

# Drainage Report - Final\_V1\_Comments.pdf Markup Summary

## Callout (48)

in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

**Subject:** Callout  
**Page Label:** 2  
**Author:** CDurham  
**Date:** 9/21/2022 12:08:23 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Josh Palmer

The development is in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

**Subject:** Callout  
**Page Label:** 4  
**Author:** CDurham  
**Date:** 9/21/2022 4:32:38 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Flows do not match drainage map in appendix.

The development is in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 10:00:24 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

CD's were submitted with this report. HGL's need to be provided with next submittal.

The development is in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 10:00:54 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Should be designed per El Paso County DCM criteria.

The development is in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

**Subject:** Callout  
**Page Label:** 22  
**Author:** CDurham  
**Date:** 9/22/2022 10:05:35 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Flows do not match release rates from pond in pond spreadsheet

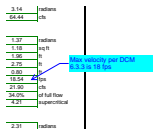
The development is in accordance with the requirements of volumes 1 and 2, and the El Paso County Drainage Criteria Manual. The Villas at Claremont development is located in the City of El Paso, Texas. The project is a residential development consisting of 100 units. The project is located on a 10-acre site. The project is located on a 10-acre site. The project is located on a 10-acre site.

Josh Palmer

Josh Palmer  
Engineer/ECM Administrator

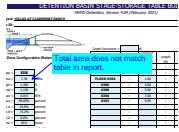
**Subject:** Callout  
**Page Label:** 25  
**Author:** CDurham  
**Date:** 9/22/2022 10:06:40 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Based on width of road, 6" of depth can't be achieved prior to flows overtopping road. Re-evaluate inlet widths or flow routing on all inlets.



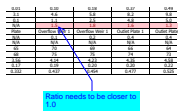
**Subject:** Callout  
**Page Label:** 42  
**Author:** CDurham  
**Date:** 9/22/2022 10:07:56 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Max velocity per DCM 6.3.3 is 18 fps



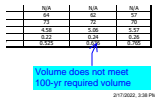
**Subject:** Callout  
**Page Label:** 43  
**Author:** CDurham  
**Date:** 9/22/2022 10:08:14 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Total area does not match table in report.



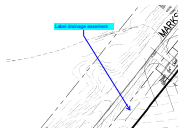
**Subject:** Callout  
**Page Label:** 45  
**Author:** CDurham  
**Date:** 9/22/2022 10:08:36 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Ratio needs to be closer to 1.0



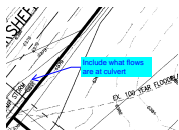
**Subject:** Callout  
**Page Label:** 45  
**Author:** CDurham  
**Date:** 9/22/2022 10:08:55 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Volume does not meet 100-yr required volume



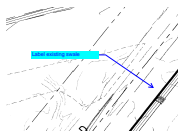
**Subject:** Callout  
**Page Label:** 49  
**Author:** CDurham  
**Date:** 9/22/2022 10:12:13 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label drainage easement



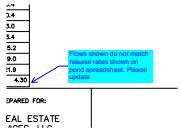
**Subject:** Callout  
**Page Label:** 49  
**Author:** CDurham  
**Date:** 9/22/2022 10:12:34 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Include what flows are at culvert



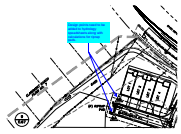
**Subject:** Callout  
**Page Label:** 49  
**Author:** CDurham  
**Date:** 9/22/2022 10:12:49 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label existing swale



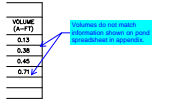
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:14:35 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Flows shown do not match release rates shown on pond spreadsheet. Please update



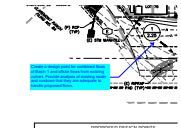
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:17:21 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Design points need to be added to hydrology spreadsheets along with calculations for riprap pads.



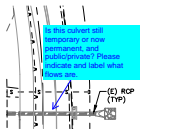
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:19:32 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Volumes do not match information shown on pond spreadsheet in appendix.



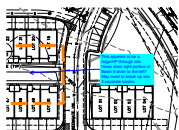
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:22:03 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Create a design point for combined flows of Basin 1 and offsite flows from existing culvert. Provide analysis of existing swale and rundown that they are adequate to handle proposed flows.



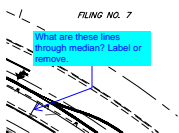
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:23:07 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Is this culvert still temporary or now permanent, and public/private? Please indicate and label what flows are.



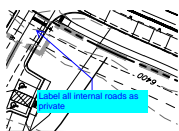
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:24:31 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

This appears to be a ridge/HP through site. Hows does right portion of Basin 6 drain to the left? May need to break up into 2 separate basins.



