



Securing our future *drop by drop*

March 9, 2022

Via: Electronic Delivery

Water Quality Control Division
WQCD-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Subject: Town of Castle Rock Stormwater 2021 Annual Report
MS4 Colorado Discharge Permit No. COR-080012

To Whom It May Concern:

Attached is the Town of Castle Rock's 2021 Annual Report along with applicable attachments per Section 7.G.iii. The report documents the Town's implementation of the CDPS Stormwater Management Program in compliance with the conditions of the MS4 Permit.

If you have any questions regarding this report, please feel free to contact me at 720-733-6029.

Sincerely,

J. David Van Dellen, P.E.
Stormwater Manager

Enclosures

Cc: Mark Marlowe, P.E., Director of Castle Rock Water
File



COLORADO

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

COR080000 Renewal Permittees Annual Report Form

Municipal Separate Storm Sewer Systems (MS4s) General Permits **Revised 10/2017**

One original copy (no faxes or e-mails) of the completed annual report form and any required attachments, must be submitted to the address in the footer, below

Part 1: Permit Identification General Permit Number: COR080000 Certification Number: COR08 <u>0012</u>	Part B: Reporting Period Jan 1 through Dec 31 (Check one. Report is due by March 10 of the following year.) <input type="checkbox"/> 2017 <input type="checkbox"/> 2018 <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input checked="" type="checkbox"/> 2021
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Part 2: Permittee Information (If there are any changes, please submit a [Change of Contacts form](#))

Organization: Town of Castle Rock

Mailing Address: 175 Kellogg Ct.

City: Castle Rock State: CO Zip: 80109

Part 3: Site Contact Information (If there are any changes, please submit a [Change of Contacts form](#))

Facility Contact Name: J. David Van Dellen

Title: Stormwater Manager

Telephone No: 720-733-6029

Email Address: dvandellen@crgov.com

Part 4: Facility Information

Have any areas been added or removed from the permit area due to annexation or other legal means?
 YES NO

If YES, provide the web address for an online map, below, or check "attached" below and **attach an updated map** labeled as "Part 4" that identifies the jurisdictional boundaries.

Provide the map's web address or indicate if a map is attached (if applicable): Attached
http://crgov.com/DocumentCenter/View/287/Standard-Town-Map?bidId=

Part 5: Notice of Reliance on Third Party

Is the permittee relying on another entity to satisfy any of the permit obligations (if applicable) that has not been reported to the division in a previous report or permit application (including reports under previous permit terms). YES NO

If YES, **attach a short narrative** labeled as "Part 5" identifying the permit requirement and the entity relied on.



Part 7 - Program Implementation Report

(Part 6 of the report was only applicable to the 2016 report and has been removed)

7.A) Compliance Schedule = required Annual Report Notifications

For all compliance schedule actions completed by January 1 of the year the report is due (including those actions completed prior to the reporting period), identify the date of completion. Refer to Part I.H of the permit.

Only complete those rows for which the deadline was met during the reporting period.

This table reflects all compliance schedule items for the permit term, which includes permit conditions that do not need to be met during the current reporting period.

Permit Condition	Action	Deliverable	Deadline	Date of Completion/Implementation
	County growth area maps (Part I.A.3.a.ii(B)) - Completed January 1, 2017 Refer to Part I.H of the permit, not a required element for reporting in the annual report.			
I.C.1, and PDD content requirements in Parts I.D and E	Complete PDD (contents must reflect terms and conditions that are in effect, i.e., following the associated compliance schedule deadline)	Notification in annual report Due March 10, 2019	Completed January 1, 2019	12/2018
I.E.2.a.ii,iii,v I.E.3.c.ii,iii I.E.4.c.ii,iii	Complete all applicable changes to the regulatory mechanism(s): Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.1.a.i	Illicit Discharges: Begin providing information targeting business(es) and the general public	Notification in annual report Due March 10, 2019	Begin implementation July 1, 2018	7/2018
I.E.1.a.ii	Education and Outreach Activities: Begin providing annual public education and outreach from Table 1.	Notification in annual report Due March 10, 2019	Begin implementation January 1, 2018	1/2018
I.E.1.a.iii(A)	Nutrients: Determine targeted sources of nutrients.	Notification and list of targeted sources in annual report Due March 10, 2018 Attach List to March 10, 2018 Annual Report following completion, labeled as "PART 7.A - Nutrient Targets"	Completed January 1, 2018	12/2017
I.E.1.a.iii(B)	Nutrients: Begin providing education and outreach to the targeted sources	Notification in annual report Due March 10, 2019	Begin implementation July 1, 2018	7/2018
I.E.2.a.iv(A) and (B)	Tracing an Illicit Discharge: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	12/2017
I.E.2.a.vi	Removing an Illicit Discharge, Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	12/2017
I.E.2.a.viii	Priority Areas: Identify any new priority areas	Notification in annual report Due March 10, 2018	Completed January 1, 2018	12/2017
I.E.2.b.vi	Removing and Illicit Discharge: Ensure documentation is recorded.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	12/2017
I.E.3.	Begin implementing the permittee's current construction sites program in the county growth areas.	Notification in annual report Due March 10, 2020	Completed January 1, 2019	N/A
I.E.3.c.i	Excluded Activities for County Growth Areas: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	N/A



7.A) CONTINUED: Compliance Schedule = required Annual Report Notifications

Permit Condition	Action	Deliverable	Deadline	Date of Completion/Implementation
I.E.3.c.iv	Control Measure Requirements: Ensure control measure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.3.c.v(B) through (C)	Site Plans: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.3.c.vi(B) through (E)	Site Inspection: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.3.c.vii(B)	Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.3.d.vi	Site Inspection: Ensure requirements are met; revise implementation and documentation if necessary, ensure documentation is recorded.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.4.	Begin implementing the permittee's current post- construction sites program in the county growth areas.	Notification in annual report Due March 10, 2020	Completed January 1, 2019	N/A
I.E.4.c.i	Excluded Sites: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.4.c.iv	Control Measure Requirements: Ensure new control measures meet one of the design standards	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.4.c.v	Site Plans: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.4.c.vi and vii	Construction Inspection and Acceptance and Post Acceptance Oversight: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.4.c.viii	Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.5.a.ii	Municipal Facility Runoff Control Measures: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in Annual report Due March 10, 2018	Completed July 1, 2017	7/2017
I.E.5.a.ii(C)	Municipal Facility Runoff Control Measures: Ensure inspection requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019
I.E.5.a.iv	Nutrient Source Reductions: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2021	Completed July 1, 2020	7/2020
I.E.5.a.v.	Outdoor Bulk Storage	Notification in annual report Due March 10, 2022	Completed July 1, 2021	7/2021
I.E.5.b.i	Municipal Facility Runoff Control Measures: Ensure documentation is recorded.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	7/2019



7.C) Assessment and Modifications

i. The results of the assessment of the effectiveness of the control measures.

Provide a narrative based on the assessment required in Part I.G.1.b of the Permit. The permit does not identify the scope or scale of information required beyond this information, the permittee may determine the extent and nature of information provided to meet this requirement.

Provide information below, or check "attached" and **attach the information** labeled as "PART 7.C.i"

Attached

The Town of Castle Rock (Town) has assessed the implementation of the control measures required by the permit and found the Town to be in compliance. It is the Town's understanding that the implementation of control measures consistent with the requirements of the permit constitutes an effective method to achieve the effluent limits of the permit.

ii. The results of the permit modification assessment and if any parts of this permit need to be modified or a condition of the permit may not be practicable.

Provide a narrative based on the assessment required in Part I.G.1.c of the Permit. The permit does not identify the scope or scale of information required beyond this information, the permittee may determine the extent and nature of information provided to meet this requirement.

Provide information below, or check "attached" and **attach the information** labeled as "PART 7.C.ii"

Attached

An assessment was completed and modifications are not applicable.



7.D) *Program Elements - Public Education and Outreach (Part I.E.1)

***All of 7.D is not required prior to the Jan 1, 2018 deadline for implementing in accordance with I.E.1.a.i, ii, & iii**

iii. List of the education and outreach activities completed in accordance with Part I.E.1.a.i. - Illicit Discharges Education and Outreach.

Provide list below.

Newspaper ads targeting commercial businesses with a likelihood of causing illicit discharges or disposing of waste improperly .

iv. List of the education and outreach activities completed in accordance with Part I.E.1.a.ii. - Education and Outreach Activities Table, referencing the activities in Table 1 of the Permit.

