

# **Staff Report for Administrative Hillside Review**

Approval

Weber County Planning Division

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Application Inf Application Rea Type of Decisio Applicant: File Number:	quest:	Consideration and action on a Hills Administrative Mike and Cynthia Bigelow HSR 2021-05	ide Review	Application for 8464 E. Spring Park, Eden.		
Property Information Project Area: Zoning: Existing Land Use: Proposed Land Use: Parcel ID:		0.17 Acres Ogden Valley Destination and Recreation Resort (DRR-1) Zone Vacant Residential 23-161-0001				
Adjacent Land	Use					
	idential idential		South: West:	Residential Residential		
Staff Information	on					
Report Presenter: Report Reviewer:		Felix Lleverino flleverino@webercountyutah.gov 801-399-8767 RG				
Applicable Or	dinances	Colore Mary Land Color		the Basel of the second se		

- Title 101 (General Provisions) Section 7 (Definitions)
- Title 104 (Zones) Section 29 (Ogden Valley Destination and Recreation Resort Zone DRR-1)
- Title 108 (Standards) Chapter 14 (Hillside Development)
- Title 108 (Standards) Chapter 22 (Natural Hazard Areas)

# **Development History**

This lot was originally plated as lot 74 R of Summit Eden at Powder Mountain Phase 1C on January 27<sup>th</sup>, 2014 (see **Exhibit A**). On October 7<sup>th</sup>, 2019, the owner recorded an amended plat (see **Exhibit B**) to vacate and replace the designated building envelope from 74R, Summit Eden Phase 1C (now lot 153R).

# **Background and Summary**

The applicant is requesting approval of a Hillside Review for lot 153R of the Summit Eden Phase 1C, Amendment 9 Subdivision (see **Exhibit B**). All but one lot within this subdivision were platted as restricted lots due to their steep slopes. This included Lot 153R because a buildable area could not be established given the slope of the lot and potential geologic hazards.

The applicant has submitted a geotechnical and geologic hazards investigation prepared by IGES. The hazards evaluation cites the following levels of a hazard:

Landslides/Mass Movement/Slope Stability:	Low to Moderate Risk
Rockfall:	Low Risk
Surface-Fault Rupture and Earthquake-Related Hazards:	Low Risk
Liquefaction:	Low Risk
Debris-Flows and Flooding Hazards:	Low Risk
Shallow Groundwater:	No specified

 Regarding the low to moderate risk for Landslides/Mass Movement/Slope Stability, and the unspecified risk from Shallow Groundwater, the hazards report explains the following:

Based on the results of the field observations, literature review, and slope stability analysis, the subsurface conditions are considered suitable for the proposed development provided that the recommendation presented in this report are incorporated into the design and construction of the project. Because landslide deposits are noted near the property, an IGES engineering geologist or geotechnical engineer should observe the foundation excavation to assess the absence (or presence) of landslide-induces shearing.

The shallow spring observed may be a seasonal condition, and/or can be appropriately mitigated with adequate draining if found to be a perennial condition. Given the nature of the shallow groundwater conditions, foundation drains should be installed across every planned subgrade level. Effort should be made to limit the introduction of water into the subsurface near the proposed residence. Appropriate grading and drainage away from the home and xeriscape or natural landscaping will assist in reducing the risk of land sliding.

In conclusion, the IGES report indicates "the subsurface conditions are considered suitable for the proposed development provided that the recommendations presented in the report are incorporated into the design and construction of the project."

As such, the planning staff recommends that all recommendations within the geotechnical and geologic hazards report be followed as this site is developed. Before receiving a certificate of occupancy, the applicant will need to provide a letter from the geologist and geotechnical engineer, stating that all recommendations were followed as the house was constructed.

The following section is staff's review of the hillside review requirements of Weber County Land Use Code 108-14 Hillside Development Review Procedure and Standards.

