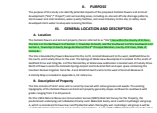
V1Drainage Report - Final.pdf Markup Summary

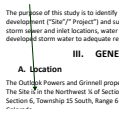
Architect (1)



Subject: Architect
Page Label: 3
Author: Kishia
Date: 6/21/2023 3:12:39 PM
Status:
Color:
Layer:
Space:

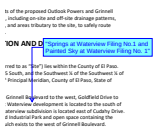
) lies within the County of El Paso.
The Site is in the Northwest ¼ of Section 7, Township 15 South, and the Southwest ¼ of the Southwest ¼ of
Section 6, Township 15 South, Range 65 West of the 6
th Principal Meridian, County of El Paso, State of Colorado.

Arrow (1)



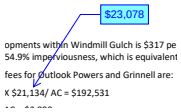
Subject: Arrow
Page Label: 3
Author: Kishia
Date: 6/21/2023 3:13:44 PM
Status:
Color:
Layer:
Space:

Callout (34)



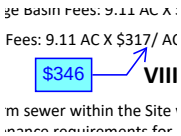
Subject: Callout
Page Label: 3
Author: Carlos
Date: 6/8/2023 10:04:56 AM
Status:
Color:
Layer:
Space:

"Springs at Waterview Filing No.1 and Painted Sky at Waterview Filing No. 1"



Subject: Callout
Page Label: 15
Author: Carlos
Date: 6/15/2023 11:14:39 AM
Status:
Color:
Layer:
Space:

$23,078



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Author: Carlos
Date: 6/15/2023 11:15:10 AM
Status:
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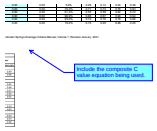
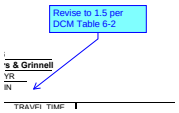
Layer:
Space:

$346



Subject: Callout
Page Label: 39
Author: Carlos
Date: 6/15/2023 11:33:16 AM
Status:
Color:
Layer:
Space:

Include the composite C value equation being used.



Subject: Callout
Page Label: 41
Author: Carlos
Date: 6/15/2023 11:30:45 AM
Status:
Color:
Layer:
Space:

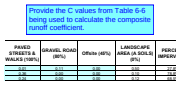
Revise to 1.5 per DCM Table 6-2

Subject: Callout
Page Label: 42
Author: Carlos
Date: 6/26/2023 7:48:50 AM
Status:
Color:
Layer:
Space:

Revise to 2.52 per Table 6-2 DCM.

Subject: Re: Callout
Page Label: 42
Author: CDurham
Date: 6/22/2023 1:21:48 PM
Status:
Color:
Layer:
Space:

Even though it's higher, I think we leave the comment and have them change the rate.



Subject: Callout
Page Label: 43
Author: Carlos
Date: 6/15/2023 11:40:58 AM
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Color:
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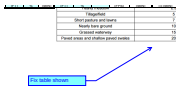
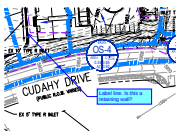
Space:

Provide the C values from Table 6-6 being used to calculate the composite runoff coefficient.



Subject: Callout
Page Label: 46
Author: Carlos
Date: 6/15/2023 11:46:11 AM
Status:
Color:
Layer:
Space:

Fix table shown

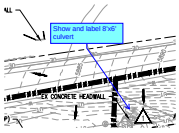


Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 10:43:57 AM
Status:
Color:
Layer:
Space:

Label line. Is this a retaining wall?

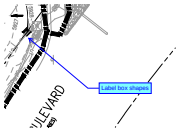
Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:42:49 AM
Status:
Color:
Layer:
Space:

Sub-basin is missing label. Please revise and account for in report.



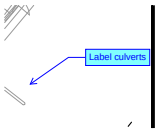
Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:45:06 AM
Status:
Color:
Layer:
Space:

Show and label 8'x6' culvert



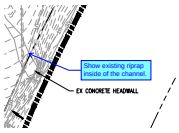
Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:47:28 AM
Status:
Color:
Layer:
Space:

Label box shapes



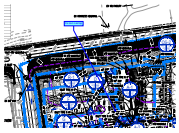
Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:47:51 AM
Status:
Color:
Layer:
Space:

Label culverts



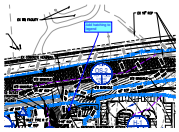
Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:49:50 AM
Status:
Color:
Layer:
Space:

Show existing riprap inside of the channel.



Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:52:12 AM
Status:
Color:
Layer:
Space:

Fix text overlap

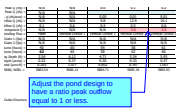


Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 10:44:59 AM
Status:
Color:
Layer:
Space:

Add hatching to legend

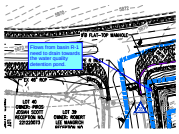
Subject: Callout
Page Label: 15
Author: dsdlaforce
Date: 6/19/2023 12:47:52 PM
Status:
Color:
Layer:
Space:

Update sentence to include the pond as being maintained/owned by property owner.



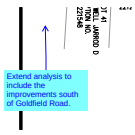
Subject: Callout
Page Label: 172
Author: Carlos
Date: 6/21/2023 2:37:38 PM
Status:
Color:
Layer:
Space:

Adjust the pond design to have a ratio peak outflow equal to 1 or less.