The permittee must implement at least four education and outreach activities (bulleted items) and at least two must be from the Active and Interactive Outreach column. Check those activities conducted in the table below.

Passive Activity

Check all activities implemented during report year

- Bus shelter/bench advertisement
- Billboard/dasher board advertisement
- Vehicle/bus advertisement
- Radio/television/movie theater advertisement
- Newspaper advertisement
- Distribute educational materials by brochure
- Distribute educational materials by fact sheet
- Distribute educational material by utility bill insert
- Publish article (hard copy or electronic)
- Storm drain marking by permittee staff that maintains 25% of permittee maintained inlets.
- Stormwater related signage
- Web site

Active and Interactive Outreach Activity

Check all activities implemented during report year

- Ongoing advertisement/promotion of a stormwater hotline number or other method to report an illicit discharge
- Ongoing advertisement/promotion on how to get more information about the stormwater program
- Ongoing social media program
- Web site that is interactive or contains stormwater information that includes actions that can be taken to reduce stormwater pollution
- Newsletter (hard copy or electronic)
- Promotion of existing local stormwater/environmental events or program that help protect water quality
- Distribute promotional items or giveaways
- Participate in or sponsor a water festival which involves populations that exist within the permit boundary
- Participate in or sponsor a waterway clean-up and trash removal event
- Participate in or sponsor a service project
- Participate in or sponsor a stormwater or environmental presentation
- Participate in or sponsor a stormwater or environmental event
- Participate in or sponsor community project based programs that investigate watershed health and meet applicable school Science, Technology, Engineering and Math (STEM) standards

Continued on Next Page



*Active and Interactive Outreach Activity Column,
Continued*

- Participate in or sponsor a household hazardous waste event
- Participate in or sponsor an Adopt-a-Street program
- Participate in or sponsor an Adopt-a-Waterway program
- Participate in or sponsor an Adopt-a-Storm Drain program
- Provide ongoing access to motor vehicle fluids recycling program
- Stormwater booth at a community event
- Conduct a stormwater survey
- Storm drain marking program performed by the public/community
- Pet waste stations
- Participate in, plan, or present stormwater materials to schools
- Stormwater demonstration projects that show control measures or other pollutant reduction methods

v. A list of the education and outreach activities completed in accordance with Part I.E.1.a.iii. - nutrients and targeted sources

Provide list below, including the pollutant sources targeted for each activity.

Activity 1: Newspaper Ads

Pollutant Sources: Fertilizers, Dog Waste, Landscaping Maintenance

Activity 2: Castle Rock Website – Protecting Water Quality

Pollutant Sources: Fertilizers, Dog Waste, Landscaping Maintenance

Activity 3: CLEAR Website – Protecting Water Quality

Pollutant Sources: Fertilizers, Landscaping Maintenance

Activity 4: Pet Waste Station Sponsor

Pollutant Sources: Dog Waste

Activity 5: Social Media Posts

Pollutant Source: Dog Waste, Landscaping Maintenance



7.E) Program Elements - Illicit Discharge Detection and Elimination	
<p>vi. Provide the total number of <u>unresolved reports/identification of illicit discharges</u>. An unresolved illicit discharge is one that has been identified or reported to the permittee and the requirements for removing the illicit discharge were not met during the reporting period. Refer to requirements for removing an illicit discharge in Part I.E.2.a.vi of the new permit. For the period prior to implementing a program to meet Part I.E.2.a.vi in accordance with the compliance schedule, refer to the permittee's CDPS Stormwater Management Program Description from the previous permit term.</p>	0

7.F) Program Elements - Construction Sites
 The permittee can define what constitutes an individual "site" and "inspection" for reporting below as appropriate for the permittee's own program.

<p>i. Applicable construction sites: Provide the total number of applicable construction sites during the year. "Applicable construction sites" are sites for which "applicable construction activities," as defined in the permit, occurred during the <u>reporting year</u>.</p>	1221
<p>ii. *Routine Inspections: Provide the total number of Routine Inspections performed during the year. Routine Inspections are inspections of applicable construction activities that meet the inspection scope requirements in Part I.E.3.a.vi(C) and for which documentation is recorded in accordance with in Part I.E.3.d.vi.</p> <p><i>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</i></p>	2673
<p>iii. *Reduced Site Inspections: Provide the total number of Reduced Site Inspections performed during the year. Reduced Site Inspections are inspections of applicable construction activities that meet the inspection scope requirements in Part I.E.3.c.vi(D)(1), (2), (3) and (4) for which documentation is recorded in accordance with in Part I.E.3.d.vi.</p> <p><i>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</i></p>	242
<p>iv. *Compliance Inspections: Provide the total number of Compliance Inspections performed during the year. Compliance Inspections are inspections, operator reporting, or other action(s) to assess the control measure has been implemented or corrected of applicable construction activities that meet the inspection scope requirements in Part I.E.3.c.vi(E) and for which documentation is recorded in accordance with in Part I.E.3.d.vi.</p> <p><i>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</i></p>	167
<p>v. <u>COUNTY PERMITTEES ONLY</u> *County Growth Area Excluded Construction: Where any construction activities excluded from being applicable construction activities in accordance with Part I.E.3.c.i(B) (1) or (2)? <input type="checkbox"/> YES <input type="checkbox"/> NO If YES, attach a list of the excluded construction sites. Include recordkeeping information required by Part I.E.3.d.i. Label the attachment as "Part 7.F.v Excluded Growth Area Construction." <i>*Not required prior to the January 1, 2019 deadline for implementing in growth areas.</i></p>	



**Attachment 1 – Part 7.G.iii
Excluded Roadway Development**

The following development sites meet the minimum criteria for Excluded Roadway Development in the 2021 Annual Report period.

- 2021 Town of Castle Rock Pavement Management Program
 1. 2021 Asphalt Overlay Project
 2. 2021 Curb, Gutter and Sidewalk Replacement Project
 3. 2021 Full Depth Reclamation Project
 4. 2021 Slurry Seal Project
 5. 2021 Meadows Blvd & Castleton Court Concrete Pavement Restoration Project
- South Street and Wilcox Street Roundabout Project
- 2021 Downtown Alley Project

Please see the attached Technical Criteria Variances TCV21-0014, TCV21-0025 and TCV22-0023 for the required recordkeeping information.



TECHNICAL MEMORANDUM

To: Mark Marlowe, P.E., Director, Castle Rock Water

Thru: Tim Friday, P.E., Assistant Director, TF
(initial)
Jeanne Stevens, P.E., Engineering Manager, JMS
(initial)
David Van Dellen, P.E., Stormwater Manager, DV
(initial)

From: Kevin Buffington, E.I., Plan Review Engineer

Date: February 26, 2021

Title: Technical Criteria Variance Application

Name: South St & Wilcox Roundabout – Pavement exclusion to water quality

Number: TCV21-0014 and CIP20-0011

Legal Description: NORTH WILCOX STREET PUBLIC RIGHT-OF-WAY, RECEPTION NO. 187401000; SOUTH STREET PUBLIC RIGHT-OF-WAY, RECEPTION NO. 965848858488

Summary: This TCV will apply an exclusion to water quality to an applicable roadway development. The proposed roundabout at South Street and Wilcox will add 0.03 acres of additional pavement area compared to the existing intersection.

Recommendation: **Approve** **Deny**

Discussion: Section 13.1.1 of the Storm Drainage Design and Technical Criteria Manual (SDDTCM) states: *Town requires that full-spectrum detention including water quality capture volume and flood control detention be provided for all new development and redevelopment.*

Staff has reviewed the attached variance request. Staff finds the request meets Town criteria as described in SDDTCM Sections 13.1.4 and 13.1.5 and the associated Permanent Water Quality Determination Worksheet. Available documentation indicates the project will add a total of 0.03 acres of impervious area over 0.102 miles. This equates to 0.3 acres per mile, which is less than 1.0 acre per mile threshold allowed by this exclusion. The worksheet indicates this portion of the site may be excluded from full-spectrum water quality treatment.

I recommend approval as the variance is consistent with Town criteria and the developed condition is not expected to adversely impact public health, safety, or welfare.

