# FJR



CONSTRUCTION AND PERMANENT CONTROL MEASURE INDEPENDENT INSPECTION AND ASSESSMENT REPORT:

City of Colorado Springs, Colorado

October 12, 2023

#### **Table of Contents**

1	Introduction	1
2	Grading and Erosion Control (GEC) Audit	
3	City Stormwater Management Plan (CSWMP) Audit	
4	Permanent Control Measure (PCM) Audit	
5	Credited Measure (CM) Audit	
6	Correspondence	3
7	Summary of Audit Findings	∠
8	References	4
	Tables	
Table	e 2-1. Non-Compliant GEC Plans	1
Table	e 3-1: Non-Compliant CSWMP Reports	2
Table	e 4-1: Non-Compliant PCM Document Review	2
Table	e A-1: Selected GEC Plans reviewed	<b>A-</b> 1
Table	e B-2: Selected CSWMP Reports reviewed	B-1

### **Appendices**

Appendix A – List of GEC Plans Reviewed

Appendix B – List of CSWMPs Reviewed

Appendix C – Location Map

Appendix D – PCM Report Summaries

### 1 Introduction

HDR was contracted by the Stormwater Enterprise of City of Colorado Springs (City) in September 2021 to perform independent third-party audits for the City's approvals of Grading and Erosion Control (GEC) Plans, City Stormwater Management Plan (CSWMP) Reports, constructed Permanent Control Measures (PCM), and Credited Measures (CM).

This report covers Year 2 audit of the files.

The City provided HDR a numbered list of each of the City's approved plans, reports, and control measures. HDR randomly selected 35% of each type of project for GEC and CSWMP, and 25% of CMs approved in 2022, and 10% of PCMs constructed 2022.

These selections matched by percent the area within the City (Capital Project, Central, North, and South), and type of facility (Commercial, Industrial, Mixed Use/Other, Single Family Residential, Public Project). The City's tracking code was provided in the first round of selections, so HDR team didn't know which project was being selected. No facilities that HDR worked on were selected this year.

The City then delivered copies of approved plans, reports, and control measures to HDR's team for this audit.

# 2 Grading and Erosion Control (GEC) Audit

## 2.1 Plan Review Summary

Fifty-eight (58) GEC were independently reviewed by HDR utilizing GEC review audit checklist provided in the Workplan. From HDR's independent third-party review of these plans, a total of two (2) plans were non-compliant. This is a 3% non-complaint ratio of to the City's approved plans.

The full list of reviewed plans is found in Appendix A.

Refer to Table 2-1 of the non-complaint plans and missing items in relation to checklist item/tier.

Table 2-1. Non-Compliant GEC Plans

Plan Number	Title	Missing Checklist Item	Notes
G-60	AutoNation Filing No. 1	31-Tier 1	• Final Stabilization completion date is not provided
G-74	New Life Church, Filing No. 4, Lot 3	29-Tier 1	• Inlet Details missing for selected construction control measures



## 3 City Stormwater Management Plan (CSWMP) Audit

### 3.1 Report Review Summary

Fifty-five (55) CSWMP were independently reviewed by HDR utilizing the CSWMP review audit checklist. A total of one (1) plan were non-compliant. This is a 2% ratio of non-compliant of the plans reviewed. The total percent of non-compliant GEC and CSWMPs are 3 out of 113 plans or a 3% non-compliant rate.

The full list of reviewed CSWMP plans is found in Appendix C.

Refer to Table 3-1 of the non-complaint plans and missing items in relation to checklist item/tier.

**Table 3-1: Non-Compliant CSWMP Reports** 

Plan Number	Title	Missing Checklist Item	Notes
C-76	Blackwood Crossing, Filing No. 1A, Lot 2	13-Tier 1	• The potential sources of pollution are not listed in the report.

# 4 Permanent Control Measure (PCM) Audit

#### 4.1 PCM Review Summary

Six (6) PCM were independently reviewed by HDR utilizing PCM review audit checklist from the Workplan. The PCMs selected consisted of two bioretention basins, and four extended detention basins based on similar percentages of measures constructed within the City in 2022.

From the audit, one (1) constructed PCM was found to be out of compliance due to missing required documents.

HDR created a location map of the six PCM audit locations within the City. Refer to Appendix D for the location of PCM in-field audits and PCM Report Summaries can be found in Appendix E.