Subject: Callout
Page Label: [1] Layout1
Author: Carlos
Date: 6/21/2023 2:35:30 PM
Status:
Color:
Layer:
Space:

Flows from basin R-1 need to drain towards the water quality detention pond.

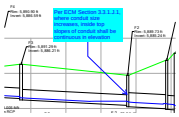


Subject: Callout
Page Label: [1] Layout1
Author: dsdlaforce
Date: 6/21/2023 3:34:49 PM
Status:
Color:
Layer:
Space:

Extend analysis to include the improvements south of Goldfield Road.

Subject: Callout
Page Label: [1] Layout1
Author: dsdlaforce
Date: 6/21/2023 4:04:17 PM
Status:
Color:
Layer:
Space:

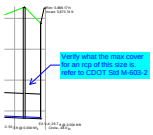
Add a design point at the ultimate outfall. Flows at this location must be equal to or less than the "Existing Drainage Plan" Design Point 1.



Subject: Callout
Page Label: 133
Author: CDurham
Date: 6/22/2023 4:13:03 PM
Status:
Color:
Layer:
Space:

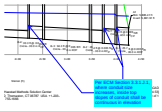
Per ECM Section 3.3.1.J.1, where conduit size increases, inside top slopes of conduit shall be continuous in elevation

---



Subject: Callout
Page Label: 145
Author: CDurham
Date: 6/22/2023 4:15:33 PM
Status:
Color:
Layer:
Space:

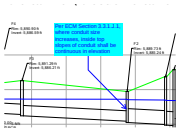
Verify what the max cover for an rcp of this size is. refer to CDOT Std M-603-2



Subject: Callout
Page Label: 151
Author: CDurham
Date: 6/22/2023 4:19:32 PM
Status:
Color:
Layer:
Space:

Per ECM Section 3.3.1.J.1, where conduit size increases, inside top slopes of conduit shall be continuous in elevation

---



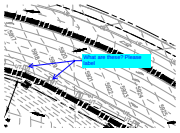
Subject: Callout
Page Label: 154
Author: CDurham
Date: 6/22/2023 4:19:50 PM
Status:
Color:
Layer:
Space:

Per ECM Section 3.3.1.J.1, where conduit size increases, inside top slopes of conduit shall be continuous in elevation

---

Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:27:52 PM
Status:
Color:
Layer:
Space:

Appears to be a rundown/chase. Please label



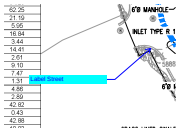
Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:29:30 PM
Status:
Color:
Layer:
Space:

What are these? Please label

Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:30:43 PM
Status:
Color:
Layer:
Space:

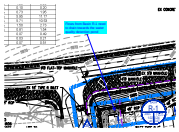
Include basin that was shown on existing drainage map for this half of street

---



Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:30:54 PM
Status:
Color:
Layer:
Space:

Label Street



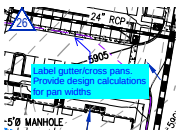
Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:33:42 PM
Status:
Color:
Layer:
Space:

Flows from Basin R-1 need to drain towards the water quality detention pond

---

Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:36:16 PM
Status:
Color:
Layer:
Space:

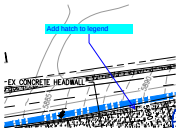
Basin P should be broken up into 2 basins so east and west swales can be designed accordingly (Different flows, slopes, lengths, etc)



Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:37:46 PM
Status:
Color:
Layer:
Space:

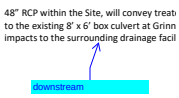
Label gutter/cross pans. Provide design calculations for pan widths

---



Subject: Callout
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:39:18 PM
Status:
Color:
Layer:
Space:

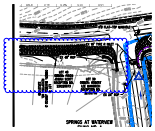
Add hatch to legend



Subject: Callout
Page Label: 15
Author: CDurham
Date: 6/22/2023 5:21:02 PM
Status:
Color:
Layer:
Space:

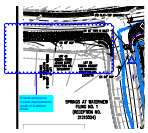
downstream

Cloud (1)



Subject: Cloud
Page Label: [1] Layout1
Author: dsdlaforce
Date: 6/21/2023 3:34:10 PM
Status:
Color:
Layer:
Space:

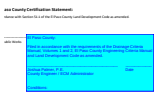
Cloud+ (1)



Subject: Cloud+
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:33:03 PM
Status:
Color:
Layer:
Space:

Extend analysis to include improvements south of Goldfield Road

Drainage Report - County (1)



Subject: Drainage Report - County
Page Label: 2
Author: Carlos
Date: 6/8/2023 9:55:03 AM
Status:
Color:
Layer:
Space:

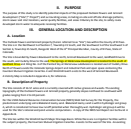
El Paso County:

Filed in accordance with the requirements of the Drainage Criteria Manual, Volumes 1 and 2, El Paso County Engineering Criteria Manual and Land Development Code as amended.

