

Project: Gary Matzner Park

Date: 10/16/2024

Flood Routing Description: PRE-Development Calculations

Client : Village of Pincecrest

Job Number: 13861.00

Design Engineer :

Project Address / Location : 6610 N. Kendall Drive

City: Pinecrest

County: Miami-Dade

State: Florida

Zipcode: 33156

Section/Township/Range: Section 01, Township 55, Range 40

Surfacewater License: N/A

Zone: X

FEMA FIRM Information: 12086C0458L , Map Effective Date:09-11-2009

Project Description: Redevelopment of existing city owned lot with parking area, playground area and landscaping g

Total Drainage Basin: 2.890 Acres

Hydrogeologic Information :

Table 1.	1 Day Storm Event			3 Day Storm Event		
RAINFALL DATA	Rainfall Inches	Runoff Inches	Runoff Ac-Ft	Rainfall Inches	Runoff Inches	Runoff Ac-Ft
100 Year Return Period	14.7	8.03	1.935	17.5	10.47	2.521
25 Year Return Period	10.6	4.69	1.129	12.9	6.53	1.572
10 Year Return Period	8.4	2.55	0.614	10.4	4.53	1.092
5 Year Return Period	7.0	2.09	0.504	9.4	3.81	0.919
3 Year Return Period	6.0	1.49	0.359	8.1	2.84	0.685
5 Yr Return Period - 1 Hr	2.9	0.17	0.040			

Runoff estimation - USDA SCS formula

Runoff (in) $Q = \frac{(P-0.2S)^2}{P+0.8S}$

Where: P = accumulated rainfall (in.)
S = Soil Storage Value

Table 2. SUMMARY OF FLOOD ROUTING	Agency maps	SBUH Calculated with Q-1 Day Storm		SBUH Calculated with Q-3 Day Storm		SBUH Calculated *Zero Q-3 Day Storm		Calc. 5Yr 1 hour Peak Stage (ft)
		Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	
100 Year Return Period		10.31	0.00	10.53	0.00	10.53	0.00	Zero Q (Water Budget) 9.08
25 Year Return Period		10.01	0.00	10.18	0.00	10.18	0.00	
10 Year Return Period		9.79	0.00	10.00	0.00	10.00	0.00	
5 Year Return Period		9.65	0.00	9.90	0.00	9.90	0.00	
3 Year Return Period		9.56	0.00	9.76	0.00	9.76	0.00	

For 5 yr - 1 hr rainfall, Calculate 5 yr Vol by subtracting Exfil vol in inches from 5 yr 1 h rainfall, then calc Runoff using SCS formula. From stage storage table find Zero Discharge Stage. Uses Max. Elev of Lookup Stage or highest top of EXFIL trench. If exfil vol exceeds 5 year 1 hour vol. Uses Max. Elev of highest top of EXFIL trench.

* Zero Q indicates there is no offsite discharge included in the calculations (only Exfil Trench and Wells). Hypothetical stage calc. for PRE-POST Analysis.

Table 3. WATER QUALITY STORAGE REQUIREMENTS:		
Based on Total Drainage Basin Acreage	Ac-Ft	
1" x Basin Area	0.241	
2.5" x WQPI x (Basin Area - 0.00 Inches)	0.000	
Required Wet Detention (Total basin incl Offsite)		
0.5" Pretreatment-Com. Prjs,x(Basin Area - water area)	0.120	
Credit for Inlets in Grass Areas, GAC=0.2" x (TDA	0.048	N

Table 4. WATER QUALITY STORAGE SOURCE	Basin Storage Elev. (Ac-Ft)	WQ Eq WDV (Ac-Ft)	WQ Eq WDV Inches
Retention (RV) @			
Dry Det. (DDV) @			
Wet Det. (WDV) @			
Equiv WDV=WDV+RV/.5+DDV/.75)		0.000	
Exfil Trench Storage	0.000	0.000	
Total WQ EQ WDV - Provided		0.000	
Total WQ EQ WDV - Required		0.241	1.00

Exfil Vol. in Stage Storage =	(Ac-Ft)	(Inches)
	0.000	0.00

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Routing Results from Analysis ZERO Offsite Discharge

