February 25, 2026
Revised March 27, 2026

JR Engineering, LLC
7200 South Alton Way, Suite C400
Johnstown, Colorado 80534

Attention: Kevin Rohrbough, PE
Client Manager

Subject: Comment Response Letter
Hillcamp (aka Ridgegate Mesa Tops) Road Alignment
Lone Tree, Colorado
Project No. DN52,378-125-L1R

CTL|Thompson, Inc. (CTL|T) performed a Preliminay Geotechnical Investigation and Slope Stability Evaluation for the proposed road alignment planned for the Hillcamp (aka Mesa Tops) residential development in Lone Tree, Colorado. We presented results in a report and letter (Project Nos. DN52,378-115-R1 and DN52,378-115-L1) dated March 12, 2025 and April 18, 2025, respectively. The Slope Stability Evaluation was updated to address comments from the City of Lone Tree from their SB25-0014-Hillcamp Drive Filing No. 1 – 2nd Review (Project No. DN52,378-115-L2, letter dated November 13, 2025. We also performed a Geotechnical Investigation for a pedestrian bridge within the proposed road alignment and presented our results in a report (Project No. DN52,378-125-R1) dated November 20, 2025. This letter is being revised to consider results of our additional Geotechnical Investigation for the planned retaining walls and Supplemental Slope Stability Evaluation for the road alignment and Mesa Tops residential development. We were requested to review comments provided by Ground Engineering (dated 10/29/2025), Colorado Geological Survey (dated 01/07/2026), and City Staff (dated 01/22/2026). Additional comments were provided to our client by the City of Lone Tree on February 11, 2026. Our responses are given below:

GROUND ENGINEERING COMMENTS

Ground Engineering provided evaluation and comments of the two CTL|Thompson geotechnical reports prepared for the construction of the proposed Cabela Drive roadway alignment in the Hillcamp Development. The first report reviewed was the Preliminary Geotechnical Investigation for Ridgegate – Mesa Tops Road Alignment, dated March 12, 2025. The second report reviewed was the Preliminary Geotechnical Investigation and Slope Stability Evaluation for Ridgegate – Mesa Tops Road Alignment, dated April 18, 2025. Comments and responses are noted below.

Preliminary Pavement Section Investigation

- The CTL report stated that the purpose of the investigation was to determine the type of subgrade soil present on the proposed alignment, evaluate pavement support characteristics, and provide preliminary design pavement alternatives. The report addressed approximately 3,150 feet of roadway extending from the existing Cabela Drive to the top of the mesa to its south providing access to the future Mesa Tops Development. It stated that the report was preliminary in nature as requirements of the governing agencies (Lone Tree's and Douglas County's Standards and Specifications) for a "final" design

had not yet met. Additional investigation and analysis will be needed once those requirements have been met. This is in accordance with our understand of the City of Lone Tree's development requirements and geotechnical practice in the area.

CTL|T Response: The scope of the preliminary pavement investigation was to evaluate widely-spaced borings to determine the type of subgrade soils present at the site, evaluate pavement support characteristics, and provide preliminary design pavement alternatives for planning purposes. A design-level investigation will be conducted once utilities have been installed (if any) and the road has been graded to a tenth of a foot of finished subgrade, per specifications from the Douglas County Roadway Design and Technical Criteria Manual Section 5.2.1.

- The CTL report described the project alignment as extending south and west from the west end of Cabela Drive up and across the mesa side and terminating on the mesa top. This reach was described as moderately vegetated with grasses and dense shrubs and trees and as containing multiple drainages and moderate to steep slopes. These slopes and drainages were identified as having potentials for debris flows and landslides. Based on these conditions and topography and available plans, CTL anticipated that cuts up to 15 feet and fills up to 20 feet will be needed to achieve project lines and grades. We understand that the slope stability concerns were addressed by CTL's slope stability analysis and geohazard report, and subsequent analysis where appropriate.

  CTL|T Response: Slope stability concerns have been addressed in the reports provided.

- The subsurface exploration program performed by CTL included 6 exploratory borings that were advanced to depths of about 20 to 30 feet below existing grade at a spacing of about 500 feet. The depths and spacing of the testing holes appeared to be appropriate given the anticipated cuts and fills at the site and the use of the test holes in the slope stability analysis. Samples from the test holes were collected using a "California" Liner Sampler and by collecting auger cuttings. Both means of collecting samples are common in geotechnical engineering practice in Colorado and were appropriate, in GROUND's opinion for preliminary pavement design.

  CTL|T Response: Thank you for your review.

- The CTL (report) made depth to groundwater measurements in the test holes several days after drilling, presumably in formal monitoring and observation holes. Assuming these monitoring and observation holes have not been abandoned, then it may be beneficial for information regarding the monitoring and observation holes to be provided to the project team, so that additional depth groundwater measurements may be made. Additional depth to groundwater data could be useful in project planning, given the anticipate cuts, but may not be necessary for planning of the pavement sections. (These data likely will be of more importance for further slope stability analysis.)

  CTL|T Response: Additional groundwater level measurements were made on January 12, 2026. Groundwater was measured in one boring at a depth of about 15 feet below existing grade, two borings had caved or been destroyed and measurements could not be obtained. The remaining holes were dry to their explored depths.

- CTL performed laboratory testing on 14 samples collected from the test holes, at least 2 sample per test hole, and this testing included 4 swell–consolidation test and 2 water-soluble sulfate content tests. Additionally, California Bearing Ratio (CBR) testing was performed on a composite sample of the alignment soils to assess the support characteristic of the alignment soils. In GROUND's experience, direct measurement of the resilient modulus or correlation from the R-Value is more common in geotechnical practice in Colorado. However, the use of the CBR, although less common, is still within typical practice of geotechnical engineering in Colorado and is listed in the MGPEC specifications as an acceptable means to determine the resilient modulus of the soils. Douglas County's specification for final pavement design, however, does not provide a procedure to relate the CBR to the resilient modulus.

  CTL|T Response: Additional pavement subgrade strength testing will be completed during the design-level investigation, per specifications in Douglas County Roadway Design and Technical Criteria Manual, Section 5.2.4.

- Water-soluble sulfate content testing yielded concentrations up to about 0.02 percent by weight, which was identified as an exposure class of "Not Applicable." CTL called for additional water-soluble sulfate testing during the design level evaluation. GROUND concurs with this call for additional testing, as we have encountered soils with elevated levels of water-soluble sulfates in the greater project area.

  CTLT|T Response: Additional water-soluble sulfate testing will be completed during the design level investigation, per specifications in Douglas County Roadway Design and Technical Criteria Manual, Section 5.2.2.