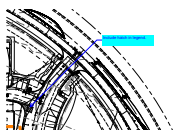
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:25:36 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

What are these lines through median? Label or remove.



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:25:55 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label all internal roads as private



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:26:44 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Include hatch in legend.



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:30:58 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label all easements



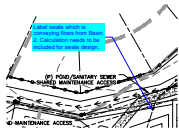
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:31:14 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label what this line is.



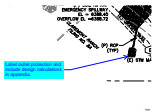
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:31:47 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label swale which is conveying flows from Basin 9.  
 Calculation needs to be included for swale design.



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:32:06 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label swale which is conveying flows from Basin 2.  
 Calculation needs to be included for swale design.



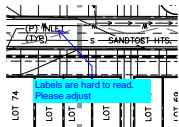
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:34:01 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label outlet protection and include design  
 calculations in appendix.



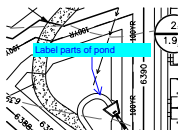
**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:35:56 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Label or include in legend



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:36:37 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Labels are hard to read. Please adjust



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:36:49 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

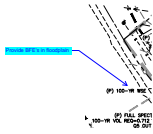
Label parts of pond

Callout used and not corresponding to % impervious used in table within report. Please correlate spreadsheet and table.

Basin	Area	Impervious	C	Q
1	1000	1000	0.1	1000
2	1000	1000	0.1	1000
3	1000	1000	0.1	1000
4	1000	1000	0.1	1000
5	1000	1000	0.1	1000
6	1000	1000	0.1	1000
7	1000	1000	0.1	1000
8	1000	1000	0.1	1000
9	1000	1000	0.1	1000
10	1000	1000	0.1	1000
11	1000	1000	0.1	1000
12	1000	1000	0.1	1000
13	1000	1000	0.1	1000
14	1000	1000	0.1	1000
15	1000	1000	0.1	1000
16	1000	1000	0.1	1000
17	1000	1000	0.1	1000
18	1000	1000	0.1	1000
19	1000	1000	0.1	1000
20	1000	1000	0.1	1000
21	1000	1000	0.1	1000
22	1000	1000	0.1	1000
23	1000	1000	0.1	1000
24	1000	1000	0.1	1000
25	1000	1000	0.1	1000
26	1000	1000	0.1	1000
27	1000	1000	0.1	1000
28	1000	1000	0.1	1000
29	1000	1000	0.1	1000
30	1000	1000	0.1	1000
31	1000	1000	0.1	1000
32	1000	1000	0.1	1000
33	1000	1000	0.1	1000
34	1000	1000	0.1	1000
35	1000	1000	0.1	1000
36	1000	1000	0.1	1000
37	1000	1000	0.1	1000
38	1000	1000	0.1	1000
39	1000	1000	0.1	1000
40	1000	1000	0.1	1000
41	1000	1000	0.1	1000
42	1000	1000	0.1	1000
43	1000	1000	0.1	1000
44	1000	1000	0.1	1000
45	1000	1000	0.1	1000
46	1000	1000	0.1	1000
47	1000	1000	0.1	1000
48	1000	1000	0.1	1000
49	1000	1000	0.1	1000
50	1000	1000	0.1	1000
51	1000	1000	0.1	1000
52	1000	1000	0.1	1000
53	1000	1000	0.1	1000
54	1000	1000	0.1	1000
55	1000	1000	0.1	1000
56	1000	1000	0.1	1000
57	1000	1000	0.1	1000
58	1000	1000	0.1	1000
59	1000	1000	0.1	1000
60	1000	1000	0.1	1000
61	1000	1000	0.1	1000
62	1000	1000	0.1	1000
63	1000	1000	0.1	1000
64	1000	1000	0.1	1000
65	1000	1000	0.1	1000
66	1000	1000	0.1	1000
67	1000	1000	0.1	1000
68	1000	1000	0.1	1000
69	1000	1000	0.1	1000
70	1000	1000	0.1	1000
71	1000	1000	0.1	1000
72	1000	1000	0.1	1000
73	1000	1000	0.1	1000
74	1000	1000	0.1	1000
75	1000	1000	0.1	1000
76	1000	1000	0.1	1000
77	1000	1000	0.1	1000
78	1000	1000	0.1	1000
79	1000	1000	0.1	1000
80	1000	1000	0.1	1000
81	1000	1000	0.1	1000
82	1000	1000	0.1	1000
83	1000	1000	0.1	1000
84	1000	1000	0.1	1000
85	1000	1000	0.1	1000
86	1000	1000	0.1	1000
87	1000	1000	0.1	1000
88	1000	1000	0.1	1000
89	1000	1000	0.1	1000
90	1000	1000	0.1	1000
91	1000	1000	0.1	1000
92	1000	1000	0.1	1000
93	1000	1000	0.1	1000
94	1000	1000	0.1	1000
95	1000	1000	0.1	1000
96	1000	1000	0.1	1000
97	1000	1000	0.1	1000
98	1000	1000	0.1	1000
99	1000	1000	0.1	1000
100	1000	1000	0.1	1000

**Subject:** Callout  
**Page Label:** 20  
**Author:** CDurham  
**Date:** 9/22/2022 10:38:57 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

C-values used are not corresponding to % impervious used in table within report. Please correlate spreadsheet and table.



