



TECHNICAL MEMORANDUM

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

Thru: Tim Friday, P.E., Assistant Director,

Jeanne Stevens, P.E., Engineering Manager,

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

TFF
(initial)
JMS
(initial)
DV
(initial)

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

Date: April 10, 2019

Title: Technical Criteria Variance Application

Name: Castle Rock Industrial Park – Freeboard in Rockfall Mitigation Channel

Number: TCV19-0021 and CD16-0019

Legal Description: Hillside at Castle Rock: TRACT IN SW1/4 3-8-67 & IN SE1/4SE1/4 4-8-67 46.72 AM/L LSP 3561 and TRACT IN SE1/4SW1/4 3-8-67 4.878 AM/L

Summary: Due to existing topography being steeper than 3:1 along the hillside, 2.0 feet of freeboard is not feasible without additional measures.

Recommendation: X **Approve**

 Deny

Discussion: Table 12-3 of the Storm Drainage Design and Technical Criteria Manual indicates 2.0 feet as the minimum freeboard in an open channel.

Minimizing disturbance of the existing slope, the height of the retaining wall, and the concrete placed will maintain a better aesthetic for the site and adjacent trail.

1.0 foot of freeboard provided by a 3:1 embankment will be sufficient for protecting the community and will function as intended. Maintenance access is also optimized by reducing the total freeboard. Therefore, using 1.0 feet of freeboard will not cause adverse impact to 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. TCV19-0021

DATE: 4/5/2019

TECHNICAL CRITERIA VARIANCE APPLICATION

DEVELOPMENT

Hillside at Castle Rock

LEGAL DESCRIPTION OF SUBJECT PROPERTY:

TRACT IN SW1/4 3-8-67 & IN SE1/4SE1/4 4-8-67 46.72 AM/L LSP 3561 46.7 acres
TRACT IN SE1/4SW1/4 3-8-67 4.878 AM/L 4.9 acres

VARIANCE REQUESTED:

Code Section(s)\ Chapter 12, Table 12-3 TOCR Storm Drainage Design and Technical Criteria Manual

Describe the Variance Requested:

A variance is requested to reduce the required freeboard from 2-feet to 1-foot for the proposed rockfall mitigation channel.

1. Describe the exceptional situation or condition that exists

Achieving 2-feet of freeboard along the entire rockfall mitigation channel is not feasible because in many areas the existing grade is steeper than 3:1 slopes.

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

A. In many areas along the proposed rockfall mitigation channel the existing grade is steeper than the maximum slope of 3:1 required by TOCR design standards, which means that tying into the existing grade would be impossible without extreme measures.

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

The proposed rockfall mitigation channel will still protect the surrounding community with 1-foot of freeboard and will function as intended. 1-ft of freeboard will also facilitate maintenance access.

Additional Information:

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

TCV19-0021

PROPERTY OWNER

Name: Wolfensberger Property Group, LLC.

Address: 9116 W. Bowles Ave., Unit 15
Littleton, CO 80123

Phone #: (303) 979-9858

Fax #: _____

APPLICANT'S REPRESENTATIVE (If applicable)

Name: Troy W. Denning P.E.

