GRANITE ENGINEERING, LLC
civil engineering ● land planning ● municipal services

August 11, 2025

City of Keene
Community Development Department – Planning and Zoning
3 Washington Street
Keene, New Hampshire 03431

RE: G2 Holdings, LLC
Tax Map 215 Lots 7 & 8
21 & 57 Route 9, Keene, NH
GE Project No. 2302011

Dear Ms. Fortson,

We are in receipt of a consultant review report, recieved June 5, 2025, relative to the review of the Earth Excavation Permit application, PB-2024-20, for the G2 Holdings, LLC project located at 21 & 57 Route 9. In addition to responses to your comments, please find the following material in support of the referenced project:

- Three (3) Copies of the Stormwater Management Report
- Three (3) Copies of the revised plans (22" x 34")
- Digital submission of the updated materials

In response to the comments made by Fieldstone Land Consultants, PLLC, we offer the following explanations and/or responses:

Section 25 Earth Excavation Permit:

2. Part of this comment does also include surface water impacts as it relates to the Stormwater Management Report. Fieldstone has reviewed this revised report and we do not believe that the revised report accurately portrays the project under the post-conditions. Currently many of the subcatchment areas do not include impervious areas or include small amounts of impervious areas. This project will be a bedrock mining operation and as such there will be exposed vertical ledge faces and the restoration will consist of bedrock covered with loam and seeded in many areas. In HydroCAD, a shallow ledge area should be modeled using a subcatchment with a high runoff curve number (CN) and a suitable time of concentration (Tc). The CN should reflect the shallow ledge's limited permeability, potentially using a CN value between 80 and 90. This in our opinion would more accurately represent the post-construction conditions and associated stormwater runoff.

A revised stormwater management report has been provided which includes modeling the disturbed areas within the gravel operation with a high CN value of 80, modeled as >75% Grass Cover, Good, HSG D. These soils have a high runoff potential, very low infiltration rates when thoroughly wetted, and consist chiefly of clay soils with a high swelling potential, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very low rate of water transmission (0-0.05 in/hr).

4. Section 25.3.3: The applicant's engineer has acknowledged that there is a conflict in the data provided but believes that the information submitted for Phase 1 by TFMoran likely does not accurately represent the conditions due to observed surface water in proximity to the well and therefore may be an anomaly. They have further stated that excavation within the groundwater is not permitted by MSHA and as such operation would cease at that time if groundwater was in fact encountered. They have also stated that the proposed stormwater features in this area are critical to the design of the site. We would recommend that further testing be performed in this area to support the current design or third-party inspection of this area be performed during construction to verify that groundwater is not present. If groundwater is encountered this could significantly modify the proposal for the project and any associated changes would require local review and approvals.

   One monitoring well and four additional bedrock wells we drilled to determine potential groundwater depths. Those results can be found on the Monitoring Plan, and are as follows:

   MW- 9 (9-feet deep) Dry
   BRW-9 (50-feet deep) SWL 6.40 BG
   BRW-10 (85-feet deep) SWL 25.5 BG
   BRW-11 (85-feet deep) SWL 41.43 BG
   BRW-12 (90-feet deep) SWL 51.82 BG

   The proposed pit floor in period 8 has been raised to provide the required 6' separation to excavation above the water table. The proposed pit floor in period 1, as well as the sedimentation basin (#7) have also been raised to provide the 6' separation from the water table.

6. Section 25.3.4.A.2: The water table drops 22+/- feet between SLR10 and SLR11 and it is a relatively short distance between these two locations. We would recommend an additional test site between the two locations to ensure adequate separation to seasonal high water. This stormwater management area is critical to the design and operation of this site. This additional testing could be done between phases as a condition of approval should the Board feel comfortable with this recommendation.

See response to #4 above.

11. Section 25.3.7: Fieldstone has reviewed this revised report and appreciates the additional information. As mentioned previously in this letter we do not believe that the revised report accurately portrays the project under the post-conditions due to the nature of the project. Currently many of the subcatchment areas do not include impervious areas or include small amounts of impervious areas. This project will be a bedrock mining operation and as such there will be exposed vertical ledge faces and the restoration will consist of bedrock covered with loam and seeded in many areas. In HydroCAD, a shallow ledge area should be modeled using a subcatchment with a high runoff curve number (CN) and a suitable time of concentration (Tc). The CN should reflect the shallow ledge's limited permeability, potentially using a CN value between 80 and 90. This in our opinion would more accurately represent the post-construction conditions and associated stormwater runoff.

See response to #2 above

Plan Review – General Review Comments:

10. Sheet 10 of 22 – The water table dropping 22+/- feet in this short distance is of concern. We would recommend an additional test site between the two locations to ensure adequate separation to seasonal high water. This stormwater management area is critical to the design and operation of this site. This additional testing could be done between phases as a condition of approval should the Board feel comfortable with this recommendation.

See response to #4 above.

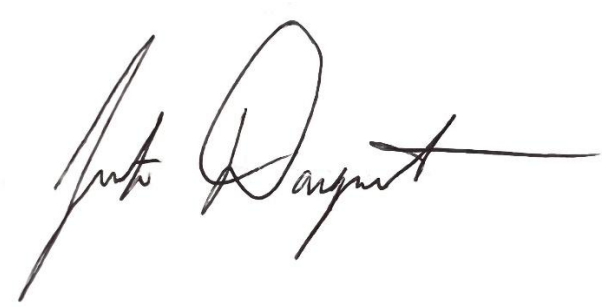
13. This response implies that these areas have been addressed or that the issues are not the responsibility of the owner. Staff should determine if they are satisfied with this response. The last topic appears to be an existing erosion problem that is ongoing and should in our opinion be better understood and addressed. The erosion and failure could result in downstream and environmental impacts if not addressed. We believe further understanding, evaluation and recommendations should be provided as it relates to this.

Although there is an existing stream on the adjacent property that has experienced historical erosion issues, our proposed project is located in a separate watershed. A perennial stream runs between the two sites and serves as a clear hydrologic divide. As such, any surface water generated by our project will not contribute to the flow or erosion concerns associated with the neighboring stream. Based on this separation, as well as the fact the

gravel operation is self contained, we do not anticipate any impact from our development on the existing erosion issues off-site.

We trust the noted plan revisions and/or explanations will adequately address the conditions listed above. Should you have any further questions or comments, please do not hesitate to contact this office.

Best Regards,



Justin Daigneault
Project Manager