_____
_ _____
Joshua Palmer, P.E.
Date
County Engineer / ECM Administrator

Conditions:

Highlight (7)



Subject: Highlight
Page Label: 3
Author: Carlos
Date: 6/8/2023 10:05:03 AM
Status:
Color:
Layer:
Space:

t. The Springs at Waterview development is located to the south of
Goldfield Drive

6.58
25.40
14.34

Subject: Highlight
Page Label: 146
Author: CDurham
Date: 6/22/2023 4:15:52 PM
Status:
Color:
Layer:
Space:

25.40

9.95
18.07
8.65

Subject: Highlight
Page Label: 146
Author: CDurham
Date: 6/22/2023 4:15:54 PM
Status:
Color:
Layer:
Space:

18.07

32.28
15.21

Subject: Highlight
Page Label: 168
Author: CDurham
Date: 6/22/2023 4:20:17 PM
Status:
Color:
Layer:
Space:

32.28

15.21
28.57

Subject: Highlight
Page Label: 168
Author: CDurham
Date: 6/22/2023 4:20:19 PM
Status:
Color:
Layer:
Space:

28.57

Subject: Highlight
Page Label: 5
Author: Christina Prete
Date: 6/26/2023 7:35:14 AM
Status:
Color:
Layer:
Space:

Per the Airport MDDP, a detention pond is planned to be constructed upstream of the outfall to the Site, reducing the peak 100-year flow to 86 cfs

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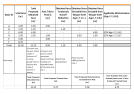
Subject: Highlight
Page Label: 14
Author: Christina Prete
Date: 6/26/2023 1:12:37 PM
Status:
Color:
Layer:
Space:

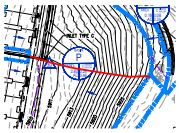
Since all flows tributary to the existing box culvert are at or below historic levels, no adverse impacts are anticipated downstream of the existing culvert to Windmill Gulch.

Image (1)



Subject: Image
Page Label: 178
Author: Mikayla Hartford
Date: 6/21/2023 2:48:28 PM
Status:
Color:
Layer:
Space:

PolyLine (1)



Subject: PolyLine
Page Label: [1] Layout1
Author: CDurham
Date: 6/22/2023 4:36:56 PM
Status:
Color:
Layer:
Space:

Re: Callout (3)

Subject: Re: Callout
Page Label: 39
Author: CDurham
Date: 6/22/2023 1:13:39 PM
Status:
Color:
Layer:
Space:

Subject: Re: Callout
Page Label: 39
Author: CDurham
Date: 6/22/2023 1:14:23 PM
Status:
Color:
Layer:
Space:

Carlos, delete this comment at Table 6-6 is shown underneath the table.

Subject: Re: Callout
Page Label: 40
Author: CDurham
Date: 6/22/2023 1:18:53 PM
Status:
Color:
Layer:
Space:

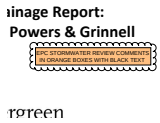
Delete this comment. the "*" on the previous page is for the note underneath the spreadsheet

Re: Text Box (1)

Subject: Re: Text Box
Page Label: 120
Author: CDurham
Date: 6/22/2023 4:01:02 PM
Status:
Color:
Layer:
Space:

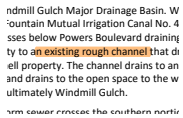
Delete this comment

Stamp - Stormwater Comment Legend (1)



Subject: Stamp - Stormwater Comment Legend
Page Label: 1
Author: Mikayla Hartford
Date: 6/20/2023 10:41:24 AM
Status:
Color:
Layer:
Space:

SW - Highlight (18)



Subject: SW - Highlight
Page Label: 3
Author: Mikayla Hartford
Date: 6/20/2023 5:22:03 PM
Status:
Color:
Layer:
Space:

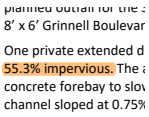
n existing rough channel

Subject: SW - Highlight
Page Label: 5
Author: Mikayla Hartford
Date: 6/21/2023 11:27:28 AM
Status:
Color:
Layer:
Space:

. At the time of this report, Pond 400 has not been constructed and the historic runoff will be used for storm infrastructure sizing purposes. Per the Waterview MDDP, the Colorado Springs Airport and Industrial Park was not considered a part of the Waterview drainage area and pond sizing requirements as it is providing its own water quality and detention upstream of Powers Boulevard.

Subject: SW - Highlight
Page Label: 6
Author: Mikayla Hartford
Date: 6/21/2023 11:55:04 AM
Status:
Color:
Layer:
Space:

Per the Waterview MDDP and MDDP Amendment as well as the Colorado Springs Airport Peak Innovation Park MDDP, the Airport property is providing its own water quality and detention to reduce developed site flows to historic levels prior to discharging to the existing Powers Boulevard box culvert.

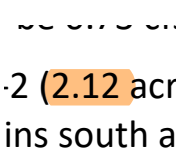


Subject: SW - Highlight
Page Label: 13
Author: Mikayla Hartford
Date: 6/21/2023 1:18:36 PM
Status:
Color:
Layer:
Space:

55.3% impervious.