- CTL laboratory testing summary table (Table A-I, Summary of Laboratory Test Results) separated the alignment soils into 3 groups: Groups I, II, and III. This appears to be in general accordance with Douglas County specifications. However, little discussion of the significance of these groups is provided, other than the preliminary pavement design was based on the properties of Group III soils. Additional commentary on the soil groups could provide useful information for the design team in project planning, but that information does not appear to be critically important at this juncture.

  CTLT|T Response: Groups I, II, and III correspond to the subsoils encountered as classified by AASHTO as A-2-6, A-6, and A-7-6 soils, respectively. The **EXPANSIVE SOIL MITIGATION** and **Douglas County Requirements** sections of the report provide soil recommendations based on AASHTO classifications.

- CTL identified expansive soils and bedrock along the project alignment that will need swell mitigation per Douglas County specifications. They also noted that swell mitigation can help reduce but not eliminate the risk of heave. In an effort to mitigate the risk of heave, CTL recommended using sand A-2 to A-6 materials within the top three feet of pavement subgrade, which they anticipated will provide higher R-Value test results (better subgrade support) and reduce the amount of additional mitigation required by Douglas County design standards. GROUND concurs that using sandier native soils or imported materials is a common way to improve the support characteristics of the subgrade and reduce the risk of heave along roadway alignments. CTL also identified other options allowed by Douglas County to mitigate swell and provided no objections to their use.

CTL|T Response: Thank you for your review.

- CTL used a Traffic Impact Study prepared by JR Engineering to obtain and develop input parameters for pavement section design. (GROUND was not provided a copy of this study for review.) From that study, CTL identified the road as a residential collector with a projected peak average daily traffic volume of 3,136 vehicles with no growth factor and consisting of 2 percent truck traffic. That value was converted to an EDLA of 527,244 following MGPEC procedures and used in design. An EDLA of 527,244 exceeded the minimum value for residential collectors listed by Douglas County. This procedure appears to be within standard geotechnical practice in Colorado as well as in line with Douglas County standards and specifications.

  CTL|T Response: Thank you for your review.

- The pavement section alternatives provided by CTL include 5 inches of asphalt over 10 inches of aggregate base course, 5 inches of asphalt over 9 inches of stabilized subgrade, or 7 inches portland cement concrete. These section thickness appear to have been calculated using methods that are within typical practice and exceed the Douglas County minimums for the roadway classification. However, in GROUND's experience 6 inches or more of aggregate base course is commonly called for beneath rigid (portland cement concrete) pavement sections, largely to protect the pavement joints. Given that CTL is calling for sandy soils in the upper 3 feet of the alignment, CTL may have considered the improvement in performance that would be provided by an aggregate base course layer beneath a concrete pavement section to be relatively small.

  CTLT|T Response: The merit of granular import material was considered; however, based on analysis of field and laboratory data and our experience, we typically do not include a recommendation for aggregate base course below rigid pavements. Our recommendation is consistent with the minimum pavement sections provided for full depth Portland Cement Concrete in Douglas County Roadway Design and Technical Criteria Manual, Tables 5.5 and 5.7.

- CTL noted that construction traffic is typically higher than design traffic for residential development and that damage can be done to roadways where a thinner section that is overlaid once construction is completed. GROUND generally concours with this assessment and considers CTL's proposed solution to be in within typical geotechnical practice in Colorado.

  CTL|T Response: Thank you for your review.

- The discussion provided in the pavement materials section appears to be withing typical geotechnical engineering practice in Colorado. GROUND concurs that the project should follow the materials and construction requirement of Douglas County.

  CTL|T Response: Thank you for your review.

- CTL highlighted the need for maintenance to assure the design life of the pavement. A CTL recommended maintenance plan is provided in Appendix C. Maintenance of pavements throughout their design lives is typical and the plan outline by CTL appears to be within typical geotechnical engineering practice in Colorado.

CTL|T Response: Thank you for your review.

- CTL highlighted the utility of construction observation and materials testing during construction. Such observation and testing during construction can provide a higher degree of confidence that project plans and specifications are followed during construction.

  CTL|T Response: Thank you for your review.

- Additionally, CTL highlighted geotechnical risks and limitations that applied to their work. These appear to be typical considerations that apply to nearly all geotechnical engineering projects/reports. CTL also highlighted that the contractor/owner (depending on the phase of the project) must assume this responsibility, which is in line with typical geotechnical practice in Colorado. (CTL referred to the contractor/owner as Jefferson County. We assume that this was a typographical error.)

- **CTLT|T Response:** Typographical error has been updated.

Preliminary Geotechnical Investigation and Slope Stability Evaluation

- The purpose of CTL's investigation and analysis was "to assess slope stability for the existing slopes relative to planned cuts and fills for the Mesa Tops Road Alignment." It was noted that the discussions and criteria presented in their letter are "intended for planning purposes only." Additional subsurface exploration and analysis likely will be need prior to construction.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2).

- CTL performed previous investigations for the site and alignment, including the above discussed roadway alignment. The location and number of test holes as well as the corresponding laboratory testing program appeared to be generally within typical geotechnical practice in the area.

  CTL|T Response: Thank you for your review.

- CTL performed slope stability analysis using the Rocscience Slide2 computer software, which is generally considered to be acceptable software for performing limit equilibrium slope stability evaluations.

  CTL|T Response: Thank you for your review.

- As the geotechnical engineer of record, CTL defined the shear strength parameters of the site soils and bedrock based on laboratory test results and their engineering judgment. The application of engineering judgment is common in assessing the shear strength of site materials. The majority of the shear strength parameters appear reasonable, based on our review of the laboratory data and our experience. However, we would advise caution regarding some of the higher cohesion values. We are aware of numerous slope and wall failures in the Denver metropolitan area that have occurred due to the reliance on significant amounts of cohesion. The cohesion values of particular concern are the weathered claystone (395 psf), interbedded sandstone/claystone (500 psf), and claystone (1,000 psf). It is common in the geotechnical engineering practice to limit

resistance values to maximum thresholds for various design parameters (i.e., there is generally an upper limit to passive resistance, soil moduli, shallow bearing capacity, skin friction, and end bearing values, etc. regardless of penetration resistance values or other laboratory data). The cohesion values for these 3 material types, in our engineering judgement, significantly exceed the maximum amount of cohesion that we would have recommended relying on for long-term stability, and even short-term stability. However, this is question of engineering judgement; CTL's experience and judgment may differ from ours.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2). Based on back analysis of existing slopes, results of laboratory testing, and our experience in the area, we believe the parameters used in our analyses are appropriate. The properties used are consistent with slope stability studies performed by others on adjacent sites.