Table 4-1: Non-Compliant PCM Document Review

PCM Number	Title	Missing Checklist Item
PCM-22	The Sands Filing No. 1-Pond 1	Drainage report was not available, but an excerpt including PCM calculations was provided for the audit.

#### 5 Credited Measure (CM) Audit

### 5.1 CM Review Summary

Two (2) CM were independently reviewed by HDR utilizing CM review audit checklist from the Workplan. From the audit, the approved CMs had the required documentation. These CM are approved only, and pre-construction is not approved so no field work will be performed. The Acceptance timeframes for specific credited measure types were taken from the Audit Work Plan.

#### 6 Correspondence

The following list of correspondence with City during HDR's audit review:

- January 30, 2023 City shared list of 2022 approved GEC and CSWMP codes for selection
- March 2, 2023 HDR proved randomized selection for audit of GEC and CSWMP numbers to City
- March 10, 2023 City provided the code list of 2022 constructed PCMs for selection
- March 10, 2023 City provided the full list of GEC and CSWMP and the first set of plans for review
- March 16, 2023 HDR provided randomized selection of PCMs for audit to the City
- March 16, 2023 City requested copy of 2021 Audit Report from Erin Powers, and HDR shared the final copy back to the City
- March 20, 2023 City provided additional files for review. City replaced selected C-34 with C-35, as C-34 was incorrectly marked as approved.
- March 27, 2023 HDR and City communications about providing more files for review
- March 31, 2023 City sent full list of approved Credited Measures for random selection
- April 3, 2023 HDR provided City the random CM selection
- April 4, 2023 HDR requesting additional review files.
- April 14, 2023 City sending review files
- April 18, 2023 HDR sent City progress report for status of reviews.
- May 11 & 12, 2023 Emails between City and HDR to verify PCM locations
- May 12, 2023 Email from the City regarding CM

During the audit, one progress report on the status of the audits were provided to the City in April 2023.

Additional documentation or copies of the emails listed above can be provided by request.



# **Summary of Audit Findings**

From the randomly selected projects for third party review, HDR found 2.7% of the GEC and CSWMPS to be in non-compliance, and 1 (one) of the PCMs to be in non-compliance. There were no compliance issues with the CM reports.

#### References 8

City of Colorado Springs; Stormwater Enterprise 2020 Stormwater Construction Manual

City of Colorado Springs; Stormwater Enterprise 2021 Audit Work Plan



# Appendix A. GEC Plan Selection

Table A-1: Selected GEC Plans reviewed			
GEC Number	Plan Title	District	Project Type
G-1	Pegasus Dr	Capital Project	Public Project
G-2	Hancock and Uintah	Capital Project	Public Project
G-13	Melville Dr between Ferber Drive and Clarendon	Capital Project	Public Project
G-17	Colorado Springs Airport Filing 1D	Capital Project	Public Project
G-18	Northpark Dr north of Garden of the Gods Rd	Capital Project	Public Project
G-21	Cottonwood Creek upstream of Austin Bluffs Rea	Capital Project	Public Project
G-23	Deerfield Hills Dr and Springnite Dr	Capital Project	Public Project
G-25	Legacy Loop Trail Mesa Drainage Trail	Capital Project	Public Project
G-26	Black Forest Road - Woodmen to Research	Capital Project	Public Project
G-27	Woodmen between Fuller Substation and Marksh	Capital Project	Public Project
G-30	Hancock Ave and Fountain Blvd	Capital Project	Public Project
G-32	Las Vegas St. and Twin Bridges Road	Capital Project	Public Project
G-38	San Marcos Dr and Sonoma Dr between Montere	Capital Project	Public Project
G-39	S. Royer St & Las Vegas St.	Capital Project	Public Project
G-40	1423 Imperial Road	Central	Commercial
G-44	Creekside Plaza	Central	Commercial
G-45	E Woodmen Rd & Marksheffel Rd, Colorado Sprin	Central	Commercial
G-46	E Woodmen Rd & Marksheffel Rd, Colorado Sprin	Central	Commercial
G-51	Lot 4 Looart Subdivision Filing No. 8	Central	Commercial
G-55	Dublin Storage	Central	Commercial
G-56	Allaso Peak Filing No. 1	Central	Commercial
G-58	The Sands Industrial Park Filing No. 1 Lots 2-4	Central	Commercial
G-59	3253 Centennial Blvd	Central	Commercial
G-60	AutoNation Filing No.1	Central	Commercial
G-68	Mountain Shadows Office Park Fil No 1, Lots 8-10	Central	Single Family Residential