Table 6. STAGE - DISCHARGE INFORMATION 100 - YEAR STORM - ZERO Offsite Discharge

TIME STEP (HOUR)	Rain Fall RATIO	Rain C*P (IN)	Q Scs (IN)	Inst Q In (CFS)	Sbuh Q (CFS)	Tot Q In (AC-FT)	Sumq Out (AC-FT)	Stored Vol (AC-FT)	Stage Lk-Up (FEET)	Inst Q Lkup (CFS)	Avg. Q Out (CFS)	Step Qout (AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
4.00	0.02	0.31	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
8.00	0.05	0.63	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
12.00	0.07	0.94	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
16.00	0.10	1.25	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
20.00	0.12	1.57	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
24.00	0.15	1.88	0.01	0.02	0.01	0.00	0.00	0.00	9.00	0.00	0.00	0.00
28.00	0.18	2.34	0.06	0.07	0.05	0.01	0.00	0.01	9.02	0.00	0.00	0.00
32.00	0.22	2.79	0.14	0.07	0.07	0.03	0.00	0.03	9.07	0.00	0.00	0.00
36.00	0.25	3.25	0.26	0.09	0.09	0.06	0.00	0.06	9.12	0.00	0.00	0.00
40.00	0.29	3.71	0.42	0.11	0.12	0.10	0.00	0.10	9.20	0.00	0.00	0.00
44.00	0.32	4.17	0.60	0.19	0.15	0.14	0.00	0.14	9.28	0.00	0.00	0.00
48.00	0.36	4.62	0.80	0.14	0.15	0.19	0.00	0.19	9.38	0.00	0.00	0.00
52.00	0.40	5.20	1.08	0.31	0.25	0.25	0.00	0.25	9.50	0.00	0.00	0.00
56.00	0.50	6.39	1.75	0.72	0.65	0.41	0.00	0.41	9.59	0.00	0.00	0.00
58.00	0.57	7.37	2.36	1.07	1.04	0.55	0.00	0.55	9.68	0.00	0.00	0.00
59.00	0.63	8.09	2.84	1.64	1.53	0.65	0.00	0.65	9.74	0.00	0.00	0.00
59.50	0.68	8.73	3.30	2.65	2.39	0.74	0.00	0.74	9.79	0.00	0.00	0.00
59.75	0.85	10.91	4.93	19.00	8.02	0.91	0.00	0.91	9.89	0.00	0.00	0.00
60.00	1.02	13.07	6.67	20.29	15.77	1.23	0.00	1.23	10.05	0.00	0.00	0.00
60.50	1.09	14.01	7.45	4.53	7.56	1.67	0.00	1.67	10.22	0.00	0.00	0.00
61.00	1.13	14.50	7.86	2.42	3.22	1.84	0.00	1.84	10.28	0.00	0.00	0.00
62.00	1.18	15.16	8.42	1.41	1.58	2.00	0.00	2.00	10.34	0.00	0.00	0.00
64.00	1.24	15.95	9.11	0.91	0.98	2.18	0.00	2.17	10.41	0.00	0.00	0.00
68.00	1.31	16.88	9.92	0.53	0.59	2.38	0.00	2.38	10.48	0.00	0.00	0.00
72.00	1.36	17.50	10.47	0.40	0.40	2.51	0.00	2.51	10.53	0.00	0.00	0.00
Peak stage						10.53	At hour	72.00				
Peak discharge						0.00	At hour	72.00				

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Routing Results from Analysis WITHOUT Offsite Discharge
Table 7. STAGE - DISCHARGE INFORMATION 25 - YEAR STORM - Zero Offsite Discharge

