

June 10, 2026

City of West Linn
22500 Salamo Road
West Linn, OR 97068

Attn: Morgan Lovell

Re: Second Open Record Period Submittal, AP-26-01
Operations Center
Salamo Road and Greene Street
West Linn, Oregon
CWE Project: WestL-1-01-1

INTRODUCTION

This letter is in response to the record in **File No. AP-26-01**. Responses to written and oral testimony from the first open record period, ending June 3, 2026, that pertain to geotechnical engineering are presented below.

Our January 20, 2026, geotechnical report (the "**2026 Report**") and May 22, 2026, addendum (the "**2026 Addendum 1**") provide recommendations for use in design and construction of the proposed development.^{1,2} In addition, Columbia West Engineering, Inc. ("**Columbia West**") reviewed the 100 percent construction documentation set dated March 20, 2026 (the "**Current Plans**"), for the proposed Operations Center and associated improvements of the site (collectively, the "**Project**") and finds that the Current Plans are in full conformance with the 2026 Report's and 2026 Addendum 1 recommendations.

COMMENT # 1

Page 31: Email from Roberta Schwarz, dated May 31, 2026

Please see the attached document which was also part of the Public Records Request information we received from ODOT.

Please note that Zimmerman (ODOT Senior Engineering Geologist) states (on top of Page 3) that ODOT retains control of their property used by ODOT Maintenance for laydown and material storage. That area is not available for a 2nd exit either. To say otherwise is not to tell the truth.

Zimmerman recommends that the 33 acre property (which was later sold to West Linn to be used for the Operations Complex) be retained by ODOT and bases his recommendation on the considerations he listed in this internal memo. Please read his entire memo.

Not having a second entrance/exit is what JB Rupert and others have stated should be the core reason for your approving this appeal and denying the Operations Complex application approval

¹ Columbia West 2026. Revised Report of Geotechnical Engineering Services; Operations Center; Salamo Road and Greene Street; West Linn, Oregon, dated January 20, 2026, CWE Project: WestL-1-01-1.

² Columbia West 2026. Addendum 1; East Yard Foundation Support; Operations Center; Salamo Road and Greene Street; West Linn, Oregon, dated May 22, 2026, CWE Project: WestL-1-01-1.

of the Planning Commission per CDC Chapter 60.070(A)(3). This location for the Operations Complex is not in the best interests of the city.

RESPONSE

We understand the proposed use of the site as a public works facility and have incorporated this understanding into our geotechnical evaluation and recommendations, such as by reinforcing the access road with geogrid.

We do not agree with JB Rupert's comment regarding redundant access. The Public Works Letter submitted into the record on June 3, 2026 addresses applicable codes – none of which require a redundant access for this Project. Tualatin Valley Fire and Rescue has approved the design of the Project, including the proposed access. Moreover, as a geotechnical matter, we do not believe that redundant access is required for this Project because the access road and surrounding slopes have been specifically engineered, analyzed, and reinforced to function reliably under both static and seismic conditions, using site-specific geotechnical data, and are designed to meet applicable code-based factors of safety.

Below are excerpts (in Italics) from the above-referenced ODOT geotechnical memorandum dated August 17, 2020 (the "Zimmerman Memo") and our responses and notes:

"The property being requested is located within the area of a large landslide that moved as a result of grading for construction of I-205 in 1969[.]" PDF Page 33.

"Grading for construction of I-205 initiated the historic landslide movement." PDF Page 34.

The Zimmerman Memo acknowledges the historic landslide was human-induced rather than a naturally occurring landslide – in ODOT's determination, it "moved as a result of" the I-205 work. Available documentation confirms that the 1969 failure resulted from excavation activities that undercut the toe of the slope and destabilized the hillside.

"The landslide movement was mitigated by re-grading a significant portion of the hillside and constructing a buttress fill in 1971-72. The buttress is about 2,400 ft long (east to west), extending the width of the landslide, and about 400 ft wide (north to south)."

The Zimmerman Memo acknowledges mitigation measures, including excavation of failed materials and construction of engineered rock buttresses to stabilize the human-induced landslide.

"A January 9, 1991, memorandum from the ODOT Region 1 Geologist discussing the transfer of the property to the City of West Linn is attached as Appendix A. As discussed in the 1991 memorandum;

- 1. The buttress was designed with a low margin of stability;*
- 2. There had been no apparent indication of ongoing landslide movement as of 1991; and*
- 3. Existing construction records were incomplete and little was known of the buttress dimensions." PDF Page 33.*

"To our knowledge, there has been no apparent movement of the landslide since 1991. However, there is no ongoing monitoring of the landslide for movement, such as inclinometer casings established in geotechnical borings." PDF Page 34.

