TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Basin Drainage Area								
Drainage Area		Acres	159.74	175.31	171.49	113.34	131.32	152.98
Drainage Area		sq. mi.	0.2496	0.2739	0.2680	0.1771	0.2052	0.2390
Impervious Cover								
Description		***I***	***Area in Each Development Category****					
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	10.21	0.00	0.00	0.00	0.00	6.92
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	171.49	0.00	1.70	146.07
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	36.02	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	0.00	26.90	0.00	0.00	109.71	0.00
Impervious Area		Acres	15.88	2.69	85.75	0.00	11.82	78.92
Impervious Cover		%	9.9%	1.5%	50.0%	0.0%	9.0%	51.6%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Drainage Area	sq.mi.	A	0.25	0.27	0.27	0.18	0.21	0.24
Watershed Length	miles	L	0.65	0.77	0.88	1.14	1.06	0.44
Channel Slope	ft./mi.	S	2.41	2.80	3.96	4.29	1.93	1.30
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.070	0.070	0.060
Downstream Manning's "n"		Nd	0.060	0.060	0.060	0.050	0.050	0.060
Average Basin Slope	ft./mi.	So	6.9	7.3	5.5	31.0	16.5	13.0
Impervious Cover	%	I	9.94	1.53	50.00	0.00	9.00	51.59
Ponded Area	sq.mi.	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Weighted Manning's "n"		N	0.060	0.060	0.060	0.055	0.055	0.060
TC + R	hours	TC+R	5.28	6.72	2.22	6.13	6.44	1.80
Time of Concentration	hours	TC	1.69	2.20	0.62	3.48	2.98	0.76
Storage Coefficient	hours	R	3.59	4.52	1.60	2.66	3.46	1.04
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04
10-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04
25-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04
50-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04
100-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04
500-Year	hours	Rp	3.59	4.52	1.60	2.66	3.46	1.04

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Basin Drainage Area								
Drainage Area		Acres	40	154	226	171	131	415
Drainage Area		sq. mi.	0.0630	0.2409	0.3539	0.2676	0.2047	0.6489
Impervious Cover								
Description		***I***	***Area in Each Development Category****					
Road Pavement		100%	0.00	6.36	0.00	7.28	5.66	0.00
Commercial/Business		85%	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	0.00	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	52.70
Impervious Area		Acres	0.00	6.36	0.00	7.28	5.66	5.27
Impervious Cover		%	0.0%	4.1%	0.0%	4.3%	4.3%	1.3%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Drainage Area	sq.mi.	A	0.06	0.24	0.35	0.27	0.20	0.65
Watershed Length	miles	L	0.92	1.08	1.04	0.86	0.93	0.93
Channel Slope	ft./mi.	S	8.83	9.94	5.78	13.38	8.67	8.76
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.060	0.060	0.060
Downstream Manning's "n"		Nd	0.060	0.060	0.050	0.060	0.050	0.080
Average Basin Slope	ft./mi.	So	14.4	8.1	19.8	8.2	7.7	9.0
Impervious Cover	%	I	0.00	4.13	0.00	4.25	4.32	1.27
Ponded Area	sq.mi.	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Weighted Manning's "n"		N	0.060	0.060	0.053	0.060	0.053	0.075
TC + R	hours	TC+R	5.15	5.29	5.41	4.25	4.54	6.35
Time of Concentration	hours	TC	2.27	1.82	2.66	1.47	1.53	2.30
Storage Coefficient	hours	R	2.89	3.47	2.75	2.78	3.01	4.05
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05
10-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05
25-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05
50-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05
100-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05
500-Year	hours	Rp	2.89	3.47	2.75	2.78	3.01	4.05

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD						
Sub-Area			**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Basin Drainage Area						
Drainage Area		Acres	693	56	85	205
Drainage Area		sq. mi.	1.08	0.0871	0.1328	0.3203
Impervious Cover						
Description		***I***	***Area in Each Development Category****			
Road Pavement		100%	6.40	0.00	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Commercial/Business		85%	0.00	0.00		
Industrial		72%	0.00	0.00		
Residential (1/8 acre or less)		65%	0.00	0.00		
Residential (1/5 acre)		50%	375.01	35.74		
Residential (1/4 acre)		38%	0.00	0.00		
Residential (1/3 acre)		30%	0.00	0.00		
Residential (1/2 acre)		25%	0.00	0.00		
Residential (1 acre)		20%	0.00	0.00		
Parks/Open Areas		10%	0.00	0.00		
Impervious Area		Acres	193.91	17.87		
Impervious Cover		%	28.0%	32.1%		
Time of Concentration & Storage Coefficient						
Parameter	**Units**	**Symbol**	**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Drainage Area	sq.mi.	A	1.08	0.09	0.13	0.32
Watershed Length	miles	L	2.76	0.49	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Channel Slope	ft./mi.	S	3.27	8.89		
Upstream Manning's "n"		Nu	0.045	0.045		
Downstream Manning's "n"		Nd	0.045	0.045		
Average Basin Slope	ft./mi.	So	3.1	5.6		
Impervious Cover	%	I	27.97	32.07		
Ponded Area	sq.mi.	P	0.0	0.0		
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0		
Computed Results			**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Weighted Manning's "n"		N	0.045	0.045	See Above	
TC + R	hours	TC+R	6.31	1.51		
Time of Concentration	hours	TC	1.19	0.43	0.17	1.40
Storage Coefficient	hours	R	5.12	1.08	0.50	4.60
Percent Ponding	%		0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00
Storage Multipliers						
5-Year	n/a	RM	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00
Adj. Storage Coefficients						
5-Year	hours	Rp	5.12	1.08	0.50	4.60
10-Year	hours	Rp	5.12	1.08	0.50	4.60
25-Year	hours	Rp	5.12	1.08	0.50	4.60
50-Year	hours	Rp	5.12	1.08	0.50	4.60
100-Year	hours	Rp	5.12	1.08	0.50	4.60
500-Year	hours	Rp	5.12	1.08	0.50	4.60