Address: 9800 Mt. Pyramid Ct, Suite 400
Englewood, CO 80112

Phone: (720) 895-1363

Fax: _____

Signature of Applicant



For Staff Use Only

Staff Recommendation: Approved ☒ Yes ☐ No

Signature



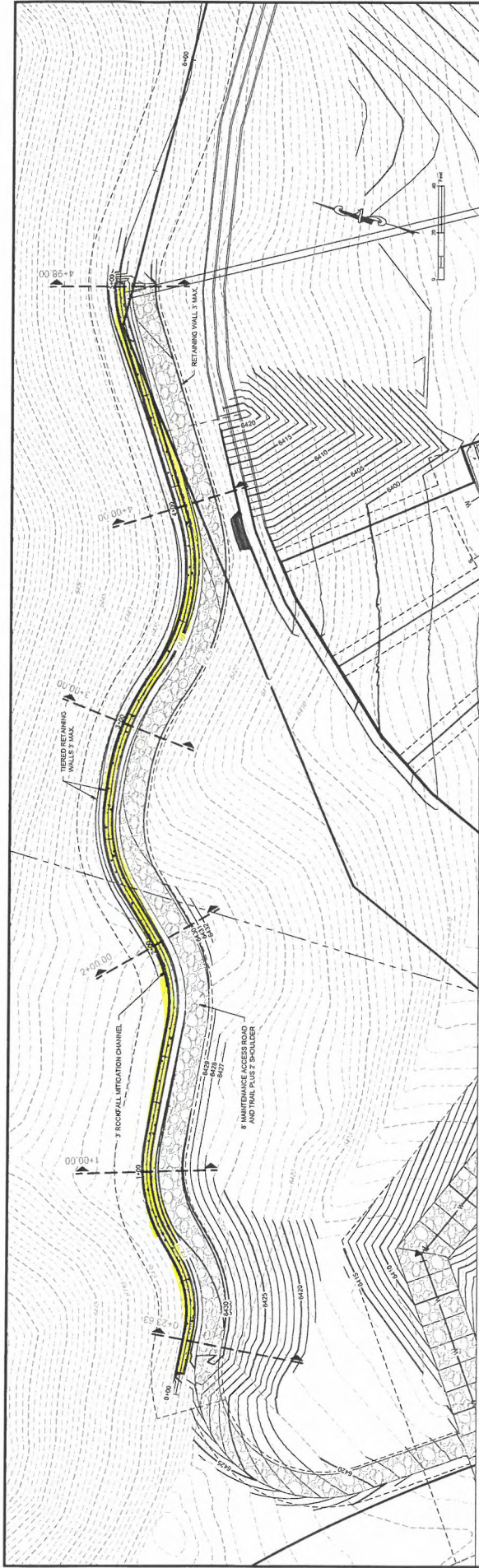
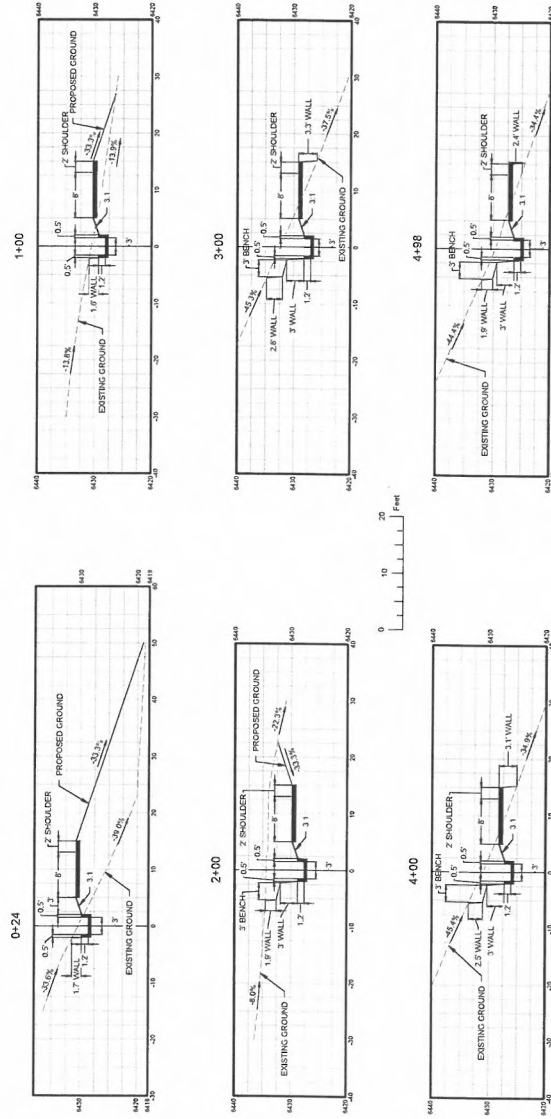
- ☐ Public Works Director
- ☒ Utilities Director Castle Rock Water
- ☐ Parks & Recreation Director
- ☐ Development Services Director

5-2-19

Date

Comments

Conditions of Acceptance



Know what's below.
Call before you dig.

REVISIONS		TOWN APPROVAL BLOCK	
1	SUBMIT TO TCCR	DATE	DATE
2	SUBMIT TO TCCR	DATE	DATE
3	SUBMIT TO TCCR	DATE	DATE
4	SUBMIT TO TCCR	DATE	DATE
5	SUBMIT TO TCCR	DATE	DATE
6	SUBMIT TO TCCR	DATE	DATE
7	SUBMIT TO TCCR	DATE	DATE
TOWN OF CASTLE ROCK APPROVAL		TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL		PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
APPROVED BY:		APPROVED BY:	
DEVELOPMENT SERVICES		DEVELOPMENT SERVICES	
PARAGON ENGINEERING CONSULTANTS, INC.		PARAGON ENGINEERING CONSULTANTS, INC.	
7832 SOUTH ELATI STREET, SUITE 106		7832 SOUTH ELATI STREET, SUITE 106	
LITTLETON, CO 80120 303-794-8664		LITTLETON, CO 80120 303-794-8664	
HILLSIDE AT CASTLE ROCK		HILLSIDE AT CASTLE ROCK	
PHASE 1		PHASE 1	
ROCK FALL MITIGATION & DRAINAGE		ROCK FALL MITIGATION & DRAINAGE	
CHANNEL PLAN AND PROFILE		CHANNEL PLAN AND PROFILE	
SERIAL: TWO	DATE: 4/20/19	SCALE: 1"=50'	SHEET 27 OF 73
DRAWN: VLB	PROJECT NO: 15505		