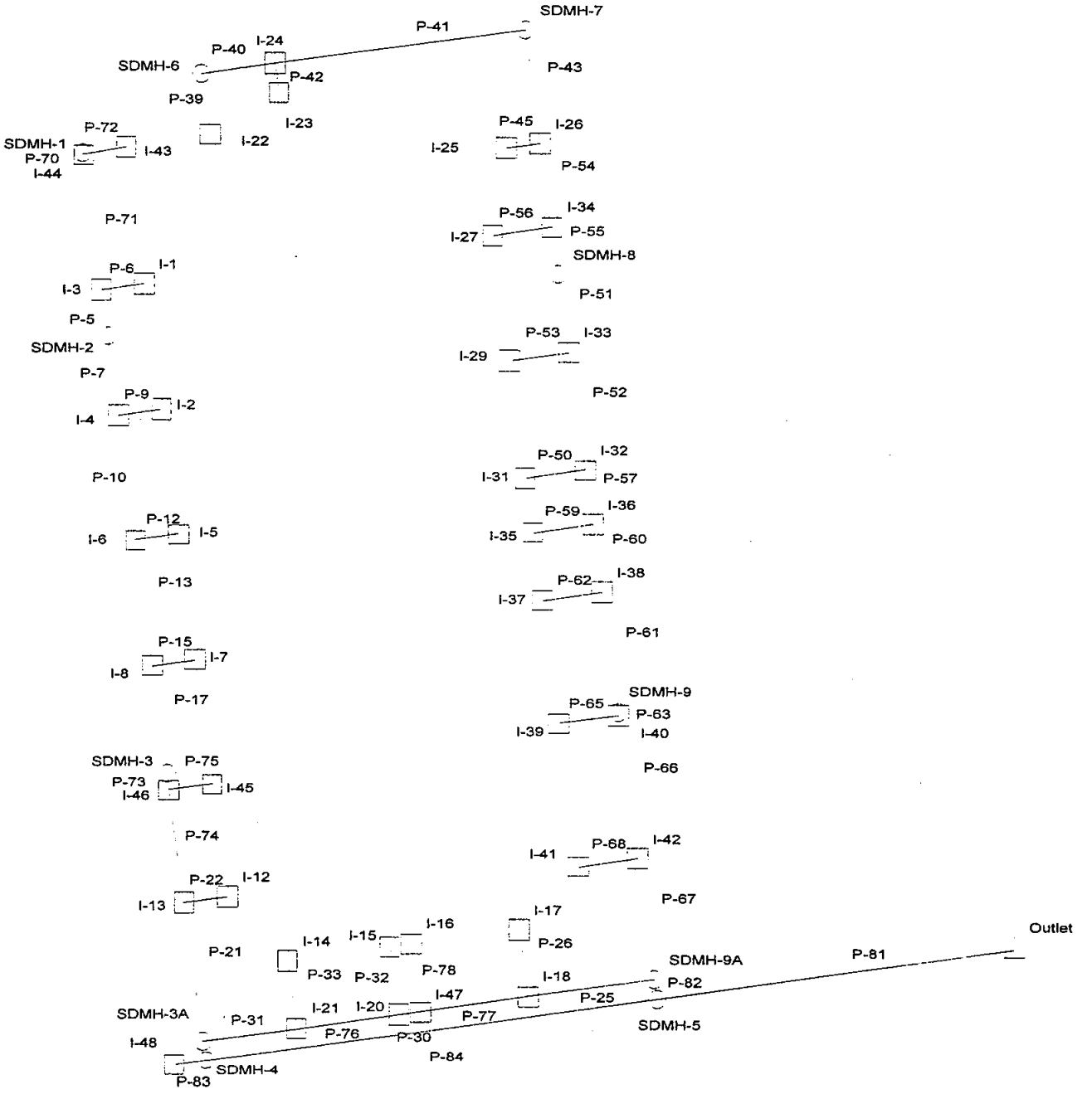
Sump: 4,490.23 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-42
Rim: 4,500.39 ft
Sump: 4,492.01 ft
Label: I-40
Rim: 4,500.64 ft
Sump: 4,492.56 ft
Label: SDMH-9
Rim: 4,500.64 ft
Sump: 4,493.17 ft
Label: I-38
Rim: 4,500.65 ft
Sump: 4,493.08 ft
Label: I-36
Rim: 4,500.65 ft
Sump: 4,493.33 ft
Label: I-32
Rim: 4,500.66 ft
Sump: 4,493.55 ft
Label: I-33
Rim: 4,500.67 ft
Sump: 4,494.01 ft
Label: SDMH-8
Rim: 4,500.65 ft
Sump: 4,494.32 ft
Label: I-34
Rim: 4,500.25 ft
Sump: 4,494.53 ft
Label: I-35
Rim: 4,499.57 ft
Sump: 4,494.85 ft
Label: SDMH-7
Rim: 4,498.61 ft
Sump: 4,495.29 ft
Label: I-24
Rim: 4,499.29 ft
Sump: 4,496.30 ft
Label: SDMH-6
Rim: 4,499.50 ft
Sump: 4,496.80 ft
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,491.23 ft
Length: 286.00 ft
Size: 24 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-67
UP Invert: 4,493.91 ft
DR Invert: 4,492.54 ft
Length: 98.00 ft
Size: 15 inch
Label: P-66
Up Invert: 4,493.56 ft
Dn Invert: 4,493.01 ft
Length: 114.00 ft
Size: 15 inch
Label: P-63
Up Invert: 4,493.57 ft
Dn Invert: 4,493.56 ft
Length: 2.00 ft
Size: 15 inch
Label: P-61
UP Invert: 4,494.08 ft
DR Invert: 4,493.59 ft
Length: 96.00 ft
Size: 12 inch
Label: P-57
Up Invert: 4,494.33 ft
Dn Invert: 4,494.33 ft
Length: 44.00 ft
Size: 12 inch
Label: P-60
Up Invert: 4,494.33 ft
DR Invert: 4,494.06 ft
Length: 55.00 ft
Size: 12 inch
Label: P-52
Up Invert: 4,495.01 ft
Dn Invert: 4,494.55 ft
Length: 194.00 ft
Size: 12 inch
Label: P-55
Up Invert: 4,495.53 ft
Dn Invert: 4,495.34 ft
Length: 38.00 ft
Size: 12 inch
Label: P-51
Up Invert: 4,495.32 ft
Dn Invert: 4,493.01 ft
Length: 82.00 ft
Size: 12 inch
Label: P-54
Up Invert: 4,495.85 ft
Dn Invert: 4,495.53 ft
Length: 68.00 ft
Size: 12 inch
Label: P-43
Up Invert: 4,496.29 ft
Dn Invert: 4,495.85 ft
Length: 90.00 ft
Size: 12 inch
Label: P-41
Up Invert: 4,497.30 ft
Dn Invert: 4,496.31 ft
Length: 201.00 ft
Size: 12 inch
Label: P-40
UP Invert: 4,497.60 ft
DR Invert: 4,497.36 ft
Length: 80.00 ft
Size: 12 inch
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Elevation ft