Cc: Engineering Office Assistant (once finalized)



Development Services
100 N. Wilcox Street
Castle Rock, CO 80104
720-733-2200 FAX 720-733-2231

NO. TCV21-0014

DATE 02-23-21

TECHNICAL CRITERIA VARIANCE APPLICATION

DEVELOPMENT SOUTH AND WILCOX ROUNDABOUT

LEGAL DESCRIPTION OF SUBJECT PROPERTY

NORTH WILCOX STREET PUBLIC RIGHT-OF-WAY, RECEPTION NO. 1874010001
SOUTH STREET PUBLIC RIGHT-OF-WAY, RECEPTION NO. 9658488

VARIANCE REQUESTED:

Code Section(s) 2019 Storm Drainage Design and Technical Criteria Manual Sections 13.1.4 and 13.1.5

Describe the Variance Requested

Exclude project from requirement to provide Permanent Water Quality.

1. Describe the exceptional situation or condition that exists

The project is exempt according to the Permanent Water Quality Determination Worksheet, Section 3.1.4 that reads "DOES THE PROJECT ADD MORE THAN ONE ACRE OF PAVED AREA PER MILE TO AN EXISTING ROADWAY." This project adds 0.30 ac/mi to the existing roadway, which does not meet the threshold that requires Permanent Water Quality.

2. Describe the difficulty or hardship that would be created by a strict enforcement of the code

The site is located within an area of downtown Castle Rock that is fully developed. A traditional permanent water quality feature may require additional private land to be acquired to provide a location for such a feature.

3. Describe why there would not be any adverse impact on public health, safety and welfare

The limited scope of the proposed improvements as outlined above will not cause any adverse impact on public health, safety, and welfare. The roundabout will serve to improve the safety characteristics of this intersection by reducing vehicle speeds and improving crosswalks by implementing pedestrian refuge areas at the proposed splitter islands.

Additional Information:

1. Attach an improvement survey.
2. Attach a drawing showing the intended uses.
3. Provide any other information helpful to discussion.

PROPERTY OWNER

Name: Town of Castle Rock Public Works

Address: 4175 N Castleton Ct.,
Castle Rock, CO 80104

Phone #: 720.733.2462

Fax #: _____

Brian Kelley

Digitally signed by Brian Kelley
DN: C=US, E=bkelley@crgov.com,
OU=Public Works, O=ToCR, CN=Brian
Kelley
Date: 2021.02.23 12:20:47-07'00'

Signature of Applicant

For Staff Use Only

Staff Recommendation: Approved Yes No

APPLICANT'S REPRESENTATIVE (If applicable)

Name: 2N Civil, LLC

Address: 6 Inverness Ct E, Suite 125,
Englewood, CO 80112

Phone: 303-925-0544 Contact: Todd West, PE

Fax: _____

Mark Marlowe

Digitally signed by Mark Marlowe
DN: cn=Mark Marlowe, o=Castle Rock Water,
ou, email=mmarlowe@crgov.com, c=US
Date: 2021.03.03 10:54:12 -07'00'

Signature

- Public Works Director
- Director of Castle Rock Water
- Parks & Recreation Director
- Development Services Director

Date

Comments

Conditions of Acceptance



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name Wilcox and South Roundabout

Project Owner Town of Castle Rock

Project Location Intersection of Wilcox and South Street

ToCR Project Number CIP20-0011

Total Site Area 0.85 acres

Total Size of Common Plan of Development 0.85 acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date Fall 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. TCV21-0014

- Pavement management site
Excluded impervious area: _____ acres
- Excluded roadway redevelopment
Excluded impervious area: 0.03 acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded

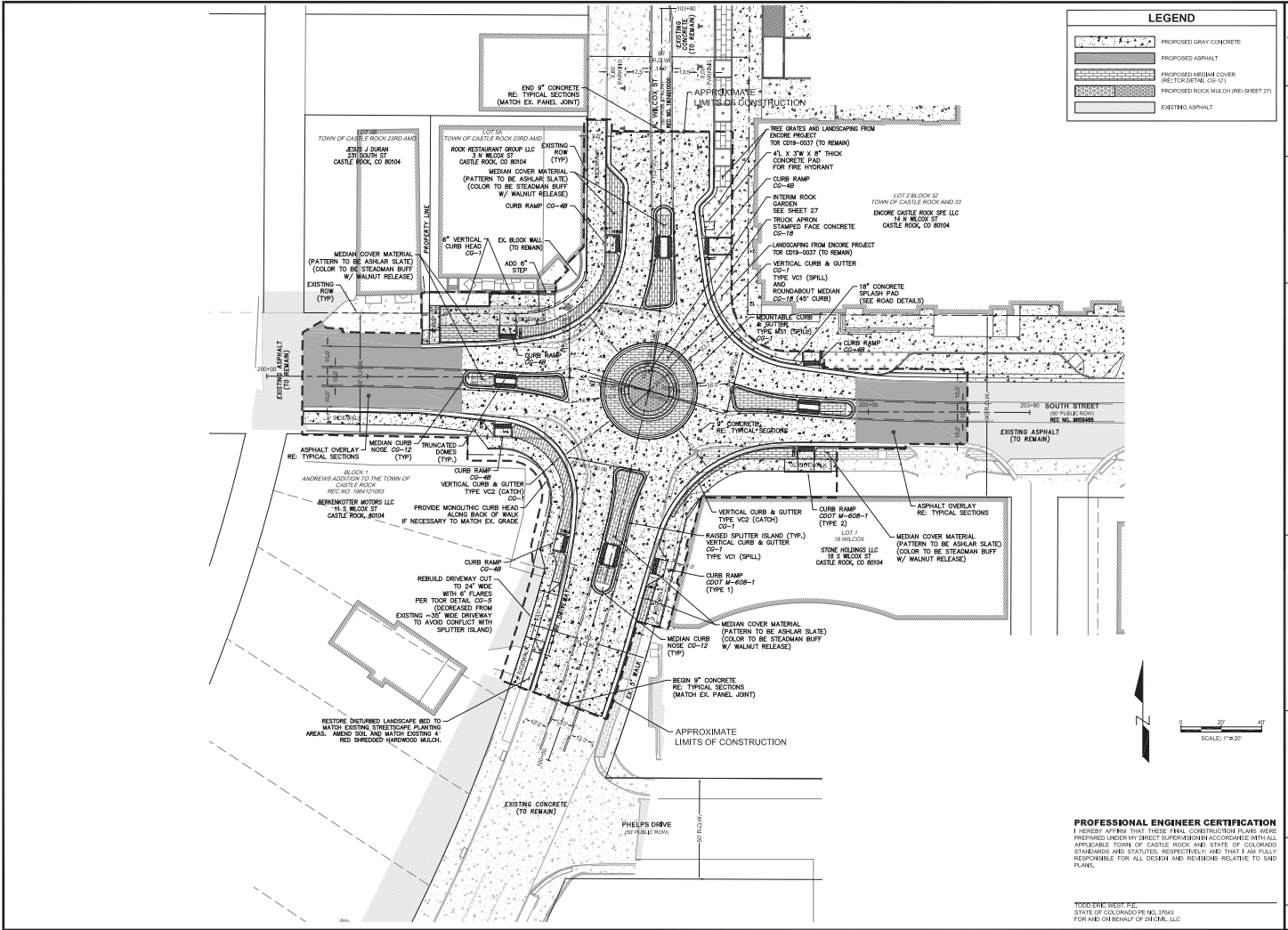
Project: SOUTH AND WILCOX ROUNDABOUT
 Date: December 11, 2020

Permanent Water Quality Determination Worksheet (Taken from 2019 SDDTCM Sections 13.1.4 and 13.1.5)