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Basin Drainage Area								
Drainage Area		Acres	318	292	220	186	97	83
Drainage Area		sq. mi.	0.4970	0.4568	0.3438	0.2907	0.1516	0.1293
Impervious Cover								
Description		***I***	***Area in Each Development Category****					
Road Pavement		100%	9.40	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	0.00	0.00	4.49	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	88.60	207.40	203.92	70.48	97.00	46.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	27.12	41.48	44.60	14.10	19.40	9.20
Impervious Cover		%	8.5%	14.2%	20.3%	7.6%	20.0%	11.1%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Drainage Area	sq.mi.	A	0.50	0.46	0.34	0.29	0.15	0.13
Watershed Length	miles	L	1.51	1.14	0.38	0.66	0.66	0.76
Channel Slope	ft./mi.	S	2.00	8.00	18.00	5.11	4.00	14.00
Upstream Manning's "n"		Nu	0.080	0.060	0.060	0.060	0.060	0.060
Downstream Manning's "n"		Nd	0.080	0.060	0.080	0.080	0.060	0.060
Average Basin Slope	ft./mi.	So	22.0	19.0	18.0	36.2	5.0	16.0
Impervious Cover	%	I	8.53	14.19	20.27	7.58	20.00	11.12
Ponded Area	acres	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	acres	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Weighted Manning's "n"		N	0.080	0.060	0.075	0.075	0.060	0.060
TC + R	hours	TC+R	10.30	4.19	1.86	4.52	3.79	3.10
Time of Concentration	hours	TC	5.26	2.04	0.89	2.68	1.01	1.42
Storage Coefficient	hours	R	5.05	2.15	0.97	1.84	2.78	1.68
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68
10-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68
25-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68
50-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68
100-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68
500-Year	hours	Rp	5.05	2.15	0.97	1.84	2.78	1.68

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Basin Drainage Area								
Drainage Area		Acres	260	31	168	110	56	47
Drainage Area		sq. mi.	0.4055	0.0483	0.2623	0.1714	0.0872	0.0730
Impervious Cover								
Description		***I***	***Area in Each Development Category****					
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	181.54	12.17	71.05	99.74	0.00	46.69
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	36.31	2.43	14.21	19.95	0.00	9.34
Impervious Cover		%	14.0%	7.9%	8.5%	18.2%	0.0%	20.0%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Drainage Area	sq.mi.	A	0.41	0.05	0.26	0.17	0.09	0.07
Watershed Length	miles	L	0.23	0.15	0.76	0.95	0.57	0.42
Channel Slope	ft./mi.	S	3.00	5.00	2.00	16.45	5.00	6.00
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.100	0.080	0.060
Downstream Manning's "n"		Nd	0.080	0.080	0.060	0.070	0.070	0.080
Average Basin Slope	ft./mi.	So	3.0	5.0	13.0	16.3	58.0	5.0
Impervious Cover	%	I	13.99	7.88	8.46	18.18	0.00	20.00
Ponded Area	acres	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	acres	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Weighted Manning's "n"		N	0.075	0.075	0.060	0.078	0.073	0.075
TC + R	hours	TC+R	3.27	2.41	5.87	3.50	4.60	3.12
Time of Concentration	hours	TC	0.59	0.64	2.49	1.61	3.09	0.83
Storage Coefficient	hours	R	2.68	1.77	3.39	1.89	1.52	2.29
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29
10-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29
25-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29
50-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29
100-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29
500-Year	hours	Rp	2.68	1.77	3.39	1.89	1.52	2.29

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD							
Sub-Area			**LPC1**	**LPC3**	**LPC4**	**LPC5**	**LPC6**
Basin Drainage Area							
Drainage Area		Acres	1637	975	645	609	309
Drainage Area		sq. mi.	2.56	1.52	1.01	0.9517	0.4821
Impervious Cover							
Description		***I***	***Area in Each Development Category****				
Commercial/Business/Roadway		85%	21.01	34.20	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	56.80	0.00	0.00	0.00
Residential (1 acre)		20%	144.57	0.00	33.00	30.00	15.00
Impervious Area		Acres	46.77	43.27	6.60	6.00	3.00
Impervious Cover		%	2.9%	4.4%	1.0%	1.0%	1.0%
Time of Concentration & Storage Coefficient							
Parameter	**Units**	**Symbol**	**LPC1**	**LPC3**	**LPC4**	**LPC5**	**LPC6**
Drainage Area	sq.mi.	A	2.56	1.52	1.01	0.95	0.48
Watershed Length	miles	L	2.27	1.70	1.55	1.14	1.48
Channel Slope	ft./mi.	S	5.00	13.00	11.00	16.00	11.00
Upstream Manning's "n"		Nu	0.150	0.060	0.150	0.150	0.150
Downstream Manning's "n"		Nd	0.060	0.150	0.150	0.150	0.150
Average Basin Slope	ft./mi.	So	6.0	4.0	17.0	15.0	32.0
Impervious Cover	%	I	2.86	4.44	1.02	0.99	0.97
Ponded Area	acres	P	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	acres	Ap	0.0	0.0	0.0	0.0	0.0
Computed Results			**LPC1**	**LPC3**	**LPC4**	**LPC5**	**LPC6**
Weighted Manning's "n"		N	0.083	0.128	0.150	0.150	0.150
TC + R	hours	TC+R	13.49	12.44	13.01	9.96	11.83
Time of Concentration	hours	TC	3.99	2.85	6.08	4.45	6.77
Storage Coefficient	hours	R	9.50	9.60	6.93	5.51	5.06
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00
Storage Multipliers							
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients							
5-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06
10-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06
25-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06
50-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06
100-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06
500-Year	hours	Rp	9.50	9.60	6.93	5.51	5.06

*Note: Where obvious detention facilities were noted, development percentages were not increased so that the detention basin effects were taken into consideration.

