Appendix Q

Columbus Tank Stability Memo

Project No.
16484.000.001

November 13, 2024

Ms. Bibiana Sparks
Acorn Environmental
5170 Golden Foothill Parkway
El Dorado Hills, CA 95762

Subject: Scotts Valley Development
Admiral Callaghan Lane and Columbus Parkway
Vallejo, California

RESPONSE TO PUBLIC COMMENT A17-38: COLUMBUS TANK SLOPE STABILITY

References:
1. ENGEO. 2024. Preliminary Geotechnical Exploration, Scotts Valley Development, Vallejo, California. June 19, 2024, Revised June 27, 2024. Project No. 16484.000.001.
2. Kimley Horn. 2024. Preliminary Grading and Stormwater Plan, Scotts Valley Casino and Tribal Community Project. November 6, 2024.

Dear Ms. Sparks:

As requested, we are responding to public comment A17-38 from the City of Vallejo regarding the stability of slopes west of the Columbus Tank in relation to proposed retaining walls in the tank vicinity. The comment states:

> *"The EA does not address how future improvements will affect the Columbus Tank foundation or slope stability or infringe upon the City's existing slope easement at Columbus Tank. This needs to be studied and all potential impacts identified, and mitigation ensured."*

Geotechnical Response to Comment A17-38

In preparation of this response, we reviewed geologic data collected during our geologic and geotechnical exploration of the site (Reference 1), as well as preliminary and schematic grading plans prepared by Kimley Horn (Reference 2). During our geotechnical exploration of the site, our geologist observed outcropping rock near the Columbus Tank and mapped the tank pad and surrounding berm as a bedrock knob consisting of silica carbonate rock. The slope surrounding the water tank consists of silica carbonate and Great Valley Sequence rock overlain by a thin layer of colluvium.

- Alternatives A and B: The schematic grading plan for Alternative A (Reference 2) shows a +/- 16-foot-high cut condition retaining wall excavated into the existing slope. In addition, fill and buildings will be constructed down-slope of the tank and wall. The design fill and building loads

downslope of the tank will contribute to increased stability of the slope and tank foundations due to the buttressing effect along the landslide toe. As shown in Figure C1, the edge of the water tank is more than 150 feet away from the proposed retaining wall and the bottom elevation of the wall is located at approximately the same elevation as the bottom of the tank.

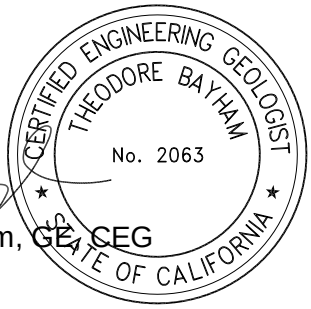
- Alternative C: The preliminary grading and stormwater plan for Alternative C (Reference 2) shows a +/- 10-foot-high cut condition retaining wall excavated into the existing slope, as well as an additional +/- 30-foot-high cut-condition retaining wall located further downslope. As shown in Figure C2, the edge of the water tank is more than 150 feet away from the nearest edge of the proposed wall and is at approximately Elevation 5 to 10 feet below the proposed grades adjacent to this wall.

Due to the large horizontal distance and limited difference in elevation between the proposed retaining walls and the edge of the Columbus Tank, we consider it highly unlikely to infeasible that excavation of bedrock and wall construction at the proposed locations would adversely affect the stability of the water tank or its foundations.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated



Anne Robertson, PE

Theodore P. Bayham, GE, CEG

awr/jbr/tpb/cb

Attachments: Figure 2C – Site Plan – Alternative C
Figure C1 – Cross Section C-C' Alternative A
Figure C2 - Cross Section C-C' Alternative C

N

Kgv
Qls
Qc
Kgv
Kgv
Qc
100' Setback
Estimated Location of Existing Caltrans Drain Gallery
1-TP24
1-TP23
1-TP21
A'
Hunter Hill Landslide
1-B3
A
Qls
1
1-TP22
Qc
1-TP20
Qls?
2
SC
1-TP19
Kgv
B'
Qc
1-TP18
1-MPD6
SC
Qls
Qls
1-TP17
41
1-TP15
Qc
Qal
Eastern Slide Complex
Qls
Borges Lane
Carousel Drive
1-TP14
100' Setback
150' Setback
1-TP16
3
Qls
af
Qc
1-TP13
1-TP12
1-B1
af
1-TP11
1-B2
Qal
1-TP10
C
B
C'
1-TP9
SC
1-TP8
Kgv
1-TP7
32
1-TP6
Qc
1-MPD5
1-MPD1
Recently Acquired Parcels
(Area is Part of the Overall Development Area)
1-TP5
Kgv
200' Setback
1-TP4
60
1-MPD2
Qal
1-TP3
4
Qls
Qc
1-TP2
1-MPD3
Qc
1-TP1
1-MPD4
Proposed Commercial Development