TIME STEP (HOUR)	Rain Fall RATIO	Rain C*P (IN)	Q Scs (IN)	Inst Q In (CFS)	Sbuh Q (CFS)	Tot Q In (AC-FT)	Sumq Out (AC-FT)	Stored Vol (AC-FT)	Stage Lk-Up (FEET)	Inst Q Lkup (CFS)	Avg. Q Out (CFS)	Step Qout (AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
4.00	0.02	0.23	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
8.00	0.05	0.47	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
12.00	0.07	0.69	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
16.00	0.10	0.92	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
20.00	0.12	1.16	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
24.00	0.15	1.39	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
28.00	0.18	1.73	0.00	0.01	0.00	0.00	0.00	0.00	9.00	0.00	0.00	0.00
32.00	0.22	2.06	0.02	0.02	0.02	0.00	0.00	0.00	9.01	0.00	0.00	0.00
36.00	0.25	2.39	0.06	0.04	0.03	0.01	0.00	0.01	9.03	0.00	0.00	0.00
40.00	0.29	2.73	0.13	0.05	0.05	0.03	0.00	0.03	9.06	0.00	0.00	0.00
44.00	0.32	3.08	0.22	0.09	0.07	0.05	0.00	0.05	9.10	0.00	0.00	0.00
48.00	0.36	3.41	0.32	0.07	0.08	0.07	0.00	0.07	9.15	0.00	0.00	0.00
52.00	0.40	3.83	0.47	0.17	0.14	0.11	0.00	0.11	9.22	0.00	0.00	0.00
56.00	0.50	4.71	0.84	0.41	0.37	0.19	0.00	0.19	9.38	0.00	0.00	0.00
58.00	0.57	5.43	1.20	0.64	0.62	0.28	0.00	0.28	9.51	0.00	0.00	0.00
59.00	0.63	5.96	1.50	1.00	0.93	0.34	0.00	0.34	9.55	0.00	0.00	0.00
59.50	0.68	6.44	1.77	1.65	1.48	0.40	0.00	0.39	9.59	0.00	0.00	0.00
59.75	0.85	8.04	2.81	12.09	5.07	0.50	0.00	0.50	9.65	0.00	0.00	0.00
60.00	1.02	9.63	3.95	13.32	10.16	0.71	0.00	0.71	9.77	0.00	0.00	0.00
60.50	1.09	10.33	4.48	3.03	4.98	1.00	0.00	1.00	9.95	0.00	0.00	0.00
61.00	1.13	10.69	4.76	1.62	2.15	1.11	0.00	1.11	10.01	0.00	0.00	0.00
62.00	1.18	11.17	5.13	0.96	1.07	1.22	0.00	1.22	10.05	0.00	0.00	0.00
64.00	1.24	11.76	5.60	0.62	0.66	1.34	0.00	1.34	10.09	0.00	0.00	0.00
68.00	1.31	12.44	6.15	0.36	0.40	1.47	0.00	1.47	10.14	0.00	0.00	0.00
72.00	1.36	12.90	6.53	0.27	0.27	1.57	0.00	1.57	10.18	0.00	0.00	0.00
Peak stage						10.18	At hour	72.00				
Peak discharge						0.00	At hour	72.00				

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Routing Results from Analysis WITHOUT Offsite Discharge
Table 8. STAGE - DISCHARGE INFORMATION 10 - YEAR STORM - Zero Offsite Discharge