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Basin Drainage Area								
Drainage Area		Acres	159.74	175.31	171.49	113.34	131.32	152.98
Drainage Area		sq. mi.	0.2496	0.2739	0.2680	0.1771	0.2052	0.2390
Impervious Cover								
Description		***I***	***Area in Each Development Category***					
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	10.21	0.00	0.00	0.00	0.00	6.92
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	83.30	41.03	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	171.49	113.34	21.61	146.07
Residential (1/4 acre)		38%	19.00	26.60	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	36.02	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	11.21	66.52	0.00	0.00	109.71	0.00
Impervious Area		Acres	78.37	43.43	85.75	56.67	21.78	78.92
Impervious Cover		%	49.1%	24.8%	50.0%	50.0%	16.6%	51.6%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Drainage Area	sq.mi.	A	0.25	0.27	0.27	0.18	0.21	0.24
Watershed Length	miles	L	0.65	0.77	0.88	1.14	1.06	0.44
Channel Slope	ft./mi.	S	2.41	4.00	0.53	0.53	0.53	1.30
Upstream Manning's "n"		Nu	0.060	0.045	0.045	0.045	0.045	0.060
Downstream Manning's "n"		Nd	0.060	0.045	0.045	0.045	0.045	0.060
Average Basin Slope	ft./mi.	So	6.9	7.3	5.5	31.0	16.5	13.0
Impervious Cover	%	I	49.06	24.77	50.00	50.00	16.58	51.59
Ponded Area	sq.mi.	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**MB1A**	**MB1**	**MB2**	**MB3**	**MB4**	**MB5**
Weighted Manning's "n"		N	0.060	0.045	0.045	0.045	0.045	0.060
TC + R	hours	TC+R	2.14	2.82	3.13	3.00	6.65	1.80
Time of Concentration	hours	TC	0.69	0.93	0.88	1.70	3.08	0.76
Storage Coefficient	hours	R	1.46	1.90	2.25	1.30	3.58	1.04
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04
10-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04
25-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04
50-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04
100-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04
500-Year	hours	Rp	1.46	1.90	2.25	1.30	3.58	1.04

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Basin Drainage Area								
Drainage Area		Acres	40	154	226	171	131	415
Drainage Area		sq. mi.	0.0630	0.2409	0.3539	0.2676	0.2047	0.6489
Impervious Cover								
Description		***I***	***Area in Each Development Category***					
Road Pavement		100%	0.00	6.36	0.00	7.28	5.66	0.00
Commercial/Business		85%	0.00	147.79	0.00	36.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	40.30	0.00	226.49	127.60	112.50	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	0.00	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	13.00	52.70
Impervious Area		Acres	20.15	131.98	113.25	101.68	63.21	5.27
Impervious Cover		%	50.0%	85.6%	50.0%	59.4%	48.3%	1.3%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Drainage Area	sq.mi.	A	0.06	0.24	0.35	0.27	0.20	0.65
Watershed Length	miles	L	0.92	1.08	1.04	0.86	0.93	0.93
Channel Slope	ft./mi.	S	8.83	9.94	2.30	13.38	5.30	8.76
Upstream Manning's "n"		Nu	0.060	0.060	0.045	0.045	0.045	0.060
Downstream Manning's "n"		Nd	0.060	0.060	0.045	0.045	0.045	0.080
Average Basin Slope	ft./mi.	So	14.4	8.1	19.8	8.2	7.7	9.0
Impervious Cover	%	I	50.00	85.62	50.00	59.38	48.25	1.27
Ponded Area	sq.mi.	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**MB6**	**MB7**	**MB8**	**MB9**	**MB10**	**MB11**
Weighted Manning's "n"		N	0.060	0.060	0.045	0.045	0.045	0.075
TC + R	hours	TC+R	1.63	0.81	1.97	0.95	1.68	6.35
Time of Concentration	hours	TC	0.72	0.28	0.97	0.33	0.57	2.30
Storage Coefficient	hours	R	0.91	0.53	1.00	0.62	1.11	4.05
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05
10-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05
25-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05
50-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05
100-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05
500-Year	hours	Rp	0.91	0.53	1.00	0.62	1.11	4.05

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD						
Sub-Area			**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Basin Drainage Area						
Drainage Area		Acres	693	56	85	205