Project:	CRW#	Applicant:		
Section	Questions	Response	Check those that apply	Instructions
1 Non-applicable Sites				
	Will the project result in a temporary disturbance of greater than one acre?	No	<input checked="" type="checkbox"/>	Proceed to next line.
		Yes	<input type="checkbox"/>	Proceed to section 2.
	Is the project part of a larger common plan of development or sale where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related and are within 1/4 mile of each other? (A common plan of development will generally be documented on a site development plan, master plan, or equivalent, for the property/project)	No	<input type="checkbox"/>	Proceed to next line.
		Yes	<input checked="" type="checkbox"/>	Proceed to section 2.
	Is the project within the Cherry Creek Watershed?	Yes	<input type="checkbox"/>	Exclusions do not apply. Permanent water quality is required per Control Regulation 72.7.
		No	<input type="checkbox"/>	Permanent water quality is not required. No further action is required.
2 Applicable Site Types and Exclusions by Variance				
	Does the project have more than 35% impervious area on the existing site?	No	<input type="checkbox"/>	Project is an applicable Development Site. Proceed to section 3.
		Yes	<input checked="" type="checkbox"/>	Proceed to next line.
	Does the project have greater than 75% impervious area on the existing site?	No	<input type="checkbox"/>	Project is an applicable Redevelopment Site. Proceed to section 3.
		Yes	<input checked="" type="checkbox"/>	Proceed to next line.
	Will 100% of the runoff from the existing and proposed site be captured and treated for permanent water quality?	Yes	<input type="checkbox"/>	Document in drainage report. No further action required.
		No	<input checked="" type="checkbox"/>	Proceed to next line.
	Do any other water quality exclusions apply to the site?	No	<input type="checkbox"/>	Portions of the project are excluded. Proceed with design in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> .
		Yes	<input checked="" type="checkbox"/>	Proceed to next section. Following approval of other variances, design remaining site in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> .
3 Applicable Sites with Other Exclusions by Variance				
3.1 Category 1: Roadways, bridges and trails only				
3.1.1	Is the project a bike or pedestrian trail?	Yes	<input type="checkbox"/>	Proceed to next line.
		No	<input checked="" type="checkbox"/>	Proceed to 3.1.2.
	Is the trail for a roadway?	Yes	<input type="checkbox"/>	Proceed to 3.1.2.
		No	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Trails Excluded from Permanent Water Quality Requirements</u> .
3.1.2	Is the project primarily used for parking or access to parking?	Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
		No	<input checked="" type="checkbox"/>	Proceed to 3.1.3.
3.1.3	Does the project add impervious area?	No	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Pavement Management Sites Excluded from Permanent Water Quality Requirements</u> .
		Yes	<input checked="" type="checkbox"/>	Proceed to 3.1.4.

3.1.4	Does the project add more than 8.25 feet of paved width at any location to the existing roadway?	No	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
		Yes	<input checked="" type="checkbox"/>	
	Does the project add more than one acre of paved area per mile to an existing roadway? Project adds 0.30 ac/mi to existing roadway. (additional paved area is 0.03 acres over 0.102 miles)	No	<input checked="" type="checkbox"/>	Project is excluded. Submit variance for Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements. Proceed to next line.
		Yes	<input type="checkbox"/>	
	Does the project increase the width by two times or more, on average, of the original roadway area?	No	<input type="checkbox"/>	Existing areas of site are excluded only. Submit variance for <u>Existing Roadway Surfaces Only Excluded from Permanent Water Quality Requirements</u> .
		Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
3.2	Category 2: Non-residential and non-commercial projects only			
3.2.1	Is the project associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities, including activities necessary to prepare a site for drilling and the movement and placement of drilling equipment?	Yes	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Oil and Gas Exploration Sites Excluded from Permanent Water Quality Requirements</u> .
		No	<input type="checkbox"/>	Proceed to 3.2.2.
3.2.2	Is the project for stream stabilization?	Yes	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Stream Stabilization Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.3.
		No	<input type="checkbox"/>	Proceed to 3.2.3.
3.2.3	Is the project for installation or maintenance of underground utilities or infrastructure that does not permanently alter the terrain, ground cover, or drainage patterns from those present prior to the construction activity including activities to install, replace or maintain utilities under roadways or other paved areas that return the surface to the same condition?	Yes	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Aboveground and Underground Utilities Excluded from Permanent Water Quality Requirements</u> .
		No	<input type="checkbox"/>	Proceed to 3.2.4.
3.2.4	Is the project on undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the project?	Yes	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Sites with Land Disturbances to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.5.
		No	<input type="checkbox"/>	Proceed to 3.2.5.
3.2.5	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	No	<input type="checkbox"/>	Project is excluded. Submit study along with variance for <u>Non-residential and Non-commercial Infiltration Conditions Excluded from Permanent Water Quality Requirements</u> .
		Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
3.3	Category 3: Residential and Commercial projects			
3.3.1	Is the project a single-family residential lot, or agricultural zoned lands, greater than or equal to 2.5 acres in size per dwelling unit?	Yes	<input type="checkbox"/>	Proceed to next line.
		No	<input type="checkbox"/>	Proceed to 3.3.2.
	Is the project site greater than 10% impervious?	No	<input type="checkbox"/>	Project is excluded. Submit variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
		Yes	<input type="checkbox"/>	Proceed to next line.
	Is the project site greater than 20% impervious?	Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
		No	<input type="checkbox"/>	Proceed to next line.
	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	No	<input type="checkbox"/>	Project is excluded. Submit study along with variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u> .
		Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.

3.3.2	Will 100% of the runoff from the residential or commercial site be captured?	Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
		No	<input type="checkbox"/>	Proceed to next line.
	Is all or a portion of the site undeveloped or will it remain undeveloped after construction?	Yes	<input type="checkbox"/>	This portion of the project is excluded. Submit variance for <u>Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
		No	<input type="checkbox"/>	Proceed to next line.
	Is the remaining untreated impervious area greater than 20% of the site?	Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
		No	<input type="checkbox"/>	Proceed to next line.
	Is the remaining untreated impervious area greater than one acre?	Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.
		No	<input type="checkbox"/>	Proceed to next line.
	Is it practicable to capture runoff from portions of the site that will not drain to a control measure?	No	<input type="checkbox"/>	Document justification demonstrating that it is not practicable to capture runoff from this portion of the site in the drainage report . No further action is needed.
		Yes	<input type="checkbox"/>	This exclusion does not apply. Permanent water quality is required.



LEGEND

- PROPOSED GRAY CONCRETE
- PROPOSED ASPHALT
- PROPOSED MEDIAN COVER (RE: TYPICAL, GV-12)
- PROPOSED ROCK MULCH (RE: SHEET 27)
- EXISTING ASPHALT

2N CIVIL
303.925.0544
www.2ncivil.com

PREPARED FOR:
TOWN OF CASTLE ROCK
4175 NORTH CASTLETON CT.
CASTLE ROCK, COLORADO 80109

ROADWAY SITE PLAN
SOUTH AND WILCOX ROUNDABOUT
PUBLIC IMPROVEMENT CONSTRUCTION PLANS
CASTLE ROCK, COLORADO

DATE: 10/20/2023
BY: J. WOODEN
REV: 10/20/2023
BY: J. WOODEN

PROJECT NUMBER: 23-001
DESIGNED BY: J. WOODEN
REVIEWED BY: EPT

ROADWAY SITE PLAN

8

PROFESSIONAL ENGINEER CERTIFICATION
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

WOODEN, JEFF P.E.
STATE OF COLORADO REG. NO. 37863
FOR AND ON BEHALF OF 2N CIVIL, LLC



Development Services
100 N. Wilcox Street
Castle Rock, CO 80104
720-733-2200 FAX 720-733-2231

NO. TCV21-0025

DATE 3/25/21

TECHNICAL CRITERIA VARIANCE APPLICATION

DEVELOPMENT 2021 Downtown Alley Improvement Project

LEGAL DESCRIPTION OF SUBJECT PROPERTY

Block 10, 11, 14, 17 Alleys;

Public ROW lying within Town of Castle Rock 23.419 AM/L;

Section 11, Township 8 South, Range 67 West of the 6th Principal Meridian

VARIANCE REQUESTED:

Code Section(s) Town of Castle Rock SDDTCM, Section 13.1.5, Exclusions from Water Quality

Enhancement and Full-Spectrum Detention

Describe the Variance Requested

Water Quality Exclusion for Excluded Roadway Redevelopment.

Site Area = 0.71 Acres

1. Describe the exceptional situation or condition that exists

This project is generally a replacement of existing roadway driving surfaces that do not alter the existing drainage patterns from those present prior to the construction project

2. Describe the difficulty or hardship that would be created by a strict enforcement of the code

This project is located within a fully-developed area with limited space available for implementation of a permanent water quality feature or facility.

3. Describe why there would not be any adverse impact on public health, safety and welfare

The proposed improvements do not change site impervious area, and will maintain historical flow patterns and volumes.

Additional Information:

1. Attach an improvement survey.
2. Attach a drawing showing the intended uses.
3. Provide any other information helpful to discussion.

PROPERTY OWNER

Name: Town of Castle Rock

Address: 100 Wilcox St.

Castle Rock, CO 80104

Phone #: 303.660.1015

Fax #: _____

Andrew Focht

Digitally signed by Andrew Focht
DN: c=US, E=afocht@crgov.com, O=Town of Castle Rock,
OU=Public Works Division, CN=Andrew Focht
Date: 2021.03.25 10:09:46-06'00'

Signature of Applicant

For Staff Use Only

Staff Recommendation: Approved Yes No

APPLICANT'S REPRESENTATIVE (If applicable)

Name: Andrew Focht - Public Works

Address: 4175 N. Castleton Ct.