The Zimmerman Memo acknowledges that Mr. Zimmerman is relying heavily on conclusions and interpretations developed by others approximately 29 years earlier in the referenced "January 9, 1991, memorandum from the ODOT Region 1 Geologist" (attached as Exhibit A to our May 22, 2026 memorandum, the "**1991 Memo**"), without any new independent verification, study, or site-specific investigations or analyses. Engineering conditions, site characteristics, and applicable standards can change significantly over time, and reliance on historical conclusions alone is not a substitute for contemporary due diligence. The Zimmerman Memo does not document the extent to which (or if) the author independently evaluated the underlying assumptions, validated the historical findings, or confirmed that the prior conclusions remain applicable to current site conditions and the proposed development. For example, the Zimmerman Memo repeats the statement of "significant uncertainty exists" including "The buttress was designed with a low margin of stability" but does not quantify the safety factors under static and seismic conditions. A "low margin of stability" does not mean the buttress is unsafe or likely to fail, but instead simply indicates that this is an older design that still meets requirements. Regardless, the proposed Project design does not rely on any ODOT evaluation of buttress stability. Instead, our 2026 Report provides detailed values for safety factors for three representative cross sections under both static and seismic conditions, taking into account actual current site conditions, including the buttresses, in an independent evaluation. The results of our analysis were compared to the target values set forth in the *ODOT Geotechnical Design Manual*. Based on that extensive analysis, Section 5.4.4 (Stability Under Proposed Conditions) of the 2026 Report concluded: "*Deeper failure surfaces that extend farther back have factors of safety greater than 1.3 and 1.1 under static and pseudostatic conditions, respectively, indicating that deep or large, wedge-type failures are unlikely.*"

The Zimmerman Memo acknowledges that there is no indication of ongoing landslide movement since 1991, consistent with our field observations at the Project site and the statement in the 1991 Memo: "*Our recent site visit found no evidence of recent distress and confirmed that the slide has not moved appreciably since construction.*" All evidence is that the Oregon State Highway Department-caused slide from construction of I-205 has not moved since construction.

We are not relying on lost or incomplete previous construction records, rather we have conducted site-specific geotechnical exploration program (borings, test pits, geophysical survey, and groundwater monitoring), laboratory testing, engineering analyses, and report preparation. In particular, we were aware before our site investigations that ODOT's construction records were incomplete and "*little was known of the buttress dimensions.*" Accordingly, we independently evaluated and characterized the buttresses and underlying materials by conducting exploration programs, reviewing prior explorations and cross sections by GeoDesign, Inc. and CH2M Hill, and using the site topographic survey on Sheet C0.5 of the Current Plans. The thickness of the rock buttress was up to 31 feet at the locations of our explorations and up to 50 feet at the locations of GeoDesign, Inc.'s explorations.

Our assessment was performed using the same standard of care and engineering methodology that would have been applied had no prior ODOT records or documentation been available.

The occupied structures at the Project site (Buildings A and B) will be supported by a stable flat

bench comprised of basalt bedrock. The smaller buildings at the upper East Yard area are structurally designed using our 2026 Addendum 1 that provides geotechnical design and construction direction for mat foundations for these structures to limit total and differential settlements. The mat foundation will be underlain by minimum 12-inch-thick granular pads underlain by at least 24 inches of improved undocumented fill or new structural fill. The Current Plans implement the recommendations of the 2026 Report and the 2026 Addendum 1 which are both feasible and adequate to prevent landslides or other damage to property or safety.

"Discussion"

"There is significant uncertainty regarding the landslide, the construction of the buttress and extent of the buttress. As previously noted, the existing construction records were deemed incomplete in 1991. The location or disposition of these records is presently unknown. The landslide likely has a low factor of safety against instability under static conditions. The seismic stability of this landslide has not been evaluated."

"No development that could potentially contribute to seismic instability of the landslide should be allowed."