Drainage Area		sq. mi.	1.08	0.0871	0.1328	0.3203
Impervious Cover						
Description		***I***	***Area in Each Development Category***			
Road Pavement		100%	6.40	0.00	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Commercial/Business		85%	203.00	0.00		
Industrial		72%	0.00	0.00		
Residential (1/8 acre or less)		65%	0.00	0.00		
Residential (1/5 acre)		50%	475.00	55.73		
Residential (1/4 acre)		38%	0.00	0.00		
Residential (1/3 acre)		30%	0.00	0.00		
Residential (1/2 acre)		25%	0.00	0.00		
Residential (1 acre)		20%	0.00	0.00		
Parks/Open Areas		10%	15.00	0.00		
Impervious Area		Acres	417.95	27.87		
Impervious Cover		%	60.3%	50.0%		
Time of Concentration & Storage Coefficient						
Parameter	**Units**	**Symbol**	**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Drainage Area	sq.mi.	A	1.08	0.09	0.13	0.32
Watershed Length	miles	L	2.76	0.49	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Channel Slope	ft./mi.	S	3.27	8.89		
Upstream Manning's "n"		Nu	0.045	0.045		
Downstream Manning's "n"		Nd	0.045	0.045		
Average Basin Slope	ft./mi.	So	3.1	5.6		
Impervious Cover	%	I	60.28	50.00		
Ponded Area	sq.mi.	P	0.0	0.0		
Area Affected by Ponding	sq.mi.	Ap	0.0	0.0		
Computed Results			**VICKS**	**VICKS2**	**LSH1**	**LSH2**
Weighted Manning's "n"		N	0.045	0.045	See Above	
TC + R	hours	TC+R	3.00	1.00		
Time of Concentration	hours	TC	0.56	0.28	0.17	1.40
Storage Coefficient	hours	R	2.44	0.72	0.50	4.60
Percent Ponding	%		0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00
Storage Multipliers						
5-Year	n/a	RM	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00
Adj. Storage Coefficients						
5-Year	hours	Rp	2.44	0.72	0.50	4.60
10-Year	hours	Rp	2.44	0.72	0.50	4.60
25-Year	hours	Rp	2.44	0.72	0.50	4.60
50-Year	hours	Rp	2.44	0.72	0.50	4.60
100-Year	hours	Rp	2.44	0.72	0.50	4.60
500-Year	hours	Rp	2.44	0.72	0.50	4.60

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Basin Drainage Area								
Drainage Area		Acres	318	292	220	186	97	83
Drainage Area		sq. mi.	0.4970	0.4568	0.3438	0.2907	0.1516	0.1293
Impervious Cover								
Description		***I***	***Area in Each Development Category***					
Road Pavement		100%	9.40	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	138.34	0.00	4.49	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	88.60	292.32	220.02	186.02	97.00	82.76
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	144.71	58.46	47.82	37.20	19.40	16.55
Impervious Cover		%	45.5%	20.0%	21.7%	20.0%	20.0%	20.0%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Drainage Area	sq.mi.	A	0.50	0.46	0.34	0.29	0.15	0.13
Watershed Length	miles	L	1.51	1.14	0.38	0.66	0.66	0.76
Channel Slope	ft./mi.	S	2.00	8.00	18.00	5.11	4.00	14.00
Upstream Manning's "n"		Nu	0.080	0.060	0.060	0.060	0.060	0.060
Downstream Manning's "n"		Nd	0.080	0.060	0.080	0.080	0.060	0.060
Average Basin Slope	ft./mi.	So	22.0	19.0	18.0	36.2	5.0	16.0
Impervious Cover	%	I	45.49	20.00	21.73	20.00	20.00	20.00
Ponded Area	acres	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	acres	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC1**	**LOC2**	**LOC3**	**LOC4**	**LOC5**	**LOC6**
Weighted Manning's "n"		N	0.080	0.060	0.075	0.075	0.060	0.060
TC + R	hours	TC+R	4.40	3.67	1.80	3.40	3.79	2.53
Time of Concentration	hours	TC	2.24	1.78	0.86	2.01	1.01	1.16
Storage Coefficient	hours	R	2.15	1.88	0.94	1.38	2.78	1.37
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37
10-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37
25-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37
50-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37
100-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37
500-Year	hours	Rp	2.15	1.88	0.94	1.38	2.78	1.37

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Basin Drainage Area								
Drainage Area		Acres	260	31	168	110	56	47
Drainage Area		sq. mi.	0.4055	0.0483	0.2623	0.1714	0.0872	0.0730
Impervious Cover								
Description		***I***	***Area in Each Development Category***					
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	259.55	30.90	167.87	109.72	55.82	46.69
