



IGES[®]

Intermountain GeoEnvironmental Services, Inc.
12429 South 300 East, Suite 100, Draper, Utah 84020
T: (801) 748-4044 ~ F: (801) 748-4045

4153 South Commerce Drive, SLC, UT 84107
T: (801) 270-9400 ~ F: (801) 270-9401

November 14, 2016

Summit Mountain Holding Group, LLC
3632 North Wolf Creek Drive
Eden, Utah 84310
Attn: Mr. Scott Clements

IGES Project No. 01628-018

Subject: Geotechnical and Geologic Hazards Assessment
Units 3 and 4 of the Horizon Neighbourhood Development
Powder Mountain Resort

Reference: IGES, 2016, Geotechnical & Geologic Hazard Investigation, Horizon Neighbourhood Development, Summit Powder Mountain Resort, Weber County, Utah: IGES Project No. 01628-013, dated August 3, 2016.

Mr. Clements:

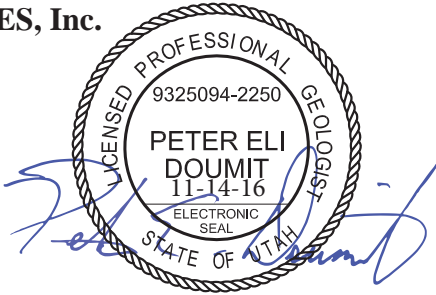
As requested, this letter provides an assessment of the subsurface conditions for the proposed development of Units 3 and 4 within the Horizon Neighbourhood Development at Powder Mountain Resort. Two phases of subsurface investigation were conducted across the Horizon Neighbourhood property as part of the original geologic and geotechnical assessment of the property, which included the excavation of 12 test pits and 3 potholes (IGES, 2016). Geologic hazards in the form of soil creep and shallow landslides were observed in several of the excavations, and the delineation of the geologic hazard area across the site was produced as Plate A-1 of the IGES (2016) report.

The proposed location for Units 3 and 4 of the development is in the southwestern portion of the northwestern half of the Horizon Neighbourhood Development, and located within an area of the property designated as having low risk of geologic hazards (IGES, 2016). At the suggestion of IGES, prior to the commencement of the excavation of foundations for Units 3 and 4, another test pit (TP-13) was excavated north of Unit 4 to assess subsurface conditions between and across Units 3 and 4. No soil creep or evidence of landslides were observed in the test pit, consistent with what was encountered in TP-4, which was excavated near Unit 3. The attached Figure 1 is a log of TP-13, and Figure 2 is a zoomed in portion of the updated version of Plate A-1 of the referenced IGES (2016) report, which shows Units 3 and 4 and includes the TP-13 location.

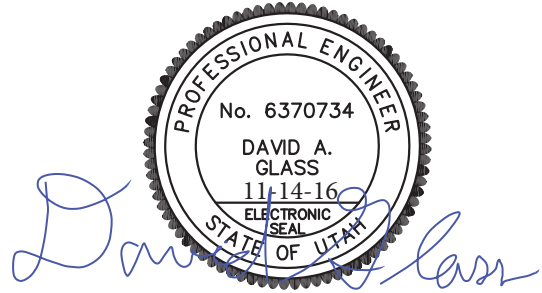
Given the data collected from TP-4 and TP-13, IGES concludes that the geologic hazard risk associated with Units 3 and 4 is low, and that the site is suitable for the development of these two units, provided that the recommendations presented in the IGES (2016) report for the greater Horizon Neighbourhood Development are implemented.

We appreciate the opportunity to provide you with our services. If you have any questions, please contact the undersigned at your convenience at (801) 748-4044.

Respectfully Submitted,
IGES, Inc.