Castle Rock, CO 80109

Phone: 720.467.1568

Fax: _____

Ryan D. Germeroth

Digitally signed by Ryan D Germeroth
DN: cn=Ryan D Germeroth, o=Town of Castle Rock,
ou=Public Works, email=rgermeroth@crgov.com, c=US
Date: 2021.03.25 12:41:51 -06'00'

- Signature _____ For Dan Sailer
- Public Works Director
 - Director of Castle Rock Water
 - Parks & Recreation Director
 - Development Services Director

3/25/21
Date

Comments

Conditions of Acceptance



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Downtown Alley Improvements

Project Owner Town of Castle Rock

Project Location Downtown Castle Rock - 4 Alleys

ToCR Project Number CIP20-0003

Total Site Area 0.71 acres

Total Size of Common Plan of Development 0.71 acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date 7/6/21

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. TCV21-0025

- Pavement management site
Excluded impervious area: _____ acres
- Excluded roadway redevelopment
Excluded impervious area: 0.71 acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

The project includes the reconstruction of existing roadway. There are no changes to impervious area. The project requests variance under Part I.A.4.a.i(B) "Excluded roadway redevelopment" exclusion.

Permanent Water Quality Determination Worksheet (Taken from 2019 SDDTCM Sections 13.1.4 and 13.1.5)

Project: 2021 Downtown Alley Improvements

Project #: CIP20-0003

Applicant: Town of Castle Rock

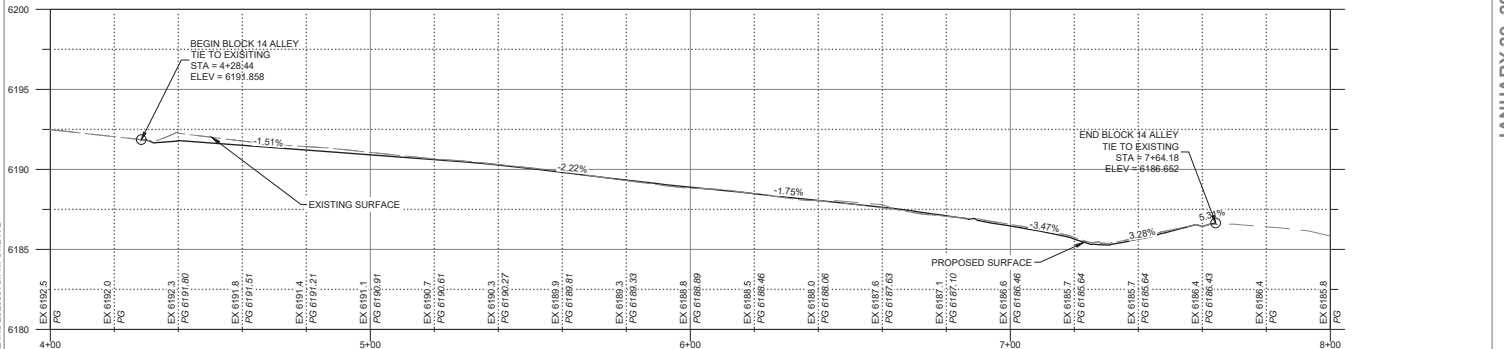
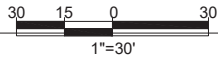
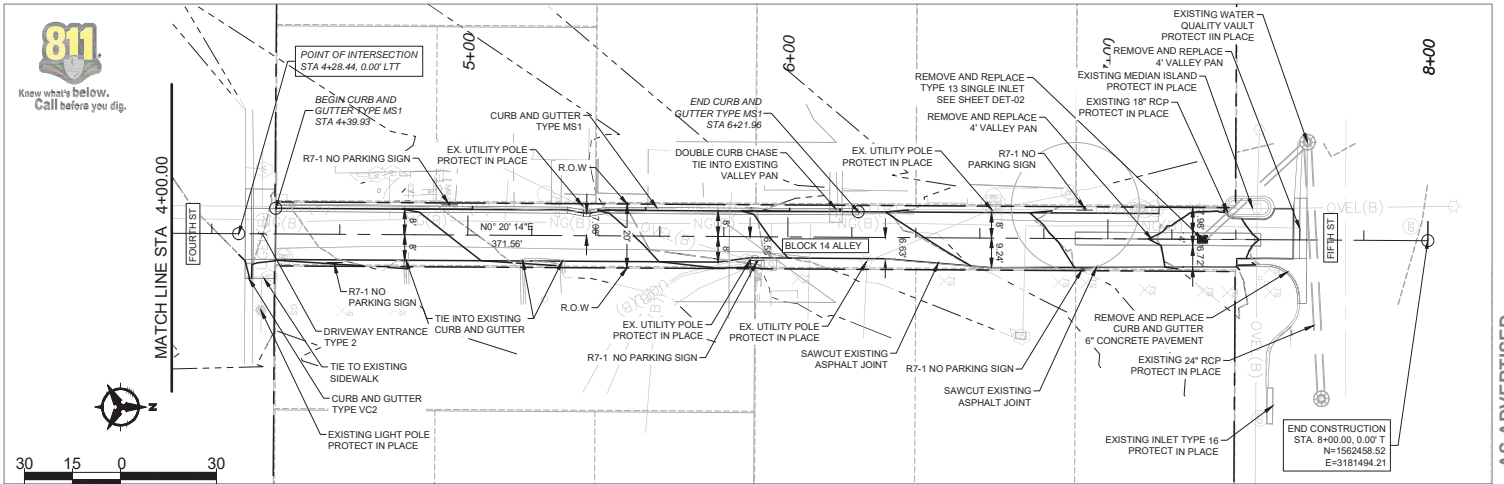
Section	Question	Response	Instructions
1	Non-applicable Sites		
1.1	Will the project result in a temporary disturbance of greater than one acre?	<input checked="" type="radio"/> No <input type="radio"/> Yes	Proceed to section 1.2. Proceed to section 2.
1.2	Is the project part of a larger common plan of development or sale where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related and are within 1/4 mile of each other? (A common plan of development will generally be documented on a site development plan, master plan, or equivalent, for the property/project)	<input checked="" type="radio"/> No <input type="radio"/> Yes	Proceed to section 1.3. Proceed to section 2.
1.3	Is the project within the Cherry Creek Watershed?	<input type="radio"/> Yes <input type="radio"/> Yes <input checked="" type="radio"/> No	Permanent water quality control measures may be required. Refer to Water Quality Control Regulation 72.7 for details and allowable exclusions. Permanent water quality control measures are not required.
2	Applicable Site Types and Exclusions by Variance		
2.1	Does the project have more than 35% impervious area on the existing site?	<input type="radio"/> No <input type="radio"/> Yes	Project is an applicable Development Site. Proceed to section 3. Proceed to 2.2.
2.2	Does the project have greater than 75% impervious area on the existing site?	<input type="radio"/> No <input type="radio"/> Yes	Project is an applicable Redevelopment Site. Proceed to section 3. Project is an applicable Constrained Redevelopment Site. Proceed to 2.3.
2.3	Will 100% of the runoff from the existing and proposed site be captured and treated using one or more of the allowable design standards for permanent water quality?	<input type="radio"/> Yes <input type="radio"/> No	No further action required. Proceed to 2.4.
2.4	Do any other water quality exclusions apply to the site?	<input type="radio"/> No <input type="radio"/> No <input type="radio"/> Yes	Portions of the project are excluded. Proceed with design in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> . Proceed to section 3. Following approval of other exclusions, design remaining site in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> .