- The generally accepted minimum factor of safety (FS) for non-critical temporary excavations is 1.1, and the minimum for critical temporary excavations typically is 1.3. CTL's analysis results indicated some of the proposed temporary excavation slopes will not be stable (FS < 1.0), and that some of the proposed temporary slopes have relatively low factors of safety (1.0 ≤ FS < 1.1). Regarding these factors of safety CTL states:

  > Although the interim models generally resulted in lower [factor of safety] values than the existing and proposed conditions, we believe these values are acceptable due to the short-term duration of these conditions and not indicative of the overall global stability of the slope. We assume that benches cut to allow fill placement will not remain open for more than a day or two.

  We generally do not consider factor of safety values for non-critical temporary/interim conditions less than 1.1 to be acceptable; however, we would note that higher cohesion values assigned to the benched clay soils (75 psf) may be reasonable for temporary conditions.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2). Some sections exhibited factors of safety of 1.3 for interim conditions. We believe these are appropriate for the temporary/interim conditions.

- The CTL report identified areas mapped of landslides and debris flows within the site; however, the report also noted that no evidence of slope instability was observed. It would be reasonable to suspect that soils in landsliding and debris flow areas may be in a residual shear strength state. We would recommend considering the evaluation of cuts into, and fills on, slopes in these areas based on such residual strength parameters.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2). We did not observe evidence of landslide debris during site reconnaissance or our exploratory borings. To be conservative, we applied a lower friction angle and cohesion to any weathered claystone encountered towards to the base of the slope, which is consistent with the approach taken by others on nearby analyses. Even with the lower values, our stability analyses implied stable slopes with factors of safety of 1.5 or higher.

We recommend limiting excavations into the slope during installation of MSE retaining walls to avoid over-exposing claystone bedrock which could result in a reduction of strength. We evaluated a 1.6H:1V layback for retaining wall installation. If flatter slopes are necessary to install MSE walls, we recommend evaluating other earth retention systems, such as a tieback wall, which may require less lateral excavation.

- CTL's report also discussed the potential for erosion and flooding, and stated that development, if proper measure were not taken, could increase the risk of these hazards. Two main debris flow channels were identified by CTL and in an effort to mitigate the risks of erosion and flooding, CTL called for water flows to be diverted away from those channels along the proposed alignment. Additionally, a sub-fill drain was recommended along the bottom of existing drainages where more than about 15 feet of site grading fill is planned or in existing drainages that were expected to have periodic flow of collected surface water. These recommendations and considerations with respect to flooding and erosion appeared to be within typical geotechnical practice in Colorado.

  CTL|T Response: JR Engineering has implemented the recommendations as applicable.

- The CTL report identified the clay and claystone at the site as expansive and called for engineering design to address their potentially damaging effects. No methods to address these soils were provided. Given that it was a preliminary study, identification of the hazard may have been the limit of their scope of services. Additional improvement specific studies should explicitly address means to mitigate expansive soils heave.

  CTL|T Response: Expansive soil mitigation was addressed in our Preliminary Geotechnical Investigation for the proposed road alignment (Project No. DN52378-115-R1, dated March 12, 2025).

- Site seismicity and seismic site class were addressed by CTL's report. Based on their data, they judged the subsurface to range between Site Classification DE and C. CTL stated methods for determining the Seismic Site Classification appear to be within typical geotechnical engineering practice, where ASCE7-22 applies. If another version, such as ASCE7-16 apply to the site, other site classifications may be appropriate.

  CTL|T Response: The City of Lone Tree currently adopts the 2021 International Building Code (IBC). According to Section 1613.2.2 of the 2021 IBC the site shall be classified as *Site Class* A, B, C, D, E, or F in accordance with Chapter 20 of ASCE 7. The site classifications BC, CD, and DE come from newer versions of ASCE7. We will classify the site as *Site Class* A, B, C, D, E, or F in accordance with the 2021 IBC in our supplemental slope stability analysis.

- In effort to reduce the post-construction settlement of fills, CTL recommended that the clay within the drainages be excavated to sand or bedrock and replaced with a sand material with specific import parameters. Such an approach is within typical geotechnical practice in Colorado.

  CTL|T Response: Thank you for your review.

- CTL's report provided compaction criteria for site grading fills. These criteria called for all soils placed above a depth of 20 feet to be placed to at least 95 percent of the maximum

dry density as determined by the Standard Proctor and at least 98 percent where soils are placed below a depth of 20 feet. In GROUND's experience it is common to call for a relatively high dry density at placement for deeper fills and the criteria, including moisture contents, provided by CTL appear to be in the typical ranges provided geotechnical engineers in Colorado. However, it is GROUND's experience that a Modified Proctor is typically used for "Granular Soils," as defined by CTL, but the use of a Standard Proctor in this case does not appear to be outside of typical geotechnical engineering practice in Colorado.

CTL|T Response: City of Lone Tree requires use of a modified proctor (AASHTO T180) for A-1, A-2-5, A-2-7, A-3, A-4, and A-5 soils and a standard proctor (AASHTO T 99) for A-2-4, A-2-6, A-6, A-7 soils. All of the soils encountered in our investigation fit the standard proctor requirements. We can update the criteria in our supplemental analysis to include specifications for soils where a Modified Proctor may be appropriate.

- CTL highlighted geotechnical risks and limitations that apply to their work. These appear to be typical considerations that apply to nearly all geotechnical engineering projects/reports. Additionally, they reiterated that their recommendations are preliminary. Therefore, it is GROUND's opinion that additional structure/improvement specific geotechnical evaluations be performed as project planning and design progresses.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2).

COLORADO GEOLOGICAL SURVEY COMMENTS

Ground Engineering provided evaluation and comments on the CTL|Thompson Geotechnical Report & Slope Stability Evaluation, the Pedestrian Bridge Report, and the GESC Plans & Report for Hillcamp Trail.

Geotechnical Report and Supplemental Slope Stability Evaluation

- The geotechnical report and supplemental slope stability evaluation are described by CTL as intended for preliminary planning only (page 13).

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2). A design-level pavement investigation will be conducted once utilities have been installed (if any) and the road has been graded to a tenth of a foot of finished subgrade, per specifications from the Douglas County Roadway Design and Technical Criteria Manual Section 5.2.1.

- While the submitted geotechnical investigation employs standard methods and is appropriate for conceptual planning, it does not meet the level of investigation and analysis typically required to support approval of a public roadway that will serve as the sole access to a 343-unit residential development, without additional design-level subsurface exploration, analysis, and verification. Additionally, the preliminary geotechnical investigation prepared by CTL for Hillcamp Trail (Ridgegate – Mesa Tops Road Alignment) is also intended for initial planning. CGS recommends that additional subsurface exploration and analysis be performed prior to final plat approval.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2).