Label: SDMH-3A
Rim: 4,503.07 ft
Sump: 4,492.92 ft
Label: I-11
Rim: 4,501.92 ft
Sump: 4,493.26 ft
Label: I-20
Rim: 4,501.69 ft
Sump: 4,492.32 ft
Label: I-47
Rim: 4,501.53 ft
Sump: 4,492.28 ft
Label: I-18
Rim: 4,500.77 ft
Sump: 4,491.83 ft
Label: SDMH-6
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: I-21
Rim: 4,502.41 ft
Sump: 4,492.63 ft
Label: I-46
Rim: 4,503.99 ft
Sump: 4,493.53 ft
Label: I-8
Rim: 4,500.11 ft
Sump: 4,493.67 ft
Label: SDMH-3
Rim: 4,500.65 ft
Sump: 4,493.57 ft
Label: I-5
Rim: 4,499.90 ft
Sump: 4,494.17 ft
Label: I-4
Rim: 4,499.38 ft
Sump: 4,494.50 ft
Label: SDMH-2
Rim: 4,499.07 ft
Sump: 4,494.64 ft
Label: I-1
Rim: 4,499.43 ft
Sump: 4,495.06 ft
Label: I-3
Rim: 4,498.91 ft
Sump: 4,494.74 ft
Label: SDMH-1
Rim: 4,498.43 ft
Sump: 4,495.07 ft
Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: P-81
Dn Invert: 4,491.23 ft
Length: 286.00 ft
Size: 24 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-25
Up Invert: 4,492.93 ft
Dn Invert: 4,492.54 ft
Length: 101.00 ft
Size: 18 inch
Label: P-77
Up Invert: 4,493.26 ft
Dn Invert: 4,492.93 ft
Length: 67.00 ft
Size: 18 inch
Label: P-76
Up Invert: 4,493.32 ft
Dn Invert: 4,493.26 ft
Length: 17.00 ft
Size: 18 inch
Label: P-32
Up Invert: 4,493.83 ft
Dn Invert: 4,493.32 ft
Length: 42.00 ft
Size: 18 inch
Label: P-31
Up Invert: 4,493.92 ft
Dn Invert: 4,493.83 ft
Length: 76.00 ft
Size: 18 inch
Label: P-21
Up Invert: 4,494.09 ft
Dn Invert: 4,493.94 ft
Length: 109.00 ft
Size: 18 inch
Label: P-74
Up Invert: 4,494.53 ft
Dn Invert: 4,494.26 ft
Length: 90.00 ft
Size: 18 inch
Label: P-73
Up Invert: 4,494.57 ft
Dn Invert: 4,494.53 ft
Length: 13.00 ft
Size: 18 inch
Label: P-17
Up Invert: 4,494.87 ft
Dn Invert: 4,494.57 ft
Length: 96.00 ft
Size: 15 inch
Label: P-13
Up Invert: 4,495.17 ft
Dn Invert: 4,494.87 ft
Length: 100.00 ft
Size: 15 inch
Label: P-10
Up Invert: 4,495.47 ft
Dn Invert: 4,495.17 ft
Length: 100.00 ft
Size: 15 inch
Label: P-7
Up Invert: 4,495.64 ft
Dn Invert: 4,495.47 ft
Length: 84.00 ft
Size: 15 inch
Label: P-5
Up Invert: 4,495.76 ft
Dn Invert: 4,495.58 ft
Length: 36.00 ft
Size: 12 inch
Label: P-71
Up Invert: 4,496.06 ft
Dn Invert: 4,495.76 ft
Length: 106.00 ft
Size: 12 inch
Label: P-70
Up Invert: 4,496.07 ft
Dn Invert: 4,496.06 ft
Length: 3.00 ft
Size: 12 inch
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft
4,504.00
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
Elevation ft

100 yr,
42.5 min / 10 min



Detailed Report for Outlet

Flows			
Total Discharge	17.37 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	17.37 cfs

Watershed Data			
System Intensity	1.44 in/hr	Upstream CA	11.96 acres
Total CA	11.96 acres		

Flow Times			
System Flow Time	44.98 min	Upstream Flow Time	44.98 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,493.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	3.37	1.21	36.00	0.002778	12 inch	0.013	2.09	4,500.64	4,500.61	4,500.68	4,500.64	1.42	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	3.29	1.19	64.00	0.002656	15 inch	0.010	4.33	4,500.62	4,500.61	4,500.64	4,500.63	0.97	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	3.10	1.67	00.00	0.003000	15 inch	0.010	4.60	4,500.65	4,500.61	4,500.68	4,500.64	1.36	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	2.89	2.08	00.00	0.003000	15 inch	0.010	4.60	4,500.67	4,500.61	4,500.72	4,500.66	1.69	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	2.82	2.54	86.00	0.003488	15 inch	0.010	4.96	4,500.69	4,500.61	4,500.76	4,500.68	2.07	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	2.69	3.39	09.00	0.002936	18 inch	0.010	7.40	4,500.53	4,500.46	4,500.59	4,500.52	1.92	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.85	4,500.54	4,501.04	4,500.73	3.48	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	2.47	4.74	01.00	0.003861	18 inch	0.010	8.49	4,500.16	4,500.04	4,500.27	4,500.15	2.68	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.63	4,500.16	4,500.82	4,500.35	3.48	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	3.80	0.46	53.00	0.020000	4 inch	0.010	0.35	4,502.10	4,500.30	4,502.52	4,500.72	5.22	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	2.62	3.30	76.00	0.003816	18 inch	0.010	8.43	4,500.42	4,500.37	4,500.47	4,500.43	1.87	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	2.57	3.70	82.00	0.003780	18 inch	0.010	8.40	4,500.36	4,500.30	4,500.43	4,500.37	2.09	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.84	4,500.37	4,501.03	4,500.56	3.48	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	3.76	0.68	60.00	0.005000	12 inch	0.013	2.81	4,500.70	4,500.68	4,500.71	4,500.69	0.79	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	3.53	1.27	01.00	0.004925	12 inch	0.013	2.79	4,500.89	4,500.68	4,500.92	4,500.71	1.49	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	3.80	0.68	23.00	0.020000	6 inch	0.010	1.03	4,500.88	4,500.68	4,501.07	4,500.87	3.48	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	3.13	1.13	90.00	0.004889	12 inch	0.010	3.61	4,500.72	4,500.68	4,500.75	4,500.71	1.32	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	3.80	0.91	28.00	0.020000	8 inch	0.010	2.22	4,500.77	4,500.68	4,500.88	4,500.79	2.61	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.75	4,500.66	4,500.81	4,500.72	1.96	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	2.85	2.22	62.00	0.005000	12 inch	0.010	3.65	4,500.79	4,500.67	4,500.89	4,500.78	2.61	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	2.82	2.71	94.00	0.004894	12 inch	0.010	3.61	4,500.92	4,500.66	4,501.08	4,500.82	3.18	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	8 inch	0.010	2.22	4,500.76	4,500.67	4,500.82	4,500.73	1.96	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	2.92	1.75	66.00	0.004848	12 inch	0.010	3.60	4,500.76	4,500.68	4,500.82	4,500.75	2.06	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	2.87	2.24	38.00	0.005000	12 inch	0.010	3.65	4,500.75	4,500.68	4,500.86	4,500.79	2.63	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.10	4,500.68	4,501.29	4,500.87	3.48	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	2.79	3.18	44.00	0.005000	12 inch	0.010	3.65	4,500.82	4,500.65	4,501.03	4,500.87	3.73	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	3.80	0.46	48.00	0.020000	4 inch	0.010	0.35	4,502.28	4,500.65	4,502.70	4,501.07	5.22	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	2.77	3.49	55.00	0.004909	12 inch	0.010	3.62	4,500.90	4,500.65	4,501.16	4,500.91	4.10	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	2.76	3.97	96.00	0.004896	12 inch	0.010	3.61	4,501.21	4,500.64	4,501.54	4,500.98	4.66	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.07	4,500.65	4,501.26	4,500.84	3.48	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	2.73	3.93	2.00	0.005000	15 inch	0.010	5.94	4,500.64	4,500.64	4,500.80	4,500.80	3.20	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,501.06	4,500.64	4,501.25	4,500.83	3.48	4,494.85

Pipe Report

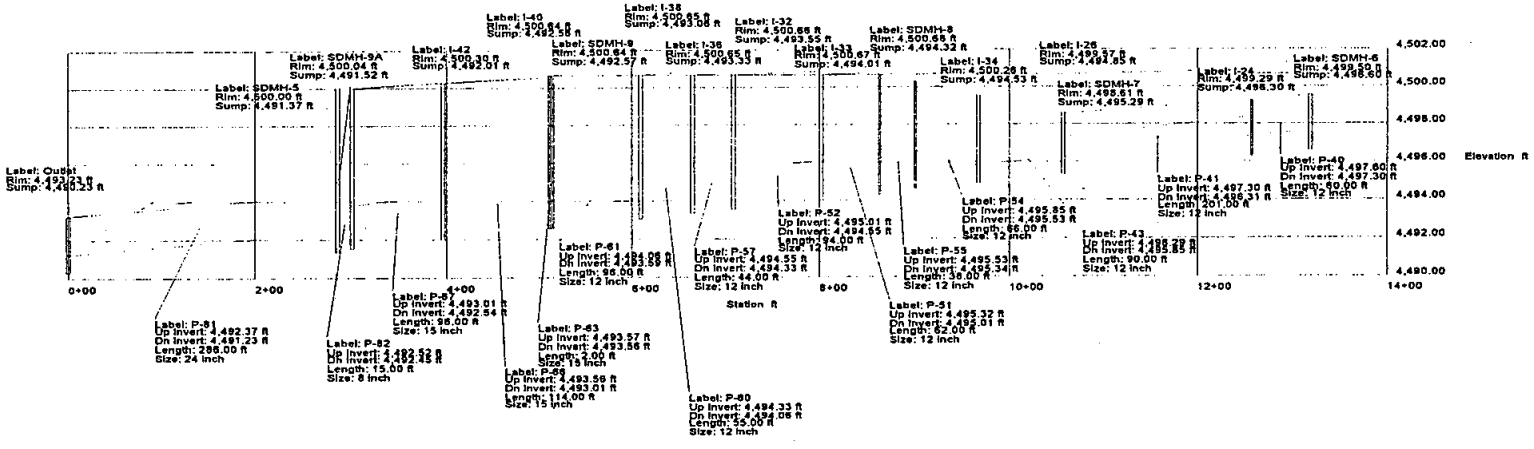
Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	2.73	4.42	14.00	0.004825	15 inch	0.010	5.83	4,500.62	4,500.30	4,500.82	4,500.50	3.60	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	2.69	4.84	96.00	0.004896	15 inch	0.010	5.88	4,500.36	4,500.04	4,500.60	4,500.28	3.95	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	3.80	0.68	48.00	0.020000	6 inch	0.010	1.03	4,500.72	4,500.30	4,500.91	4,500.49	3.48	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	7.80	0.00	2.00	0.005000	12 inch	0.013	2.81	4,500.61	4,500.61	4,500.61	4,500.61	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	3.77	0.68	06.00	0.002830	12 inch	0.013	2.11	4,500.64	4,500.61	4,500.65	4,500.62	0.80	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.92	4,500.61	4,501.11	4,500.80	3.48	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	2.77	2.49	13.00	0.003077	18 inch	0.010	7.57	4,500.60	4,500.59	4,500.63	4,500.62	1.41	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	2.76	2.97	90.00	0.003000	18 inch	0.010	7.48	4,500.58	4,500.54	4,500.63	4,500.58	1.68	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	3.80	0.68	35.00	0.020000	6 inch	0.010	1.03	4,500.90	4,500.59	4,501.09	4,500.78	3.48	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	2.52	3.93	17.00	0.003529	18 inch	0.010	8.11	4,500.28	4,500.27	4,500.36	4,500.35	2.23	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	2.51	4.37	87.00	0.003793	18 inch	0.010	8.41	4,500.25	4,500.16	4,500.35	4,500.26	2.47	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	3.80	0.68	53.00	0.020000	6 inch	0.010	1.03	4,500.74	4,500.27	4,500.92	4,500.46	3.48	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	1.46	17.62	86.00	0.003986	24 inch	0.013	14.28	4,494.96	4,493.23	4,495.45	4,493.72	5.61	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	2.42	9.02	15.00	0.004667	8 inch	0.010	1.07	4,500.20	4,495.26	4,510.57	4,505.63	25.83	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	1.50	12.51	25.00	0.004000	24 inch	0.013	14.31	4,496.56	4,496.49	4,496.81	4,496.73	3.98	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	1.50	12.49	63.00	0.003912	24 inch	0.013	14.15	4,496.37	4,495.26	4,496.61	4,495.50	3.98	4,493.85

