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June 26, 2026

Planning and Zoning Commission City of Derby
1 Elizabeth Street
Derby, CT 06418

RE: Proposed Subdivision – Summit Street Extension Summit Street
Derby, Connecticut
Summit Hill, LLC – Applicant

Site and Lot Development Plans

1. Section 3.5.1 of the Subdivision Regulation requires that "Proposed building lots shall be planned to make the best use of natural terrain, to preserve substantial trees, woods and water resources, and to avoid extensive regrading." Many of the proposed lots will require extensive grading of up to 60' of excavation which, in our professional opinion, in no way meets the intent of this regulation.

**R. The site contains steep topography and exposed bedrock which necessarily require grading to create safe building lots, public roads, utilities, and stormwater facilities. The subdivision has been designed to maximize lot yield while preserving substantial open space and maintaining compliance with Derby Subdivision Regulations. Extensive grading alone does not constitute noncompliance with Section 3.5.1.**

2. The plan as proposed, includes several hundred thousand cubic yards of excavation and regrading. Access to this site occurs over two existing streets that are substandard with respect to vertical geometry and stopping site distance, with significant slopes approaching stop-controlled intersections. The use of these roads for the purpose of transporting thousands of dump trucks represents a significant safety risk to the residents of these streets.

**R. Construction traffic impacts are temporary in nature and will be managed through construction sequencing, traffic control measures, and contractor operations. Existing public streets currently serve residential and municipal traffic and remain under municipal jurisdiction. Construction activity is not a basis for denial of a subdivision application.**

3. Neither geotechnical information on the nature of the soil conditions on site, depth to ledge, nor information on the underlying rock has been provided by the applicant. The submitted plans should include the number of cubic yards of material to be removed and the length of time necessary to complete the work. Note that Connecticut General Statutes require that all public improvements within a subdivision must be completed within 5 years or the approval is null and

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void. It is questionable that the extent of rock removal and other general site improvements can be accomplished within the 5-year window.

**R. Preliminary engineering investigations have confirmed that development is feasible. Additional geotechnical investigations and rock assessments can be completed during final design. The submitted erosion control plans anticipate a construction schedule from Spring 2027 through Spring 2030, well within the five-year statutory completion period.**

4. The slope to the rear of Lots 1 through 14 and Lot 33 are as steep as 1' vertical to 1' horizontal, with slopes extending some 30 to 50' in height. These slopes exceed safe grades and will not be able to be stabilized with vegetation and, if they are to remain as exposed rock, suitable protections for rock stabilization, catchment areas, and other safety measures suitably designed by a geotechnical engineer must be in place before these lots can be considered as suitable building lots in accordance with Section 3.5 of the Subdivision Regulations.

**R. Rock slopes and retaining structures will be designed in accordance with accepted engineering practices. Final design may include presplit rock faces, stabilization measures, fencing, benches, or retaining systems where warranted. Detailed geotechnical recommendations can be incorporated prior to building permit or as a condition of approval for house construction.**

5. The proposed open space near Mountain Street and the open space that will include the South Stormwater pond (minimum depth of 16') will include significant graded slopes up to 1' horizontal to 1' vertical. Per Section 3.11 of the Subdivision Regulations, the Commission has the authority to review the suitability of land reserved as open space. "The land reserved shall be of such size, location, shape, topography and general character as to be useful to satisfy the needs determined by the Commission." Based on the graded slopes and the presence of excessively deep stormwater pond, this land cannot safely be used for any reasonable purpose.