TIME STEP (HOUR)	Rain Fall RATIO	Rain C*P (IN)	Q Scs (IN)	Inst Q In (CFS)	Sbuh Q (CFS)	Tot Q In (AC-FT)	Sumq Out (AC-FT)	Stored Vol (AC-FT)	Stage Lk-Up (FEET)	Inst Q Lkup (CFS)	Avg. Q Out (CFS)	Step Qout (AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
4.00	0.02	0.18	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
8.00	0.05	0.37	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
12.00	0.07	0.56	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
16.00	0.10	0.74	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
20.00	0.12	0.93	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
24.00	0.15	1.12	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
28.00	0.18	1.39	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
32.00	0.22	1.66	0.00	0.00	0.00	0.00	0.00	0.00	7.49	0.00	0.00	0.00
36.00	0.25	1.93	0.01	0.01	0.01	0.00	0.00	0.00	9.00	0.00	0.00	0.00
40.00	0.29	2.20	0.04	0.02	0.02	0.01	0.00	0.01	9.02	0.00	0.00	0.00
44.00	0.32	2.48	0.08	0.05	0.04	0.02	0.00	0.02	9.04	0.00	0.00	0.00
48.00	0.36	2.75	0.13	0.04	0.04	0.03	0.00	0.03	9.06	0.00	0.00	0.00
52.00	0.40	3.09	0.22	0.10	0.08	0.05	0.00	0.05	9.10	0.00	0.00	0.00
56.00	0.50	3.80	0.45	0.26	0.24	0.10	0.00	0.10	9.20	0.00	0.00	0.00
58.00	0.57	4.38	0.69	0.43	0.41	0.16	0.00	0.16	9.31	0.00	0.00	0.00
59.00	0.63	4.81	0.89	0.68	0.63	0.20	0.00	0.20	9.40	0.00	0.00	0.00
59.50	0.68	5.19	1.08	1.13	1.01	0.24	0.00	0.24	9.47	0.00	0.00	0.00
59.75	0.85	6.48	1.80	8.47	3.54	0.31	0.00	0.31	9.53	0.00	0.00	0.00
60.00	1.02	7.77	2.63	9.61	7.21	0.46	0.00	0.46	9.62	0.00	0.00	0.00
60.50	1.09	8.33	3.01	2.22	3.61	0.66	0.00	0.66	9.75	0.00	0.00	0.00
61.00	1.13	8.62	3.21	1.20	1.57	0.75	0.00	0.75	9.80	0.00	0.00	0.00
62.00	1.18	9.01	3.49	0.71	0.79	0.83	0.00	0.83	9.84	0.00	0.00	0.00
64.00	1.24	9.48	3.84	0.46	0.49	0.92	0.00	0.91	9.90	0.00	0.00	0.00
68.00	1.31	10.03	4.25	0.27	0.30	1.02	0.00	1.02	9.96	0.00	0.00	0.00
72.00	1.36	10.40	4.53	0.21	0.20	1.09	0.00	1.09	10.00	0.00	0.00	0.00
Peak stage						10.00	At hour	72.00				
Peak discharge						0.00	At hour	72.00				

Project: Gary Matzner Park
Flood Routing Description: PRE-Development Calculations

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Routing Results from Analysis WITHOUT Offsite Discharge

Table 9. STAGE - DISCHARGE INFORMATION 5 - YEAR STORM - Zero Offsite Discharge

TIME STEP (HOUR)	Rain Fall RATIO	Rain C*P (IN)	Q Scs (IN)	Inst Q In (CFS)	Sbuh Q (CFS)	Tot Q In (AC-FT)	Sumq Out (AC-FT)	Stored Vol (AC-FT)	Stage Lk-Up (FEET)	Inst Q Lkup (CFS)	Avg. Q Out (CFS)	Step Qout (AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
4.00	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
8.00	0.05	0.34	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
12.00	0.07	0.51	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
16.00	0.10	0.67	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
20.00	0.12	0.85	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
24.00	0.15	1.01	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
28.00	0.18	1.26	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
32.00	0.22	1.51	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
36.00	0.25	1.75	0.00	0.00	0.00	0.00	0.00	0.00	9.00	0.00	0.00	0.00
40.00	0.29	2.00	0.02	0.01	0.01	0.00	0.00	0.00	9.01	0.00	0.00	0.00
44.00	0.32	2.25	0.04	0.03	0.02	0.01	0.00	0.01	9.02	0.00	0.00	0.00
48.00	0.36	2.50	0.08	0.03	0.03	0.02	0.00	0.02	9.04	0.00	0.00	0.00
52.00	0.40	2.81	0.15	0.08	0.06	0.03	0.00	0.03	9.07	0.00	0.00	0.00
56.00	0.50	3.45	0.33	0.21	0.19	0.07	0.00	0.07	9.15	0.00	0.00	0.00
58.00	0.57	3.98	0.52	0.35	0.33	0.12	0.00	0.12	9.23	0.00	0.00	0.00
59.00	0.63	4.36	0.68	0.56	0.52	0.15	0.00	0.15	9.30	0.00	0.00	0.00
59.50	0.68	4.71	0.84	0.94	0.83	0.18	0.00	0.18	9.37	0.00	0.00	0.00
59.75	0.85	5.89	1.45	7.14	2.97	0.25	0.00	0.25	9.49	0.00	0.00	0.00
60.00	1.02	7.05	2.16	8.22	6.11	0.37	0.00	0.37	9.57	0.00	0.00	0.00
60.50	1.09	7.56	2.49	1.92	3.09	0.55	0.00	0.55	9.68	0.00	0.00	0.00
61.00	1.13	7.83	2.67	1.04	1.36	0.62	0.00	0.62	9.72	0.00	0.00	0.00
62.00	1.18	8.18	2.91	0.61	0.68	0.69	0.00	0.69	9.76	0.00	0.00	0.00
64.00	1.24	8.61	3.21	0.40	0.43	0.76	0.00	0.76	9.81	0.00	0.00	0.00
68.00	1.31	9.11	3.57	0.24	0.26	0.85	0.00	0.85	9.86	0.00	0.00	0.00
72.00	1.36	9.45	3.81	0.18	0.18	0.91	0.00	0.91	9.90	0.00	0.00	0.00
Peak stage						9.90	At hour	72.00				
Peak discharge						0.00	At hour	72.00				