Table A	Table A-1: Selected GEC Plans reviewed			
GEC Number	Plan Title	District	Project Type	
G-73	Woodmen Heights Commercial Center Filing No.	North	Commercial	
G-74	Lot 3, New Life Church Filing No. 4	North	Commercial	
G-75	Woodmen Heights Commercial Center Filing No	North	Commercial	
G-76	Victory Ridge Filing No. 1, Lot 3	North	Commercial	
G-77	Shiloh Mesa Commercial Filing No. 3	North	Commercial	
G-82	Woodmen Center Heights Filing No. 2	North	Commercial	
G-89	lot 1 towne north center subdivision filing No. 4	North	Commercial	
G-91	Briargate Crossing East Filing No. 3A	North	Commercial	
G-98	Colorado Crossing	North	Commercial	
G-99	Tutt Corners Filing No. 3	North	Commercial	
G-104	Pine Creek High School Natatorium (10750 Thund	North	Mixed Use / Other	
G-106	St Gabriels The Archangel Subdivision Filing No.	North	Mixed Use / Other	
G-110	Victory Ridge Filing No. 12, Lot 1	North	Mixed Use / Other	
G-113	Creekside at Rockrimmon Filing No. 1	North	Single Family Residential	
G-115	Highline at Wolf Ranch Phase 4-	North	Single Family Residential	
G-116	Elevate at Wolf Ranch Filing No. 1 and 2	North	Single Family Residential	
G-120	Enclave IV at Wolf Ranch Filing No. 1	North	Single Family Residential	
G-125	Victory Ridge Filing No. 14	North	Single Family Residential	
G-129	Lot 2 Newport Subdivision Filing No. 22	South	Commercial	
G-131	Lot 3, Colorado Springs Airport Filing No. 1E	South	Commercial	
G-132	Gateway Subdivision Filing No. 7, Block 1 Lot 1	South	Commercial	
G-142	Lot 2, Newport Subdivision, Filing No. 19A	South	Industrial	
G-143	875 Vapor Trail	South	Industrial	
G-145	Lot 1, Sentinel Ridge Subdivision (Aberdeen)	South	Mixed Use / Other	



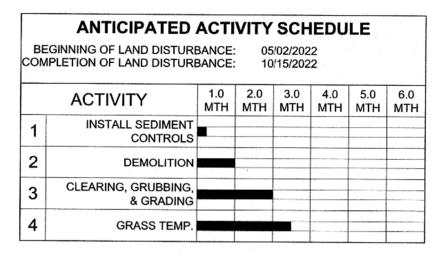
Table A-1: Selected GEC Plans reviewed				
GEC Number	Plan Title	District	Project Type	
G-147	904 Arcturus Drive	South	Mixed Use / Other	
G-149	3740 Airport Road, Colorado Springs CO 80910	South	Mixed Use / Other	
G-153	COSA Filing 1D	South	Mixed Use / Other	
G-155	COSA Filing 1E Integration Loop & Peak Innovati	South	Mixed Use / Other	
G-156	Lot 6 COSA Filing 1D	South	Mixed Use / Other	
G-160	Bradley Heights Filing No. 1 and 2 (SE of Bradley	South	Single Family Residential	
G-162	Bradley Heights	South	Single Family Residential	
G-165	Gold Hill Mesa Drive and 21St Street	South	Single Family Residential	
G-167	Meadoworks Filing No. 1 thru 4	South	Single Family Residential	
*Bold lines	above are the plans found to be non-compliant.			



#### **GEC Plan Comments**

**G-60** Missing estimated date of final stabilization.

- 31. Expected date on which the final stabilization will be completed.
  - Can be combined with completion time period if both will occur at the same time. FINAL STABILIZATION NOT CALLED OUT





#### G-74 Missing detail for inlet protection used in the plans

- 29. <u>Detail drawings of Construction Control Measures</u> including installation and maintenance requirements. Details must match those provided in SCM Appendix E, or be approved through the alternative Construction Control Measure approval process.
  - Additional CCM details can be included in the GEC Plan, but are not required.
  - SCM details, additional COS details on the website, MHFD datails, and approved alternative details on the City's website are all acceptable
  - If a detail is not included, a reference to the details on the City's website is required
     IP-3 CALLED OUT BUT DETAIL MISSING