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	51.91	6.18	33.57	21.94	11.16	9.34
Impervious Cover		%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Drainage Area	sq.mi.	A	0.41	0.05	0.26	0.17	0.09	0.07
Watershed Length	miles	L	0.23	0.15	0.76	0.95	0.57	0.42
Channel Slope	ft./mi.	S	3.00	5.00	2.00	16.45	5.00	6.00
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.100	0.080	0.060
Downstream Manning's "n"		Nd	0.080	0.080	0.060	0.070	0.070	0.080
Average Basin Slope	ft./mi.	So	3.0	5.0	13.0	16.3	58.0	5.0
Impervious Cover	%	I	20.00	20.00	20.00	20.00	20.00	20.00
Ponded Area	acres	P	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	acres	Ap	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC7**	**LOC8**	**LOC9**	**LOC10**	**LOC11**	**COW**
Weighted Manning's "n"		N	0.075	0.075	0.060	0.078	0.073	0.075
TC + R	hours	TC+R	2.85	1.83	4.50	3.36	2.90	3.12
Time of Concentration	hours	TC	0.52	0.49	1.91	1.55	1.95	0.83
Storage Coefficient	hours	R	2.33	1.34	2.60	1.81	0.96	2.29
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Storage Multipliers								
5-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
10-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
25-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
50-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
100-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
500-Year	n/a	RM	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Storage Coefficients								
5-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29
10-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29
25-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29
50-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29
100-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29
500-Year	hours	Rp	2.33	1.34	2.60	1.81	0.96	2.29

***LONG POINT CREEK REMAINS THE SAME AS EXISTING CONDITIONS**

TIME OF CONCENTRATION CALCULATIONS USING THE SCS UPLAND METHOD														
Sub-Area			**MB1A**	**MB1A**	**MB1**	**MB1**	**MB2**	**MB2**	**MB3**	**MB3**	**MB4**	**MB4**	**MB5**	**MB5**
Basin Drainage Area														
Drainage Area		Acres	159.74	159.74	175.31	175.31	171.49	171.49	113.34	113.34	131.32	131.32	152.98	152.98
Drainage Area		sq. mi.	0.2496	0.2496	0.2739	0.2739	0.2680	0.2680	0.1771	0.1771	0.2052	0.2052	0.2390	0.2390
Impervious Cover														
Description		***I***												
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	10.21	10.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.92	6.92
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	83.30	0.00	41.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	171.49	171.49	113.34	0.00	21.61	1.70	146.07	146.07
Residential (1/4 acre)		38%	19.00	0.00	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	36.02	36.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	11.21	0.00	66.52	26.90	0.00	0.00	0.00	0.00	109.71	109.71	0.00	0.00
Impervious Area		Acres	78.37	15.88	43.43	2.69	85.75	85.75	56.67	0.00	21.78	11.82	78.92	78.92
Impervious Cover		%	49.1%	9.9%	24.8%	1.5%	50.0%	50.0%	50.0%	0.0%	16.6%	9.0%	51.6%	51.6%
Time of Concentration & Storage Coefficient														
Parameter	**Units**	**Symbol**	**MB1A**	**MB1A**	**MB1**	**MB1**	**MB2**	**MB2**	**MB3**	**MB3**	**MB4**	**MB4**	**MB5**	**MB5**
Drainage Area	sq.mi.	A	0.25	0.25	0.27	0.27	0.27	0.27	0.18	0.18	0.21	0.21	0.24	0.24
Watershed Length	miles	L	0.65	0.65	0.77	0.77	0.88	0.88	1.14	1.14	1.06	1.06	0.44	0.44
Channel Slope	ft./mi.	S	2.41	2.41	4.00	2.80	0.53	3.96	0.53	4.29	0.53	1.93	1.30	1.30
Upstream Manning's "n"		Nu	0.060	0.060	0.045	0.060	0.045	0.060	0.045	0.070	0.045	0.070	0.060	0.060
Downstream Manning's "n"		Nd	0.060	0.060	0.045	0.060	0.045	0.060	0.045	0.050	0.045	0.050	0.060	0.060
Average Basin Slope	ft./mi.	So	6.9	6.9	7.3	7.3	5.5	5.5	31.0	31.0	16.5	16.5	13.0	13.0
Impervious Cover	%	I	49.06	9.94	24.77	1.53	50.00	50.00	50.00	0.00	16.58	9.00	51.59	51.59
Ponded Area	sq.mi.	P	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**MB1A**	**MB1A**	**MB1**	**MB1**	**MB2**	**MB2**	**MB3**	**MB3**	**MB4**	**MB4**	**MB5**	**MB5**