**R. Open space areas need not be entirely passive recreation land. Stormwater facilities and conservation areas are commonly included within open space calculations throughout Connecticut. The proposed open space provides environmental, drainage, and conservation benefits consistent with subdivision regulations.**

6. Several of the lots as proposed include utilities crossing the parcel, which must fall within an easement in favor of the City of Derby (City), or some easement in favor of adjoining lots for drainage purposes. Section 3.7.4 of the Subdivision Regulations will require easements on properties including but not limited to Lots 5 through 6, 35, 37, 41, and 43. Drainage easement in favor of the City must be 20' wide, centered on the pipe(s), and drainage easement in favor of adjacent

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properties must be of a suitable size to allow for reasonable maintenance activities

**R. Utility and drainage easements will be provided wherever required by the City Engineer, WPCA, Water Company, or utility providers. Storm lines have been removed from the referenced lots.**

7. Pursuant to Section 195-26.B. of the Zoning Regulations, “The minimum area required for a lot in any district shall not include the area lying within any easement or right-of-way over such lot for a pedestrian way or for the purposes of drainage, water supply, sewerage, the transmission of gas or liquid, telephone, telegraph, electric or other utility purposes.” Several lots that require such easements shall have the easement areas deducted, with remaining land demonstrating compliance with the minimum lot area specified in the zone.

**R. Lots have been revised to account for easement area deductions.**

8. The lots in the P-Zone are shown with single-family residential homes. For a single- family residential home to be permitted in the P-Zone, Section 195-18.B.(9) of the Zoning Regulations requires the lot to comply with the requirements of R-2 zone, which requires a minimum of a 20,000-square-foot lot area and specific setbacks in Section 195-10.E. None of the proposed lots within the P-Zone comply with the requirements of the R-2 zone and, therefore, would not be eligible for a single-family residence in their present configuration.

**R. Lots in the P zone have been revised to R-2 standards.**

9. Lots at intersections require sightline easement in accordance with Section 3.10.1 of the Subdivision Regulations.

**R. Sightline easements Have been adeded.**

10. Lot 14 lacks the required frontage per Section 195-12.E.(1). Lots 19 through 21 must provide dimensions of the lot width at the required front setback to demonstrate compliance with this section.

**R. Lot frontage and lot width requirements have been revised and dimensioned**

11. Lots where side lines converge in such a manner where the lot width is less than 1/3 of the required lot width shall have those areas not included in the lot area calculation. This requirement will impact the lot areas of Lots 42 through 44. See Figure 31 of the Zoning Regulations.

**R. Lots 42 thru 44 will have been configured similarly to lots 34 and 35.**

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12. Lot grading is missing existing and proposed contour elevations throughout the plans, making it difficult to interpret the intent of the grading plans. For example, the grading on Lot 34 appears to show a substantial low point, although it is difficult to understand the proposed grades without contour labels.

**R. Contour labels will be added.**

13. Site grading behind Lots 22 through 26 appears to channelize runoff in a swale that will be directed to existing lots shown as owned by Catherine & Paul Piscitelli and George DeTullio.

**R. The preserved swale is the base of the proposed fill area, which is similar to the existing topology from a ridge line that slopes east towards these off site lots. Proposed grading will ensure runoff is collected and conveyed within the designed storm drainage systems. No uncontrolled discharge onto adjoining properties is proposed.**

14. In several locations, the site grading appears to significantly exceed a 2' vertical to 1' horizontal (2:1) slope, which represents substantial likelihood of slope failure absent engineered slope stabilization measures. Also, slopes greater than 2:1 may be a safety concern and should be protected with fencing.

**R. Permanent slopes will comply with accepted engineering standards. Where slopes exceed conventional limits, rock stabilization, retaining structures, erosion control blankets, or fencing can be provided.**

15. Proposed fill behind Lots 19 and 20 as shown required extensive amounts of fill to construct the house as shown, with a significant fill slope and retaining wall immediately adjacent to the neighboring parcel. It is unclear if the wall construction will require access onto the adjacent lot since wall elevations, geotechnical information, and structural details have not been provided. Also, the remote location of this wall with respect to Lots 19 and 20 would be near impossible for the future land owners of those lots to inspect and maintain without access rights from neighboring parcels. Reconsideration of the proposed grading to the rear of these lots must be considered to avoid a hazardous condition for lot owners and neighboring parcel

**R. The Retaining wall has been revised closer to the proposed houses as needed for maintenance**

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16. Proposed excavation behind Lots 1 through 3 shows a "presplit rock face and/or retaining wall" within 2' of the neighboring property line. No elevations of this feature are shown, nor is there any practical access to this portion of the lot to maintain any feature such as a retaining wall at the top of a 1:1 slope. Maintenance of this unspecified feature will almost certainly require access to the

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neighboring lot and may be a short-term and long-term safety hazard to the adjoining property.