Section	Question	Response	Instructions
3	Applicable Sites with Other Exclusions by Variance		
3.1	Category 1: Roadways, bridges and trails only		
3.1.1	Is the project a bike or pedestrian trail?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Proceed to next line.
	Is the trail for a roadway?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Proceed to 3.1.2. Project is excluded. Submit variance for <u>Trails Excluded from Permanent Water Quality Requirements</u> .
3.1.2	Is the project primarily used for parking or access to parking?	<input type="radio"/> Yes <input checked="" type="radio"/> No	This exclusion does not apply. Permanent water quality is required. Proceed to 3.1.3.
3.1.3	Does the project add impervious area?	<input checked="" type="radio"/> No <input type="radio"/> Yes	Project is excluded. Submit variance for <u>Pavement Management Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.1.4.
3.1.4	Does the project add more than 8.25 feet of paved width at any location to the existing roadway?	<input type="radio"/> No <input type="radio"/> Yes	Project is excluded. Submit variance for <u>Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
	Does the project add more than one acre of paved area per mile to an existing roadway?	<input type="radio"/> No <input type="radio"/> Yes	Project is excluded. Submit variance for <u>Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
	Does the project increase the width by two times or more, on average, of the original roadway area?	<input type="radio"/> No <input type="radio"/> Yes	Existing areas of site are excluded only. Submit variance for <u>Existing Roadway Surfaces Only Excluded from Permanent Water Quality Requirements</u> . This exclusion does not apply. Permanent water quality is required.
3.2	Category 2: Non-residential and non-commercial projects only		
3.2.1	Is the project associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities, including activities necessary to prepare a site for drilling and the movement and placement of drilling equipment?	<input type="radio"/> Yes <input type="radio"/> No	Project is excluded. Submit variance for <u>Oil and Gas Exploration Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.2.
3.2.2	Is the project for stream stabilization?	<input type="radio"/> Yes <input type="radio"/> No	Project is excluded. Submit variance for <u>Stream Stabilization Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.3.
3.2.3	Is the project for installation or maintenance of aboveground or underground utilities or infrastructure that does not permanently alter the terrain, ground cover, or drainage patterns from those present prior to the construction activity including activities to install, replace or maintain utilities under roadways or other paved areas that return the surface to the same condition?	<input type="radio"/> Yes <input type="radio"/> No	Project is excluded. Submit variance for <u>Aboveground and Underground Utilities Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.4.
3.2.4	Is the project on undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the project?	<input type="radio"/> Yes <input type="radio"/> No	Project is excluded. Submit variance for <u>Sites with Land Disturbances to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.5.
3.2.5	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	<input type="radio"/> No <input type="radio"/> Yes	Project is excluded. Submit study along with variance for <u>Non-residential and Non-commercial Infiltration Conditions Excluded from Permanent Water Quality Requirements</u> . This exclusion does not apply. Permanent water quality is required.

Section	Question	Response	Instructions
3.3	Category 3: Residential, Agricultural and Commercial projects		
3.3.1	Is the project a single-family residential lot, or agricultural zoned lands, greater than or equal to 2.5 acres in size per dwelling unit?	<input type="radio"/> Yes <input type="radio"/> No	<p>Proceed to next line.</p> <p>Proceed to 3.3.2.</p>
	Is the project site greater than 10% impervious?	<input type="radio"/> No <input type="radio"/> Yes	<p>Project is excluded. Submit variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u>.</p> <p>Proceed to next line.</p>
	Is the project site greater than 20% impervious?	<input type="radio"/> Yes <input type="radio"/> No	<p>This exclusion does not apply. Permanent water quality is required.</p> <p>Proceed to next line.</p>
	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	<input type="radio"/> No <input type="radio"/> Yes	<p>Project is excluded. Submit study along with variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u>.</p> <p>This exclusion does not apply. Permanent water quality is required.</p>
3.3.2	Will 100% of the runoff from the residential or commercial site be captured?	<input type="radio"/> Yes <input type="radio"/> No	<p>This exclusion does not apply. Permanent water quality is required.</p> <p>Proceed to next line.</p>
	Is all or a portion of the site undeveloped or will it remain undeveloped after construction?	<input type="radio"/> Yes <input type="radio"/> No	<p>This portion of the project is excluded. Submit variance for <u>Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u>. Proceed to next line.</p> <p>Proceed to next line.</p>
	Is the remaining untreated impervious area greater than 20% of the site?	<input type="radio"/> Yes <input type="radio"/> No	<p>This exclusion does not apply. Permanent water quality is required.</p> <p>Proceed to next line.</p>
	Is the remaining untreated impervious area greater than one acre?	<input type="radio"/> Yes <input type="radio"/> No	<p>This exclusion does not apply. Permanent water quality is required.</p> <p>Proceed to next line.</p>
	Is it practicable to capture runoff from portions of the site that will not drain to a control measure?	<input type="radio"/> No <input type="radio"/> Yes	<p>Document justification demonstrating that it is not practicable to capture runoff from this portion of the site in the drainage report. No further action is needed.</p> <p>This exclusion does not apply. Permanent water quality is required.</p>



Knew what's below. Call before you dig.



P:\2020\07\ENGINEERING\PLANS\2020073.PNP\01.DWG
 PLOTTED BY: KYLE MORRIS, 1/29/2021 9:23 AM
 HORIZ. SCALE: N/A VERT. SCALE: N/A
Bohannon & Huston
 www.bhinc.com 800.877.5332
 9785 Maroon Circle Suite 140 Englewood, CO 80112-9928

SHEET REVISIONS		
DATE	DESIGNER	INITIALS

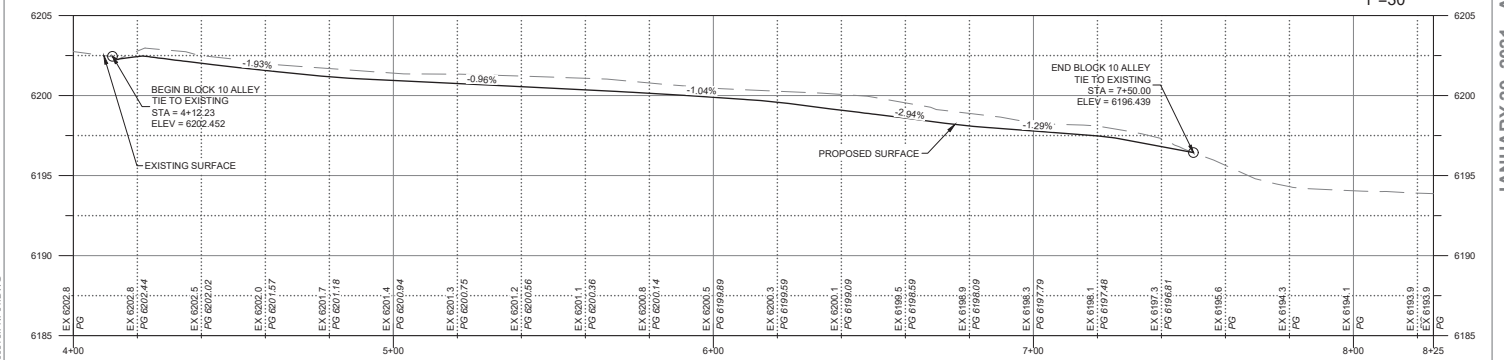
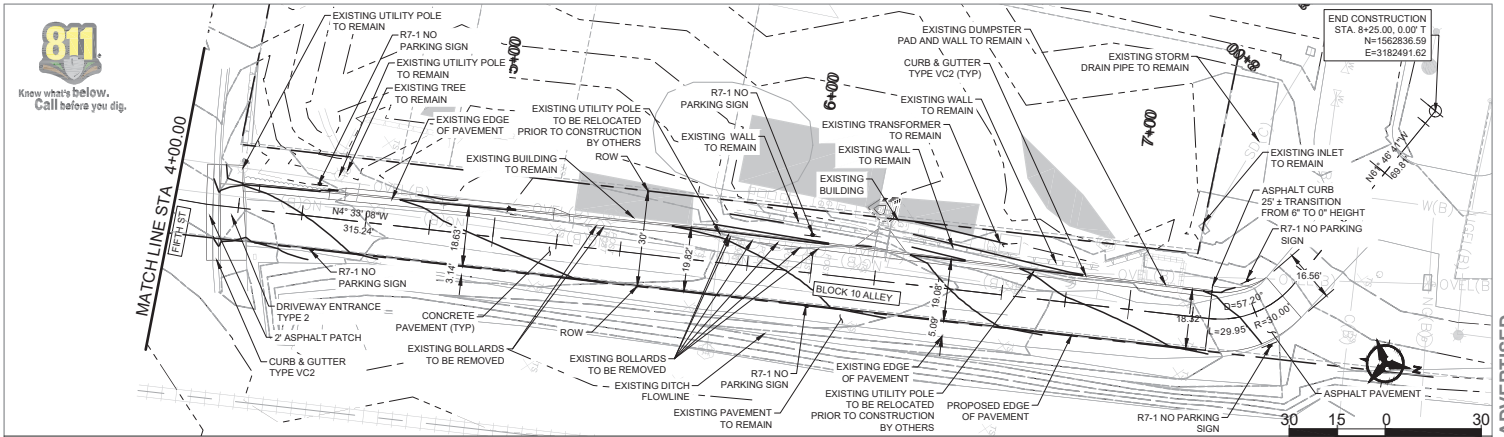


100 N. WILCOX ST.
 CASTLE ROCK, CO 80104
 303.660.1015
 CRGOV.COM

AS CONSTRUCTED	DOWNTOWN ALLEY IMPROVEMENTS BLOCK 14 PLAN AND PROFILE		PROJECT NO./CODE
NO REVISIONS:	DESIGNER: JML	STR. NOS. N/A	SHEET NUMBER 11
REVISED:	DETAILER: KDM	N/A	
VOID:	SUBSET:	SHEETS: PNP-02 OF 04	



Knew whats below. Call before you dig.