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- 1-B3 — Boring (ENGEO, 2024)
- 1-MPD2 — MDP Infiltration Test (ENGEO, 2024)
- 1-TP10 — Test Pit (ENGEO, 2024)
- 60 — Strike and Dip of Bedding
- Inferred Geologic Contact
- Thrust Fault
- Estimated Location of Existing Caltrans Drain Gallery
- Proposed Grading Limits
- Natural Spring
- Proposed Development Extents
- af — Artificial Fill
- Qal — Alluvium
- Qc — Colluvium
- Qls — Landslide deposits
- Kgv — Great Valley Sequence
- sc — Silica Carbonate Rock
- B B' — Cross Section Location
- Recommended Setback From Landslide Toe or Crest
- Recommended Setback From Landslide Toe or Crest (Alternate)
- 4 — Landslide ID

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

0 200 FEET

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SITE PLAN - ALTERNATIVE C
SCOTTS VALLEY DEVELOPMENT
VALLEJO, CALIFORNIA

PROJECT NO.: 16484.000.001
SCALE: 1:200
DRAWN BY: LL
CHECKED BY: JBR

FIGURE NO. 2C

ORIGINAL FIGURE PRINTED IN COLOR

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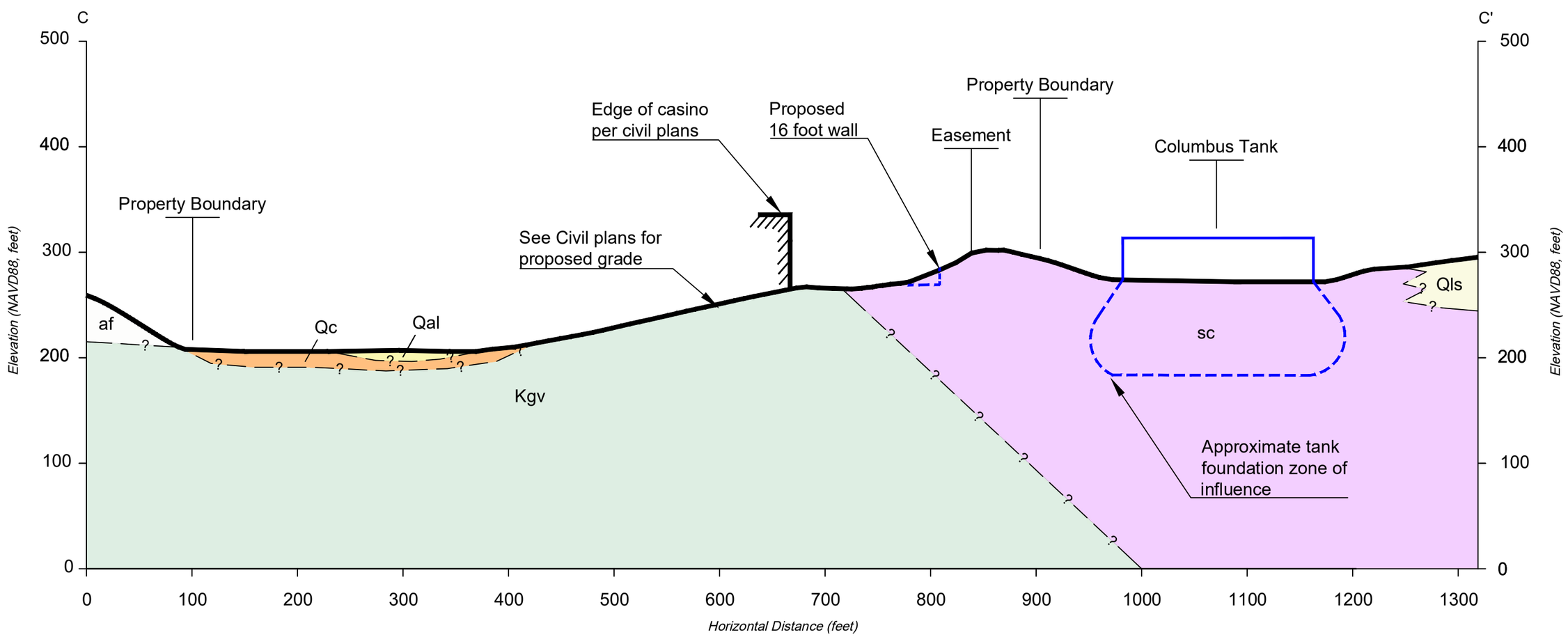
Cross Section C-C' - ALTERNATIVE A



Legend

af	Artificial Fill	———	Existing Ground Surface
Qal	Alluvium	— — —	Geologic Contact, dashed where approximate queried where inferred
Qc	Colluvium		
Qls	Landslide deposits		
Kgv	Great Valley Sequence		
sc	Silica Carbonate Rock		

Disclaimer: Cross Section Is For Illustration Purposes Only. The Transition Between Materials May Be Abrupt Or Gradual. Variations Should Be Expected.