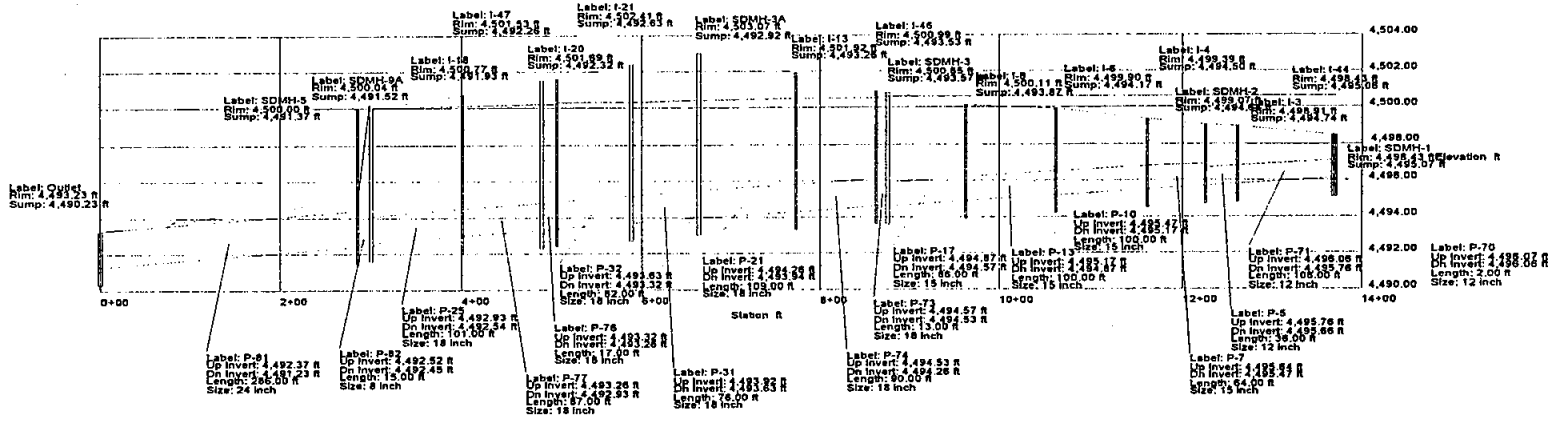
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-2	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-3	0.00	0.00	7.80	0.00	3.37	0.00	0.00	0.36	0.00	0.00	12.39	12.39	0.00	1.21	0.00	4,500.61	4,500.61	1.42
I-4	0.00	0.00	7.80	0.00	3.10	0.00	0.00	0.54	0.00	0.00	13.91	13.91	0.00	1.67	0.00	4,500.61	4,500.61	1.36
I-5	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-6	0.00	0.00	7.80	0.00	2.89	0.00	0.00	0.71	0.00	0.00	15.14	15.14	0.00	2.08	0.00	4,500.61	4,500.61	1.69
I-7	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48
I-8	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.89	0.00	0.00	16.12	16.12	0.00	2.54	0.00	4,500.61	4,500.61	2.07
I-12	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.85	4,500.85	3.48
I-13	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.25	0.00	0.00	17.86	17.86	0.00	3.39	0.00	4,500.54	4,500.53	1.92
I-14	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.84	4,500.84	3.48
I-15	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.10	4,502.10	5.22
I-16	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.74	4,500.74	3.48
I-17	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.63	4,500.63	3.48
I-18	0.00	0.00	7.80	0.00	2.47	0.00	0.00	1.90	0.00	0.00	20.85	20.85	0.00	4.74	0.00	4,500.16	4,500.16	2.68
I-20	0.00	0.00	7.80	0.00	2.52	0.00	0.00	1.55	0.00	0.00	20.14	20.14	0.00	3.93	0.00	4,500.30	4,500.28	2.23
I-21	0.00	0.00	7.80	0.00	2.57	0.00	0.00	1.43	0.00	0.00	19.48	19.48	0.00	3.70	0.00	4,500.37	4,500.36	2.09
I-22	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-23	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.88	4,500.88	3.48
I-24	0.00	0.00	7.80	0.00	3.53	0.00	0.00	0.36	0.00	0.00	11.49	11.49	0.00	1.27	0.00	4,500.68	4,500.68	1.49
I-25	0.28	0.85	3.80	0.91	3.80	0.24	0.00	0.24	0.00	0.00	0.00	10.00	0.00	0.91	0.00	4,500.77	4,500.77	2.61
I-26	0.00	0.00	7.80	0.00	2.92	0.00	0.00	0.60	0.00	0.00	14.87	14.87	0.00	1.75	0.00	4,500.68	4,500.68	2.06
I-27	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.10	4,501.10	3.48
I-29	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.76	4,500.76	1.96
I-31	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.75	4,500.75	1.96
I-32	0.00	0.00	7.80	0.00	2.79	0.00	0.00	1.13	0.00	0.00	16.54	16.54	0.00	3.18	0.00	4,500.66	4,500.66	3.73
I-33	0.00	0.00	7.80	0.00	2.82	0.00	0.00	0.95	0.00	0.00	16.04	16.04	0.00	2.71	0.00	4,500.67	4,500.67	3.18
I-34	0.00	0.00	7.80	0.00	2.87	0.00	0.00	0.77	0.00	0.00	15.41	15.41	0.00	2.24	0.00	4,500.68	4,500.68	2.63
I-35	0.14	0.85	3.80	0.46	3.80	0.12	0.00	0.12	0.00	0.00	0.00	10.00	0.00	0.46	0.00	4,502.28	4,502.28	5.22
I-36	0.00	0.00	7.80	0.00	2.77	0.00	0.00	1.25	0.00	0.00	16.73	16.73	0.00	3.49	0.00	4,500.65	4,500.65	4.10
I-37	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.07	4,501.07	3.48
I-38	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.43	0.00	0.00	16.96	16.96	0.00	3.97	0.00	4,500.65	4,500.65	4.66
I-39	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,501.06	4,501.06	3.48
I-40	0.00	0.00	7.80	0.00	2.73	0.00	0.00	1.61	0.00	0.00	17.31	17.31	0.00	4.42	0.00	4,500.64	4,500.62	3.60
I-41	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.72	4,500.72	3.48
I-42	0.00	0.00	7.80	0.00	2.69	0.00	0.00	1.79	0.00	0.00	17.84	17.84	0.00	4.84	0.00	4,500.30	4,500.30	3.95
I-43	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.92	4,500.92	3.48