# Appendix B. CSWMP Selection

Table B-2: Selected CSWMP Reports reviewed				
CSWMP Number	Title of Report	District	Project Type	
C-5	Monument Branch - Voyager to I-25	Capital Project	Public Project	
C-6	East half of Section 1, T13S, R66W Pinkerton Sub	Capital Project	Public Project	
C-8	Victory Ridge Filing No. 9	Capital Project	Public Project	
C-9	Black Forest Road - Woodmen to Research	Capital Project	Public Project	
C-14	Sand Creek at Hancock Expressway	Capital Project	Public Project	
C-18	Cottonwood Creek upstream of Austin Bluffs Rea	Capital Project	Public Project	
C-20	Monument Branch - Voyager to I-25	Capital Project	Public Project	
C-21	Deerfield Hills Dr and Springnite Dr	Capital Project	Public Project	
C-27	Wilson Tank	Capital Project	Public Project	
C-29	Monterey Rd from Circle Dr to Carmel Dr	Capital Project	Public Project	
C-30	Vista Grande Subdivision Filing No. 26 (4289 N.A	Central	Commercial	
C-32	Lot 1, Block 1, Westech Center	Central	Commercial	
C-35	Creekside Plaza	Central	Commercial	
C-36	E Woodmen Rd & Marksheffel Rd, Colorado Sprin	Central	Commercial	
C-37	AutoNation Filing No.1	Central	Commercial	
C-40	Garden of the Gods West Filing No. 1	Central	Commercial	
C-46	Lot 1 The Overlook at Pulpit Rock Filing No 1	Central	Commercial	
C-49	2525 Concord Street Waiver of Replat	Central	Mixed Use / Other	
C-52	Mountain Shadows Office Park Fil No 1, Lots 8-10	Central	Single Family Residential	
C-57	Lot 3, New Life Church Filing No. 4 Phase 2	North	Commercial	
C-60	Shiloh Mesa Commercial Filing No. 3	North	Commercial	
C-66	Woodmen Center Heights Filing No. 2	North	Commercial	
C-69	Lot 3, Woodmen Heights Commercial Center Filin	North	Commercial	
C-70	3593 Blue Horizon View	North	Commercial	
C-75	Marketplace at Interquest Filing No. 25	North	Commercial	

Table B-2: Selected CSWMP Reports reviewed				
CSWMP Number	Title of Report	District	Project Type	
C-76	Lot 2 Blackwood Crossing Filing No. 1A	North	Commercial	
C-81	Marketplace at Interquest Filing No. 26	North	Commercial	
C-84	Marketplace at Interquest Filing No. 27	North	Commercial	
C-86	Lot 3, Interquest Filing No. 11	North	Commercial	
C-93	Villages at College Creek Filing 4	North	Mixed Use / Other	
C-98	Victory Ridge Filing No. 12, Lot 1	North	Mixed Use / Other	
C-100	Black Forest Road	North	Mixed Use / Other	
C-102	Victoria Ridge Filing No. 4	North	Mixed Use / Other	
C-104	Victory Ridge Filing No. 9, Tract E	North	Mixed Use / Other	
C-107	Creekside at Rockrimmon Filing No. 1	North	Single Family Residential	
C-108	Revel Terrace Filing No. 1	North	Single Family Residential	
C-109	Briargate Parkway at Wolf Ranch Filing No. 2	North	Single Family Residential	
C-111	Elevate at Wolf Ranch Filing No. 1 and 2	North	Single Family Residential	
C-112	Sage Meadows II Townhomes at Wolf Ranch Filin	North	Single Family Residential	
C-116	West of Templeton Gap Road & Black Forest Roa	North	Single Family Residential	
C-118	The Edge at Wolf Ranch Filing No 1	North	Single Family Residential	
C-119	Lot 2, Westgate at Powers Filing No. 1	South	Commercial	
C-122	LOT 5 REPLAT OF LOT 1 BLK 2 PIKES PEAK P	South	Commercial	
C-127	Lot 2, West Nest Industrial Park Fil. No. 2	South	Commercial	
C-128	GATEWAY SUBDIVISION FILING NO. 7 LOT 1	South	Commercial	
C-130	1913 Areotech Drive	South	Commercial	
C-131	Lot 3, Westgate at Powers, Flling No. 1	South	Commercial	
C-133	Lot 1, Cimarron Apartments Subdivision Filing No	South	Commercial	