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Routing Results from Analysis WITHOUT Offsite Discharge

Table 10. STAGE - DISCHARGE INFORMATION 3 - YEAR STORM - Zero Offsite Discharge

TIME STEP (HOUR)	Rain Fall RATIO	Rain C*P (IN)	Q Scs (IN)	Inst Q In (CFS)	Sbuh Q (CFS)	Tot Q In (AC-FT)	Sumq Out (AC-FT)	Stored Vol (AC-FT)	Stage Lk-Up (FEET)	Inst Q Lkup (CFS)	Avg. Q Out (CFS)	Step Qout (AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
4.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
8.00	0.05	0.29	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
12.00	0.07	0.43	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
16.00	0.10	0.58	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
20.00	0.12	0.73	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
24.00	0.15	0.87	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
28.00	0.18	1.08	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
32.00	0.22	1.29	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
36.00	0.25	1.50	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00
40.00	0.29	1.71	0.00	0.00	0.00	0.00	0.00	0.00	9.00	0.00	0.00	0.00
44.00	0.32	1.93	0.01	0.01	0.01	0.00	0.00	0.00	9.00	0.00	0.00	0.00
48.00	0.36	2.14	0.03	0.02	0.02	0.01	0.00	0.01	9.01	0.00	0.00	0.00
52.00	0.40	2.40	0.07	0.04	0.04	0.02	0.00	0.01	9.03	0.00	0.00	0.00
56.00	0.50	2.95	0.18	0.14	0.13	0.04	0.00	0.04	9.08	0.00	0.00	0.00
58.00	0.57	3.40	0.31	0.24	0.23	0.07	0.00	0.07	9.14	0.00	0.00	0.00
59.00	0.63	3.74	0.43	0.40	0.37	0.10	0.00	0.10	9.19	0.00	0.00	0.00
59.50	0.68	4.03	0.54	0.68	0.60	0.12	0.00	0.12	9.23	0.00	0.00	0.00
59.75	0.85	5.04	1.00	5.32	2.20	0.16	0.00	0.16	9.32	0.00	0.00	0.00
60.00	1.02	6.04	1.54	6.30	4.61	0.26	0.00	0.26	9.50	0.00	0.00	0.00
60.50	1.09	6.47	1.80	1.49	2.38	0.39	0.00	0.39	9.58	0.00	0.00	0.00
61.00	1.13	6.70	1.94	0.81	1.06	0.45	0.00	0.45	9.62	0.00	0.00	0.00
62.00	1.18	7.00	2.13	0.48	0.54	0.50	0.00	0.50	9.65	0.00	0.00	0.00
64.00	1.24	7.37	2.36	0.32	0.34	0.56	0.00	0.56	9.69	0.00	0.00	0.00
68.00	1.31	7.80	2.65	0.19	0.21	0.63	0.00	0.63	9.73	0.00	0.00	0.00
72.00	1.36	8.09	2.84	0.14	0.14	0.68	0.00	0.68	9.76	0.00	0.00	0.00
Peak stage						9.76	At hour	72.00				
Peak discharge						0.00	At hour	72.00				

Project: Gary Matzner Park
PRE-Development Calculations

Date: 10/16/2024

Flood Routing Description:

Client : Village of Pincecrest

Job Number: 13861.00

Total Drainage Basin: 2.890 Acres

N
N
N

Y/N -Do you want to limit the Exfiltration Trench Vol. to a maximum of 3.28" over the site?

Water Table Elevation = 4.00 Feet

Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table

Time of Conc. (hr.) = 0.25

Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.