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	External CA (acres)	Total CA (acres)	Inlet TC (min)	External TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	7.80	0.00	3.77	0.00	0.00	0.18	0.00	0.00	10.17	10.17	0.00	0.68	0.00	4,500.61	4,500.61	0.80
I-45	0.21	0.85	3.80	0.68	3.80	0.18	0.00	0.18	0.00	0.00	0.00	10.00	0.00	0.68	0.00	4,500.90	4,500.90	3.48
I-46	0.00	0.00	7.80	0.00	2.76	0.00	0.00	1.07	0.00	0.00	16.97	16.97	0.00	2.97	0.00	4,500.59	4,500.58	1.68
I-47	0.00	0.00	7.80	0.00	2.51	0.00	0.00	1.73	0.00	0.00	20.26	20.26	0.00	4.37	0.00	4,500.27	4,500.25	2.47
I-48	33.10	0.25	1.50	12.51	1.50	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	12.51	0.00	4,496.56	4,496.56	3.98
Outlet	N/A	N/A	N/A	N/A	1.44	N/A	N/A	11.96	N/A	0.00	44.98	44.98	N/A	17.37	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	7.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,500.61	4,500.61	0.00
SDMH-2	N/A	N/A	N/A	N/A	3.29	N/A	N/A	0.36	N/A	0.00	12.81	12.81	N/A	1.19	N/A	4,500.61	4,500.61	0.97
SDMH-3A	N/A	N/A	N/A	N/A	2.62	N/A	N/A	1.25	N/A	0.00	18.81	18.81	N/A	3.30	N/A	4,500.46	4,500.42	1.87
SDMH-3	N/A	N/A	N/A	N/A	2.77	N/A	N/A	0.89	N/A	0.00	16.81	16.81	N/A	2.49	N/A	4,500.61	4,500.60	1.41
SDMH-4	N/A	N/A	N/A	N/A	1.50	N/A	N/A	8.28	N/A	0.00	42.60	42.60	N/A	12.49	N/A	4,496.49	4,496.37	3.98
SDMH-5	N/A	N/A	N/A	N/A	1.46	N/A	N/A	11.96	N/A	0.00	44.13	44.13	N/A	17.62	N/A	4,495.26	4,494.96	5.61
SDMH-6	N/A	N/A	N/A	N/A	3.76	N/A	N/A	0.18	N/A	0.00	10.23	10.23	N/A	0.68	N/A	4,500.68	4,500.68	0.79
SDMH-7	N/A	N/A	N/A	N/A	3.13	N/A	N/A	0.36	N/A	0.00	13.74	13.74	N/A	1.13	N/A	4,500.68	4,500.68	1.32
SDMH-8	N/A	N/A	N/A	N/A	2.85	N/A	N/A	0.77	N/A	0.00	15.65	15.65	N/A	2.22	N/A	4,500.68	4,500.68	2.61
SDMH-9	N/A	N/A	N/A	N/A	2.73	N/A	N/A	1.43	N/A	0.00	17.30	17.30	N/A	3.93	N/A	4,500.64	4,500.64	3.20
SDMH-9A	N/A	N/A	N/A	N/A	2.42	N/A	N/A	3.69	N/A	0.00	21.48	21.48	N/A	9.02	N/A	4,500.04	4,500.04	25.83




Label: Outlet
Rim: 4,493.23 ft
Sump: 4,490.23 ft
Label: SDMH-5
Rim: 4,500.00 ft
Sump: 4,491.37 ft
Label: SDMH-9A
Rim: 4,500.04 ft
Sump: 4,491.52 ft
Label: I-47
Rim: 4,501.33 ft
Sump: 4,492.26 ft
Label: I-18
Rim: 4,500.77 ft
Sump: 4,491.93 ft
Label: I-20
Rim: 4,501.69 ft
Sump: 4,492.32 ft
Label: I-21
Rim: 4,502.41 ft
Sump: 4,492.63 ft
Label: SDMH-3A
Rim: 4,503.07 ft
Sump: 4,492.92 ft
Label: I-13
Rim: 4,501.93 ft
Sump: 4,493.26 ft
Label: I-46
Rim: 4,500.99 ft
Sump: 4,493.53 ft
Label: SDMH-3
Rim: 4,500.65 ft
Sump: 4,493.57 ft
Label: I-5
Rim: 4,500.11 ft
Sump: 4,493.82 ft
Label: I-6
Rim: 4,499.90 ft
Sump: 4,494.17 ft
Label: I-4
Rim: 4,499.39 ft
Sump: 4,494.50 ft
Label: I-44
Rim: 4,498.43 ft
Sump: 4,495.08 ft
Label: SDMH-2
Rim: 4,499.07
Label: I-3
Rim: 4,498.91 ft
Sump: 4,494.74 ft
Label: SDMH-1
Rim: 4,498.43 ft
Sump: 4,495.07 ft
Elevation ft
4,504.00
4,502.00
4,500.00
4,498.00
4,496.00
4,494.00
4,492.00
4,490.00
0+00
2+00
4+00
6+00
8+00
10+00
12+00
14+00
Station ft
Label: P-81
Up Invert: 4,492.37 ft
Dn Invert: 4,487.23 ft
Length: 285.00 ft
Size: 24 inch
Label: P-82
Up Invert: 4,492.52 ft
Dn Invert: 4,492.45 ft
Length: 15.00 ft
Size: 8 inch
Label: P-25
Up Invert: 4,492.93 ft
Dn Invert: 4,492.54 ft
Length: 101.00 ft
Size: 18 inch
Label: P-77
Up Invert: 4,493.26 ft
Dn Invert: 4,492.93 ft
Length: 87.00 ft
Size: 18 inch
Label: P-76
Up Invert: 4,493.32 ft
DN Invert: 4,493.26 ft
Length: 17.00 ft
Size: 18 inch
Label: P-32
Up Invert: 4,493.63 ft
Dn Invert: 4,493.32 ft
Length: 82.00 ft
Size: 18 inch
Label: P-31
Up Invert: 4,493.82 ft
DN Invert: 4,493.63 ft
Length: 76.00 ft
Size: 18 inch
Label: P-21
Up Invert: 4,494.26 ft
DN Invert: 4,493.82 ft
Length: 109.00 ft
Size: 18 inch
Label: P-74
Up Invert: 4,494.53 ft
Dn Invert: 4,494.26 ft
Length: 90.00 ft
Size: 18 inch
Label: P-73
Up Invert: 4,494.57 ft
Dn Invert: 4,494.53 ft
Length: 13.00 ft
Size: 18 inch
Label: P-17
Up Invert: 4,494.87 ft
Dn Invert: 4,494.57 ft
Length: 86.00 ft
Size: 18 inch
Label: P-13
DR Invert: 4,495.17 ft
DR Invert: 4,494.87 ft
Length: 100.00 ft
Size: 15 inch
Label: P-10
Up Invert: 4,495.17 ft
DR Invert: 4,495.17 ft
Length: 100.00 ft
Size: 15 inch
Label: P-7
DR Invert: 4,495.47 ft
Length: 64.00 ft
Size: 15 inch
Label: P-5
Up Invert: 4,495.76 ft
Dn Invert: 4,495.66 ft
Length: 36.00 ft
Size: 12 inch
Label: P-71
Up Invert: 4,496.08 ft
Dn Invert: 4,495.76 ft
Length: 108.00 ft
Size: 12 inch
Label: P-70
Up Invert: 4,496.97 ft
DR Invert: 4,496.86 ft
Length: 2.00 ft
Size: 12 inch