Table D.O.	Calacted	CCMAND D.		manufacture of
Table B-2:	Selected	<b>CSWMP</b> Re	ports	reviewed

CSWMP Number	Title of Report	District	Project Type
C-136	875 Vapor Trail	South	Industrial
C-138	Preserve at Mesa Creek Filing No. 1	South	Mixed Use / Other
C-140	Preserve at Mesa Creek Filing No. 2	South	Mixed Use / Other
C-141	Wahsatch Subdivision Filing No. 2	South	Mixed Use / Other
C-143	Colorado Springs Airport Filing 1D - Peak Innovati	South	Mixed Use / Other
C-149	Skyview Village	South	Single Family Residential

<sup>\*</sup>Bold lines above are the plans found to be non-compliant.

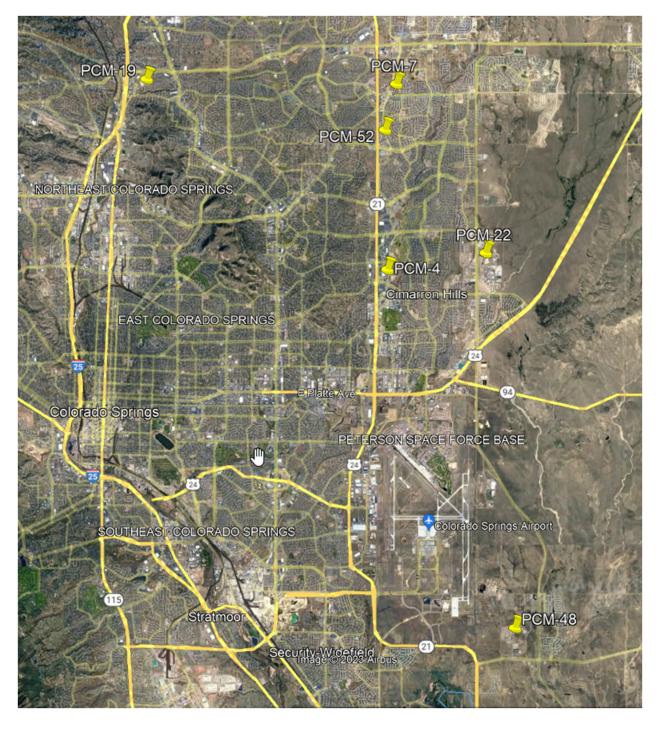
## **CSWMP Plan Comments**

#### C-76 Missing pollution sources in the report

1 not included 13. Potential Sources of Pollution. The CSWMP must list all potential sources of pollution which mater reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This shall include, but is not limited to, the following pollutant sources as applicable:



# Appendix C. PCM Location Map





# Appendix D. PCM Report Summaries



## **Permanent Control Measures Audit**

Weather Conditions:	
HDR Project No: PCM-4 01236	
Project Owner: In-N-Out Burgers	
Date: 5/17/2023	
Project Name: In-N-Out Burger at First & Main Town Center	

### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM: BIORETENTION BASIN

•	Drainage Report (Drainage Letter, etc.)	Yes
•	PE Certification	Yes
•	As-Built Plan	Yes
•	Reference to Appropriate Inspection & Maintenance Plan	Yes
•	City Final Acceptance Letter	Yes
•	Does the Report contain appropriate WQ Storage Volume for specific PCM	Yes





# **PCM Field Inspection**

•	Is the PCM located per the plan?	Yes
•	Do site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

BIORETENTION/SAND FILTER BASIN	
INFILTRATION MEDIA (PRESENT BASED ON OBSERVATION)	YES
UNDERDRAIN CONNECTION TO OUTLET STRUCTURE	YES
OUTLET STRUCTURE	YES
EMERGENCY OVERFLOW	YES

Notes:

Emergency overflow was hard to identify

Photos are taken after multiple days of afternoon thunderstorms



Pictures:



Infiltration Media Example 1





Emergency Overflow / Infiltration Media Example 2







**Outlet Structure** 



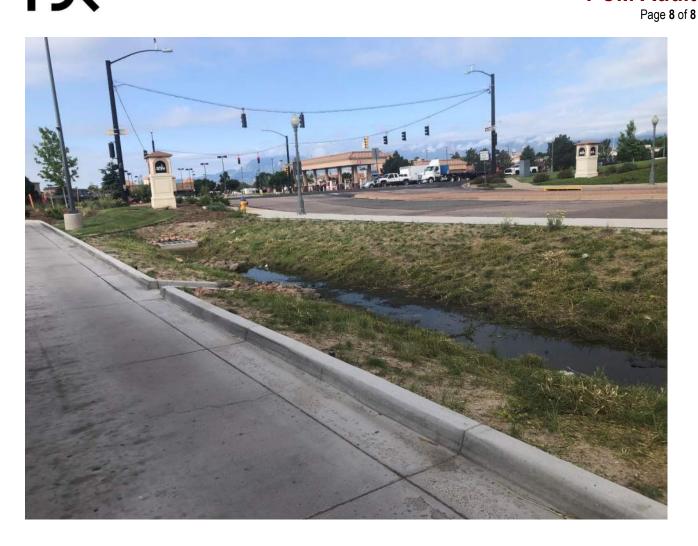






Underdrain connection to outlet structure





Signature:



## **Permanent Control Measures Audit**

Project Name: BW Dublin	
Date: 5/17/2023	
Project Owner: Burgerworks Colorado LLC	
HDR Project No: PCM-7 01326 BIORETENTION BASIN	
Weather Conditions: Partly Cloudy	

### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM: Bioretention Basin

•	Drainage Report (Drainage Letter, etc.)	Yes
•	PE Certification	Yes
•	As-Built Plan	Yes
•	Reference to Appropriate Inspection & Maintenance Plan	Yes
•	City Final Acceptance Letter	Yes
•	Does the Report contain appropriate WQ Storage Volume for specific PCM	Yes



PCM Audit
Page 2 of 9

### **PCM Field Inspection**

•	Is the PCM located per the plan?	Yes
•	Do site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

BIORETENTION/SAND FILTER BASIN	
INFILTRATION MEDIA (PRESENT BASED ON OBSERVATION)	YES
UNDERDRAIN CONNECTION TO OUTLET STRUCTURE	NO
OUTLET STRUCTURE	NO
EMERGENCY OVERFLOW	YES

#### Notes:

Infiltration media present was small stone only

No underdrain connection seen, only a sprinkler top identified

Photos are taken after multiple days of afternoon thunderstorms

No outlet structure per design plans. Full infiltration.



#### Pictures:



Emergency overflow



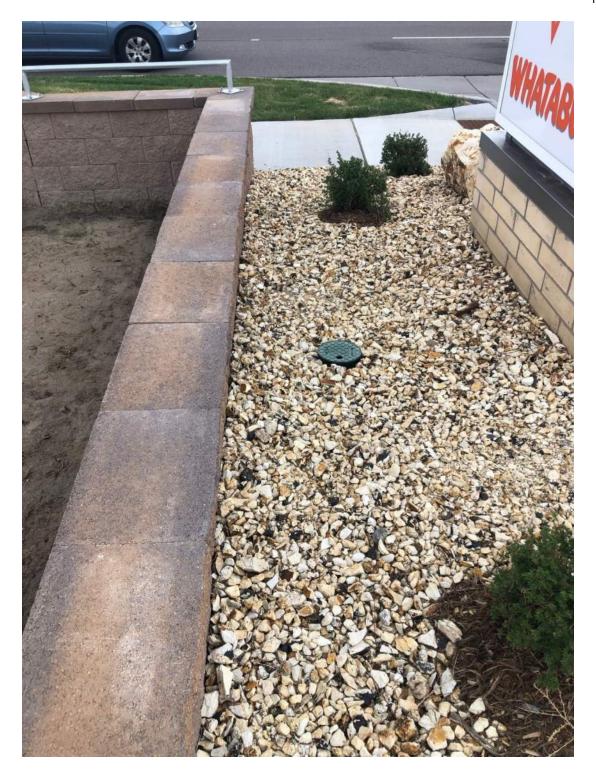


Overall Site / Infiltration Media (East forebay)









PVC pipe and cap, no outlet structure or underdrain seen





Field identified inlet location into west forebay





Drainage pipe under walkway connecting forebays







## **Permanent Control Measures Audit**

Project Name: The Crest at Woodmen Redevelopment	
Date: 5/16/2023	
Project Owner: Crest at Woodmen, LLC	
HDR Project No: PCM-19 00978 EXTENDED DETENTION BASIN	
Weather Conditions: Partly Cloudy	

### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM:

Drainage Report (Drainage Letter, etc.)	Yes
PE Certification	Yes
As-Built Plan	Yes
Reference to Appropriate Inspection & Maintenance Plan	Yes
City Final Acceptance Letter	Yes
<ul> <li>Does the Report contain appropriate WQ Storage Volume for specific PCM</li> </ul>	Yes





### **PCM Field Inspection**

Is the PCM located per the plan?	Yes
<ul> <li>Do site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?</li> </ul>	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

EXTENDED DETENTION BASIN (EDB)		
FOREBAY(S)	YES	
MICROPOOL	YES	
LOW-FLOW CHANNEL	YES	
OUTLET STRUCTURE	YES	
EMERGENCY OVERFLOW	YES	

#### Notes:

Photos are taken after multiple days of afternoon thunderstorms

Three inlet structures with forebays and large amounts of standing water

The eastern most inlet structure and low flow channel have sustained washout along concrete



#### Pictures:



Inlet structure 1





Inlet structure 2





Inlet structure 3





















Copyright 2015 HDR Engineering, Inc.



Date: 5/17/2023

## **Permanent Control Measures Audit**

No

Project Name: The Ridge at Sand Creek Filing No. 1		

Project Owner: Eagle Development CO

HDR Project No: PCM-22 01053 EXTENDED DETENTION BASIN

Drainage Report (Drainage Letter, etc.)

Weather Conditions: Partly cloudy

#### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM:

propriate for the specific Pow.		

•	PE Certification	Yes

- Reference to Appropriate Inspection & Maintenance Plan
- City Final Acceptance Letter
   Yes
- Does the Report contain appropriate WQ Storage Yes Volume for specific PCM





# **PCM Field Inspection**

• Is	s the PCM located per the plan?	Yes
A	Oo site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

EXTENDED DETENTION BASIN (EDB)		
FOREBAY(S)	YES	
MICROPOOL	YES	
LOW-FLOW CHANNEL	YES	
OUTLET STRUCTURE	YES	
EMERGENCY OVERFLOW	YES	

Notes:

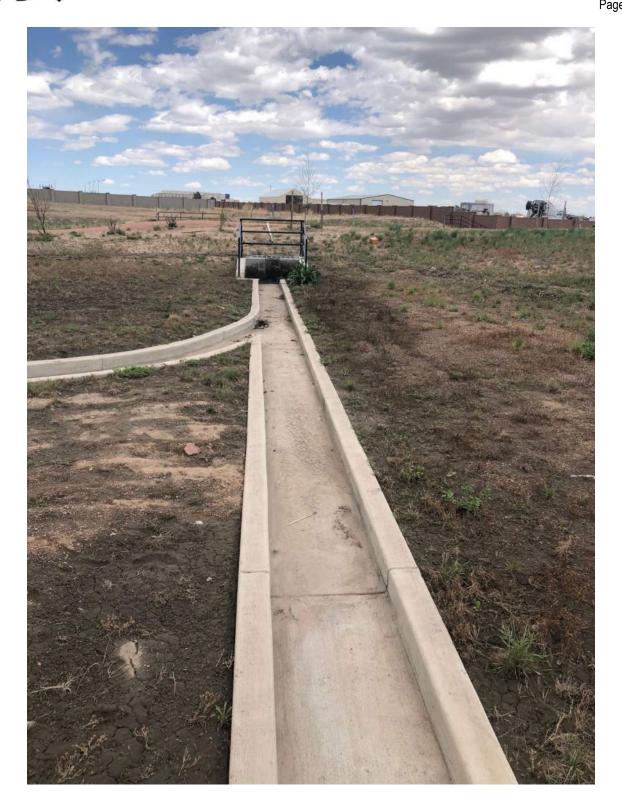
Photos are taken after multiple days of afternoon thunderstorms



