

**From:** [Josh Wheeler](#)  
**To:** [Christina Robertson-Gardiner](#)  
**Subject:** FW: Response to City Questions from Josh Wheeler and John Lewis  
**Date:** Thursday, January 2, 2020 8:16:57 AM  
**Attachments:** [image001.png](#)

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This should be made part of the record. Thank you.

Josh Wheeler, PE  
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City of Oregon City  
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**From:** Brian Lee <brianl@paceengrs.com>  
**Sent:** Monday, December 30, 2019 2:24 PM  
**To:** Josh Wheeler <jwheeler@orc.org>; John M. Lewis <jmlewis@orc.org>  
**Cc:** David Poulson <davep@paceengrs.com>; Hossaini, Kelly <Kelly.Hossaini@millernash.com>; Jennifer Glueck <Jenniferg@paceengrs.com>; Jamison Luther <jamisonluther@gmail.com>; Erik Hedberg <ehedberg@geodesigninc.com>; Jeff Tucker <jtucker@geodesigninc.com>; Erick Staley <estaley@geodesigninc.com>  
**Subject:** Response to City Questions from Josh Wheeler and John Lewis

Josh and John,

Following the Council Briefing on December 4th, City staff requested clarification on a few points. Please see our responses below:

**Condition 7:** The development shall record a “Dewatering System Operation and Maintenance” covenant for continued maintenance and operation of the dewatering system proposed by the development. Said covenant shall run with the land bind current and subsequent owners of the property to maintain and operate a dewatering system and grant the city the right to enter the subject property to inspect and make certain repairs, or perform certain maintenance procedures on the dewatering facilities when such repairs or maintenance have not been performed by the property owner; and promises to reimburse the city for the cost should the city perform such repairs or maintenance. The covenant shall run with the land and shall be binding upon subsequent owners of the property. All terms of the covenant shall be reviewed and approved by the City prior to recording of the covenant. (DS)

**RESPONSE:**

The owner will provide a recorded Dewatering System Operation and Maintenance covenant for the maintenance and operation of the dewatering system. The covenant is a legal document that will be prepared by the owner’s lawyer and shall comply with all of the City’s requirements as requested above. The covenant shall state the following:

- Current and subsequent owner/s of the property shall be responsible for maintenance and operation of the dewatering system;
- Provide access to the property to inspect and conduct repairs;
- The owner shall provide an annual report of the dewatering system to the City of Oregon City Public Works department;

- Shall reference the Dewatering System Operation and Maintenance Plan (OMP), prepared by GeoDesign, Inc. (geotechnical engineers);
- Provide contact information for the dewatering-system contractor (currently Glacier Drilling & Dewatering) recommended to perform the operation and maintenance of the system;
- Provide a dewatering system monitoring and maintenance schedule;
- Statement to “provide continuous and uninterrupted electrical power adequate to operate the dewatering system” should a natural disaster/hazard occur (also stated in GeoDesign’s OMP) by providing a backup generator or City approved equal;
- Statement of providing the means necessary for continuous monitoring of the pump operation. The monitoring system shall incorporate alarm capabilities to notify the current or subsequent owners of potential operational issues;
- Current and subsequent owners shall be responsible for replacement/repair of all components of the dewatering system in the event of failure in a timely manner.

**Condition 11:** Structural fill proposed for the development shall conform to the recommendations provided by the applicant’s geotechnical engineer, who shall observe placement of the fill and certify, in writing, that the structural fill used on the site meets the provided design specifications and is placed as designed.

**RESPONSE:**

GeoDesign provided recommendations for structural fill in the June 28, 2019, “Response to City of Oregon City’s Geotechnical Review Comments” for the Geologic Hazards Development Permit. These include descriptions of acceptable fill materials and compaction criteria. GeoDesign will be retained by the applicant to observe excavation, fill placement, and subgrade preparation for the proposed site repairs and improvements. Subsurface conditions observed during construction will be compared with those encountered during the subsurface explorations. If subsurface conditions differing from those described in the geotechnical reports are noted during the course of excavation and construction, re-evaluation by GeoDesign may be necessary, including providing additional geotechnical design and recommendations to address the observed changes. Site observations and recommendations will be documented in field reports distributed to the client and appropriate City of Oregon City departments. Field reports will indicate if the observed construction is completed in general accordance with the project geotechnical recommendations or if work should be corrected or adjusted to bring the construction back into compliance. Frequency of the field reports will depend on any structural fill placed on the site, and the owner shall require the contractor placing the fill to contact the GeoDesign representative prior to any fill placement.

**Condition 12:** Geotechnical recommendations for modular block retaining walls up to three feet high were provided by the applicant’s geotechnical consultant. Additional engineering and design shall be provided for walls that don’t meet the assumptions provided by the geotechnical consultant.

**RESPONSE:**

If retaining walls other than gravity walls less than three feet in height are required for site development, GeoDesign will be retained to provide additional geotechnical engineering design and recommendations.

**Condition 17:** All new service utilities shall be placed underground and under roadbeds where

practicable. Existing utilities to be abandoned must be abandoned per the geotechnical engineers' recommendations. Proposed methods for removal or abandonment of damaged utilities shall be submitted to the City for approval. Additional minor slope movement may occur even with the proposed mitigation and the additional movement is likely to concentrate in the area of previous movement and scarps. Therefore, the applicant shall provide plans for review by the city showing protection of underground utilities as recommended by the geotechnical engineer of record.