P:\2020\0374\ENGR\PLANS\10200073_PNP01.DWG
 PLOTTED BY: KYLE MORRIS, 1/29/2021 9:23 AM
 HORIZ SCALE: N/A VERT SCALE: N/A
Bohannon & Huston
 www.bhinc.com 800.877.5332
 9785 Maroon Circle Suite 140 Englewood, CO 80112-3928

SHEET REVISIONS		
DATE	DESIGNER	INITIALS



100 N. WILCOX ST.
 CASTLE ROCK, CO 80104
 303.660.1015
 CRGOV.COM

AS CONSTRUCTED	DOWNTOWN ALLEY IMPROVEMENTS		PROJECT NO./CODE
NO REVISIONS:	BLOCK 10 PLAN AND PROFILE		
REVISED:	DESIGNER: X	STR. NOS. N/A	
VOID:	DETAILER: KDM	N/A	
	SUBSET:	SHEETS: PNP-04 OF 04	SHEET NUMBER 13

JANUARY 29, 2021 - AS-ADVERTISED



TECHNICAL MEMORANDUM

To: Mark Marlowe, Director of Castle Rock Water

Thru: Tim Friday, Assistant Director

TF
(initial)
DV
(initial)

From: David Van Dellen, Stormwater Manager

Date: March 7, 2022

Title: Technical Criteria Variance Application

Name: 2021 Pavement Management Program – Water Quality Exclusion

Number: TCV22-0023

Legal Description: Portions of Town of Castle Rock, Douglas County, CO

Summary: Section 13.1.5, Exclusions from Water Quality Enhancement and Full-Spectrum Detention of the Storm Drainage Design and Technical Criteria Manual (SDDTCM) excludes certain sites from the requirements. The proposed project qualifies for this exclusion under No. 1, Pavement Management Sites.

Recommendation: X **Approve** **Deny**

Discussion: The 2021 Pavement Management Program includes five construction contracts for the purpose of rehabilitation, maintenance, and reconstruction of roadway pavement. As per the SDDTCM, these sites are excluded from the requirements for water quality enhancement and full-spectrum detention and shall be excluded by variance for the purpose of documentation under the Town’s MS4 Permit. Portions of the work are in the Cherry Creek Watershed and subject to Cherry Creek Reservoir Control Regulation 72. As per Regulation 72.7.c.4.G, this work meets the requirements of an Automatic Exclusion from Post-construction stormwater management.

Staff has reviewed this variance request and finds that it meets the minimum requirements for approval under the SDDTCM and Control Regulation 72.



Development Services
100 N. Wilcox Street
Castle Rock, CO 80104
720-733-2200 FAX 720-733-2231

NO. TCV22-0023

DATE 02/28/2022

TECHNICAL CRITERIA VARIANCE APPLICATION

DEVELOPMENT 2021 Pavment Management Program (PMP) - Town of Castle Rock

LEGAL DESCRIPTION OF SUBJECT PROPERTY

Portions of theTown of Castle Rock, Douglas County, Colorado

VARIANCE REQUESTED:

Code Section(s) 2019 Storm Drainage Design and Technical Criteria Manual Section 13.1.5

Exclusions from Water Quality Enhancement and Full-Spectrum Detention

Describe the Variance Requested

Exclusions from water quality enhancement and full-spectrum detention

1. Describe the exceptional situation or condition that exists

The 2021 PMP includes six contracts: Asphalt Overlay; Curb, Gutter & Sidewalk Replacement; Full-Depth Reclamation; Slurry Seal; Meadow Blvd./Castleton Ct. Restoration; Miscellaneous Concrete Replacement. Sites under these construction contracts meet the criteria for exclusion for Pavement Management Sites under code 13.1.5.

2. Describe the difficulty or hardship that would be created by a strict enforcement of the code

The SDDTCM allows for this exclusion by variance only.

3. Describe why there would not be any adverse impact on public health, safety and welfare

These site are limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area and the purpose of the activities are to prove additional years of service life and optimize service and safety of the public roadways.

Additional Information: See attached 2021 PMP Map and MS4 Compliance Summary Forms

1. Attach an improvement survey.
2. Attach a drawing showing the intended uses.
3. Provide any other information helpful to discussion.

PROPERTY OWNER

Name: Town of Castle Rock

Address: 4175 N. Castleton Ct.
Castle Rock, CO 80109

Phone #: 720-733-2462

Fax #: _____
Brian Kelley
Digitally signed by Brian Kelley
 DN: C=US, E=bkelley@crgov.com,
 OU=Public Works, O=ToCR,
 CN=Brian Kelley
 Date: 2022.03.07 14:41:15-07'00'

Signature of Applicant

For Staff Use Only

Staff Recommendation: Approved Yes No

APPLICANT'S REPRESENTATIVE (If applicable)

Name: _____

Address: _____

Phone: _____

Fax: _____

Mark Marlowe

Digitally signed by Mark Marlowe
 DN: cn=Mark Marlowe, o=Castle Rock
 Water, ou,
 email=mmarlowe@crgov.com, c=US
 Date: 2022.03.07 22:47:26 -07'00'

Signature

- Public Works Director
- Director of Castle Rock Water
- Parks & Recreation Director
- Development Services Director