Weighted Manning's "n"		N	0.060	0.060	0.045	0.060	0.045	0.060	0.045	0.055	0.045	0.055	0.060	0.060
TC + R	hours	TC+R	2.14	5.28	2.82	6.72	3.13	2.22	3.00	6.13	6.65	6.44	1.80	1.80
Time of Concentration	hours	TC	0.69	1.69	0.93	2.20	0.88	0.62	1.70	3.48	3.08	2.98	0.76	0.76
Storage Coefficient	hours	R	1.46	3.59	1.90	4.52	2.25	1.60	1.30	2.66	3.58	3.46	1.04	1.04
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD														
Sub-Area			**MB6**	**MB6**	**MB7**	**MB7**	**MB8**	**MB8**	**MB9**	**MB9**	**MB10**	**MB10**	**MB11**	**MB11**
Basin Drainage Area														
Drainage Area		Acres	40	40	154	154	226	226	171	171	131	131	415	415
Drainage Area		sq. mi.	0.0630	0.0630	0.2409	0.2409	0.3539	0.3539	0.2676	0.2676	0.2047	0.2047	0.6489	0.6489
Impervious Cover														
Description		***I***	***Area in Each Development Category***											
Road Pavement		100%	0.00	0.00	6.36	6.36	0.00	0.00	7.28	7.28	5.66	5.66	0.00	0.00
Commercial/Business		85%	0.00	0.00	147.79	0.00	0.00	0.00	36.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	40.30	0.00	0.00	0.00	226.49	0.00	127.60	0.00	112.50	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00	0.00	52.70	52.70
Impervious Area		Acres	20.15	0.00	131.98	6.36	113.25	0.00	101.68	7.28	63.21	5.66	5.27	5.27
Impervious Cover		%	50.0%	0.0%	85.6%	4.1%	50.0%	0.0%	59.4%	4.3%	48.3%	4.3%	1.3%	1.3%
Time of Concentration & Storage Coefficient														
Parameter	**Units**	**Symbol**	**MB6**	**MB6**	**MB7**	**MB7**	**MB8**	**MB8**	**MB9**	**MB9**	**MB10**	**MB10**	**MB11**	**MB11**
Drainage Area	sq.mi.	A	0.06	0.06	0.24	0.24	0.35	0.35	0.27	0.27	0.20	0.20	0.65	0.65
Watershed Length	miles	L	0.92	0.92	1.08	1.08	1.04	1.04	0.86	0.86	0.93	0.93	0.93	0.93
Channel Slope	ft./mi.	S	8.83	8.83	9.94	9.94	2.30	5.78	13.38	13.38	5.30	8.67	8.76	8.76
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.060	0.045	0.060	0.045	0.060	0.045	0.060	0.060	0.060
Downstream Manning's "n"		Nd	0.060	0.060	0.060	0.060	0.045	0.050	0.045	0.060	0.045	0.050	0.080	0.080
Average Basin Slope	ft./mi.	So	14.4	14.4	8.1	8.1	19.8	19.8	8.2	8.2	7.7	7.7	9.0	9.0
Impervious Cover	%	I	50.00	0.00	85.62	4.13	50.00	0.00	59.38	4.25	48.25	4.32	1.27	1.27
Ponded Area	sq.mi.	P	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Area Affected by Ponding	sq.mi.	Ap	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Computed Results			**MB6**	**MB6**	**MB7**	**MB7**	**MB8**	**MB8**	**MB9**	**MB9**	**MB10**	**MB10**	**MB11**	**MB11**
Weighted Manning's "n"		N	0.060	0.060	0.060	0.060	0.045	0.053	0.045	0.060	0.045	0.053	0.075	0.075
TC + R	hours	TC+R	1.63	5.15	0.81	5.29	1.97	5.41	0.95	4.25	1.68	4.54	6.35	6.35
Time of Concentration	hours	TC	0.72	2.27	0.28	1.82	0.97	2.66	0.33	1.47	0.57	1.53	2.30	2.30
Storage Coefficient	hours	R	0.91	2.89	0.53	3.47	1.00	2.75	0.62	2.78	1.11	3.01	4.05	4.05
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.10	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD								
Sub-Area			**VICKS**	**VICKS**	**VICKS2**	**VICKS2**	**LSH1**	**LSH2**
Basin Drainage Area							**No Change Ex-Prop**	
Drainage Area		Acres	693	693	56	56	85	205
Drainage Area		sq. mi.	1.08	1.08	0.0871	0.0871	0.1328	0.3203
Impervious Cover								
Description		***I***	***Area in Each Development Category***					
Road Pavement		100%	6.40	6.40	0.00	0.00	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Commercial/Business		85%	203.00	0.00	0.00	0.00		
Industrial		72%	0.00	0.00	0.00	0.00		
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00		
Residential (1/5 acre)		50%	475.00	375.01	55.73	35.74		
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00		
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00		
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00		
Residential (1 acre)		20%	0.00	0.00	0.00	0.00		
Parks/Open Areas		10%	15.00	0.00	0.00	0.00		
Impervious Area		Acres	417.95	193.91	27.87	17.87		
Impervious Cover		%	60.3%	28.0%	50.0%	32.1%		
Time of Concentration & Storage Coefficient								
Parameter	**Units**	**Symbol**	**VICKS**	**VICKS**	**VICKS2**	**VICKS2**	**LSH1**	**LSH2**
Drainage Area	sq.mi.	A	1.08	1.08	0.09	0.09	0.13	0.32