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CROSS SECTION C-C' - ALTERNATIVE A
SCOTTS VALLEY DEVELOPMENT
VALLEJO, CALIFORNIA

PROJECT NO.: 16484.000.001			FIGURE NO. C1
SCALE: 1:100			
DRAWN BY: AWR	CHECKED BY: JBR		

ORIGINAL FIGURE PRINTED IN COLOR

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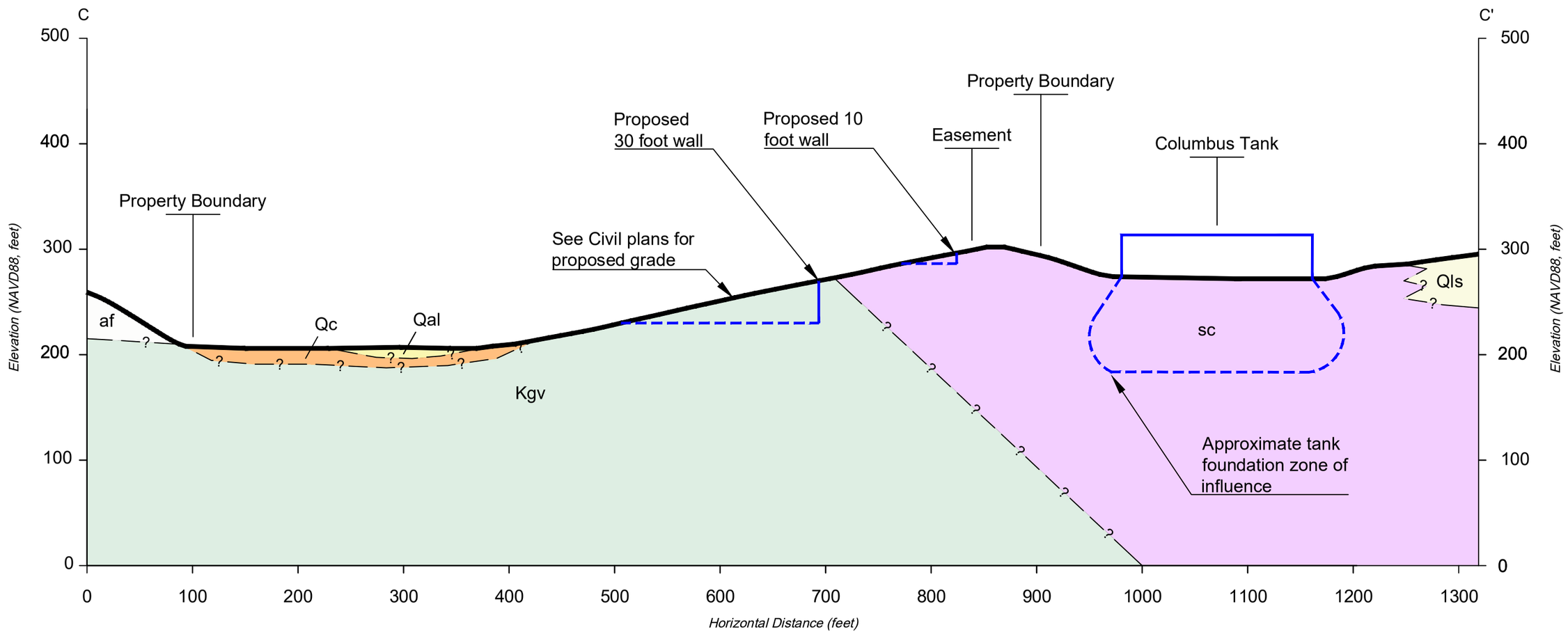
Cross Section C-C' - ALTERNATIVE C



Legend

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CROSS SECTION C-C' - ALTERNATIVE C
SCOTTS VALLEY DEVELOPMENT
VALLEJO, CALIFORNIA

PROJECT NO.: 16484.000.001			FIGURE NO. C2
SCALE: 1:100			
DRAWN BY: AWR	CHECKED BY: JBR		

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