 Date

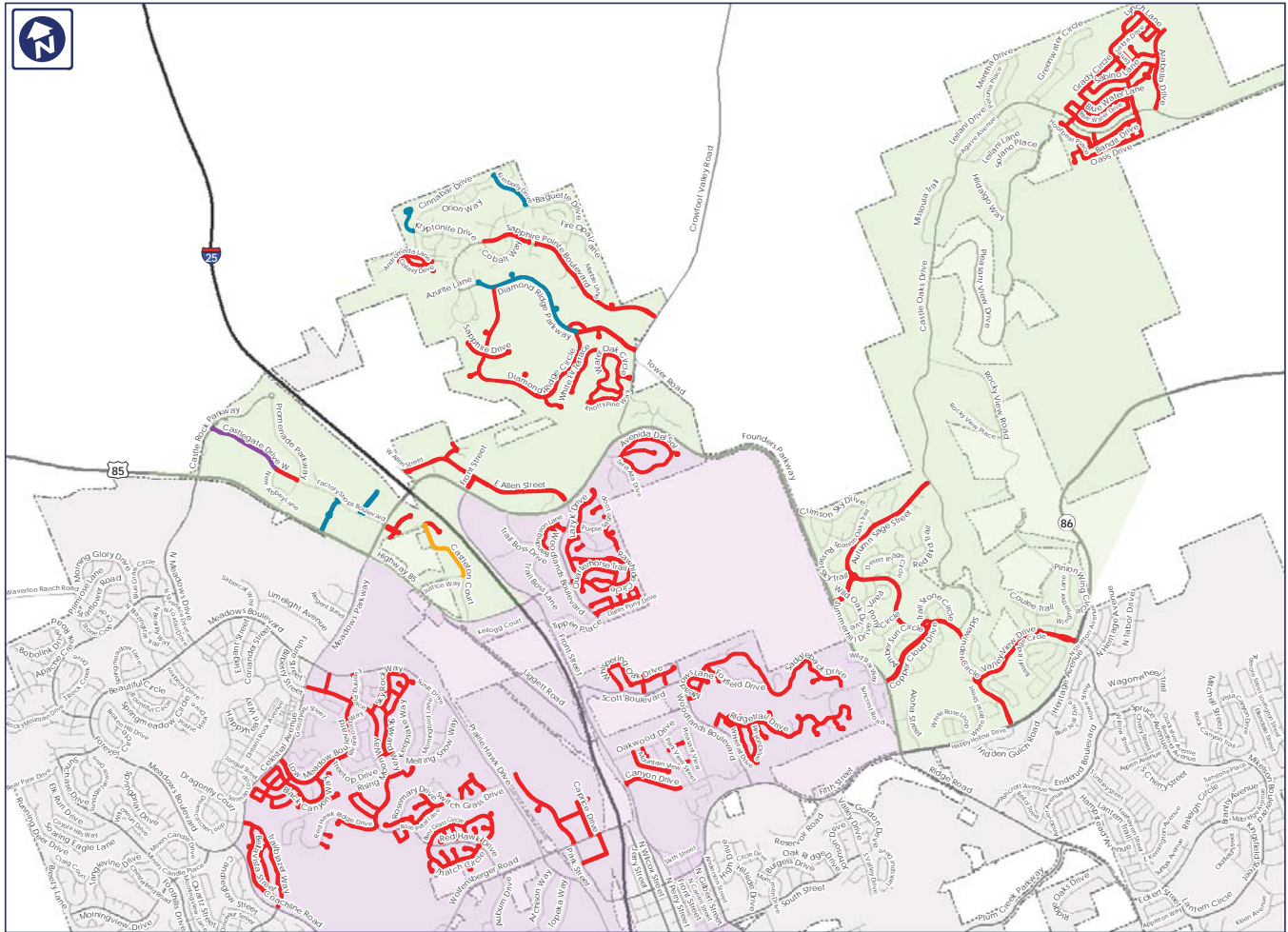
Comments

Conditions of Acceptance

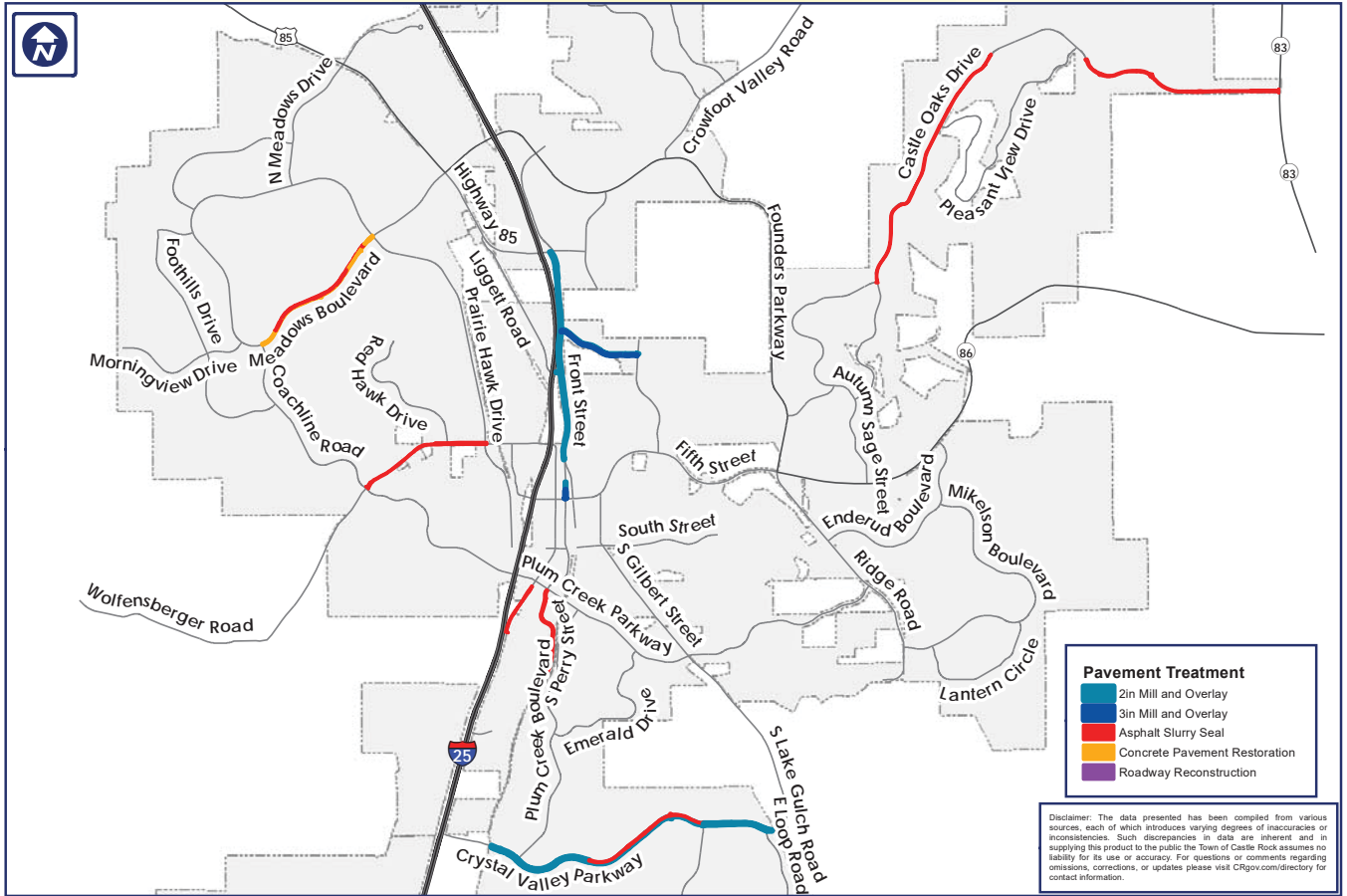


2021 PMP Pavement Treatment Plan

PMP North



PMP Primary



Pavement Treatment	
■	2in Mill and Overlay
■	3in Mill and Overlay
■	Asphalt Slurry Seal
■	Concrete Pavement Restoration
■	Roadway Reconstruction

Disclaimer: The data presented has been compiled from various sources, each of which introduces varying degrees of inaccuracies or inconsistencies. Such discrepancies in data are inherent and in supplying this product to the public the Town of Castle Rock assumes no liability for its use or accuracy. For questions or comments regarding omissions, corrections, or updates please visit CRgov.com/directory for contact information.



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Asphalt Overlay Project

Project Owner Town of Castle Rock

Project Location Castle Rock, CO

ToCR Project Number 2123-013

Total Site Area 35 acres

Total Size of Common Plan of Development _____ acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date July 26, 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. 22-0023

- Pavement management site
Excluded impervious area: 35 acres
- Excluded roadway redevelopment
Excluded impervious area: _____ acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Curb, Gutter & Sidewalk Replacement Project

Project Owner Town of Castle Rock

Project Location Castle Rock, CO

ToCR Project Number 2021-018

Total Site Area 1.11 acres

Total Size of Common Plan of Development _____ acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date June 11, 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. 22-0023

- Pavement management site
Excluded impervious area: 1.11 acres
- Excluded roadway redevelopment
Excluded impervious area: _____ acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Full Depth Reclamation Project

Project Owner Town of Castle Rock

Project Location Castle Rock, CO

ToCR Project Number 2021-017

Total Site Area 2 acres

Total Size of Common Plan of Development _____ acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date May 28, 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. 22-0023

- Pavement management site
Excluded impervious area: _____ acres
- Excluded roadway redevelopment
Excluded impervious area: _____ acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Meadows Blvd & Castleton Ct. Concrete Pavement Restoration

Project Owner Town of Castle Rock

Project Location Castle Rock, CO

ToCR Project Number _____

Total Site Area 7 _____ **acres**

Total Size of Common Plan of Development _____ **acres**

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date June 25, 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. 22-0023

- Pavement management site
Excluded impervious area: 7 acres
- Excluded roadway redevelopment
Excluded impervious area: _____ acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name 2021 Slurry Seal Project

Project Owner Town of Castle Rock

Project Location Castle Rock, CO

ToCR Project Number 2021-015

Total Site Area 192 acres

Total Size of Common Plan of Development _____ acres

Check all that apply:

Project within Plum Creek Basin

Project within Cherry Creek Basin

Estimated construction completion date August 27, 2021

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- WQCV standard
- Pollutant removal standard
- Runoff reduction standard
- Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- Constrained redevelopment sites standard
 - Imperviousness of existing site _____ / _____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- Cherry Creek Basin only, choose one: Tier 1 Tier 2 Tier 3
- No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? Yes No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. 22-0023

- Pavement management site
Excluded impervious area: 192 acres
- Excluded roadway redevelopment
Excluded impervious area: _____ acres
- Excluded existing roadway areas
Excluded impervious area: _____ acres
- Above ground and below ground utilities
- Large lot single family home
- Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- Stream Stabilization Sites
Excluded impervious area: _____ acres
- Trails
Excluded impervious area: _____ acres
- Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? Yes No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? Yes No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded