Castle Pines City Hall
Lot 4 – Lagae Family Trust Minor Development

DRAINAGE LETTER

CASTLE PINES, COLORADO

October, 2020

OWNER/ DEVELOPER:

City of Castle Pines
360 Village Square Lane, Suite B
Castle Pines, CO 80108
(303) 705-0200

PREPARED BY:

CKE Engineering Inc.
14257 W. Evans Circle
Lakewood, CO 80228
(303) 917-1757

PROJECT MANAGER: Joe Coco, P.E.

CKE ENGINEERING INC.

Mr. Larry Nimmo
City of Castle Pines
Public Works
360 Village Square Lane, Suite B
Castle Pines, CO 80108

Dear Larry,

Enclosed is a drainage letter for the Castle Pines City Hall project located at Lot 4 of the Lagae Family Trust Minor Development. More specifically, the site is located at the southwest corner of Lagae Road and Castle Pines Parkway.

Existing Drainage Report:
A Phase III Drainage Report entitled "Phase III Drainage Report for Lagae Family Trust" prepared by RICK Engineering Company, Revised May 13, 2020 was prepared for the overall development including Lot 4. This report is referred to as the "Master Drainage Report" within this letter. The following information was taken from this report.

1. The developed site is located in Basin 1D which is 4.2 acres in size which encompasses Lots 1,2 and 4 of the overall development.
2. Basin 1D has an overall imperviousness of 71.3% and has runoff coefficients of 0.62 in the 5-year storm event and 0.78 in the 100-year Storm Event. The resulting runoff from Basin 1D is 9.2 cfs in the 5-year storm event and 21.0 cfs in the 100-year storm event.
3. Lot 4 drains to Inlet 1D at the northeast corner of Lot 4 where runoff is captured.
4. Runoff is conveyed to Water Quality/ Stormwater Detention Facility 1 located northeast of Lot 4 where flows are treated and detained.
5. The on-site Storm Sewer and Inlets were sized based on full build-out conditions.

Proposed Project:
The proposed project is to construct a 13,383 sf City Hall Building with associated parking and drives to serve the project. The proposed development is located on Lot 4 and is only a portion of Basin 1D.

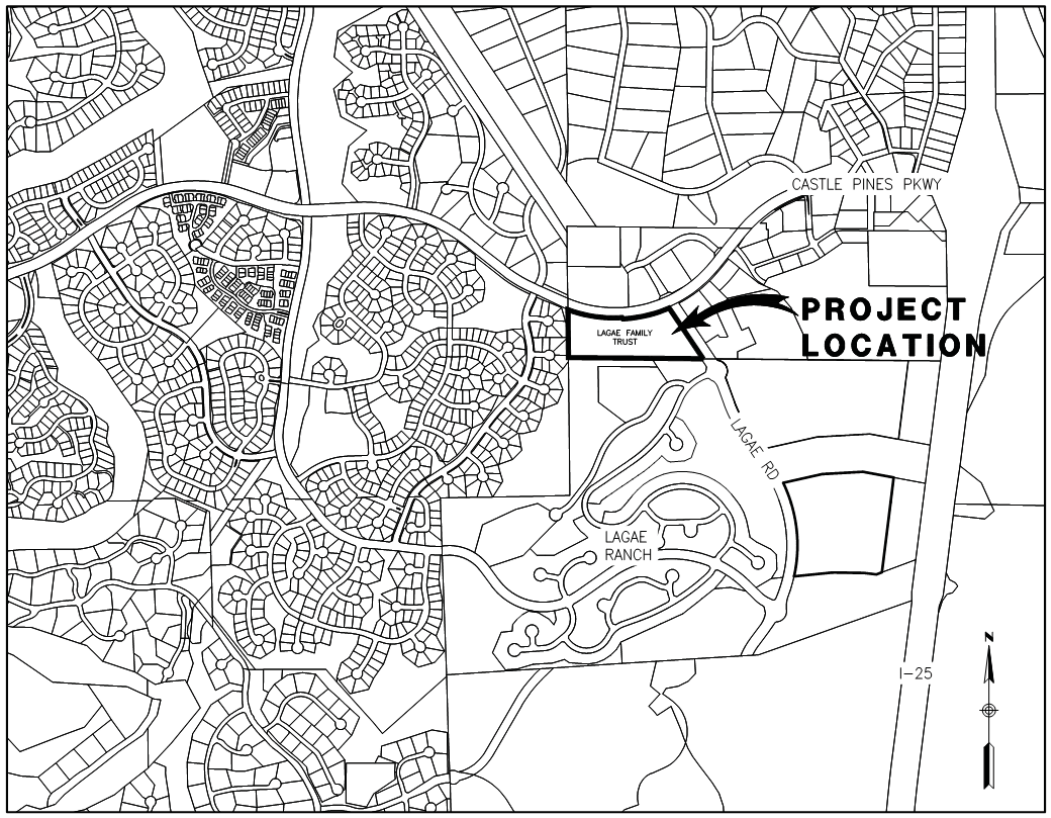
The proposed project encompasses 2.84 acres and drains to the Inlet 1D at the northeast corner of the site. The project has an imperviousness of 51%. The resulting runoff coefficients are 0.46 in the 5-year storm event and 0.69 in the 100-year storm event.

The proposed project results in a lower impervious percentage and resulting c-values than utilized in the Master Drainage Report. Additionally, the proposed project drains to Inlet 1D as designated in the Master Drainage Report. The proposed project meets the intent of the Master Drainage Report.

If you have any questions, please do not hesitate to contact us at your earliest convenience.

Sincerely,

Joe Coco
For and on behalf of
CKE Engineering Inc.



Vicinity Map
(Not to scale)

WEIGHTED C-VALUE CALCULATION

JOB NO: XXXXXXX
PROJECT: Castle Pines City Hall
DATE: 10/8/2020

Soil Type (A-D): **C**

BASIN	TOTAL AREA (AC)	TOTAL AREA (SF)	AREA LANDSCAPE (SF)	AREA PAVEMENT (SF)	AREA Roof Top (SF)	C2	C5	C10	C100	I (%)
ON-SITE BASINS										
A	2.84	123691	58749	51559	13383	0.39	0.46	0.51	0.69	51%
Total	**2.84**	123691	58749	51559	13383	0.39	0.46	0.51	0.69	51%
Exist Site										
EXIST	**2.84**	123691	123691	0	0	0.01	0.05	0.15	0.49	2%

Surface	i
landscape	0%
roof	90%
pavement	100%