- CGS notes that determination of statutory compliance ultimately rests with the City; however, from a geologic hazard perspective, the current level of investigation is insufficient to support approval without additional studies.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2).

Geologic Hazards and Slope Instability

- Available mapping indicates that the project development includes landslides, landslide-susceptible areas, unstable and potentially unstable slopes, and channels susceptible to debris flows. CTL discusses these hazards and provides a figure (fig. 5) that maps these areas and shows how they impact the roadway alignment. The slope stability analyses performed by CTL, however, do not evaluate constructability within mapped landslide terrain, as discussed in the sections below. CGS is concerned that CTL's slope stability analyses do not consider these hazards nor demonstrate that the site can support the proposed roadway and retaining walls. Additionally, we understand that a retaining wall failed within the past 2 years in The Retreat development, directly to the northwest of the road alignment (report not available during this review). Based on previous studies within the Ridgegate Development and near I-25, landslides and slope failures have occurred within the claystones and sandstones of the Denver Formation and Dawson Arkose.

  There are numerous risks associated with construction on landslides and potentially unstable slopes:
  - Slopes that appear to be currently stable can be destabilized if modifications are made through the excavation of cuts, the addition of fills, and loading due to structures.

  - Presently stable slopes may become unstable as a result of reduced soil strengths if 1) significant moisture is added to the slope through residential irrigation or a water line failure, and/or 2) the existing drainage pattern is altered through grading, introducing water to areas that were previously drier.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2). A water sensitivity analysis was performed as part of our analysis. Results imply stable slopes.

- The slope stability analyses performed by CTL evaluate five cross-sections, Cross Sections A through E, throughout the roadway alignment. The slope stability analysis shows existing, interim, and proposed conditions, but does not include the retaining walls. Three-tier retaining walls up to 25 feet in height are proposed from Sta 23+89 to Sta 31+77 and Sta 32+47 to Sta 35+82 (a total of 1123 linear feet) along the roadway extension. CGS recommends that the retaining walls associated with the roadway extension of Hillcamp Trail be included in the slope stability analysis. Global and local stability should be evaluated.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R).

- The applicant was unable to drill two proposed slope stability borings (TH-103 and TH-104) due to steep terrain and an "external waterline laid upon the ground surface". CTL states (page 2), “Boring TH-104A is located about 150 feet northeast of the proposed location of TH-104; due to the presence of utilities on the north side of the slope and steep conditions on the south side of the slope, this was the most accessible location for drilling.” Therefore, the section between Sta 31+00 and Sta 38+00 along the roadway extension has no subsurface data; consequently, the stability data for the central portion of the site are estimated rather than measured.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2).

- The slope stability evaluation for Hillcamp Trail includes “interim” bench-cut conditions with low factor of safety (FOS) values (down to 0.9–1.2) for some sections, with clarification that these are associated with failure surfaces prior to placement of fill. CTL states (page 6), “We assume that benches cut to allow fill placement will not remain open for more than a day or two.” Because Hillcamp Trail will serve as the sole access to the development, tolerance for interim or localized instability is significantly lower than for private or secondary access roads. CGS recommends that the City require a clearly defined temporary cut/maximum bench height, bench geometry, and sequencing plan (not just a statement that “bench heights of less than 4 ft will likely be required”).

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2 and report dated March 27, 2026 (DN52,036-115-R2R). For interim conditions, some of the sections showed lower FOS values (1.3 to 1.4), but we believe these values are acceptable due to the short-term duration of these conditions. For benching, we assumed vertical heights of 4 feet in our analyses.

- Additionally, other geotechnical consultants have performed slope stability analyses within the Ridgegate Development, which should be considered/reviewed. Although similarities exist, MWW has significantly lower cohesion and friction angle values for weathered claystone/sandstone. Additionally, consideration should be given to the depth of groundwater in CTL’s analysis, which would be closer to the surface after grading and after lawn watering is initiated, potentially resulting in a perched water table. The loss of shear strength also occurs due to wetting from pipe breaks, runoff, irrigation, clogged drains, and other sources. CGS recommends that water-sensitivity analyses incorporating saturated and perched-water conditions be included in slope stability analyses.

  We also understand that concerns regarding reliance on soil cohesion, low interim factors of safety, and the sensitivity of slope stability to drainage performance are consistent with observations raised during independent third-party geotechnical reviews of the project.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2), report dated March 26, 2026 (DN52,378-125-R1R), and report dated March 27, 2026 (DN52,036-115-R2R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections except those where detention ponds are located at top of slopes. We recommend detention ponds be moved towards the interior of the site, away from the top of slopes. We also recommend scour protection be provided in existing drainage ways to prevent undercutting and oversteepening of slopes in the event of a large runoff event. For the residential development planned on the mesa top, we believe the safest approach where slopes with grades of 20 percent or greater are present within lot boundaries is to allow them to remain in their natural, undisturbed condition. We recommend providing a minimum setback of 30 feet for structures planned near slopes of 20% or greater, and drainage around these structures should be directed away from the slope (i.e. towards the front of the lot). Other surface drainage precautions are discussed in our letter and reports.

We have reviewed the strength parameters used in the "Engineering Geologic Assessment" prepared by Michael W. West & Associates (MWW) dated March 19, 2008. MWW modeled a weathered claystone/sandstone unit with strength parameters consisting of an internal friction angle of 10.5 degrees and cohesion of 100 psf. These strength properties appear to be applied to a displaced, failed mass in their analysis and were based on back-analysis of a previous slope failure. MWW also ran direct shear testing on two saw-cut specimen that exhibited strengths similar to those stated above. We believe these strength values were used to model residual values. During our investigation we did not observe any indications that the weathered claystone unit we encountered has been disturbed or displaced via slope movements and do not believe residual strengths have developed within the weather claystone unit. To be conservative, we preformed analyses considering these properties for any weathered claystone encountered towards the bottom of the slope, like MWW, to evaluate stability. Additionally, we previously conducted direct shear testing on a sample of the weathered claystone during our investigation for the associated roadway extension (Project No. DN52,378-115-L2, dated November 13, 2025). Results indicated a peak internal friction angle of 17 degrees and a peak cohesion of 6,070 psf. In our analysis, we also modeled this unit with an internal friction angle of 16 degrees and a cohesion of 395 psf which we believe to be more appropriate for the upper weathered claystone encountered in our investigation, which is also consistent with MWW's approach in their investigation.

- CTL states (page 9), "We identified two main debris flow channels near the central and eastern portions of the proposed road alignment near TH-4 and TH-6 (fig. 5). The flow should be diverted away from the proposed alignment in these areas." These areas correspond to Sta 23+25 and to the section between Sta 37+00 and 39+00 along the roadway extension. A drainage easement is noted in the construction plans near Sta 23+25, and a storm crossing near Sta 37+00 and 38+00, where about 30 feet of fill is planned (Construction Plans – Hillcamp Trail Profile (STA 31+00–43+00, Sheet 10 of 44). CTL states, "A sub-fill drain is recommended along the bottom of existing drainages where more than about fifteen feet of site grading fill is planned or in existing drainages that are expected to have periodic flow of collected surface water." CGS recommends that the final design explicitly demonstrate how drainage diversion and sub-fill drains will be implemented at these locations, and that their design, redundancy, outlet protection, and long-term performance are adequate to prevent saturation of fill and underlying slope materials and to maintain slope stability for the life of the roadway. We agree with CTL's

recommendation for “re-routing the drainages to avoid installation of sub-fill drains below the proposed road alignment.”

CTL|T Response: It is not feasible for the drainageways to be rerouted. Doing so would impact the historical drainage patterns of the area and cause a significant amount of additional disturbance to the hillside. The project seeks to preserve the drainageways in their historical configurations while utilizing engineering solutions to provide long term stability to the roadway and associated slopes. These include the following: installation of curb and gutter which will organize all flows within the roadway and discharge them in to historical locations, sub-fill drains will be installed per Geotech recommendations, drainage swales will be lined with TRM, rip-rap will be installed on the upstream and downstream storm sewer discharge locations, low-tail water basins will be utilized to dissipate velocities and prevent erosion, and all slopes will be designed to a maximum of 3:1 and will be stabilized with vegetation for long term stability.
During construction the Geotech benching recommendations will be adhered to.
Minimal landscaping will be installed as part of the project and only native species will be utilized. This will require minimal temporary drip irrigation that will not comprise the integrity of the roadway or slopes providing long term stability.

Pedestrian Bridge Report

- Retaining walls associated with the pedestrian bridge over Hillcamp Trail were evaluated by CTL in their November 20, 2025, geotechnical investigation. Our comments regarding the input parameters for the slope stability analysis along the roadway extension of Hillcamp Trail are also relevant for the slope stability analysis associated with the pedestrian bridge retaining wall.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a report dated March 26, 2026 (DN52,378-125-R1R).

Summary and Recommendations

To adequately address the identified geologic hazards and to support acceptance of the roadway as a public facility, CGS recommends that the City require the following prior to final plat approval and/or construction:

- Design-level geotechnical investigation aligned with the final roadway alignment, grading limits, and retaining wall geometry.
- Global and local slope stability analyses, including the effects of retaining walls, roadway fill, and other surcharge loads.
- Water sensitivity analyses that evaluate saturated and perched-water conditions, including potential wetting from altered drainage patterns and utility leaks.
- Evaluation and confirmation of sub-fill drain adequacy and redundancy, including outlet protection, inspection access, and long-term performance as slope-stability controls.
- Temporary construction sequencing and benching plan, including maximum bench heights, geometry, and duration of exposure for interim conditions.
- Independent geotechnical construction observation and testing to verify compliance with design assumptions and geotechnical recommendations.
- Utility risk mitigation and response plan, given the recent slope/retaining wall failure in the adjacent Retreat development associated with a water line break.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R) Our slope stability analyses included global stability analysis for the retaining walls and a water sensitivity analysis. It is the responsibility of the wall designer to perform local slope stability analysis for the walls. A separate design-level pavement investigation will be performed once utilities are installed and site grading is to finished grade. For interim conditions, some of the sections showed lower FOS values (1.3 to 1.4), but we believe these values are acceptable due to the short-term duration of these conditions. Sub-fill drains have been incorporated into the Construction Documents where necessary. The Applicant agrees to work with the to incorporate independent geotechnical construction observation and testing for the project. Risk assessment has been provided to the standard of care typical to similar roadway projects.

CITY OF LONE TREE COMMENTS

The City of Lone Tree provided additional comments on the Preliminary Geotechnical Review Letters, provided by Ground Engineering and Colorado Geotechnical Survey, for the Hillcamp Trail Plat (SB25-0014).

- Please note that a final geotechnical report (not a preliminary report) will be required prior to plat approval.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our slope stability analyses included global stability analysis for the retaining walls and a water sensitivity analysis. It is the responsibility of the wall designer to perform local slope stability analysis for the walls. A separate design-level pavement investigation will be performed once utilities are installed and site grading is to finished grade.

- The slope stability analyses must be expanded to include cross-section evaluation of all proposed retaining walls. This analysis must include an evaluation of global and local stability.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our slope stability analyses included global stability analysis for the retaining walls and a water sensitivity analysis. It is the responsibility of the wall designer to perform local slope stability analysis for the walls. A separate design-level pavement investigation will be performed once utilities are installed and site grading is to finished grade.

- Please revisit the proposed slope stability boring locations for TH-103 and TH-104 and attempt to complete these borings. Should borings in this area be impossible, your revised slope stability analysis must provide supplemental data and/or analyses to address the lack of subsurface data provided for this area.

  CTL|T: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2), report dated March 26, 2026 (DN52,378-125-R1R).

- Provide a specific proposal regarding interim bench-cut conditions that delineates the following items:
    - Temporary cut/maximum bench height;
    - Bench geometry;
    - Duration of exposure for interim conditions; and
    - A sequencing plan for bench-cut conditions.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R. For interim conditions, some of the sections showed lower FOS values (1.3 to 1.4), but we believe these values are acceptable due to the short-term duration of these conditions. For benching, we assumed vertical heights of 4 feet in our analyses. We assume benches will not remain open for more than a day or two. Duration of temporary conditions can be determined after field tests of benching are performed.

- Revise slope stability analyses for the project area to reflect lower cohesion and friction angle values associated with weathered claystone/sandstone (see MWW chart provided as reference on page 4 of the CGS letter). This revision applies to the proposed roadway, the pedestrian bridge, as well as the retaining walls proposed for slope stability.

  CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). We have reviewed the strength parameters used in the “Engineering Geologic Assessment” prepared by Michael W. West & Associates (MWW) dated March 19, 2008. MWW modeled a weathered claystone/sandstone unit with strength parameters consisting of an internal friction angle of 10.5 degrees and cohesion of 100 psf. These strength properties appear to be applied to a displaced, failed mass in their analysis and were based on back-analysis of a previous slope failure. MWW also ran direct shear testing on two saw-cut specimen that exhibited strengths similar to those stated above. We believe these strength values were used to model residual values. During our investigation we did not observe any indications that the weathered claystone unit we encountered has been disturbed or displaced via slope movements and do not believe residual strengths have developed within the weather claystone unit. To be conservative, we preformed analyses considering these properties for any weathered claystone encountered towards the bottom of the slope, like MWW, to evaluate stability. Additionally, we previously conducted direct shear testing on a sample of the weathered claystone during our investigation for the associated roadway extension (Project No. DN52,378-115-L2, dated November 13, 2025). Results indicated a peak internal friction angle of 17 degrees and a peak cohesion of 6,070 psf. In our analysis, we also modeled this unit with an internal friction angle of 16 degrees and a cohesion of 395 psf which we believe to be more appropriate for the upper weathered claystone encountered in our investigation, which is also consistent with MWW’s approach in their investigation. Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

- Provide water-sensitivity analyses that incorporate both saturated and perched-water conditions into the revised slope stability analyses to account for natural drainage and saturation, as well as saturation that may occur from the failure of constructed drainage systems.

CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge

- Revise the civil construction documents and associated geotechnical analyses to include/address the following:

    1. In general (applicable to all construction elements), illustrate how the "critical" recommendations provided in the CTL Geotechnical Report and Slope Stability Evaluation are (1) implemented in the civil construction plans (and GESC plans, as applicable), and (2) provide a proposal for how such plans will be verified and enforced during construction. This proposal must address construction sequencing, temporary cut/bench stability limits, geotechnical observation and testing, and verification of subsurface drainage performance as slope-stability controls. The purpose of this additional information and the construction verification plan is to ensure that slope stability will be maintained throughout the course of construction, as well as for the life of the project (i.e. roadway, retaining walls and bridge). The following items must be included in the civil construction plans and associated construction verification proposal:
        a. Requirements for geotechnical construction observation and testing (note that the City will require this observation and testing to be completed by an independent third party);
        b. Limits on bench heights, bench geometry, and duration of exposure for interim cut slopes with factors of safety less than 1.0;
        c. Confirmation of sub-fill drain design, redundancy, and long-term performance as slope-stability controls rather than solely drainage features; and
        d. Measures addressing the sensitivity of site soils and bedrock to wetting, including potential impacts from drainage system failures or perched groundwater conditions.

        CTL|T Response: These elements have been incorporated into the revised construction plans.

    2. Identify how drainage diversion and sub-fill drains will be implemented at TH-4 and TH-6 (corresponding to Sta 23+25 and sections between Sta 37+00 and 39+00);

        CTL|T Response: Two (2) sub-fill drains have been added to the construction documents near TH-4. It is noted that TH-6, the roadway is in a cut and therefore no sub-fill drain is required.

    3. Specify how the design, redundancy, outlet protection, and long-term performance of these systems will prevent saturation and maintain slope stability for the life of the project.

        a. Note that CGS concurs with the analysis provided by CTL, which recommends that drainages be re-routed "to avoid installation of sub-fill drains below the proposed road alignment."

CTL|T Response: It is not feasible for the drainageways to be rerouted. Doing so would impact the historical drainage patterns of the area and cause a significant amount of additional disturbance to the hillside. The project seeks to preserve the drainageways in their historical configurations while utilizing engineering solutions to provide long term stability to the roadway and associated slopes. These include the following: installation of curb and gutter which will organize all flows within the roadway and discharge them in to historical locations, sub-fill drains will be installed per Geotech recommendations, drainage swales will be lined with TRM, rip-rap will be installed on the upstream and downstream storm sewer discharge locations, low-tail water basins will be utilized to dissipate velocities and prevent erosion, and all slopes will be designed to a maximum of 3:1 and will be stabilized with vegetation for long term stability.
During construction the geotechnical benching recommendations will be adhered to.
Minimal landscaping will be installed as part of the project and only native species will be utilized. This will require minimal temporary drip irrigation that will not comprise the integrity of the roadway or slopes providing long term stability.

4. Identify how global slope stability will be achieved across the roadway extension, to include between the roadway, the retaining walls, the bridge elements, and the subsurface drainage.

   CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

Response to Colorado Geological Survey (CGS) Referral Review

1. Planning staff will require that the additional analysis and coordination between studies and construction documents referenced in the Colorado Geological Survey (CGS) referral comments be addressed. Some of the CGS comments were provided to the applicant (via an email sent by Roshana Floyd to John Connelly on January 22, 2026). However, CGS had requested more information on the adjacent subdivision development (The Retreat), and revised their initial comment letter. A final CGS referral comment letter was provided to the City on January 30, 2026, which has been shared with the applicant along with all other referral comments received.

   Planning staff will require that the following comments from the CGS referral comment letter dated January 30, 2026 be addressed. These comments revise and supersede the preliminary City comments provided in the email on January 22, 2026 referenced above. The CGS referral comments that must be addressed include the following:

   a. A final geotechnical report (not a preliminary report) will be required prior to plat approval.

   b. The following studies and additional information/plans must be provided in your next resubmission:

i. A design-level geotechnical investigation aligned with the final roadway alignment, grading limits, retaining wall geometry, and bridge elements. This investigation MUST include adequate subsurface exploration along the full length of the roadway, to include boring locations for TH-103 and TH-104. If subsurface exploration is not possible the alignment will need to be revisited to ensure geotechnical investigation can be completed for the full project area. Currently the applicant has provided no sub-surface analysis for a majority of the upslope area on the eastern side of the roadway, to include the section of slope where tiered retaining walls in excess of 20' are proposed to be constructed. As CGS noted, this is insufficient to analyze risk and slope stability.
    1. Please note that the current slope stability evaluation/geotechnical investigation report (in the 4th paragraph on Page 5) states "the complex geologic environment makes it difficult to model sub-surface conditions". In addition, the current report (in the "Limitations" section on Page 13) states that "Variations in the subsoil conditions not indicated by our borings are likely". These statements support the CGS concern that the current modeling and estimations are insufficient to analyze risk.

ii. Global and local stability analyses that incorporate all proposed retaining walls, roadway embankments, the bridge, temporary construction conditions, and surcharge loads. These analyses must demonstrate acceptable factors of safety for both interim and long-term conditions. This analysis should reflect lower cohesion and friction angle values associated with the soil materials present on site.

iii. Provide water-sensitivity and soil-strength sensitivity analyses that evaluate saturated and perched-water conditions, including potential wetting from altered drainage patterns, utility leaks, irrigation, and sub-surface drainage performance over the service life of the roadway.

iv. Assessment of the long-term performance of sub-fill drains and drainage diversions in areas of deep fill and concentrated surface flow to confirm continued slope stability.

v. Provide a construction plan that explicitly documents temporary construction sequencing and benching for interim cut slopes with reduced factors of safety to confirm consistency with slope stability analyses. At minimum, the plan must delineate the following items:
    1. Temporary cut/maximum bench height (note that factors of safety less than 1.0 will not be accepted by the City);
    2. Bench geometry;
    3. Duration of exposure for interim conditions; and
    4. A sequencing plan for bench-cut conditions.

vi. Revise the civil construction documents to include the following considerations, as will be analyzed in the required studies and reports noted above:
    1. In general (applicable to all construction elements), illustrate how the "critical" recommendations provided in the CTL Geotechnical Report and Slope Stability Evaluation, as well as the comments addressed in the CGS review letter, are (1) implemented in the civil construction plans (and GESC plans, as applicable), and (2) provide a proposal for how such plans will be verified and en-

forced during construction. This proposal must address construction sequencing, temporary cut/bench stability limits, geotechnical observation and testing, and verification of subsurface drainage performance as slope-stability controls. The purpose of this additional information and the construction verification plan is to ensure that slope stability will be maintained throughout the course of construction, as well as for the life of the project (i.e. roadway, retaining walls and bridge). The following items must be included in the civil construction plans and associated construction verification proposal:

a. Requirements for geotechnical construction observation and testing (note that the City will require this observation and testing to be completed by an independent third party);
b. Limits on bench heights, bench geometry, and duration of exposure for interim cut slopes. Note that factors of safety less than 1.0 will not be accepted by the City;
c. Confirmation of sub-fill drain design, redundancy, and long-term performance as slope-stability controls rather than solely drainage features; and
d. Measures addressing the sensitivity of site soils and bedrock to wetting, including potential impacts from drainage system failures or perched groundwater conditions.

CTL|T Response:

1. a. Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge. A separate design-level pavement investigation will be performed once utilities are installed and site grading is at finished grade.

b. i. Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

ii. Our supplemental investigation contains global stability design analysis that includes retaining walls. However, it is the responsibility of the wall designer to perform local slope stability analysis for the retaining walls.

iii. Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

iv. Sub-fill drains typically operate in the long range condition.

v. GESC Plans showing the sequencing of the project and grading recommendations. The actual means and methods and bench cuts made in the field will be guided by the contractor, RRMD construction management team, and geotechnical engineers in the field.

vi. The Construction Plans have been revised to include geotechnical recommendations. The Applicant team agrees to independent third party testing. The sub-fill drain design is a long-term slope stability measure that is used on similar projects throughout the front range. Various moisture conditions have been evaluated for slope stability.

2. Identify how drainage diversion and sub-fill drains will be implemented at TH-4 and TH-6 (corresponding to Sta 23+25 and sections between Sta 37+00 and 39+00).

   CTL|T Response: Two (2) sub-fill drains have been added to the construction documents near TH-4. It is noted that TH-6, the roadway is in a cut and therefore no sub-fill drain is required.

3. Specify how the design, redundancy, outlet protection, and long-term performance of these systems will prevent saturation and maintain slope stability for the life of the project.
   a. Note that CGS concurs with the analysis provided by CTL, which recommends that drainages be re-routed "to avoid installation of sub-fill drains below the proposed road alignment."

   CTL|T Response: It is not feasible for the drainageways to be rerouted. Doing so would impact the historical drainage patterns of the area and cause a significant amount of additional disturbance to the hillside. The project seeks to preserve the drainageways in their historical configurations while utilizing engineering solutions to provide long term stability to the roadway and associated slopes. These include the following: installation of curb and gutter which will organize all flows within the roadway and discharge them in to historical locations, sub-fill drains will be installed per geotech recommendations, drainage swales will be lined with TRM, rip-rap will be installed on the upstream and downstream storm sewer discharge locations, low-tail water basins will be utilized to dissipate velocities and prevent erosion, and all slopes will be designed to a maximum of 3:1 and will be stabilized with vegetation for long term stability.
   During construction the geotechnical benching recommendations will be adhered to.
   Minimal landscaping will be installed as part of the project and only native species will be utilized. This will require minimal temporary drip irrigation that will not comprise the integrity of the roadway or slopes providing long term stability.

4. Identify how global slope stability will be achieved across the roadway extension, to include between the roadway, the retaining walls, the bridge elements, and the subsurface drainage.

   CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

   c. A utility risk mitigation and response plan that addresses the potential impacts of utility failures (to include drainage system failures) on slope stability.

   CTL|T Response: There are no water lines within the roadway and it is unrealistic to assume that a utility failure would impact the integrity of the roadway.

Slope Stability Evaluation Report

1. In general, applicant responses to prior Planning Division staff comments on the slope stability evaluation report are not acceptable to staff. The applicant must further address issues identified in prior City comments by addressing the CGS referral comments referenced above.

CTL|T Response: Comments from CGS have been addressed with the updated geotechnical studies.

2. In general, references to "recommendations" from other studies/analyses within the construction documents will not be acceptable. Construction and engineering requirements from studies/analyses will be requirements and must be included in construction documents in a manner acceptable to the City to ensure compliance.

   CTL|T Response: The recommendations from the geotechnical report have been incorporated and are well documented in the construction documents. References to reports and studies are provided in the construction documents.

3. Based on the statements in the 4th paragraph on Page 5, a revised geotechnical investigation report and slope stability evaluation will be required to account for new drainage plans/designs.

   CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

4. Verify whether the scope of the slope stability evaluation includes the full scope of the pedestrian bridge location, to include the bridge, bridge abutments, and associated retaining walls. The separate pedestrian bridge Geotechnical Investigation report clearly notes that it is not a slope stability evaluation (see Page 8 and Page 9 of the Pedestrian Bridge Geotechnical Investigation report dated November 20, 2025). If the broader geotechnical investigation report and slope stability evaluation report did not account for the pedestrian bridge area and improvements, one of the two geotechnical investigation reports must be revised to include slope stability analysis of the pedestrian bridge. If the applicant believes this information is already analyzed, provide exact references to the report, including sections and pages, where this is contained.

   CTL|T Response: Slope stability analysis for the pedestrian bridge was included in the November 20, 2025 report. The language referenced on pages 8 and 9 is meant to indicate that slopes beyond the limits of the pedestrian bridge construction were not part of that report. These additional slopes will be included in the current study.

5. This will be further informed by additional analyses required by CGS comments above, but the City will likely not accept 3:1 slopes in this area based on prior evidence of slope instability in this area. The analyses and plans should incorporate a minimum of 4:1 slopes.

   CTL|T Response: Slopes of 3:1 remain proposed and have been analyzed for stability.

6. In the "Fill and Backfill" section on Page 11, report must be revised to explicitly reference the grading plans (by title and date) that were relied upon for developing the Geotechnical Investigation Report.

   CTL|T Response: Updated in our reports.

7. Verify that the sub-fill drainage recommendations stated in the first paragraph on Page 12 have been incorporated into the CDs. Rerouting of drainage to avoid sub-fill drains may require revisions to the drainage plans.

   CTL|T Response: Sub-fill drains have been added to the Construction Documents by JR Engineering as recommended.

8. In Figure 1B, the boring TH-104A within the fire access road for the adjacent subdivision does not provide a comparable analysis to initial boring location TH-104. This results in poor/limited data for Sections B, C, D, and E. This is consistent with CGS referral comments provided, and that the current analysis provides insufficient data to analyze risk and slope stability.

   CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

9. In Figure 2, portions of the proposed roadway corridor indicate bedrock depth between 1 and 7 feet below the surface. The City will not accept blasting as an acceptable construction method in this area. Specificity must be provided on the proposed construction method for the entire roadway corridor, given the shallow bedrock depths.

   CTL|T Response: References to no blasting has been added to the Construction Plans by JR Engineering. Typical excavation methods, including rock ripping, will be utilized for the construction of the roadway.

10. In Figure 3, TH-3 is missing the depth to groundwater measurement. Correct.

    CTL|T Response: Updated in our reports.

11. Given the numerous debris flow hazard areas directly within the proposed roadway alignment, applicant must provide explicit explanation of how these hazards are being addressed in the roadway and drainage plans. Additionally, the Pedestrian Bridge Geotechnical Investigation report (dated November 20, 2025) states that the Hillcamp project “may increase debris flow susceptibility downstream” (see page 8). The applicant must analyze debris flow susceptibility under a full buildout scenario. The current report analyzes this risk under a zero development scenario.

    CTL|T Response: The area may experience small amounts of debris flow within the existing drainages. The design of the drainage system for the project includes the construction low tail water basins and flared end sections upstream of the roadway. This is a revision from the Type C inlets that were previously designed and will allow any small debris to be captured/conveyed across the roadway. RRMD has agreed to provide maintenance to these areas to ensure that they function correctly.
    We anticipate the debris flow in the existing and developed condition to be similar as no detention pond flows will be discharged into the drainageways upstream of the roadway.

12. Figure 6 must be updated to identify a 4:1 maximum slope.

CTL|T Response: Updated in our reports.

13. **Repeat Comment from September 5, 2025 Technical Review Letter**: Page 5 – In the last sentence of the second paragraph on Page 5, it is stated that "If different conditions are encountered, we should be notified to reevaluate our results". Verify at what point this additional boring work and identification of potential different conditions will occur during construction, and provide evidence of where this is addressed in construction documents.

    a. **Additional Comment**: The applicant's response to this prior comment is not acceptable. See additional comments related to the CGS referral letter and the additional subsurface exploration that will be required. On-site observation and mid-construction geotechnical analysis needs must be addressed in a supplemental agreement, which needs to be further discussed and memorialized within the Development Agreement for the overall Hillcamp development (including applications SB25-0014, RG24-0007, SB25-0009, and SB25-0010).

CTL|T Response: A note regarding timing and documenting this has been added to the grading and GESC Plans.

Pedestrian Bridge Geotechnical Investigation Report

1. Update page numbering to address total number of pages in report (26 pages). Page 25 of 24 and Page 26 of 24 must be updated. Verify all other page numbers are correct.

    CTL|T Response: Updated in our report.

2. On Page 25 of 24, the report states that the "recommendations provided are appropriate for about three years". Based on this statement, the report may need to be revised prior to construction.

    CTL|T Response: We can review our report and revise our recommendations, if needed, outside of the three-year timeframe.

3. If pedestrian bridge construction plans change in any way, the associated geotechnical investigation report will need to be updated.

    CTL|T Response: Noted, JR Engineering will send us updated plans and revisions will be made as needed.

4. Verify whether scour protection measures have been incorporated into the CDs. Similar to other comments, provide explicit reference to sheets/details where these construction recommendations are addressed within the CDs. The need for scour protection should be coordinated with debris flow susceptibility analysis (see comments on broader Geotechnical Investigation Report above).

    CTL|T Response: Flows within the drainageway adjacent to the pedestrian bridge are minimal and a turn down wall has been provided along the bottom retaining wall to provide scour protection. This is shown on the detailed grading plans. Due to the development beginning directly upstream from the bridge, debris flow is not anticipated within this area or drainageway.

5. Based on the findings within the Expansive Soil and Bedrock section on Page 10, verify whether the bridge design addresses risk of ground heave and/or settlement that could damage the bridge. Similar to other comments, provide explicit reference to sheets/details where these construction recommendations are addressed within the CDs.

   CTL|T Response: The structural design of the bridge abutments have taken into account the recommendations included in the Ridgegate Mesa Tops Pedestrian Bridge Geotechnical Investigation.

6. In the "Slope Stability Analysis" section on Page 19, report must be revised to explicitly reference the grading and retaining wall plans (by title and date) that were relied upon for developing the Geotechnical Investigation Report.

   CTL|T Response Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge.

7. Consistent with CGS referral comments provided, the City will not accept any Factor of Safety (FOS) values below 1.5 for this analysis, considering this analysis is for a pedestrian bridge. This conflicts with the slope stability analysis results for cross-sections C and D identified on Page 21.

   CTL|T Response: Additional subsurface exploration and slope stability analyses have been performed and results presented in a letter dated March 27, 2026 (DN52,378-125-L2) and report dated March 26, 2026 (DN52,378-125-R1R). Our evaluation included a water sensitivity analysis for each section. Results imply stable slopes for all sections along the roadway alignment and pedestrian bridge with FOS of 1.5 or greater.

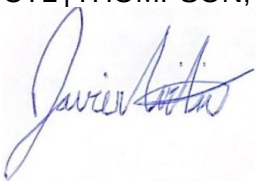
8. Figure 2 must be updated to identify a 4:1 maximum slope.

   CTL|T Response: Updated in our report.

If you have any questions regarding the contents of this letter, please call or email.

Respectfully submitted,

CTL | THOMPSON, INC.



Javier Avitia-Herrera, E.I.T.
Staff Engineer

Reviewed by:

Erin C. Bouchet, P.E, P.G.
Associate, Denver Engineering Manager