As to seismic stability, the Zimmerman Memo acknowledges that ODOT did not evaluate the seismic stability of the stabilized landslide at the Project site. Instead, the Zimmerman Memo makes a blanket recommendation that no "development that could potentially contribute to seismic instability" would be appropriate here. The Project, however, will not "contribute to seismic instability," and instead will *increase* the seismic stability of the Project site because the access road fill acts as a buttress, increasing the overall stability of the hillside north of the site. The fill slopes created for the access road will be internally reinforced with geogrid to meet code-based factors of safety under both static and design-level earthquake/seismic conditions per Section 5.4.4 (Stability Under Proposed Conditions) of the 2026 Report and Sheet C2.0 of the Current Plans.

We performed slope stability analyses for three representative cross sections and evaluated factors of safety under both static and seismic loading conditions, all of which is presented in the 2026 Report. Our analyses show the Project will not adversely impact slope stability at the site under either static or seismic conditions.

"Recommendations"

"At most, Region 1 Geo could consider a lease of this property. This would allow ODOT to retain control over development of the site. Development of the leased property would be contingent on an extensive geotechnical/geologic investigation of the landslide to evaluate the effects the proposed development would have on stability of the landslide."

The Zimmerman Memo acknowledges that development of the Project site may be feasible, provided that a comprehensive geotechnical and geologic investigation is conducted to evaluate the effects of the proposed development on slope stability. Consistent with that recommendation, we performed a detailed geotechnical investigation that included a review of historical information, subsurface explorations, site reconnaissance, and slope stability analyses. The investigation evaluated existing conditions, including the historical human-induced landslide and subsequent stabilization measures, and assessed the effects of the proposed development under both static and seismic conditions.

"Disclaimer"

"The discussion of legal liabilities provided in this memorandum is a summary of our understanding and should not be considered to be professional legal advice, or even entirely correct."

The Zimmerman Memo expressly acknowledges that its discussion of legal liabilities is based on the author's lay understanding and is not professional legal advice. Accordingly, opinions in the Zimmerman Memo regarding legal standards, liabilities, or regulatory interpretation should be afforded limited weight and should not be relied upon.

COMMENT # 2

Page 68: Hand-written notes by JB Rupert, dated June 2, 2026

"Columbia West Geo.Tech Report"

"Schematic grading...at access road will be thickest fill on the development 20.0 to 25.0 feet required for the proposed access road."

The reviewer's comment correctly notes that the proposed access road will be supported by structural fill of up to approximately 25 feet in thickness at its maximum extent. The reviewer does not provide any comments – but simply provides a quotation. Accordingly, it is difficult to know what is being commented on. The presence of structural fill is not, by itself, indicative of an adverse geotechnical condition or unacceptable risk. The suitability of structural fill depends on the underlying site conditions, fill material characteristics, placement methods, and resulting stability analyses.

Our geotechnical evaluation specifically considered the proposed grading configuration, including the maximum anticipated fill thicknesses associated with the access road. The analyses incorporated the proposed fill geometry, fill loading, and existing subsurface conditions. The results demonstrate that the slope satisfies the applicable stability criteria under both static and seismic conditions. In addition, the structural fill will consist of engineered material placed in controlled lifts, compacted in accordance with geotechnical specifications, and tested by Columbia West in the field during active construction, thereby ensuring the fill performs as intended.

"Geotechnical memorandum" August 17, 2020

See **Response to Comment # 1** above.

"See attached; with yellow comments;"

See **Response to Comment # 7** in the June 3, 2026 Letter (the **"2026 Letter"**)³. Note that the "attached with yellow comments" is not the 2026 Report, but the same report that Mr. Rupert previously provided these same highlights for.

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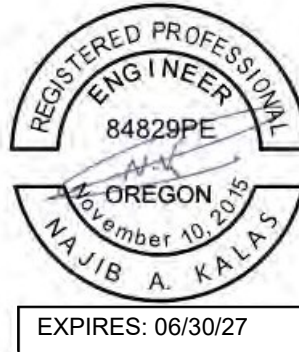
³ Columbia West 2026. Letter; Response to First Open Record Period, AP-26-01; Operations Center; Salamo Road and Greene Street; West Linn, Oregon, dated June 3, 2026, CWE Project: WestL-1-01-1.

We appreciate the opportunity to submit this letter. Please do not hesitate to contact us if you have questions or require additional information.

Sincerely,



Najib A. Kalas, PE
Principal Engineer



cc: Erich Lais, City of West Linn
Jordyn Osborn, Klosh Group
Julia Stong, Klosh Group
Jeff Dunn, Scott Edwards Architecture

NAK

Attachments

Document ID: WestL-1-01-1-061026-geol-2nd ORP