**R. The referenced presplit rock face or retaining wall will be engineered during building permit design phase.**

17. No footing drains, roof drains, driveways, or other lot development features typically included in a subdivision application are shown. Please note that Section 195-55.A. of the Zoning Regulations prohibit parking within the required front yard other than the paved portion of the driveway. Two parking spaces per unit are required.

**R. House locations, driveway layouts, roof leaders, footing drains, and parking arrangements are typically addressed during subsequent zoning and building permit review.**

18. Grading is shown beyond sediment and erosion control measures on Lots 27, 28, 29, and 31.

**R. Erosion controls has been revised as necessary to fully encompass all proposed disturbed areas.**

<u>Stormwater Management –</u>

19. The Drainage Report must be updated to reflect the proposed conditions of the application.

**R. Drainage report has been updated.**

20. The Stormwater Report fundamentally misrepresents the watershed area from this property that contributes to the wetland areas along Coon Hollow Road. The Stormwater Report assumes two drainage areas under existing conditions, one of which is referred to as “Ex Sub Area 1.” This existing drainage area mimics the area of the proposed conditions drainage pattern where the vast majority of the site drainage is collected and conveyed toward Coon Hollow Road. The concerns are that well over half of the area shown as Ex Sub Area 1 presently drains to the east on the opposite side of the ridge line and does not in any way contribute to the existing hydrology to the wetlands and drainage structures downgradient of the wetland areas on Coon Hollow Road. Therefore, the calculated runoff under existing conditions, particularly the contributing area to the wetlands, is not accurate. The result of the stormwater design as proposed will result in a significant increase in the rates of runoff from the site to Coon Hollow Road, which will have a negative impact on the wetland and watercourse and presents an adverse impact on drainage conditions to downgradient drainage systems and properties.

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**R. Drainage report and plans have been revised to include more drainage subarea to demonstrate that the design reduces runoff in all directions.**

21. The proposed conditions in the hydrology analysis do not in any way account for the development of the proposed lots. The report states that, “The roofs and driveways will be controlled by separate individual systems on each lot designed at a later time when the house's final layouts are known.” While the specifics of the final condition of the lots may not be known, the proposed conditions analysis should include a reasonable assumption of future impervious conditions such as single-family homes and duplexes as shown on the plans along with reasonable driveway configurations. Absent that consideration, the proposed conditions hydrology analysis fundamentally misrepresents the final drainage conditions of the development as proposed.

**R. The stormwater management system has been designed to accommodate future development. Individual lots will also include separate stormwater controls at the time of building permit issuance.**

22. The hydrology analysis concludes that an exfiltration rate of 6 inches per hour can be expected in both the southern detention basin and the northern underground galleries. This assumption is not acceptable. The basin as proposed is shown some 20’ to 30’ below grade and almost certainly entirely into bedrock. The gallery system near Mountain Street is up to 43’ into existing grade. In accordance with Chapter 10 of the 2024 Connecticut Department of Energy and Environmental Protection (CTDEEP) Connecticut Stormwater Quality Manual (SWQM), an assumption of infiltration is only appropriate where 3’ or more of vertical separation to groundwater or bedrock must be provided to verify the design infiltration rate. Based on the information provided, the assumption that infiltration can be expected has not been substantiated.

**R. Calculations have been revived to assume no infiltration.**

23. The hydrology analysis under existing conditions includes 300’ of sheet flow over a slope exceeding 20 percent on what appears to be exposed ledge for watershed Ex Sub Area 1. According to the 2000 Connecticut Department of Transportation (CTDOT) Drainage Manual, sheet flow occurs over relatively short distances, rarely more than 300’, but most likely less than 150’. In this case, the sheet flow over such a steep gradient over likely exposed ledge would concentrate well before 300’. Additionally, the time of concentration travel path does not reflect the existing topography where the upper portions of the travel path occur over land that drains towards Summit Street and not Coon Hollow Road. A similar condition occurs for the time of concentration flow path for “Ex Sub Area 2," which in no way reflects the existing contours. The time of concentration shown for both watersheds under existing conditions bears no

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resemblance to the flow path of stormwater, which flows perpendicular to the topography.

**R. Time of concentration calculations were prepared using accepted TR-55 methodologies. TC calculations have been revised to have 100" or less of sheet flow and a minimum 5 min TC as per the guidance documents.**

24. It is unclear how the design engineer assigned curve number (CN) values on the existing and proposed conditions analysis for land use coverages. The report provides some limited calculations on the composite curve numbers, but the CN values and associated land areas are not defined. The values used in the CN calculations for existing and proposed conditions must be based on Hydrologic Soil Group and land use coverage as defined in the Technical Release No. 55 (TR-55) manual.

**R. Curve numbers were assigned using NRCS TR-55 methodology Hydrologic Soil Group: D per Soil maps added to drainage report.**

25. The south pond as designed includes almost no freeboard during the 100-year storm, limiting the factor of safety associated with the design of the basin.

**R. The south basin was designed utilizing accepted hydraulic routing methods. Additional freeboard can be evaluated but is not required at it's the largest design storm.**

26. The design of the south pond does not include many of the recommended and long implemented industry standards for the design. Per the SWQM, the following features are recommended:

**R. Pretreatment measures, outlet structures, planting plans, and maintenance requirements can be further refined during final design. The pond has been revised to a wet bottom pond which is compliant Per SWQM**

27. The site plans should clarify the size, pipe type, and capacity of the existing pipe beneath Mistyvale Lane and determine if it contains suitable capacity to convey both the 10-year storm and the 100-year discharge from the stormwater basin.

**R. Existing drainage infrastructure beneath Mistyvale Lane will have improved capacity from the existing condition as the Proposed system greatly reduces the amount of water going to the existing system.**

28. Drainage computations for the storm drainage piping for the 10-year storm for the remainder of the drainage system have not been provided.

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**R. Storm sewer hydraulic calculations can be submitted as part of final engineering review.**

29. The plans and report seemingly indicate that sidewalks are proposed, although none are shown on the plans.

**R. No Sidewalks are proposed.**

30. The extent of sediment and erosion controls shown on the site plans lacks sufficient detail, phasing, impacts associated with blasting, temporary drainage facilities designed to accommodate the condition where large portions of the site have exposed ledge rock, etc. The site proposes removal of up to 80' of ledge, with over 15 acres of disturbance. As presently designed, at some point during site grading, much of the developed portion of the site will consist of exposed ledge draining down a temporary construction roadway to the wetland areas on Coon Hollow Road. Absent a thorough design of the sediment and erosion control, excessive sedimentation in the wetland areas is likely to occur, which would adversely impact the wetland areas.

**R. We disagree that erosion controls are inadequate. The plans include a detailed erosion and sedimentation control narrative, inspection requirements, stockpile controls, stabilization requirements, sediment traps, drainage controls, and maintenance procedures. Additional measures may be added during final design and construction as warranted by field conditions.**

31. The plans and report provide unclear and very limited attempts to justify how the Stormwater Management Plan as proposed provides for water quality renovation and treatment. The limited calculations shown on Sheet SP-2B are not in compliance with the SWQM, nor does the plan or report conclude the manner in which water quality renovation is provided. Water quality volume calculations must also include reasonable assumptions on the development of the lots with houses and driveways.

**R. Water quality volume calculations are on Sp-2A and SP-2B and in the report The design incorporates stormwater treatment measures and storage facilities. Lots will have their own water quality storage as part of each lots building site plans.**

32. Based on the information provided, we cannot conclude that the stormwater management design includes retention and treatment of stormwater in compliance with Chapter 4 of the SWQM.

**R. The proposed stormwater management system has been designed to satisfy water quality treatment objectives and is demintreraed on Sp-2A, SP-2B and detals in Sp2C**

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33. The stormwater management design does not conform to Standard 2 of the SWQM. Specifically, the SWQM requires a reduction of the 2-year, 24-hour peak flow rate by 50 percent. Also, the applicant's engineer must review the volume of runoff for major storm events and demonstrate that any increases in volume will not result in adverse impacts such as increased flooding downstream.

**R. The submitted analyses demonstrate significant reduction in post-development runoff rates. The 2-year peak discharge is reduced from approximately 9.96 cfs under existing conditions to approximately 1.304 cfs under proposed conditions for the area controlled by the pond. From 9.025 cfs under existing conditions to approximately 0.531 cfs under proposed conditions for the area controlled by the galleries.**

34. National Oceanic and Atmospheric Administration Storm Curve D should be used in the model per the requirements of the 2024 CTDEEP Stormwater Quality Manual.

**R. Storm distributions and rainfall assumptions have been updated per CTDEEP guidance.**

35. The 'South Storm Pond' has no apparent discharge location. If the basin relies solely on the level spreader to act as the discharge, all runoff from this basin will be directed to Mistyvale Lane and City property in a concentrated manner. This represents a significant safety concern for the residents at Summit Commons Condominiums. Also, according to Section 3.7.3 of the Subdivision Regulations, the applicant must secure easements, and discharge rights from the City must be obtained.

**R. The south basin discharge utilizes a controlled outlet structure and level spreader system. Therefore, the Discharge is not Concentrated and for most everyday storm events is zero. Level spreader calculation included on SP-2A**

36. The South Storm Pond System has no apparent means of vehicular access to the pond for long-term maintenance. There seems to be an intent to provide such access, although any meaningful site improvements ends at Lot 14.

**R. Yes, Lot 14 and the Open Space area.**

37. The design of the stormwater management system, while outside of the regulated upland review area of the offsite wetlands, will result in runoff to the offsite resource. Based on our review, those systems are not adequate. Consequently, it is logical to conclude that there will be adverse impacts to the wetland systems unless substantial changes to the design plans are considered.

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**R. The stormwater system was specifically designed to reduce runoff impacts and protect downstream resources. No evidence has been presented demonstrating adverse wetland impacts.**

38. The 'North Storm Gallery System' will be exposed on the northwest corner of the system and is shown just into Lot 32. This system will also concentrate runoff immediately upgradient of an unspecified rock face/retaining wall near the proposed Mountain Street extension and will also be upgradient of #62 Mountain Street and a retaining wall on #62 Mountain Street. This system will result in hydraulic loading and stormwater breakouts on the proposed street and possibly the abutting property.

**R. The north gallery system has been designed with controlled discharge and storage features. At 40 feet away, impacts are unlikely. Additional geotechnical review can be performed during final design if requested.**

39. The proposed storm drainage system includes a series of unlabeled pipes and structures in the vicinity of Lots 14 and 16 off Summit Street Extension. The details of this storm drainage system must be provided. Additionally, the off-road drainage system coming through the driveway of Lot 14 includes several structures (#s 277, 265, 273, 264) with limited function as inlet structures. Many of these structures lack inverts or top of grate elevation.

**R. Revised plans identify numerous drainage structures, pipe sizes, invert elevations, and storm drainage facilities. Additional labeling has been added as requested.**

40. The south stormwater pond included extensive grading on what is shown as a 20' easement in favor of Summit Commons Condominiums. It is unclear from the plans if this grading will have a negative impact on the unspecified easement.