**RESPONSE:**

GeoDesign provided general recommendations for abandoning old utilities in the June 28, 2019 "Response to City of Oregon City's Geotechnical Review Comments" for the Geologic Hazards Development Permit. Specifically, GeoDesign recommends that abandoned utility lines left in place should be filled with grout or other suitable flowable backfill. Utility line abandonment should be conducted by qualified contractors, who will develop appropriate, utility-specific means and methods for backfilling old utilities encountered during construction. GeoDesign will document utility abandonment activities as part of their construction observation. Construction observations shall be conducted during any activity that consists of removal/repair/installing of underground utilities.

**Condition 18:** The geotechnical engineer record shall observe all excavations and geologic conditions exposed during construction and document that the subsurface conditions are consistent with the assumptions made as part of their geotechnical evaluation/investigation. If the conditions are different than assumed in the preliminary report, the effect of the new observations shall be evaluated, and mitigation provided as required. Additional geologic hazards review may be required at the City's discretion.

**RESPONSE:**

GeoDesign will be retained by the applicant to observe excavation, fill placement, and subgrade preparation for the proposed site repairs and improvements. Subsurface conditions observed during construction will be compared with those encountered during the subsurface explorations. If subsurface conditions differing from those described in the geotechnical reports are noted during the course of excavation and construction, re-evaluation by GeoDesign may be necessary, including providing additional geotechnical design and recommendations to address the observed changes. Site observations and recommendations will be documented in field reports distributed to the client and appropriate City of Oregon City departments. Field reports will indicate if the observed construction is completed in general accordance with the project geotechnical recommendations or if work should be corrected or adjusted to bring the construction back into compliance. Frequency of the field reports will depend on the progress of construction, and the owner shall require the contractor to contact the GeoDesign representative to coordinate construction-observation activities with their work.

**Condition 19:** The applicant shall retain the services of a licensed geotechnical engineer to conduct inspections prior to and during construction activities which involve removal or addition of vegetation, building structures, retaining walls or earth. The geotechnical engineer shall provide a summary letter stating that the soils- and foundation-related project elements were accomplished in substantial conformance with their recommendations.

**RESPONSE:**

GeoDesign will be retained by the applicant to observe excavation, fill placement, and subgrade

preparation for the proposed site repairs and improvements. Subsurface conditions observed during construction will be compared with those encountered during the subsurface explorations. If subsurface conditions differing from those described in the geotechnical reports are noted during the course of excavation and construction, re-evaluation by GeoDesign may be necessary, including providing additional geotechnical design and recommendations to address the observed changes. Site observations and recommendations will be documented in field reports distributed to the client and appropriate City of Oregon City departments. Field reports will indicate if the observed construction is completed in general accordance with the project geotechnical recommendations or if work should be corrected or adjusted to bring the construction back into compliance. Frequency of the field reports will depend on City required observations for construction activity (ie. Removal or addition of vegetation, building structures, retaining walls or earth, placement of fill, etc.).

**Condition 20:** The applicant shall submit waiver of damages, indemnity and hold harmless agreement completed by owners of properties impacted by construction associated with the development. The applicant shall pay all fees associated with processing and recording the document.

**RESPONSE:**

The owner has sent a DRAFT "Declaration of Covenant of Release and Indemnity for Geologic Hazards" to the City of Oregon City via email on December 10, 2019. The owner shall record the document when the City requires.

**Issue:** Covenant over the dewatering system – three monitoring concerns to be considered pump operation, maintaining pressure in the pipe system, hydraulic grade of the ground water.

**RESPONSE:**

As previously commented regarding the covenant in the response for Condition 7, the covenant shall state the responsible entity for the operation, maintenance, and other monitoring of the dewatering system. See response for Condition 7.

**Issue:** Monitoring system reporting and how this might happen. SCADA, spot checking, dial in, annual report.

**RESPONSE:**

GeoDesign discusses the alarms and telemetry system in their OMP. Frequency and details of reporting shall be performed as required by the City. A reporting schedule along with the maintenance and monitoring schedule can be provided as requested.

**Issue:** Environmental – Dewatering the slope – does this have long term impacts on the vegetation on the lower elevations of the slide?

**RESPONSE:**

GeoDesign has estimated the elevation of the lower, forested slope and creek between 175 to 200 feet MSL, based on Google Earth information. The average "dewatered" elevation in the active dewatering wells is 234 feet MSL. The lowest "dewatered" elevation occurs in DW-12 at 221 feet MSL. The water levels in the surrounding soils ought to be slightly higher due to the cones of depression around all wells. Based on the elevation estimate, the lower, forested slope and creek are significantly lower than the dewatered elevations; there still should be some seepage of groundwater to the lower slope below elev 221 down to the creek.

**Issue:** Existing and failed stormwater facility – I think we should get an assessment of this facility and make sure any risks associated with this facility are also part of the project. Not really sure what this might be but let's say an outfall structure that is flowing today but could plug up, back up water and result in damage to surrounding creek or eco system.

**RESPONSE:**

On-site observations by PACE or GeoDesign can be performed to observe the existing and failed stormwater facility to assess potential risks associated with the existing and proposed utilities. Current observation is that the piping and pond are non functional and will be replaced. Surface stormwater runoff has been accounted for on the site and the abandoning of the existing stormwater facility will be performed by leaving in place and filling with grout or other flowable backfill, as recommended by GeoDesign.

Let me know if you have any further questions.

Respectfully Submitted,



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*Our Lake Oswego office has moved! Please note our new location.*

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