Subject: SW - Highlight
Page Label: 14
Author: Mikayla Hartford
Date: 6/21/2023 1:27:07 PM
Status:
Color:
Layer:
Space:

proposed 48" RCP will convey historic flow rates from the existing dual 8' x 3' dual box culvert at Powers Boulevard to the existing Grinnell

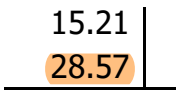


Subject: SW - Highlight
Page Label: 12
Author: Mikayla Hartford
Date: 6/21/2023 2:32:55 PM
Status:
Color:
Layer:
Space:

2.12

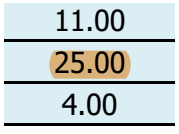
Subject: SW - Highlight
Page Label: 8
Author: Mikayla Hartford
Date: 6/21/2023 3:00:02 PM
Status:
Color:
Layer:
Space:

48” RCP stormline will convey flows from the existing
dual 8’ x 3’ box culvert that crosses Powers Boulevard to the existing Grinnell Boulevard box culvert,
consistent with the Waterview MDDP and MDDP Amendment.



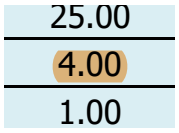
Subject: SW - Highlight
Page Label: 168
Author: Mikayla Hartford
Date: 6/21/2023 4:46:35 PM
Status:
Color:
Layer:
Space:

28.57



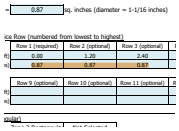
Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:11:39 PM
Status:
Color:
Layer:
Space:

25.00



Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:12:24 PM
Status:
Color:
Layer:
Space:

4.00



Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:23:03 PM
Status:
Color:
Layer:
Space:

0.87 0.87 0.87

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asin bottom at Stage = 0 ft)

neter = 1-1/16 inches)

ohest)

Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:23:07 PM
Status:
Color:
Layer:
Space:

= 1-1/16 inches)

14.12
0.87

Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:23:18 PM
Status:
Color:
Layer:
Space:

0.87

3.54
14.12
0.87

Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:25:06 PM
Status:
Color:
Layer:
Space:

14.12

0.00
3.54
14.12

Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:26:05 PM
Status:
Color:
Layer:
Space:

3.54

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ow 2 (optiona
1.20
0.87

Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:26:55 PM
Status:
Color:
Layer:
Space:

1.20

---

ow 3 (optiona
2.40
0.87

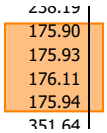
Subject: SW - Highlight
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:26:58 PM
Status:
Color:
Layer:
Space:

2.40

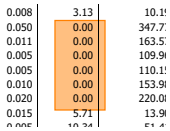
Subject: SW - Highlight
Page Label: 6
Author: Mikayla Hartford
Date: 6/22/2023 10:10:36 AM
Status:
Color:
Layer:
Space:

: Runoff reduction for the proposed Outlook Powers and Grinnell
development is being implemented by incorporating grass swales that receive tributary runoff from roof
drain flow dispersed via level spreaders where practical.

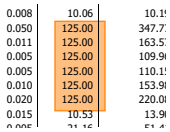
SW - Rectangle (4)



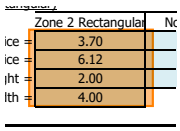
Subject: SW - Rectangle
Page Label: 168
Author: Mikayla Hartford
Date: 6/21/2023 4:17:19 PM
Status:
Color:
Layer:
Space:



Subject: SW - Rectangle
Page Label: 126
Author: Mikayla Hartford
Date: 6/21/2023 4:31:38 PM
Status:
Color:
Layer:
Space:

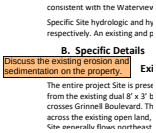


Subject: SW - Rectangle
Page Label: 146
Author: Mikayla Hartford
Date: 6/21/2023 4:32:55 PM
Status:
Color:
Layer:
Space:



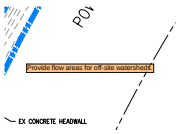
Subject: SW - Rectangle
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:27:16 PM
Status:
Color:
Layer:
Space:

SW - Textbox (14)



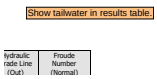
Subject: SW - Textbox
Page Label: 8
Author: Mikayla Hartford
Date: 6/21/2023 12:12:24 PM
Status:
Color:
Layer:
Space:

Discuss the existing erosion and sedimentation on the property.



Subject: SW - Textbox
Page Label: [1] Layout1
Author: Mikayla Hartford
Date: 6/21/2023 12:24:21 PM
Status:
Color: ■
Layer:
Space:

Provide flow areas for off-site watersheds.

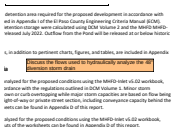


Subject: SW - Textbox
Page Label: 146
Author: Mikayla Hartford
Date: 6/21/2023 1:32:03 PM
Status:
Color: ■
Layer:
Space:

Show tailwater in results table.

Subject: SW - Textbox
Page Label: 178
Author: Mikayla Hartford
Date: 6/21/2023 2:48:01 PM
Status:
Color: ■
Layer:
Space:

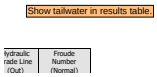
We need to know how much disturbed area is untreated and if there are any exclusions that apply to those areas. So please create a basic overview map (or modify an existing drainage map) with color shading/hatching that shows areas tributary to each PBMP (pond, runoff reduction, etc.) and those disturbed areas that are not treated by a PBMP, with the applicable exclusion labeled (ex: 20% up to 1ac of development can be excluded per ECM App I.7.1.C.1 and exclusions listed in ECM App I.7.1.B.#). An accompanying summary table on this map would also be very helpful (example provided):



Subject: SW - Textbox
Page Label: 7
Author: Mikayla Hartford
Date: 6/21/2023 2:58:14 PM
Status:
Color: ■
Layer:
Space:

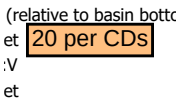
Discuss the flows used to hydraulically analyze the 48" diversion storm drain

---



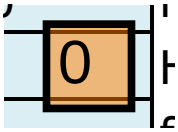
Subject: SW - Textbox
Page Label: 126
Author: Mikayla Hartford
Date: 6/21/2023 3:58:46 PM
Status:
Color: ■
Layer:
Space:

Show tailwater in results table.