# Planning Division Review

The Planning Division Staff has determined that, in compliance with review agency conditions, the requirements and standards provided by the Hillside Review Chapter have been met for the excavation and construction of the dwelling. The following submittals were required:

- 1. Engineered Plans (see Exhibit C)
- 2. Geotechnical and Geologic Hazard Investigation (see Exhibit E).
- 3. Topographical site Plan (see Exhibit C)
- 4. Landscape details (this lot will not have landscaping nor irrigation)

# Weber County Hillside Review Board comments

The Weber County Hillside Review Board, on this particular application, made the following comments and conditions:

<u>Weber County Engineering Division</u>: The Engineering Division has reviewed the proposed single-family home and have conditioned their approval on the following:

1. Follow the recommendations of the Geotechnical and Geologic Hazard Investigation prepared by IGES dated June 22, 2018.

Weber Fire District: The Fire Marshall has provided the following comment/condition:

1. This house will need a fire suppression system. A sprinkler system is required. The Weber Fire District requires a \$315.00 impact fee.

<u>Weber County Building Inspection Department</u>: The Building Department has not yet reviewed this single-family home project. However, a detailed review will be conducted of their building plans once submitted for a building permit. All conditions that may be imposed by the Building Department through the Building Permit Process will be applicable and contingent upon this hillside review approval.

<u>Weber-Morgan Health Department</u>: A review from the Health Department is not applicable because this property is served by the Powder Mountain Water and Sewer District.

<u>Weber County Planning Division</u>: The Planning Division recommends approval subject to the applicant complying with all Hillside Review Board requirements and conditions. This recommendation for approval is also subject to the findings and conditions listed below.

# **Planning Division Findings**

Staff recommends approval of HSR 2021-05 subject to all review agency requirements and the following conditions:

- 1. The development of the lot must follow all recommendations outlined in the geotechnical and geologic hazards investigation prepared by IGES.
- 2. A notice of natural hazards must be recorded against the property before a certificate of occupancy is issued for the proposed single-family residence.
- 3. The Weber County Building Official requires that the contractor provide a letter stating that the home was designed following the geologic hazards study and the geotechnical report recommendations.

The recommendation for approval is based on the following findings:

- 1. The application was submitted and has been deemed complete.
- 2. The requirements and standards found in the Hillside Development Review Procedures and Standards Chapter have been met or will be met during the excavation and construction phase of the dwelling.
- 3. The Hillside Review Board members reviewed the application individually and have provided their comments.
- 4. The applicant has met or will meet, as part of the building permit process and/or during the excavation and construction phase of the dwelling, the requirements, and conditions set forth by the Hillside Review Board.

### Administrative Approval

Administrative approval of HSR 2021-05 is hereby granted based upon its compliance with the Weber County Land Use Code. This approval is subject to the requirements of applicable review agencies and is based on the findings listed in this staff report.

Approval: Date of Administrative, Rick Grover

Weber County Planning Director

Exhibits

- A. Summit Eden Phase 1C
- B. Summit Eden Phase 1C Amendment 9
- C. Engineered Building Plans
- D. Site plan
- E. IGES Geotechnical and Geologic Hazard Investigation (select pages)

# Area Map OVERLOOK DR UTANT PASS RD OPPER OREST R 123 SPRING PARK 8569



**Exhibit** A



**Exhibit B** 

# Exhibit C







Intermountain GeoEnvironmental Services, Inc. 12429 South 300 East, Suite 100, Draper, Utah 84120 Phone (801) 748-4044 ~ F: (801) 748-4045 www.igesinc.com

GEOTECHNICAL AND GEOLOGIC HAZARD INVESTIGATION Lot 74R of Summit Eden Phase 1C 8464 E. Spring Park Road Summit Powder Mountain Resort Weber County, Utah

IGES Project No. 02565-001

June 22, 2018

Prepared for:

Mr. Michael Silver



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Prepared for:

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Geotechnical and Geologic Hazard Investigation Lot 74R of Summit Eden Phase 1C 8464 E. Spring Park Road Summit Powder Mountain Resort Weber County, Utah

IGES Project No. 02810-001

Prepared by:



David A. Glass, P.E. Senior Geotechnical Engineer



Peter E. Doumit, P.G., C.P.G. Senior Geologist

IGES, Inc. 12429 South 300 East, Suite 100 Draper, Utah 84120 (801) 748-4044

June 22, 2018

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# 5.0 CONCLUSIONS AND RECOMMENDATIONS

# 5.1 GENERAL CONCLUSIONS

Based on the results of the field observations, literature review, and slope stability analyses, the subsurface conditions are considered suitable for the proposed development provided that the recommendations presented in this report are incorporated into the design and construction of the project.