**R. No evidence has been provided demonstrating adverse impacts to existing rights.**

<u>Roads</u>

41. Section 3.6.2 requires that "Street should in general follow the contour of the land and should have a location and grade which preserved natural terrain, substantial trees, and other natural features…" The application as proposed includes excavation of up to 86', with the majority of Summit Street Extension requiring in excess of 30' of excavation. In our professional opinion, the road layout in no way meets the intent of this regulation.

**R. The roadway alignment reflects engineering constraints associated with existing topography, property ownership, and access requirements.**

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42. The grading of Summit Street Extension as shown will require grading across the northeast of Summit Commons Condominiums as shown. Grading rights will need to be obtained from the condominium to construct the road as proposed.

**R. Any required grading rights will be obtained prior to construction if required.**

43. The plans show a roadway connection across what appears to be an unimproved right- of-way to improved portions of Mountain Street. The existing unimproved right-of-way is 45' wide, which does not meet the City requirement for an improved right-of-way of 50'. This right-of-way, therefore, cannot be improved to public street standards for a new roadway.

**R. The March 12, 2026 Alternate Access Plan was specifically prepared to address roadway connection concerns at Mountain Street. The revised design substantially improves the feasibility of the connection and demonstrates that safe access can be achieved.**

44. The extensions of Mountain Street and Summit Street meet at a 90-degree intersection, with grades exceeding 10 percent, which not only exceed the allowable grades in a roadway, but it does not nearly meet the minimum alignment standards found in Section 3.6.12 of the Subdivision Regulations. If the applicant wishes to use this alignment, this should be considered an intersection with grades at the intersection set appropriately for stopped vehicles, not exceeding 5 percent with vertical transitions beyond the intersection to steeper proposed grades.

**R. The area is not intended as an intersection,**

45. The submitted documents do not include a number of items required in Administrative Policy #1 in the Subdivision Regulations including but not limited to B-4, B-8, B-9, B-10, B-14, B-16, C-4, C-12, C-13, D-2 (road cross sections), D-3, and D-5.

**R. These are administrative completeness items rather than substantive engineering deficiencies.**

46. The proposed roadway profiles and stationing does not reflect the present layout, nor do they follow the proposed grades shown on Sheets SP-2A and 2B. Stationing and road grades must match at a minimum so that a reasonable review can occur. No profiles are included for Mountain Street extension, and it appears that roadway stationing elsewhere is based on a subdivision layout that mimics the application submitted in 2025. The profiles sheets are largely unintelligible with numerous drafting overwrites, missing or incomplete utility information, etc.Vertical curves must provide a safe stopping site distance of 200'



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per Section 3.6.10 of the Subdivision Regulations. Vertical curves meeting this standard must be shown for transitions at Summit Street extension and for sag and crest vertical curves in accordance with the Connecticut Highway Design Manual. Vertical curves on proposed streets do not meet the required stopping sight standard.

**R. Profile sheets and roadway stationing have been updated for consistency with revised plans.**

Sewer and Water Utilities

47. Proposed sanitary sewer design is not included as part of this application. No elevations, sizing, laterals, or any other information as to how the lots may be served by sanitary sewer is provided. It is not clear if the applicant has approached the Derby Water Pollution Control Authority for approval of this plan. There is no way to determine if the lots can be served by sanitary sewers at this time.

**R. Sewer design will be submitted and reviewed by the Derby WPCA as part of final utility design. Availability of public sewer service is not in question.**

48. The applicant has not provided any indication that this site can reasonably be served by public water. The proposed development includes land that is significantly higher than adjacent streets, and thus far, nothing has been submitted by the applicant showing the location or size of water laterals, water mains, fire hydrants, gate valves, etc., nor has the applicant provided any information on available water pressure and flow available for firefighting purposes. At this time, there is no information to confirm if the lots are able to be served by public water.

**R. Public water service, fire protection, hydrant spacing, and water main design will be reviewed and approved by the appropriate water utility prior to construction.**

Respectfully submitted,

Manuel J. Silva, P.E.
Rose Tiso & Company, LLC
Licensed Professional Engineer

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