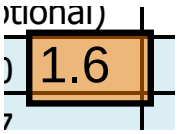
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:12:01 PM
Status:
Color: ■
Layer:
Space:

20 per CDs



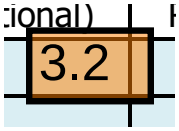
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:12:43 PM
Status:
Color: ■
Layer:
Space:

0



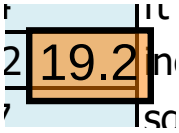
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:24:45 PM
Status:
Color: ■
Layer:
Space:

1.6



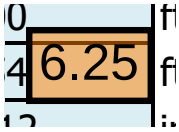
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:24:55 PM
Status:
Color: ■
Layer:
Space:

3.2



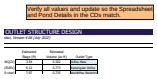
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:25:28 PM
Status:
Color: ■
Layer:
Space:

19.2



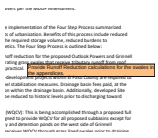
Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:25:58 PM
Status:
Color: ■
Layer:
Space:

6.25



Subject: SW - Textbox
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:26:35 PM
Status:
Color: ■
Layer:
Space:

Verify all values and update so the Spreadsheet and Pond Details in the CDs match.



Subject: SW - Textbox
Page Label: 6
Author: Mikayla Hartford
Date: 6/22/2023 10:11:11 AM
Status:
Color: ■
Layer:
Space:

Provide Runoff Reduction calculations for the swales in the appendices.

SW - Textbox with Arrow (20)

Subject: SW - Textbox with Arrow
Page Label: 3
Author: Mikayla Hartford
Date: 6/21/2023 11:00:56 AM
Status:
Color: ■
Layer:
Space:

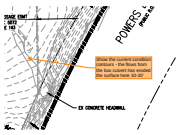
Discuss the extreme erosion the runoff from the box culvert is making. This is a significant issue with the property and a clear discussion of the existing issue is necessary.

Subject: SW - Textbox with Arrow
Page Label: 5
Author: Mikayla Hartford
Date: 6/21/2023 11:28:20 AM
Status:
Color: ■
Layer:
Space:

Update this section, there is a constructed pond northeast of the project site that drains to the 8' x 3' box culvert.

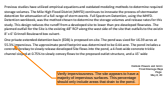
Subject: SW - Textbox with Arrow
Page Label: 6
Author: Mikayla Hartford
Date: 6/21/2023 11:55:38 AM
Status:
Color: ■
Layer:
Space:

The proposed pond has been constructed. Consult the drainage report associated with those improvements as well as the MDDP.



Subject: SW - Textbox with Arrow
Page Label: [1] Layout1
Author: Mikayla Hartford
Date: 6/21/2023 12:17:18 PM
Status:
Color: ■
Layer:
Space:

Show the current condition contours - the flows from the box culvert has eroded the surface here 10-20'

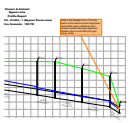


Subject: SW - Textbox with Arrow
Page Label: 13
Author: Mikayla Hartford
Date: 6/21/2023 1:19:59 PM
Status:
Color: ■
Layer:
Space:

Verify imperviousness. The site appears to have a majority of impervious surfaces. This percentage should only include areas that drain to the pond.

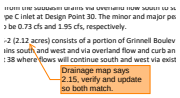
Subject: SW - Textbox with Arrow
Page Label: 14
Author: Mikayla Hartford
Date: 6/21/2023 4:41:16 PM
Status:
Color: ■
Layer:
Space:

A 48" RCP is significantly smaller than 2-8'x3' box culverts. This area has seen large flows that have caused the significant erosion across the entire project site. Verify.



Subject: SW - Textbox with Arrow
Page Label: 169
Author: Mikayla Hartford
Date: 6/21/2023 4:47:09 PM
Status:
Color: ■
Layer:
Space:

What is the tailwater here? The HGL lowers at the outlet and with large flows and multiple pipes outletting at this location I would anticipate significant tailwater which could effect the pipe sizing. Verify.

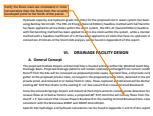


Subject: SW - Textbox with Arrow
Page Label: 12
Author: Mikayla Hartford
Date: 6/21/2023 2:33:14 PM
Status:
Color: ■
Layer:
Space:

Drainage map says 2.15, verify and update so both match.

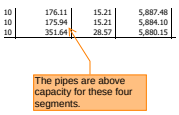
Subject: SW - Textbox with Arrow
Page Label: [1] Layout1
Author: Mikayla Hartford
Date: 6/21/2023 2:33:33 PM
Status:
Color: ■
Layer:
Space:

Drainage text says 2.12, verify and update so both match.