Watershed Length	miles	L	2.76	2.76	0.49	0.49	These values and Tc & R calculations taken from RG Miller report on development dated 2004/2005	
Channel Slope	ft./mi.	S	3.27	3.27	8.89	8.89		
Upstream Manning's "n"		Nu	0.045	0.045	0.045	0.045		
Downstream Manning's "n"		Nd	0.045	0.045	0.045	0.045		
Average Basin Slope	ft./mi.	So	3.1	3.1	5.6	5.6		
Impervious Cover	%	I	60.28	27.97	50.00	32.07		
Ponded Area	sq.mi.	P	0	0.0	0.0	0.0		
Area Affected by Ponding	sq.mi.	Ap	0	0.0	0.0	0.0		
Computed Results			**VICKS**	**VICKS**	**VICKS2**	**VICKS2**	**LSH1**	**LSH2**
Weighted Manning's "n"		N	0.045	0.045	0.045	0.045	See Above	
TC + R	hours	TC+R	3.00	6.31	1.00	1.51		
Time of Concentration	hours	TC	0.56	1.19	0.28	0.43	0.17	1.40
Storage Coefficient	hours	R	2.44	5.12	0.72	1.08	0.50	4.60
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD														
Sub-Area			**LOC1**	**LOC1**	**LOC2**	**LOC2**	**LOC3**	**LOC3**	**LOC4**	**LOC4**	**LOC5**	**LOC5**	**LOC6**	**LOC6**
Basin Drainage Area														
Drainage Area		Acres	318	318	292	292	220	220	186	186	97	97	83	83
Drainage Area		sq. mi.	0.4970	0.4970	0.4568	0.4568	0.3438	0.3438	0.2907	0.2907	0.1516	0.1516	0.1293	0.1293
Impervious Cover														
Description		***I***	***Area in Each Development Category***											
Road Pavement		100%	9.40	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	138.34	0.00	0.00	0.00	4.49	4.49	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	88.60	88.60	292.32	207.40	220.02	203.92	186.02	70.48	97.00	97.00	82.80	46.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	144.71	27.12	58.46	41.48	47.82	44.60	37.20	14.10	19.40	19.40	16.56	9.20
Impervious Cover		%	45.5%	8.5%	20.0%	14.2%	21.7%	20.3%	20.0%	7.6%	20.0%	20.0%	20.0%	11.1%
Time of Concentration & Storage Coefficient														
Parameter	**Units**	**Symbol**	**LOC1**	**LOC1**	**LOC2**	**LOC2**	**LOC3**	**LOC3**	**LOC4**	**LOC4**	**LOC5**	**LOC5**	**LOC6**	**LOC6**
Drainage Area	sq.mi.	A	0.50	0.50	0.46	0.46	0.34	0.34	0.29	0.29	0.15	0.15	0.13	0.13
Watershed Length	miles	L	1.51	1.51	1.14	1.14	0.38	0.38	0.66	0.66	0.66	0.66	0.76	0.76
Channel Slope	ft./mi.	S	2.00	2.00	8.00	8.00	18.00	18.00	5.11	5.11	4.00	4.00	14.00	14.00
Upstream Manning's "n"		Nu	0.080	0.080	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
Downstream Manning's "n"		Nd	0.080	0.080	0.060	0.060	0.080	0.080	0.080	0.080	0.060	0.060	0.060	0.060
Average Basin Slope	ft./mi.	So	22.0	22.0	19.0	19.0	18.0	18.0	36.2	36.2	5.0	5.0	16.0	16.0
Impervious Cover	%	I	45.49	8.53	20.00	14.19	21.73	20.27	20.00	7.58	20.00	20.00	20.01	11.12
Ponded Area	sq.mi.	P	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC1**	**LOC1**	**LOC2**	**LOC2**	**LOC3**	**LOC3**	**LOC4**	**LOC4**	**LOC5**	**LOC5**	**LOC6**	**LOC6**
Weighted Manning's "n"		N	0.080	0.080	0.060	0.060	0.075	0.075	0.075	0.075	0.060	0.060	0.060	0.060
TC + R	hours	TC+R	4.40	10.30	3.67	4.19	1.80	1.86	3.40	4.52	3.79	3.79	2.53	3.10
Time of Concentration	hours	TC	2.24	5.26	1.78	2.04	0.86	0.89	2.01	2.68	1.01	1.01	1.16	1.42
Storage Coefficient	hours	R	2.15	5.05	1.88	2.15	0.94	0.97	1.38	1.84	2.78	2.78	1.37	1.68
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD														
Sub-Area			**LOC7**	**LOC7**	**LOC8**	**LOC8**	**LOC9**	**LOC9**	**LOC10**	**LOC10**	**LOC11**	**LOC11**	**COW**	**COW**
Basin Drainage Area														
Drainage Area		Acres	260	260	31	31	168	168	110	110	56	56	47	47
Drainage Area		sq. mi.	0.4055	0.4055	0.0483	0.0483	0.2623	0.2623	0.1714	0.1714	0.0872	0.0872	0.0730	0.0730
Impervious Cover														
Description		***I***	***Area in Each Development Category***											
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	259.55	181.54	30.90	12.17	167.87	71.05	109.72	99.74	55.82	0.00	46.69	46.69
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	51.91	36.31	6.18	2.43	33.57	14.21	21.94	19.95	11.16	0.00	9.34	9.34
Impervious Cover		%	20.0%	14.0%	20.0%	7.9%	20.0%	8.5%	20.0%	18.2%	20.0%	0.0%	20.0%	20.0%
Time of Concentration & Storage Coefficient														