Supporting data upon which the following conclusions and recommendations are based have been presented in the previous sections of this report. The recommendations presented herein are governed by the physical properties of the earth materials encountered in the subsurface explorations. If subsurface conditions other than those described herein are encountered in conjunction with construction, and/or if design and layout changes are initiated. IGES must be informed so that our recommendations can be reviewed and revised as deemed necessary.

# 5.2 GEOLOGIC CONCLUSIONS AND RECOMMENDATIONS

Based upon the data collected and reviewed as part of the geologic hazard assessment, IGES makes the following conclusions regarding the geological hazards present at the Lot 74R project area:

- The Lot 74R project area does appear to have geological hazards that are capable of adversely impacting the development as currently proposed under the existing conditions, in the form of a shallow underground spring. However, the shallow spring observed may be a seasonal condition, and/or can be appropriately mitigated with adequate draining if found to be a perennial condition.
- Shallow groundwater conditions were observed in the test pit, and groundwater seepage
  was observed emanating from the cut slope on the southern end of the lot during the site
  reconnaissance. Additionally, significant groundwater flow was observed to be entering
  the foundation excavation on the adjacent Lot 75R in May/June of 2018, possibly
  representing a perennial spring. As such, shallow groundwater conditions represent a
  considerable geologic hazard risk to development of the property.
- Though recent geologic mapping shows the site to be located near landslide deposits. no
  evidence of landsliding was observed on the surface or subsurface of the property.
  Therefore, the risk of landslide hazards is considered to be low to moderate, but should not
  be considered zero given the proximity to mapped landslide deposits and existing shallow
  groundwater conditions.
- Earthquake ground shaking may potentially affect all parts of the project area and is considered to pose a moderate risk.

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 Rockfall, surface-fault-rupture, liquefaction, debris-flow, and flooding hazards are considered to be low for the property.

Given the conclusions listed above, IGES makes the following recommendations:

- Given the nature of the shallow groundwater conditions, foundation drains should be installed across every planned subgrade level. Temporary drains may need to be used during construction operations to minimize groundwater seepage onto the foundation excavation. Alternatively, an on-grade structure (no basement) would preclude the need for extensive shallow groundwater mitigation.
- Because landslide deposits are noted near the property, an IGES engineering geologist or geotechnical engineer should observe the foundation excavation to assess the absence (or presence) of landslide-induced shearing.
- Effort should be made to limit the introduction of water into the subsurface near the proposed residence. Appropriate grading and drainage away from the home and xeriscape or natural landscaping will assist in reducing the risk of landsliding.

# 5.3 EARTHWORK

# 5.3.1 General Site Preparation and Grading

Below proposed structures. fills, and man-made improvements, all vegetation, topsoil, debris and undocumented fill (if any) should be removed. Any existing utilities should be re-routed or protected in place. The exposed native soils should then be proof-rolled with heavy rubber-tired equipment such as a scraper or loader\*. Any soft/loose areas identified during proof-rolling should be removed and replaced with structural fill. All excavation bottoms should be observed by an IGES representative during proof-rolling or otherwise prior to placement of engineered fill to evaluate whether soft, loose, or otherwise deleterious earth materials have been removed, and to assess compliance with the recommendations presented in this report.

\*not required where bedrock is exposed in the foundation subgrade

# 5.3.2 Excavations

Soft, loose, or otherwise unsuitable soils beneath structural elements, hardscape or pavements may need to be over-excavated and replaced with structural fill. If over-excavation is required, the excavations should extend one foot laterally for every foot of depth of over-excavation. Excavations should extend laterally at least two feet beyond flatwork, pavements, and slabs-ongrade. Structural fill should consist of granular materials and should be placed and compacted in accordance with the recommendations presented in this report.

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