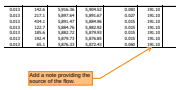
Subject: SW - Textbox with Arrow
Page Label: 8
Author: Mikayla Hartford
Date: 6/21/2023 3:04:44 PM
Status:
Color: ■
Layer:
Space:

Verify the flows used are consistent or more conservative than the flows from the recently developed pond to the North of the parcel.



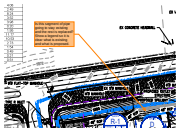
Subject: SW - Textbox with Arrow
Page Label: 168
Author: Mikayla Hartford
Date: 6/21/2023 4:17:17 PM
Status:
Color: ■
Layer:
Space:

The pipes are above capacity for these four segments.



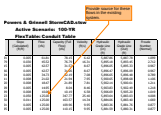
Subject: SW - Textbox with Arrow
Page Label: 168
Author: Mikayla Hartford
Date: 6/21/2023 4:22:17 PM
Status:
Color: ■
Layer:
Space:

Add a note providing the source of the flow.



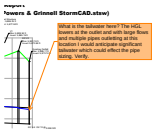
Subject: SW - Textbox with Arrow
Page Label: [1] Layout1
Author: Mikayla Hartford
Date: 6/21/2023 4:48:11 PM
Status:
Color: ■
Layer:
Space:

Is this segment of pipe going to stay existing and the rest is replaced? Show a legend so it is clear what is existing and what is proposed.



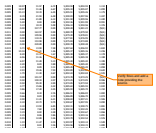
Subject: SW - Textbox with Arrow
Page Label: 146
Author: Mikayla Hartford
Date: 6/21/2023 4:33:36 PM
Status:
Color: ■
Layer:
Space:

Provide source for these flows in the existing system.



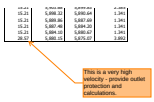
Subject: SW - Textbox with Arrow
Page Label: 166
Author: Mikayla Hartford
Date: 6/21/2023 4:46:15 PM
Status:
Color: ■
Layer:
Space:

What is the tailwater here? The HGL lowers at the outlet and with large flows and multiple pipes outletting at this location I would anticipate significant tailwater which could effect the pipe sizing. Verify.



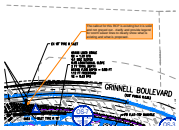
Subject: SW - Textbox with Arrow
Page Label: 126
Author: Mikayla Hartford
Date: 6/21/2023 4:38:09 PM
Status:
Color: ■
Layer:
Space:

Verify flows and add a note providing the source.



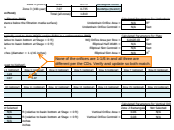
Subject: SW - Textbox with Arrow
Page Label: 168
Author: Mikayla Hartford
Date: 6/21/2023 4:46:54 PM
Status:
Color: ■
Layer:
Space:

This is a very high velocity - provide outlet protection and calculations.



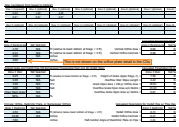
Subject: SW - Textbox with Arrow
Page Label: [1] Layout1
Author: Mikayla Hartford
Date: 6/21/2023 4:48:59 PM
Status:
Color:
Layer:
Space:

The callout for this RCP is existing but it is solid and not greyed out - clarify and provide legend for storm sewer lines to clearly show what is existing and what is proposed.



Subject: SW - Textbox with Arrow
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:24:18 PM
Status:
Color:
Layer:
Space:

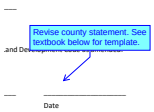
None of the orifices are 1-1/6 in and all three are different per the CDs. Verify and update so both match.



Subject: SW - Textbox with Arrow
Page Label: 172
Author: Mikayla Hartford
Date: 6/21/2023 5:27:41 PM
Status:
Color:
Layer:
Space:

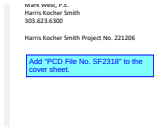
This is not shown on the orifice plate detail in the CDs.

Text Box (52)



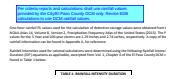
Subject: Text Box
Page Label: 2
Author: Carlos
Date: 6/8/2023 9:55:34 AM
Status:
Color:
Layer:
Space:

Revise county statement. See textbook below for template.



Subject: Text Box
Page Label: 1
Author: Carlos
Date: 6/8/2023 9:56:04 AM
Status:
Color:
Layer:
Space:

Add "PCD File No. SF2318" to the cover sheet.

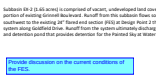


Subject: Text Box
Page Label: 7
Author: Carlos
Date: 6/8/2023 11:43:30 AM
Status:
Color:
Layer:
Space:

Per criteria reports and calculations shall use rainfall values provided by the City/El Paso County DCM only. Revise EDB calculations to use DCM rainfall values.

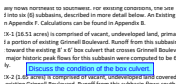
Subject: Text Box
Page Label: 8
Author: Carlos
Date: 6/8/2023 2:45:51 PM
Status:
Color:
Layer:
Space:

Discuss where the flows go after entering the 24" FES. Are they connecting to the RCP and then going to design point 4?



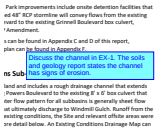
Subject: Text Box
Page Label: 8
Author: Carlos
Date: 6/8/2023 2:46:17 PM
Status:
Color:
Layer:
Space:

Provide discussion on the current conditions of the FES.