Parameter	**Units**	**Symbol**	**LOC7**	**LOC7**	**LOC8**	**LOC8**	**LOC9**	**LOC9**	**LOC10**	**LOC10**	**LOC11**	**LOC11**	**COW**	**COW**
Drainage Area	sq.mi.	A	0.41	0.41	0.05	0.05	0.26	0.26	0.17	0.17	0.09	0.09	0.07	0.07
Watershed Length	miles	L	0.23	0.23	0.15	0.15	0.76	0.76	0.95	0.95	0.57	0.57	0.42	0.42
Channel Slope	ft./mi.	S	3.00	3.00	5.00	5.00	2.00	2.00	16.45	16.45	5.00	5.00	6.00	6.00
Upstream Manning's "n"		Nu	0.060	0.060	0.060	0.060	0.060	0.060	0.100	0.100	0.080	0.080	0.060	0.060
Downstream Manning's "n"		Nd	0.080	0.080	0.080	0.080	0.060	0.060	0.070	0.070	0.070	0.070	0.080	0.080
Average Basin Slope	ft./mi.	So	3.0	3.0	5.0	5.0	13.0	13.0	16.3	16.3	58.0	58.0	5.0	5.0
Impervious Cover	%	I	20.00	13.99	20.00	7.88	20.00	8.46	20.00	18.18	20.00	0.00	20.00	20.00
Ponded Area	sq.mi.	P	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LOC7**	**LOC7**	**LOC8**	**LOC8**	**LOC9**	**LOC9**	**LOC10**	**LOC10**	**LOC11**	**LOC11**	**COW**	**COW**
Weighted Manning's "n"		N	0.075	0.075	0.075	0.075	0.060	0.060	0.078	0.078	0.073	0.073	0.075	0.075
TC + R	hours	TC+R	2.85	3.27	1.83	2.41	4.50	5.87	3.36	3.50	2.90	4.60	3.12	3.12
Time of Concentration	hours	TC	0.52	0.59	0.49	0.64	1.91	2.49	1.55	1.61	1.95	3.09	0.83	0.83
Storage Coefficient	hours	R	2.33	2.68	1.34	1.77	2.60	3.39	1.81	1.89	0.96	1.52	2.29	2.29
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TIME OF CONCENTRATION CALCULATIONS USING THE FORT BEND METHOD

Sub-Area			LPC1	LPC1	LPC3	LPC3	LPC4	LPC4	LPC5	LPC5	LPC6	LPC6
Basin Drainage Area												
Drainage Area		Acres	1637	1637	975	975	645	645	609	609	309	309
Drainage Area		sq. mi.	2.5572	2.5572	1.5233	1.5233	1.0085	1.0085	0.9517	0.9517	0.4821	0.4821
Impervious Cover												
Description		***I***	***Area in Each Development Category***									
Road Pavement		100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business		85%	21.01	21.01	34.20	34.20	0.00	0.00	0.00	0.00	0.00	0.00
Industrial		72%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/8 acre or less)		65%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/5 acre)		50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/4 acre)		38%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/3 acre)		30%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1/2 acre)		25%	0.00	0.00	56.80	56.80	0.00	0.00	0.00	0.00	0.00	0.00
Residential (1 acre)		20%	144.57	144.57	0.00	0.00	33.00	33.00	30.00	30.00	15.00	15.00
Parks/Open Areas		10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Area		Acres	46.77	46.77	43.27	43.27	6.60	6.60	6.00	6.00	3.00	3.00
Impervious Cover		%	2.9%	2.9%	4.4%	4.4%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Time of Concentration & Storage Coefficient												
Parameter	**Units**	**Symbol**	**LPC1**	**LPC1**	**LPC3**	**LPC3**	**LPC4**	**LPC4**	**LPC5**	**LPC5**	**LPC6**	**LPC6**
Drainage Area	sq.mi.	A	2.56	2.56	1.52	1.52	1.01	1.01	0.95	0.95	0.48	0.48
Watershed Length	miles	L	2.27	2.27	1.70	1.70	1.55	1.55	1.14	1.14	1.48	1.48
Channel Slope	ft./mi.	S	5.00	5.00	13.00	13.00	11.00	11.00	16.00	16.00	11.00	11.00
Upstream Manning's "n"		Nu	0.150	0.150	0.060	0.060	0.150	0.150	0.150	0.150	0.150	0.150
Downstream Manning's "n"		Nd	0.060	0.060	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
Average Basin Slope	ft./mi.	So	6.0	6.0	4.0	4.0	17.0	17.0	15.0	15.0	32.0	32.0
Impervious Cover	%	I	2.86	2.86	4.44	4.44	1.02	1.02	0.99	0.99	0.97	0.97
Ponded Area	sq.mi.	P	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Area Affected by Ponding	sq.mi.	Ap	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computed Results			**LPC1**	**LPC1**	**LPC3**	**LPC3**	**LPC4**	**LPC4**	**LPC5**	**LPC5**	**LPC6**	**LPC6**
Weighted Manning's "n"		N	0.083	0.083	0.128	0.128	0.150	0.150	0.150	0.150	0.150	0.150
TC + R	hours	TC+R	13.49	13.49	12.44	12.44	13.01	13.01	9.96	9.96	11.83	11.83
Time of Concentration	hours	TC	3.99	3.99	2.85	2.85	6.08	6.08	4.45	4.45	6.77	6.77
Storage Coefficient	hours	R	9.50	9.50	9.60	9.60	6.93	6.93	5.51	5.51	5.06	5.06
Percent Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Percent Affected by Ponding	%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00