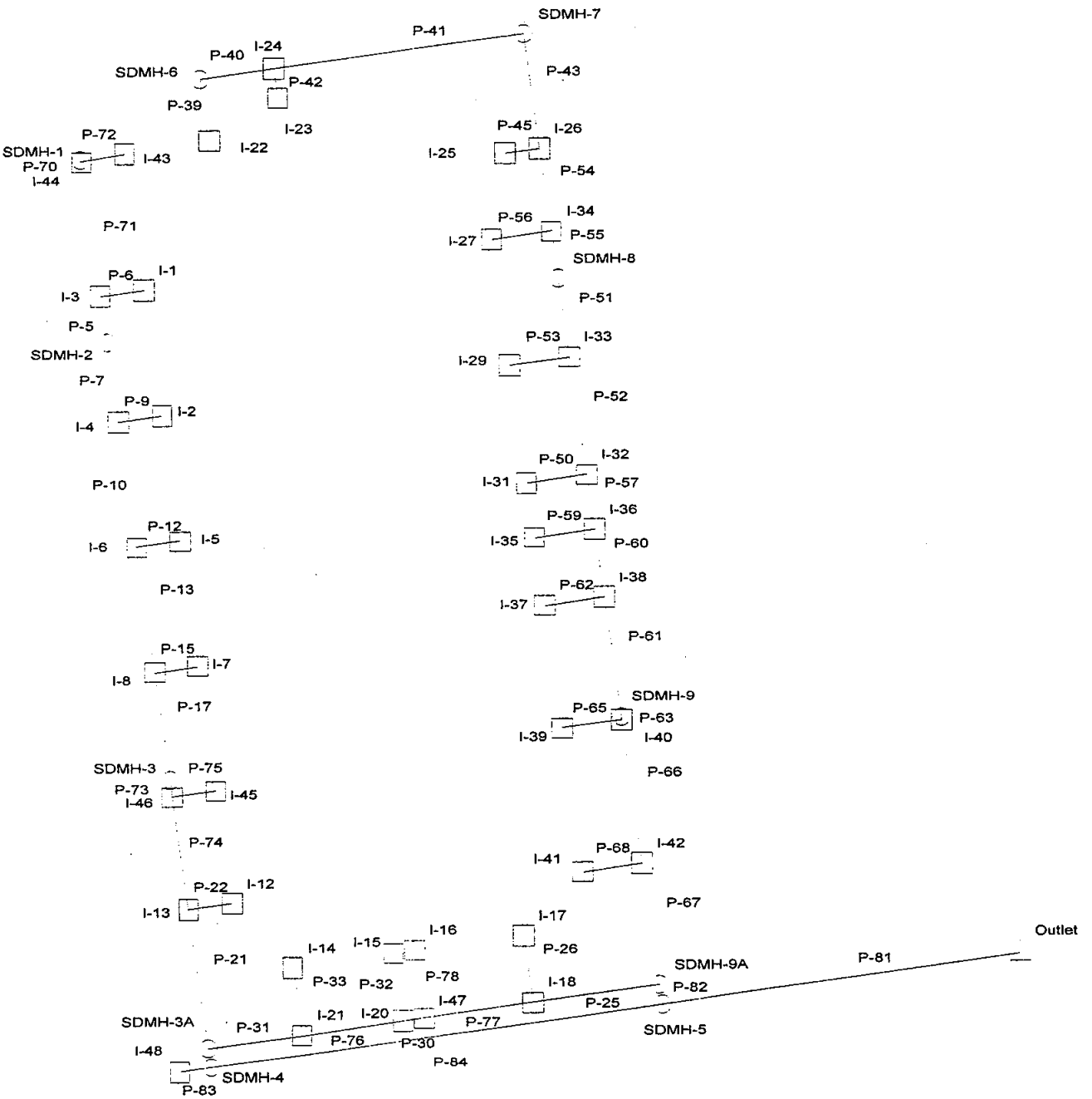
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.95	4,496.95	1.92
I-2	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.66	4,496.66	1.92
I-3	0.00	0.00	2.80	0.00	0.55	0.00	0.00	0.36	0.00	0.00	44.46	44.46	0.00	0.20	0.00	4,495.98	4,495.98	1.54
I-4	0.00	0.00	2.80	0.00	0.54	0.00	0.00	0.54	0.00	0.00	45.50	45.50	0.00	0.29	0.00	4,495.70	4,495.68	2.09
I-5	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.36	4,496.36	1.92
I-6	0.00	0.00	2.80	0.00	0.53	0.00	0.00	0.71	0.00	0.00	46.41	46.41	0.00	0.38	0.00	4,495.43	4,495.41	2.26
I-7	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.06	4,496.06	1.92
I-8	0.00	0.00	2.80	0.00	0.52	0.00	0.00	0.89	0.00	0.00	47.23	47.23	0.00	0.47	0.00	4,495.15	4,495.14	2.45
I-12	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.46	4,495.46	1.92
I-13	0.00	0.00	2.80	0.00	0.51	0.00	0.00	1.25	0.00	0.00	48.63	48.63	0.00	0.64	0.00	4,494.58	4,494.56	2.56
I-14	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.18	4,495.18	1.92
I-15	0.14	0.85	0.56	0.07	0.56	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.07	0.00	4,495.02	4,495.02	1.87
I-16	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,494.81	4,494.81	1.92
I-17	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,494.48	4,494.48	1.92
I-18	0.00	0.00	2.80	0.00	0.47	0.00	0.00	1.90	0.00	0.00	52.32	52.32	0.00	0.91	0.00	4,493.85	4,493.85	0.79
I-20	0.00	0.00	2.80	0.00	0.49	0.00	0.00	1.55	0.00	0.00	50.67	50.67	0.00	0.76	0.00	4,493.86	4,493.86	1.34
I-21	0.00	0.00	2.80	0.00	0.49	0.00	0.00	1.43	0.00	0.00	49.97	49.97	0.00	0.71	0.00	4,493.97	4,493.94	2.65
I-22	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,498.77	4,498.77	1.92
I-23	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,498.09	4,498.09	1.92
I-24	0.00	0.00	2.80	0.00	0.55	0.00	0.00	0.36	0.00	0.00	43.62	43.62	0.00	0.20	0.00	4,497.50	4,497.49	1.89
I-25	0.28	0.85	0.56	0.14	0.56	0.24	0.00	0.24	2.50	0.00	0.00	42.50	0.00	0.14	0.00	4,496.75	4,496.75	1.96
I-26	0.00	0.00	2.80	0.00	0.53	0.00	0.00	0.60	0.00	0.00	46.44	46.44	0.00	0.32	0.00	4,496.10	4,496.08	2.28
I-27	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.98	4,496.98	1.92
I-29	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,496.46	4,496.46	1.81
I-31	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.99	4,495.99	1.81
I-32	0.00	0.00	2.80	0.00	0.51	0.00	0.00	1.13	0.00	0.00	48.41	48.41	0.00	0.58	0.00	4,494.89	4,494.86	2.69
I-33	0.00	0.00	2.80	0.00	0.51	0.00	0.00	0.95	0.00	0.00	47.74	47.74	0.00	0.49	0.00	4,495.32	4,495.30	2.57
I-34	0.00	0.00	2.80	0.00	0.52	0.00	0.00	0.77	0.00	0.00	46.99	46.99	0.00	0.41	0.00	4,495.81	4,495.79	2.44
I-35	0.14	0.85	0.56	0.07	0.56	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.07	0.00	4,495.93	4,495.93	1.87
I-36	0.00	0.00	2.80	0.00	0.51	0.00	0.00	1.25	0.00	0.00	48.71	48.71	0.00	0.64	0.00	4,494.68	4,494.66	2.77
I-37	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.51	4,495.51	1.92
I-38	0.00	0.00	2.80	0.00	0.50	0.00	0.00	1.43	0.00	0.00	49.07	49.07	0.00	0.72	0.00	4,494.44	4,494.41	2.87
I-39	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.01	4,495.01	1.92
I-40	0.00	0.00	2.80	0.00	0.50	0.00	0.00	1.61	0.00	0.00	49.68	49.68	0.00	0.80	0.00	4,493.94	4,493.91	2.84
I-41	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,494.63	4,494.63	1.92
I-42	0.00	0.00	2.80	0.00	0.49	0.00	0.00	1.79	0.00	0.00	50.69	50.69	0.00	0.88	0.00	4,493.86	4,493.86	0.99
I-43	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,497.25	4,497.25	1.92

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additiona Flow (cfs)	Total Watershed (CIA) (cfs)	Carryove (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	2.80	0.00	0.56	0.00	0.00	0.18	0.00	0.00	42.72	42.72	0.00	0.10	0.00	4,496.22	4,496.21	1.28
I-45	0.21	0.85	0.56	0.10	0.56	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.10	0.00	4,495.72	4,495.72	1.92
I-46	0.00	0.00	2.80	0.00	0.51	0.00	0.00	1.07	0.00	0.00	47.96	47.96	0.00	0.55	0.00	4,494.83	4,494.81	2.48
I-47	0.00	0.00	2.80	0.00	0.48	0.00	0.00	1.73	0.00	0.00	50.90	50.90	0.00	0.84	0.00	4,493.86	4,493.85	1.30
I-48	33.10	0.25	0.56	4.70	0.56	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	4.70	0.00	4,494.81	4,494.81	3.95
Outlet	N/A	N/A	N/A	N/A	0.43	N/A	N/A	11.96	N/A	0.00	56.70	56.70	N/A	5.19	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	2.80	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.22	4,496.22	0.00
SDMH-2	N/A	N/A	N/A	N/A	0.54	N/A	N/A	0.36	N/A	0.00	44.81	44.81	N/A	0.19	N/A	4,495.85	4,495.82	1.78
SDMH-3A	N/A	N/A	N/A	N/A	0.50	N/A	N/A	1.25	N/A	0.00	49.43	49.43	N/A	0.63	N/A	4,494.30	4,494.21	2.57
SDMH-3	N/A	N/A	N/A	N/A	0.51	N/A	N/A	0.89	N/A	0.00	47.86	47.86	N/A	0.46	N/A	4,494.87	4,494.82	2.34
SDMH-4	N/A	N/A	N/A	N/A	0.56	N/A	N/A	8.28	N/A	0.00	42.61	42.61	N/A	4.69	N/A	4,494.77	4,494.64	4.05
SDMH-5	N/A	N/A	N/A	N/A	0.45	N/A	N/A	11.96	N/A	0.00	54.87	54.87	N/A	5.40	N/A	4,493.47	4,493.36	3.49
SDMH-6	N/A	N/A	N/A	N/A	0.56	N/A	N/A	0.18	N/A	0.00	42.80	42.80	N/A	0.10	N/A	4,497.77	4,497.73	1.56
SDMH-7	N/A	N/A	N/A	N/A	0.54	N/A	N/A	0.36	N/A	0.00	45.51	45.51	N/A	0.19	N/A	4,496.52	4,496.47	1.99
SDMH-8	N/A	N/A	N/A	N/A	0.52	N/A	N/A	0.77	N/A	0.00	47.26	47.26	N/A	0.40	N/A	4,495.63	4,495.58	2.44
SDMH-9	N/A	N/A	N/A	N/A	0.50	N/A	N/A	1.43	N/A	0.00	49.66	49.66	N/A	0.71	N/A	4,493.98	4,493.93	2.45
SDMH-9A	N/A	N/A	N/A	N/A	0.45	N/A	N/A	3.69	N/A	0.00	54.82	54.82	N/A	1.67	N/A	4,493.85	4,493.64	4.78