#### Pictures:













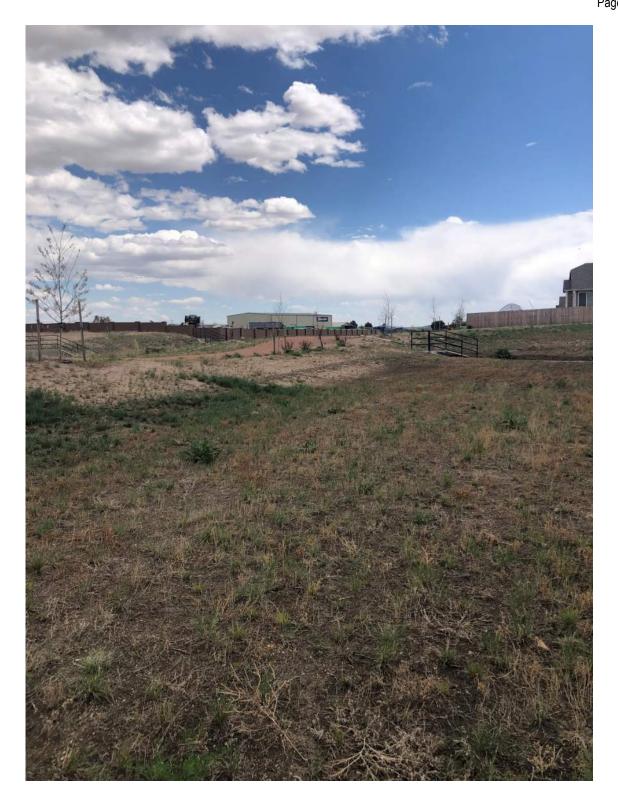
















Copyright 2015 HDR Engineering, Inc.











# **Permanent Control Measures Audit**

Project Name: Insurance Auto Auction
Date: 5/17/2023
Project Owner: Import Court Industrial, LLC
HDR Project No: PCM-48 01198 EXTENDED DETENTION BASIN

Weather Conditions: Partly Cloudy

### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM:

Drainage Report (Drainage Letter, etc.)	Yes
PE Certification	Yes
As-Built Plan	Yes
Reference to Appropriate Inspection & Maintenance Plan	Yes
City Final Acceptance Letter	Yes
<ul> <li>Does the Report contain appropriate WQ Storage Volume for specific PCM</li> </ul>	Yes





### **PCM Field Inspection**

Is the PCM located per the plan?	Yes
<ul> <li>Do site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?</li> </ul>	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

EXTENDED DETENTION BASIN (EDB)		
FOREBAY(S)	YES	
MICROPOOL	YES	
LOW-FLOW CHANNEL	YES	
OUTLET STRUCTURE	YES	
EMERGENCY OVERFLOW	YES	

#### Notes:

Photos are taken after multiple days of afternoon thunderstorms

Two concrete lined drainage slopes into forebays were located

The northern drainage slope has sustained washout on either side of the concrete slope

The outlet structure has sustained washout on the west side



#### Pictures:









































# **Permanent Control Measures Audit**

Project Name: Ridgeview Comfort / Mainstay Suites	
Date: 5/17/2023	
Project Owner: Platinum Hospitality, LLC	
HDR Project No: PCM-52 00452 SAND FILTER BASIN	
Weather Conditions: Partly cloudy	

### **PCM Document Review**

Does the City have the following documents on file, and do the documents appear to be appropriate for the specific PCM:

Drainage Report (Drainage Letter, etc.)	Yes
PE Certification	Yes
As-Built Plan	Yes
Reference to Appropriate Inspection & Maintenance Plan	Yes
City Final Acceptance Letter	Yes
<ul> <li>Does the Report contain appropriate WQ Storage Volume for specific PCM</li> </ul>	Yes



PCM Audit
Page 2 of 7

# **PCM Field Inspection**

Is the PCM located per the plan?	Yes
<ul> <li>Do site grading and constructed conveyance systems Appear to direct runoff from areas identified in the drainage Report for treatment by the control measure?</li> </ul>	Yes

Are the following features present based on the type of control measure and installed in accordance with the approved drainage report?

BIORETENTION/SAND FILTER BASIN	
INFILTRATION MEDIA (PRESENT BASED ON OBSERVATION)	YES
UNDERDRAIN CONNECTION TO OUTLET STRUCTURE	YES
OUTLET STRUCTURE	YES
EMERGENCY OVERFLOW	YES

Notes:

Photos are taken after multiple days of afternoon thunderstorms

Inspection Issue: Concrete curb is pooling water on opposite side of pond



#### Pictures:













Copyright 2015 HDR Engineering, Inc.