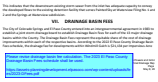
Subject: Text Box
Page Label: 8
Author: Carlos
Date: 6/8/2023 2:46:44 PM
Status:
Color:
Layer:
Space:

Discuss the condition of the box culvert.



Subject: Text Box
Page Label: 8
Author: Carlos
Date: 6/8/2023 3:24:56 PM
Status:
Color:
Layer:
Space:

Discuss the channel in EX-1. The soils and geology report states the channel has signs of erosion.



Subject: Text Box
Page Label: 14
Author: Carlos
Date: 6/15/2023 11:14:15 AM
Status:
Color:
Layer:
Space:

Please revise drainage basin fee calculation. The 2023 El Paso County Drainage Basin Fees schedule shall be used.

https://assets-planningdevelopment.elpasoco.com/wp-content/uploads/fees/2023-DFees.pdf

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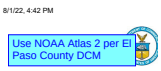
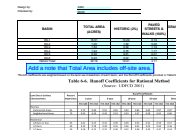


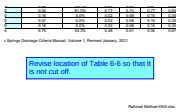
Subject: Text Box
Page Label: 21
Author: Carlos
Date: 6/15/2023 11:16:22 AM
Status:
Color:
Layer:
Space:

Use NOAA Atlas 2 per El Paso County DCM



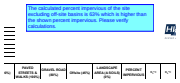
Subject: Text Box
Page Label: 39
Author: Carlos
Date: 6/15/2023 11:39:45 AM
Status:
Color:
Layer:
Space:

Add a note that Total Area includes off-site area.



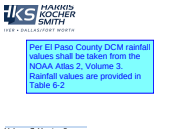
Subject: Text Box
Page Label: 43
Author: Carlos
Date: 6/15/2023 11:40:27 AM
Status:
Color:
Layer:
Space:

Revise location of Table 6-6 so that it is not cut off.



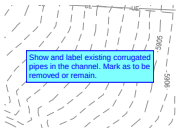
Subject: Text Box
Page Label: 43
Author: Carlos
Date: 6/15/2023 11:44:37 AM
Status:
Color:
Layer:
Space:

The calculated percent impervious of the site excluding off-site basins is 63% which is higher than the shown percent impervious. Please verify calculations.



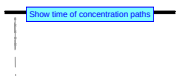
Subject: Text Box
Page Label: 47
Author: Carlos
Date: 6/15/2023 11:47:08 AM
Status:
Color:
Layer:
Space:

Per El Paso County DCM rainfall values shall be taken from the NOAA Atlas 2, Volume 3. Rainfall values are provided in Table 6-2



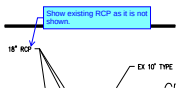
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:46:11 AM
Status:
Color:
Layer:
Space:

Show and label existing corrugated pipes in the channel. Mark as to be removed or remain.



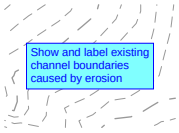
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:48:21 AM
Status:
Color:
Layer:
Space:

Show time of concentration paths



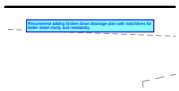
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 9:48:58 AM
Status:
Color:
Layer:
Space:

Show existing RCP as it is not shown.



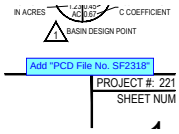
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/21/2023 2:12:35 PM
Status:
Color:
Layer:
Space:

Show and label existing channel boundaries caused by erosion



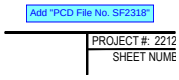
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/21/2023 2:12:59 PM
Status:
Color:
Layer:
Space:

Recommend adding broken down drainage plan with matchlines for better detail clarity and readability.



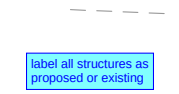
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 10:45:24 AM
Status:
Color:
Layer:
Space:

Add "PCD File No. SF2318"



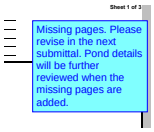
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 10:45:31 AM
Status:
Color:
Layer:
Space:

Add "PCD File No. SF2318"



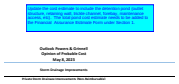
Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/19/2023 4:49:25 PM
Status:
Color:
Layer:
Space:

label all structures as proposed or existing



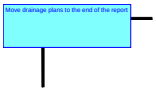
Subject: Text Box
Page Label: 175
Author: Carlos
Date: 6/21/2023 2:11:27 PM
Status:
Color:
Layer:
Space:

Missing pages. Please revise in the next submittal. Pond details will be further reviewed when the missing pages are added.



Subject: Text Box
Page Label: 177
Author: dsdlaforce
Date: 6/21/2023 12:58:44 PM
Status:
Color:
Layer:
Space:

Update the cost estimate to include the detention pond (outlet structure, retaining wall, trickle channel, forebay, maintenance access, etc). The total pond cost estimate needs to be added to the Financial Assurance Estimate Form under Section 1.