25yr, 42.5min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P-68
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P-22
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I-17
I-16
I-15
I-14
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Outlet
P-21
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P-32
P-78
I-18
P-82
I-47
P-25
SDMH-3A
I-21
I-20
P-77
P-31
SDMH-5
P-76
P-30
I-48
P-84
SDMH-4
P-83

Detailed Report for Outlet

Flows			
Total Discharge	8.71 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	8.71 cfs

Watershed Data			
System Intensity	0.72 in/hr	Upstream CA	11.96 acres
Total CA	11.96 acres		

Flow Times			
System Flow Time	58.60 min	Upstream Flow Time	58.60 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,491.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-5	I-3	SDMH-2	0.00	0.00	0.00	0.36	0.95	0.34	36.00	0.002778	12 inch	0.013	2.09	4,496.05	4,495.91	4,496.10	4,495.98	1.99	4,495.76
P-6	I-1	I-3	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,497.00	4,496.23	4,497.08	4,496.47	3.09	4,496.79
P-7	SDMH-2	I-4	N/A	N/A	N/A	0.36	0.95	0.34	64.00	0.002656	15 inch	0.010	4.33	4,495.88	4,495.77	4,495.95	4,495.80	1.81	4,495.64
P-9	I-2	I-4	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,496.71	4,495.94	4,496.79	4,496.18	3.09	4,496.50
P-10	I-4	I-6	0.00	0.00	0.00	0.54	0.94	0.51	00.00	0.003000	15 inch	0.010	4.60	4,495.75	4,495.51	4,495.84	4,495.57	2.16	4,495.47
P-12	I-5	I-6	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,496.41	4,495.64	4,496.49	4,495.88	3.09	4,496.20
P-13	I-6	I-8	0.00	0.00	0.00	0.71	0.93	0.67	00.00	0.003000	15 inch	0.010	4.60	4,495.49	4,495.25	4,495.60	4,495.32	2.39	4,495.17
P-15	I-7	I-8	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,496.11	4,495.34	4,496.19	4,495.58	3.09	4,495.90
P-17	I-8	SDMH-3	0.00	0.00	0.00	0.89	0.92	0.82	86.00	0.003488	15 inch	0.010	4.96	4,495.23	4,494.97	4,495.35	4,495.06	2.63	4,494.87
P-21	I-13	SDMH-3A	0.00	0.00	0.00	1.25	0.89	1.12	09.00	0.002936	18 inch	0.010	7.40	4,494.88	4,494.88	4,494.92	4,494.89	1.30	4,494.26
P-22	I-12	I-13	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,495.51	4,494.89	4,495.59	4,494.92	1.88	4,495.30
P-25	I-18	SDMH-9A	0.00	0.00	0.00	1.90	0.78	1.49	01.00	0.003861	18 inch	0.010	8.49	4,494.84	4,494.83	4,494.86	4,494.84	0.84	4,492.93
P-26	I-17	I-18	0.21	0.85	0.18	0.18	0.98	0.18	53.00	0.020000	6 inch	0.010	1.03	4,494.88	4,494.84	4,494.89	4,494.86	0.90	4,494.32
P-30	I-15	I-20	0.14	0.85	0.12	0.12	0.98	0.12	53.00	0.020000	4 inch	0.010	0.35	4,495.07	4,494.86	4,495.15	4,494.89	1.80	4,494.88
P-31	SDMH-3A	I-21	N/A	N/A	N/A	1.25	0.87	1.09	76.00	0.003816	18 inch	0.010	8.43	4,494.87	4,494.86	4,494.88	4,494.87	0.82	4,493.92
P-32	I-21	I-20	0.00	0.00	0.00	1.43	0.84	1.21	82.00	0.003780	18 inch	0.010	8.40	4,494.86	4,494.86	4,494.87	4,494.87	0.73	4,493.63
P-33	I-14	I-21	0.21	0.85	0.18	0.18	0.98	0.18	53.00	0.020000	6 inch	0.010	1.03	4,495.23	4,494.86	4,495.31	4,494.88	1.58	4,495.02
P-39	I-22	SDMH-6	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	6 inch	0.010	1.03	4,498.82	4,497.79	4,498.90	4,498.03	3.09	4,498.61
P-40	SDMH-6	I-24	N/A	N/A	N/A	0.18	0.98	0.18	60.00	0.005000	12 inch	0.013	2.81	4,497.78	4,497.56	4,497.83	4,497.58	1.44	4,497.60
P-41	I-24	SDMH-7	0.00	0.00	0.00	0.36	0.96	0.35	01.00	0.004925	12 inch	0.013	2.79	4,497.55	4,496.59	4,497.63	4,496.65	2.04	4,497.30
P-42	I-23	I-24	0.21	0.85	0.18	0.18	0.98	0.18	23.00	0.020000	6 inch	0.010	1.03	4,498.14	4,497.61	4,498.22	4,497.85	3.09	4,497.93
P-43	SDMH-7	I-26	N/A	N/A	N/A	0.36	0.94	0.34	90.00	0.004889	12 inch	0.010	3.61	4,496.53	4,496.18	4,496.61	4,496.21	1.89	4,496.29
P-45	I-25	I-26	0.28	0.85	0.24	0.24	0.98	0.24	28.00	0.020000	8 inch	0.010	2.22	4,496.80	4,496.17	4,496.89	4,496.43	3.22	4,496.58
P-50	I-31	I-32	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	8 inch	0.010	2.22	4,496.03	4,495.01	4,496.10	4,495.23	2.96	4,495.84
P-51	SDMH-8	I-33	N/A	N/A	N/A	0.77	0.91	0.71	62.00	0.005000	12 inch	0.010	3.65	4,495.67	4,495.42	4,495.79	4,495.50	2.56	4,495.32
P-52	I-33	I-32	0.00	0.00	0.00	0.95	0.91	0.87	94.00	0.004894	12 inch	0.010	3.61	4,495.40	4,495.00	4,495.54	4,495.10	2.75	4,495.01
P-53	I-29	I-33	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	8 inch	0.010	2.22	4,496.50	4,495.48	4,496.57	4,495.70	2.96	4,496.31
P-54	I-26	I-34	0.00	0.00	0.00	0.60	0.93	0.56	66.00	0.004848	12 inch	0.010	3.60	4,496.16	4,495.90	4,496.27	4,495.97	2.34	4,495.85
P-55	I-34	SDMH-8	0.00	0.00	0.00	0.77	0.92	0.72	38.00	0.005000	12 inch	0.010	3.65	4,495.88	4,495.73	4,496.01	4,495.82	2.65	4,495.53
P-56	I-27	I-34	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	6 inch	0.010	1.03	4,497.03	4,496.00	4,497.11	4,496.24	3.09	4,496.82
P-57	I-32	I-36	0.00	0.00	0.00	1.13	0.90	1.02	44.00	0.005000	12 inch	0.010	3.65	4,494.97	4,494.99	4,495.13	4,495.04	2.50	4,494.55
P-59	I-35	I-36	0.14	0.85	0.12	0.12	0.98	0.12	48.00	0.020000	4 inch	0.010	0.35	4,495.98	4,494.96	4,496.06	4,495.17	2.94	4,495.79
P-60	I-36	I-38	0.00	0.00	0.00	1.25	0.89	1.12	55.00	0.004909	12 inch	0.010	3.62	4,494.97	4,494.97	4,495.04	4,495.00	1.73	4,494.33
P-61	I-38	SDMH-9	0.00	0.00	0.00	1.43	0.88	1.27	96.00	0.004896	12 inch	0.010	3.61	4,494.96	4,494.91	4,495.00	4,494.95	1.56	4,494.06
P-62	I-37	I-38	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	6 inch	0.010	1.03	4,495.56	4,494.97	4,495.64	4,494.98	1.58	4,495.35
P-63	SDMH-9	I-40	N/A	N/A	N/A	1.43	0.87	1.25	2.00	0.005000	15 inch	0.010	5.94	4,494.90	4,494.90	4,494.92	4,494.92	1.02	4,493.57
P-65	I-39	I-40	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	6 inch	0.010	1.03	4,495.06	4,494.90	4,495.14	4,494.92	1.58	4,494.85