**Subject:** Callout  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 11:48:34 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Provide BFE's in floodplain

be routed to an on-site use to the East Fork of in on proposed private f will be conveyed in a

**Subject:** Callout  
**Page Label:** 4  
**Author:** CDurham  
**Date:** 9/22/2022 9:24:25 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

delete

Basin 9 (C treatment Branch Filing No. 7) at Q<sub>100</sub> is also subject to Sand Creek. The wetland and riparian wetlands shall be opened to convey stream flows from both Basin 6 (Basin F, 1 Basin G) and Basin 7 (Basin H) to the East Fork of the River. Basin 9 is located at the intersection of the Village of Pleasant Branch.

**Subject:** Callout  
**Page Label:** 4  
**Author:** CDurham  
**Date:** 9/22/2022 9:27:43 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Remove this statement as proposed flows are known. Add design point for Basin 1 & offsite flows combined and analyze existing swale and rundown to determine both are adequate for proposed conditions.

Swale area, residential, commercial, and private areas of the proposed residential development basin. Basin 9 consists of two lots and portion of Filing No. 7 tributary to the extended detention basin.

**Subject:** Callout  
**Page Label:** 5  
**Author:** CDurham  
**Date:** 9/22/2022 9:31:13 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Show and label swale on drainage map. Include calculations for sizing of swale in appendix.

development to outfall directly

**Subject:** Callout  
**Page Label:** 5  
**Author:** CDurham  
**Date:** 9/22/2022 9:33:09 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Indicate whether all inlets will be sump or at-grade and public or private

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 5  
**Author:** CDurham  
**Date:** 9/22/2022 9:35:41 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Show and label swale on drainage map. Include calculations for sizing of swale in appendix.

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 6  
**Author:** CDurham  
**Date:** 9/22/2022 9:40:17 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Calculations need to be provided for sizing of sidewalk chase widths

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 6  
**Author:** CDurham  
**Date:** 9/22/2022 9:43:45 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Include EURV volume

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 6  
**Author:** CDurham  
**Date:** 9/22/2022 9:45:16 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Per Pond spreadsheet, at 100-yr level volume provided is only 0.636 ac-ft, which does not meet required 100-year volume

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 6  
**Author:** CDurham  
**Date:** 9/22/2022 9:45:59 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

This is construction drawing level. Design for all these items need to be provided in appendix.

to calculate the peak flow rate for each basin. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method. The peak flow rate for each basin is calculated using the Rational Method.

**Subject:** Callout  
**Page Label:** 6  
**Author:** CDurham  
**Date:** 9/22/2022 9:47:18 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Provide calculations in appendix for sizing of spillway riprap.

This is final design. Details need to be provided.  
An event is conveyed through outlet bottom. Final design will provide

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:48:21 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

This is final design. Details need to be provided.

Flow Rate (cfs)	Impervious %
1.57	100%
2.71	100%
0.67	50%
3.45	49% Ave % Imp

Update spreadsheet to match this table.

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:49:21 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Update spreadsheet to match this table.

Some all proposed water will be constructed in...  
Imperviousness are not matching of the...  
Hydrology spreadsheet. Please update and coordinate between values.  
Following:

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:56:42 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

% impervious are not matching with C-values chosen in hydrology spreadsheet. Please update and coordinate between values.

% Impervious  
Report should be done per El Paso County CDM Vol 1 and 2 with Vol 1 updates  
utilized in the... 50, and 100-year

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:57:34 AM  
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Report should be done per El Paso County CDM Vol 1 and 2 with Vol 1 updates

Manual. Time of concentration per Section 3.2 of the City of El Paso Urban Drainage and Flood Capacity and Inlet Sizing Manual. Ch 6

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:59:06 AM  
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Ch 6

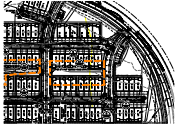
average runoff coefficients, "C" values, are frequency curves are taken from Figure 6-5 of the City of El Paso Urban Drainage Criteria Manual. Calculations for this report.  
Mile High Flood District  
El Paso County CDM methodology was utilized. Calculations are shown in the appendix of the report for preliminary pipe sizing and Hydraulic C Storm Sewer Construction Drawings and FDI

**Subject:** Callout  
**Page Label:** 7  
**Author:** CDurham  
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Mile High Flood District







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**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:23:33 AM  
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... For the Rational Method, flow were taken  
at recurrence intervals. The average runoff coefficients  
the Intensity-Duration-Frequency curve are taken from  
Manual. Time of concentration for overland flow as  
per Section 3.2 of the City Drainage Criteria Manual  
shown in the Appendix of this report.

