



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 – Untreated Runoff

Number: TCV19-0022 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: The proposed site plan shows a concrete j-channel along the top of a retaining wall with 1.0 foot of freeboard.

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.

As the channel is horizontally constrained, strict code enforcement would result in the channel dimensions of 1.0 wide and 1.8 feet deep. This configuration would present a tripping and entrapment hazard beyond the safety 2.0 feet of freeboard would provide. Additionally, a channel of this shape would be exceptionally difficult to maintain.

1.0 foot of freeboard will be sufficient for this channel because flows and tributary area are relatively small. 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. TCV19-0022

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 concrete drainage channels in Sub-basins B3, B4, and B5.

1. Describe the exceptional situation or condition that exists

TOCR staff raised concerns regarding potential public safety and maintenance issues associated with designing the proposed drainage channels with 2-foot of freeboard.

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

TOCR staff felt that maintenance of the channels would be difficult with 2-feet of freeboard and a trip hazard.

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

Designing the proposed drainage channels with 1-foot of freeboard feet reduces the risk that someone from the public would fall into the channels and become injured and facilitate maintenance in a tight area between rear yard fences and retaining walls.

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

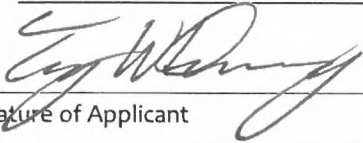
Name: Wolfensberger Property Group, LLC.

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

Phone #: (303) 979-9858

Fax #: _____

Signature of Applicant



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: _____

For Staff Use Only

Staff Recommendation: Approved ☒ Yes ☐ No



Signature

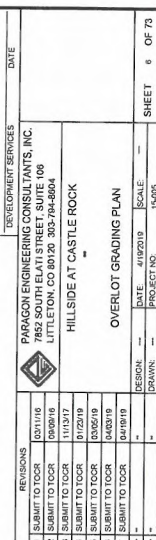
- ☐ Public Works Director
- ☒ Utilities Director Castle Rock Water
- ☐ Parks & Recreation Director
- ☐ Development Services Director

5-2-19

Date

Comments

Conditions of Acceptance



811
Know what's below.
Call before you dig.

ALL BE PROVIDED IN ACCORDANCE WITH
SEDIMENT CONTROL CRITERIA.

TEMPORARY EROSION CONTROL NOTES:

1. TEMPORARY EROSION CONTROL SHALL BE MAINTAINED THROUGHOUT THE TOWNS GRADING, EROSION, AND SEDIMENTATION PERIOD.
2. TEMPORARY EROSION CONTROL IS REQUIRED FOR ALL TEMPORARY ROADWAYS THAT ARE NOT CONVALENT SUBDIVISION BOUNDARIES, ETC. SUCH ROADWAYS SHALL BE MAINTAINED BY THE PROPERTY OWNER.

114

END

PROVED BY THE TCR TRANSPORTATION
ENGINEERING DIVISION
AND MATERIAL BY OTHERS.

15 FT
AIL,
IT
ST.

NOTES:

1. THE HAUL ROUTE MUST BE APPROVED BY THE PLANNING AND TRAFFIC ENGINEER.
2. STRUCTURAL WALL DESIGN AT ALL ST.

BASIS OF BEARINGS:
BEARINGS ARE BASED ON THE SOIL DATA OF SECTION 4, TOWNSHIP 8 SOUTH, RANGE 10 EAST, T18N R10E S4E.

KG A

THE CENTER OF THE EAST END OF A 10 FT (3.0 M) BY 140 FT (42.7 M) BEDROCK, 140.9 FT (43.7 M) EAST OF THE NEAR EAST LINE OF COUNTY ROAD 25, 0.7 FT (0.2 M) WEST OF THE EAST END OF THE EXTENDED CENTER OF INTERSTATE 25 EXHIBIT 10, 1.0 FT (0.3 M) NORTH OF A FIBERGLASS WITNESS POST.

SECTION 3, TOWNSHIP 8 SOUTH, RANGE 67 WEST, BEING 1995.

333' AS DESCRIBED ABOVE.

BENCHMARK:
NGS STATION "N 307" A BRASS DISK IN
(4.0 M) EXPOSED AREA OF OUTCROP
50.0 FT (15.3 M) WEST OF THE CENTER
EAST EDGE OF THE OUTCROP, AND
162.10 FT (3.0 M) BELOW THE ROAD. **AS**
ELEVATION = 6222.12 (NAVD 83)

PROJECT BENCHMARK:
THE SOUTHWEST 1/16TH CORNER OF
"ALUMINUM CAP STAMPED"
ELEVATION = 6382.63 (NAVD 83)
ELEVATION BASED ON NGS STATION "N