Calculated weighted soil (s) 8.18 Soil Storage Value (S) = Storage under pervious area / Total Area

Calculated CN value 55.0 Soil Storage under pavement and buildings is not considered in computations

Table 16. STAGE STORAGE TABLE

Stage Elevation (feet)	Storage (Ac-ft)	Storage (CF)
4.00	0.000	0
4.50	0.000	0
5.00	0.000	0
5.50	0.000	0
6.00	0.000	0
6.50	0.000	0
7.00	0.000	0
7.50	0.000	0
8.00	0.000	0
8.50	0.000	0
9.00	0.000	0
9.50	0.252	10,974
10.00	1.086	47,316
10.50	2.426	105,690
11.00	3.871	168,634
11.50	5.316	231,578
12.00	6.761	294,522
12.50	8.206	357,466
13.00	9.651	420,411

Compacted Ground storage table

Depth to water table (Ft)	1.00	2.00	3.00	4.00
Ground storage(In)	0.45	1.88	4.95	8.18
Mean depth to ground water table (ft)=	5.66 (Pervious Area)			

Soil Storage Type	Ground Storage Values (In Inches)			
Depth to Ground Water (Ft)	1	2	3	4
* Depressional	0.45	1.58	3.3	5.1
Flatwoods	0.45	1.88	4.05	6.75
Coastal Type	0.45	1.88	4.95	8.18

* (Low Flatwoods & Costal Lowlands)
Ground Storage Values reflect 25% reduction of Available Storage,
to take into account compaction of native soils.

Project: Gary Matzner Park
PRE-Development Calculations

Date: 10/16/2024

Flood Routing Description:

Client : Village of Pincecrest

Job Number: 13861.00

Table 17. SITE ACREAGE INFORMATION

Input Information								Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
LAND USES		Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water							
BASIN TOTALS / AVERAG														
1	Pervious Area	2.430	10.34	9.00	0	0	0	0.00	2.43	0.00	2.43	0.00	9.67	23.
2														
3	Impervious Area	0.460	10.02	9.20				0.00	0.46	0.00	0.46	0.00	9.61	4.
4														
5														
6														
7														
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BASIN SUBTOTALS / AVG		2.890	10.34	9.00	0.00	0.00	0.00	0.00	2.89	0.00	2.89	0.00	9.66	28.

Table 18. UNDERGROUND STORAGE INFORMATION

Underground Storage	Area (SF)	Top Elev	Bottom Elev	% Voids
1 Underground Storage 1				
2 Underground Storage 2				
3 Underground Storage 3				
4 Underground Storage 4				
5 Underground Storage 5				
BASIN TOTALS / AVERAGE	2.890	10.34	4.00	0.00

0.00	0.00	0.00	2.89	0.00	2.89	0.00	9.66	28.
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Basin % Imper. for Water Quality Purposes = 0.00

Basin % Impervious (incl. Bldg., No lakes)= 0.00

Project: Gary Matzner Park
PRE-Development Calculations

Flood Routing Description:

Client : Village of Pincecrest

Detail - Stage - Storage Information

Date: 10/16/2024

Job Number: 13861.00

Table 19. STAGE - STORAGE INFORMATION		Surface storage (Ac-Ft)												
LAND USES	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.
	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	
Total Surface Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.252	1.086
Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exfil Trench Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.252	1.086
1 Pervious Area	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.227	0.907
2														
3 Impervious Area	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.180
4														
5														
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Total Surface Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.09
Underground Storage														
	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	
1 Underground Storage 1														
2 Underground Storage 2														
3 Underground Storage 3														
4 Underground Storage 4														
5 Underground Storage 5														
Total Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exfil Trench Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.252	1.086
Stage Elevation	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	

Table 20. SOIL - STORAGE INFORMATION
Detail - Soil Storage Information

	LAND USES	Depth to Water Table	Ground Storage Under Pervious	
			Inches	Ac-Ft
	TOTAL/AVERAGE		16.36	1.97
1	Pervious Area	5.67	8.18	1.656
2				
3	Impervious Area	5.61	8.18	0.314
4				
5				
6				
7				
8				
9				
10				
11				
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39				
40				
	TOTAL/AVERAGE		16.36	1.970

Soil Storage Value (S) = Storage under pervious area / Total Area
Soil Storage under pavement and buildings is not considered in computations

S=	8.18
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