Pipe Report

Pipe	Upstream Node	Downstream Node	Inlet Area (acres)	Inlet C Coefficient	Inlet CA (acres)	Total CA (acres)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Roughness	Capacity (cfs)	Upstream HGL (ft)	Downstream HGL (ft)	Upstream Energy Grade (ft)	Downstream Energy Grade (ft)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)
P-66	I-40	I-42	0.00	0.00	0.00	1.61	0.87	1.40	14.00	0.004825	15 inch	0.010	5.83	4,494.90	4,494.87	4,494.92	4,494.89	1.14	4,493.56
P-67	I-42	SDMH-9A	0.00	0.00	0.00	1.79	0.84	1.51	96.00	0.004896	15 inch	0.010	5.88	4,494.86	4,494.83	4,494.89	4,494.86	1.23	4,493.01
P-68	I-41	I-42	0.21	0.85	0.18	0.18	0.98	0.18	48.00	0.020000	6 inch	0.010	1.03	4,494.89	4,494.87	4,494.91	4,494.88	0.95	4,494.47
P-70	SDMH-1	I-44	N/A	N/A	N/A	0.00	5.29	0.00	2.00	0.005000	12 inch	0.013	2.81	4,496.27	4,496.27	4,496.27	4,496.27	0.00	4,496.07
P-71	I-44	I-3	0.00	0.00	0.00	0.18	0.98	0.18	06.00	0.002830	12 inch	0.013	2.11	4,496.26	4,496.06	4,496.30	4,496.07	1.19	4,496.06
P-72	I-43	I-44	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,497.30	4,496.53	4,497.38	4,496.77	3.09	4,497.09
P-73	SDMH-3	I-46	N/A	N/A	N/A	0.89	0.91	0.82	13.00	0.003077	18 inch	0.010	7.57	4,494.92	4,494.92	4,495.03	4,495.00	2.40	4,494.57
P-74	I-46	I-13	0.00	0.00	0.00	1.07	0.90	0.98	90.00	0.003000	18 inch	0.010	7.48	4,494.90	4,494.89	4,495.03	4,494.92	2.14	4,494.53
P-75	I-45	I-46	0.21	0.85	0.18	0.18	0.98	0.18	35.00	0.020000	6 inch	0.010	1.03	4,495.77	4,495.00	4,495.85	4,495.24	3.09	4,495.56
P-76	I-20	I-47	0.00	0.00	0.00	1.55	0.81	1.27	17.00	0.003529	18 inch	0.010	8.11	4,494.86	4,494.86	4,494.86	4,494.86	0.72	4,493.32
P-77	I-47	I-18	0.00	0.00	0.00	1.73	0.81	1.40	87.00	0.003793	18 inch	0.010	8.41	4,494.85	4,494.84	4,494.86	4,494.85	0.79	4,493.26
P-78	I-16	I-47	0.21	0.85	0.18	0.18	0.98	0.18	53.00	0.020000	6 inch	0.010	1.03	4,494.86	4,494.86	4,494.94	4,494.87	1.58	4,494.65
P-81	SDMH-5	Outlet	N/A	N/A	N/A	11.96	0.74	8.96	86.00	0.003986	24 inch	0.013	14.28	4,493.60	4,493.23	4,493.90	4,493.36	3.64	4,492.37
P-82	SDMH-9A	SDMH-5	N/A	N/A	N/A	3.69	0.74	2.77	15.00	0.004667	8 inch	0.010	1.07	4,494.25	4,493.78	4,495.22	4,494.76	7.92	4,492.52
P-83	I-48	SDMH-4	33.10	0.25	8.28	8.28	0.98	8.17	25.00	0.004000	24 inch	0.013	14.31	4,495.15	4,495.11	4,495.45	4,495.37	4.24	4,494.00
P-84	SDMH-4	SDMH-5	N/A	N/A	N/A	8.28	0.98	8.16	63.00	0.003912	24 inch	0.013	14.15	4,494.94	4,493.78	4,495.28	4,493.98	4.14	4,493.85

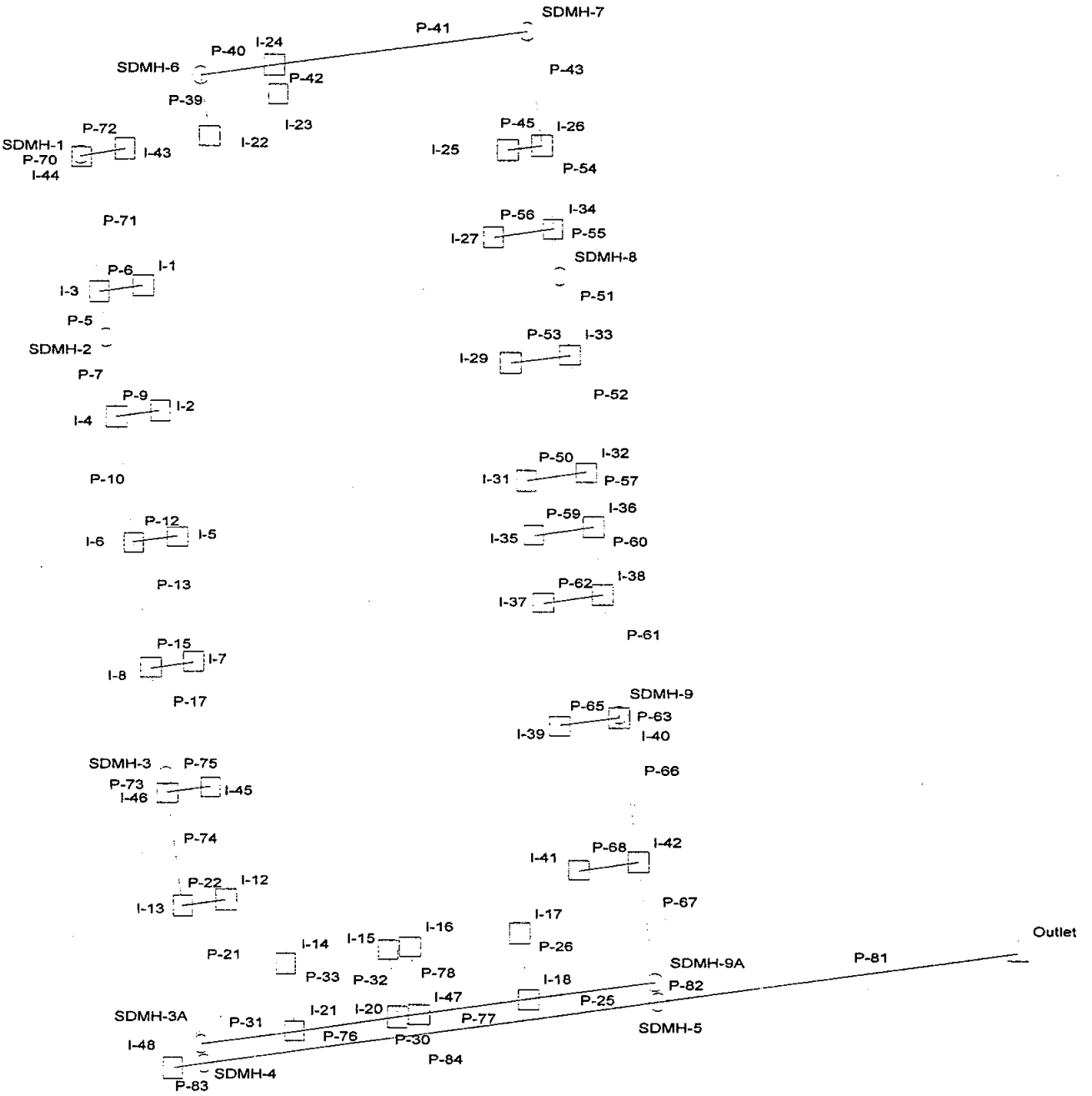
Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-1	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,497.00	4,497.00	2.26
I-2	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.71	4,496.71	2.26
I-3	0.00	0.00	5.29	0.00	0.95	0.00	0.00	0.36	0.00	0.00	44.17	44.17	0.00	0.34	0.00	4,496.06	4,496.05	1.81
I-4	0.00	0.00	5.29	0.00	0.94	0.00	0.00	0.54	0.00	0.00	45.06	45.06	0.00	0.51	0.00	4,495.77	4,495.75	2.47
I-5	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.41	4,496.41	2.26
I-6	0.00	0.00	5.29	0.00	0.93	0.00	0.00	0.71	0.00	0.00	45.83	45.83	0.00	0.67	0.00	4,495.51	4,495.49	2.67
I-7	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.11	4,496.11	2.26
I-8	0.00	0.00	5.29	0.00	0.92	0.00	0.00	0.89	0.00	0.00	46.53	46.53	0.00	0.82	0.00	4,495.25	4,495.23	2.86
I-12	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.51	4,495.51	2.26
I-13	0.00	0.00	5.29	0.00	0.89	0.00	0.00	1.25	0.00	0.00	47.89	47.99	0.00	1.12	0.00	4,494.89	4,494.88	1.63
I-14	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.23	4,495.23	2.26
I-15	0.14	0.85	0.98	0.12	0.98	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.12	0.00	4,495.07	4,495.07	2.26
I-16	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,494.86	4,494.86	2.26
I-17	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,494.88	4,494.88	0.90
I-18	0.00	0.00	5.29	0.00	0.78	0.00	0.00	1.90	0.00	0.00	55.27	55.27	0.00	1.49	0.00	4,494.84	4,494.84	0.84
I-20	0.00	0.00	5.29	0.00	0.81	0.00	0.00	1.55	0.00	0.00	53.00	53.04	0.00	1.27	0.00	4,494.86	4,494.86	0.72
I-21	0.00	0.00	5.29	0.00	0.84	0.00	0.00	1.43	0.00	0.00	51.06	51.14	0.00	1.21	0.00	4,494.86	4,494.86	0.78
I-22	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,498.82	4,498.82	2.26
I-23	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,498.14	4,498.14	2.26
I-24	0.00	0.00	5.29	0.00	0.96	0.00	0.00	0.36	0.00	0.00	43.46	43.46	0.00	0.35	0.00	4,497.56	4,497.55	2.23
I-25	0.28	0.85	0.98	0.24	0.98	0.24	0.00	0.24	2.50	0.00	0.00	42.50	0.00	0.24	0.00	4,496.80	4,496.80	2.29
I-26	0.00	0.00	5.29	0.00	0.93	0.00	0.00	0.60	0.00	0.00	45.89	45.89	0.00	0.56	0.00	4,496.18	4,496.16	2.66
I-27	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,497.03	4,497.03	2.26
I-29	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.50	4,496.50	2.11
I-31	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,496.03	4,496.03	2.11
I-32	0.00	0.00	5.29	0.00	0.90	0.00	0.00	1.13	0.00	0.00	47.58	47.60	0.00	1.02	0.00	4,495.00	4,494.97	3.18
I-33	0.00	0.00	5.29	0.00	0.91	0.00	0.00	0.95	0.00	0.00	47.00	47.00	0.00	0.87	0.00	4,495.42	4,495.40	3.03
I-34	0.00	0.00	5.29	0.00	0.92	0.00	0.00	0.77	0.00	0.00	46.36	46.36	0.00	0.72	0.00	4,495.90	4,495.88	2.86
I-35	0.14	0.85	0.98	0.12	0.98	0.12	0.00	0.12	2.50	0.00	0.00	42.50	0.00	0.12	0.00	4,495.98	4,495.98	2.26
I-36	0.00	0.00	5.29	0.00	0.89	0.00	0.00	1.25	0.00	0.00	47.89	47.93	0.00	1.12	0.00	4,494.99	4,494.97	2.04
I-37	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.56	4,495.56	2.26
I-38	0.00	0.00	5.29	0.00	0.88	0.00	0.00	1.43	0.00	0.00	48.46	48.50	0.00	1.27	0.00	4,494.97	4,494.96	1.62
I-39	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.06	4,495.06	2.26
I-40	0.00	0.00	5.29	0.00	0.87	0.00	0.00	1.61	0.00	0.00	49.58	49.58	0.00	1.40	0.00	4,494.90	4,494.90	1.14
I-41	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,494.89	4,494.89	0.99
I-42	0.00	0.00	5.29	0.00	0.84	0.00	0.00	1.79	0.00	0.00	51.25	51.25	0.00	1.51	0.00	4,494.87	4,494.86	1.23
I-43	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,497.30	4,497.30	2.26