Subject: Text Box
Page Label: [1] Layout1
Author: Carlos
Date: 6/21/2023 2:14:04 PM
Status:
Color:
Layer:
Space:

Move drainage plans to the end of the report

Subject: Text Box
Page Label: 3
Author: Kishia
Date: 6/21/2023 3:13:34 PM
Status:
Color:
Layer:
Space:

A PARCEL OF LAND IN THE SOUTHWEST QUARTER OF SECTION 6 AND THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO,

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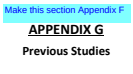
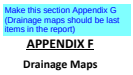


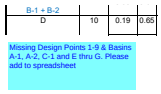
Subject: Text Box
Page Label: 180
Author: CDurham
Date: 6/21/2023 6:04:35 PM
Status:
Color:
Layer:
Space:

Make this section Appendix F



Subject: Text Box
Page Label: 178
Author: CDurham
Date: 6/21/2023 6:05:03 PM
Status:
Color:
Layer:
Space:

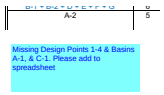
Make this section Appendix G
(Drainage maps should be last items in the report)



Subject: Text Box
Page Label: 51
Author: CDurham
Date: 6/22/2023 3:34:35 PM
Status:
Color:
Layer:
Space:

Missing Design Points 1-9 & Basins A-1, A-2, C-1 and E thru G. Please add to spreadsheet

---



Subject: Text Box
Page Label: 55
Author: CDurham
Date: 6/22/2023 3:35:29 PM
Status:
Color:
Layer:
Space:

Missing Design Points 1-4 & Basins A-1, & C-1. Please add to spreadsheet

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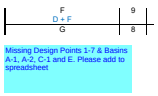
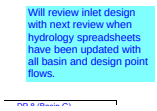


Subject: Text Box
Page Label: 59
Author: CDurham
Date: 6/22/2023 3:36:02 PM
Status:
Color:
Layer:
Space:

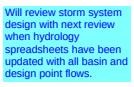
Missing Design Points 1-7 & Basins A-1, A-2, C-1 and E. Please add to spreadsheet

---



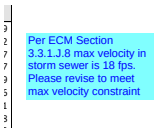
Subject: Text Box
Page Label: 61
Author: CDurham
Date: 6/22/2023 3:41:08 PM
Status:
Color:
Layer:
Space:

Will review inlet design with next review when hydrology spreadsheets have been updated with all basin and design point flows.



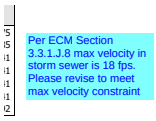
Subject: Text Box
Page Label: 125
Author: CDurham
Date: 6/22/2023 4:07:35 PM
Status:
Color:
Layer:
Space:

Will review storm system design with next review when hydrology spreadsheets have been updated with all basin and design point flows.



Subject: Text Box
Page Label: 146
Author: CDurham
Date: 6/22/2023 4:17:21 PM
Status:
Color:
Layer:
Space:

Per ECM Section 3.3.1.J.8 max velocity in storm sewer is 18 fps. Please revise to meet max velocity constraint



Subject: Text Box
Page Label: 168
Author: CDurham
Date: 6/22/2023 4:20:59 PM
Status:
Color:
Layer:
Space:

Per ECM Section 3.3.1.J.8 max velocity in storm sewer is 18 fps. Please revise to meet max velocity constraint

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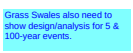

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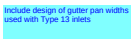
Grass Swales also need to show design/analysis for 5 & 100-year events.



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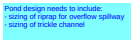
Include design of gutter pan widths used with Type 13 inlets



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Author: CDurham
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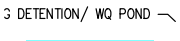
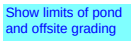
Pond design needs to include:
- sizing of riprap for overflow spillway
- sizing of trickle channel





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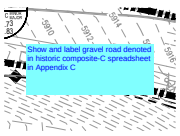
Show limits of pond and offsite grading



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Show and label gravel road denoted in historic composite-C spreadsheet in Appendix C

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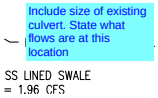
Check this through whole map



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Include size of existing culvert. State what flows are at this location

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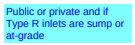

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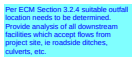
Public or private and if Type R inlets are sump or at-grade



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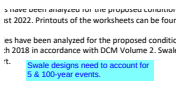
Per ECM Section 3.2.4 suitable outfall location needs to be determined. Provide analysis of all downstream facilities which accept flows from project site, ie roadside ditches, culverts, etc.



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Swale designs need to account for 5 & 100-year events.

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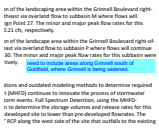
Provide an analysis of this existing culvert with developed flows



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Author: CDurham
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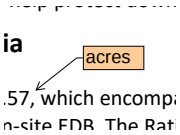
need to include areas along Grinnell south of Goldfield, where Grinnell is being widened.



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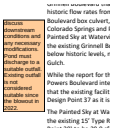

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Author: Christina Prete
Date: 6/26/2023 1:14:14 PM
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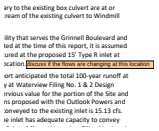
discuss downstream conditions and any necessary modifications. Pond must discharge to a suitable outfall. Existing outfall is not considered suitable since the blowout in 2022.



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Author: Christina Prete
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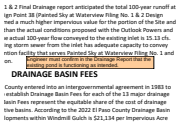
discuss if the flows are changing at this location



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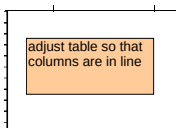
Engineer must confirm in the Drainage Report that the existing pond is functioning as intended.



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adjust table so that columns are in line

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or add a statement that quantifying runoff reduction will not be used as part of the WQ treatment requirements

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or add a statement that quantifying runoff reduction will not be used as part of the WQ treatment requirements