Urban Drainage and Flood Control District methods  
capacity and rate rating. Calculations are shown in 1.  
Calculations are provided for preliminary pipe sizing  
be adjusted with Final Storm Sewer Construction 2.

The analysis, presented in the appendix, provides a  
accordance with the requirements of the City of Cole  
1. The storm sewer plan and profile drawings have to

**Subject:** Highlight  
**Page Label:** 7  
**Author:** CDurham  
**Date:** 9/22/2022 9:59:30 AM  
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Urban Drainage and Flood Control District

**Text Box (16)**

0  
0  
0  
5  
15  
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Will review estimate at next submittal, when full storm design is submitted for comparison.

**Subject:** Text Box  
**Page Label:** 8  
**Author:** CDurham  
**Date:** 9/22/2022 10:01:43 AM  
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Will review estimate at next submittal, when full storm design is submitted for comparison.

Include Title for what this spreadsheet is.

Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth
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**Subject:** Text Box  
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**Date:** 9/22/2022 10:04:26 AM  
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Include Title for what this spreadsheet is.

Include Title for what this spreadsheet is.

Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth
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**Subject:** Text Box  
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**Author:** CDurham  
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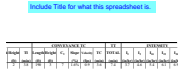
Include Title for what this spreadsheet is.

Include Title for what this spreadsheet is.

Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth	Area	Flow	Velocity	Depth
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

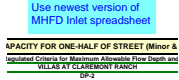
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**Date:** 9/22/2022 10:05:15 AM  
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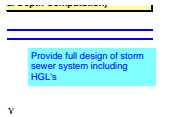
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**Page Label:** 23  
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Include Title for what this spreadsheet is.



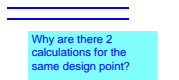
**Subject:** Text Box  
**Page Label:** 24  
**Author:** CDurham  
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Use newest version of MHFD Inlet spreadsheet



**Subject:** Text Box  
**Page Label:** 36  
**Author:** CDurham  
**Date:** 9/22/2022 10:07:18 AM  
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Provide full design of storm sewer system including HGL's



**Subject:** Text Box  
**Page Label:** 37  
**Author:** CDurham  
**Date:** 9/22/2022 10:07:32 AM  
**Status:**  
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Why are there 2 calculations for the same design point?



**Subject:** Text Box  
**Page Label:** 43  
**Author:** CDurham  
**Date:** 9/22/2022 10:10:59 AM  
**Status:**  
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Provide calculations for all pond requirements: forebay, spillway riprap sizing, trickle channel, etc



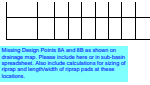
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**Author:** CDurham  
**Date:** 9/22/2022 10:11:50 AM  
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Provide a historic drainage map, prior to any development



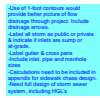
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**Page Label:** 49  
**Author:** CDurham  
**Date:** 9/22/2022 10:13:26 AM  
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Include copy of hydrology calculations in appendix which would accompany this plan.



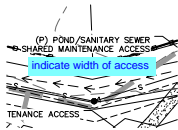
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**Page Label:** 21  
**Author:** CDurham  
**Date:** 9/22/2022 10:16:26 AM  
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Missing Design Points 8A and 8B as shown on drainage map. Please include here or in sub-basin spreadsheet. Also include calculations for sizing of riprap and length/width of riprap pads at these locations.



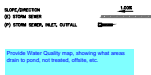
**Subject:** Text Box  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:33:05 AM  
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- Use of 1-foot contours would provide better picture of flow drainage through project. Include drainage arrows.
- Label all storm as public or private & indicate if inlets are sump or at-grade.
- Label gutter & cross pans
- Include inlet, pipe and manhole sizes
- Calculations need to be included in appendix for sidewalk chase design.
- Need full design of storm sewer system, including HGL's



**Subject:** Text Box  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:33:35 AM  
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indicate width of access



**Subject:** Text Box  
**Page Label:** 50  
**Author:** CDurham  
**Date:** 9/22/2022 10:37:25 AM  
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Provide Water Quality map, showing what areas drain to pond, not treated, offsite, etc.

PCD NO. Pendir

SF-22-028

**Subject:** Text Box  
**Page Label:** 1  
**Author:** CDurham  
**Date:** 9/22/2022 10:39:48 AM  
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SF-22-028