Node Report

Node	Inlet Area (acres)	Inlet C Coefficient	Inlet Intensity (in/hr)	Inlet Discharge (cfs)	System Intensity (in/hr)	Inlet CA (acres)	Externa CA (acres)	Total CA (acres)	Inlet TC (min)	Externa TC (min)	Upstream Flow Time (min)	System Flow Time (min)	Additional Flow (cfs)	Total Watershed (CIA) (cfs)	Carryover (cfs)	HGL In (ft)	HGL Out (ft)	Velocity (ft/s)
I-44	0.00	0.00	5.29	0.00	0.98	0.00	0.00	0.18	0.00	0.00	42.69	42.69	0.00	0.18	0.00	4,496.27	4,496.26	1.50
I-45	0.21	0.85	0.98	0.18	0.98	0.18	0.00	0.18	2.50	0.00	0.00	42.50	0.00	0.18	0.00	4,495.77	4,495.77	2.26
I-46	0.00	0.00	5.29	0.00	0.90	0.00	0.00	1.07	0.00	0.00	47.18	47.19	0.00	0.98	0.00	4,494.92	4,494.90	2.89
I-47	0.00	0.00	5.29	0.00	0.81	0.00	0.00	1.73	0.00	0.00	53.44	53.44	0.00	1.40	0.00	4,494.86	4,494.85	0.79
I-48	33.10	0.25	0.98	8.17	0.98	8.28	0.00	8.28	2.50	0.00	0.00	42.50	0.00	8.17	0.00	4,495.15	4,495.15	4.36
Outlet	N/A	N/A	N/A	N/A	0.72	N/A	N/A	11.96	N/A	0.00	58.60	58.60	N/A	8.71	N/A	4,493.23	4,493.23	0.00
SDMH-1	N/A	N/A	N/A	N/A	5.29	N/A	N/A	0.00	N/A	0.00	0.00	0.00	N/A	0.00	N/A	4,496.27	4,496.27	0.00
SDMH-2	N/A	N/A	N/A	N/A	0.95	N/A	N/A	0.36	N/A	0.00	44.47	44.47	N/A	0.34	N/A	4,495.91	4,495.88	2.10
SDMH-3A	N/A	N/A	N/A	N/A	0.87	N/A	N/A	1.25	N/A	0.00	49.38	49.51	N/A	1.09	N/A	4,494.88	4,494.87	0.93
SDMH-3	N/A	N/A	N/A	N/A	0.91	N/A	N/A	0.89	N/A	0.00	47.08	47.09	N/A	0.82	N/A	4,494.97	4,494.92	2.60
SDMH-4	N/A	N/A	N/A	N/A	0.98	N/A	N/A	8.28	N/A	0.00	42.60	42.60	N/A	8.16	N/A	4,495.11	4,494.94	4.66
SDMH-5	N/A	N/A	N/A	N/A	0.74	N/A	N/A	11.96	N/A	0.00	57.30	57.30	N/A	8.96	N/A	4,493.78	4,493.60	4.43
SDMH-6	N/A	N/A	N/A	N/A	0.98	N/A	N/A	0.18	N/A	0.00	42.76	42.76	N/A	0.18	N/A	4,497.82	4,497.78	1.84
SDMH-7	N/A	N/A	N/A	N/A	0.94	N/A	N/A	0.36	N/A	0.00	45.10	45.10	N/A	0.34	N/A	4,496.59	4,496.53	2.32
SDMH-8	N/A	N/A	N/A	N/A	0.91	N/A	N/A	0.77	N/A	0.00	46.60	46.60	N/A	0.71	N/A	4,495.73	4,495.67	2.86
SDMH-9	N/A	N/A	N/A	N/A	0.87	N/A	N/A	1.43	N/A	0.00	49.53	49.55	N/A	1.25	N/A	4,494.91	4,494.90	1.02
SDMH-9A	N/A	N/A	N/A	N/A	0.74	N/A	N/A	3.69	N/A	0.00	57.26	57.26	N/A	2.77	N/A	4,494.83	4,494.25	7.92

100yr, 42.5min



Detailed Report for Outlet

Flows			
Total Discharge	9.15 cfs	Known Flow	0.00 cfs
Upstream Additional + Carryover	0.00 cfs	Total Watershed (CIA)	9.15 cfs

Watershed Data			
System Intensity	0.76 in/hr	Upstream CA	11.96 acres
Total CA	11.96 acres		

Flow Times			
System Flow Time	73.40 min	Upstream Flow Time	73.40 min

Elevations			
HGL In	4,493.23 ft	HGL Out	4,493.23 ft
Ground Elevation	4,491.23 ft	Rim Elevation	4,491.23 ft
Sump Elevation	4,490.23 ft		

Other Properties			
X	158,763.87 ft	Y	722,082.58 ft
Velocity	0.00 ft/s	Headloss	0.00 ft
Headloss Coefficient	0.00	Station	0+00 ft
External Flow	0.00 cfs		