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



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

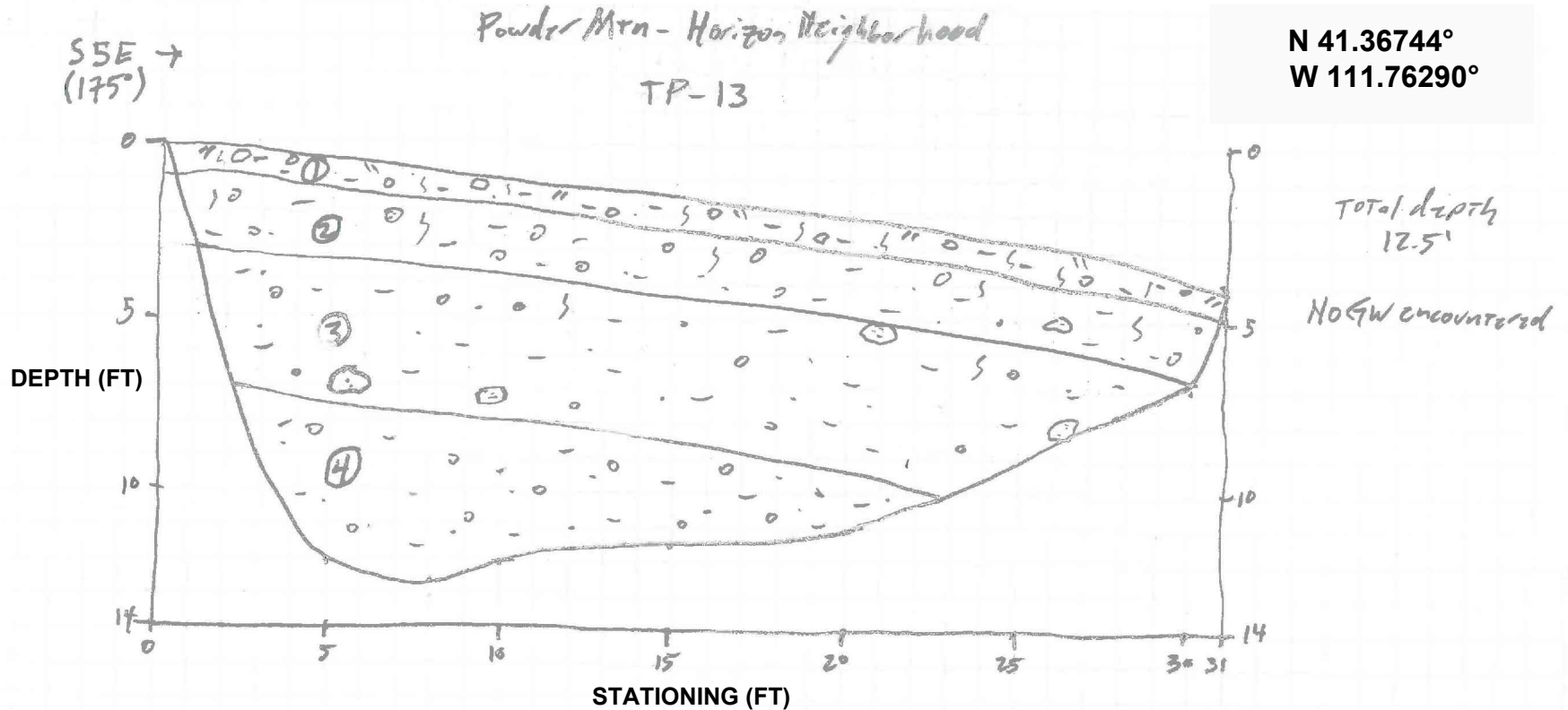
Attachments:

Figure 1: TP-13 Log

Figure 2: Updated Geologic Map Showing TP-13 Location

Project No. 016228-018

Date 11/3/16 by ET
Ckd by PP on 11/3/16



LITHOLOGIC UNIT DESCRIPTIONS:

1. A/B Soil Horizon: ~1' thick; dark yellowish brown (10YR 4/2); sandy lean CLAY with gravel (CL), loose, moist, low plasticity, massive; gravel and larger sized clasts comprise ~30% of unit; clasts entirely subrounded medium gray (N5) quartzite up to 1' diameter, though mode size 2"; abundant plant and tree roots.

2. Loose Colluvium: ~2' thick; dark yellowish brown (10YR 4/2) to moderate reddish brown (10R 4/6); sandy lean CLAY with gravel (CL), loose, moist, low plasticity, massive; gravel and larger sized clasts comprise ~25-30% of unit; clasts entirely subrounded to subangular quartzite as above up to 1.5' in diameter, though mode size 2"; matrix is topsoil; occasional plant and tree roots.

3. Cemented Colluvium: ~4' thick; pale yellowish orange (10YR 8/6) to light brown (5YR 6/4); sandy lean CLAY with gravel (CL), stiff to medium stiff, slightly moist, low to medium plasticity, massive; gravel and larger sized clasts comprise ~35% of unit; clasts entirely subrounded to subangular quartzite as above up to 1' in diameter, though mode size 3"; occasional pinholes up to 1mm diameter; sparse roots; occasional stringers of red sandy clay which run with slope.

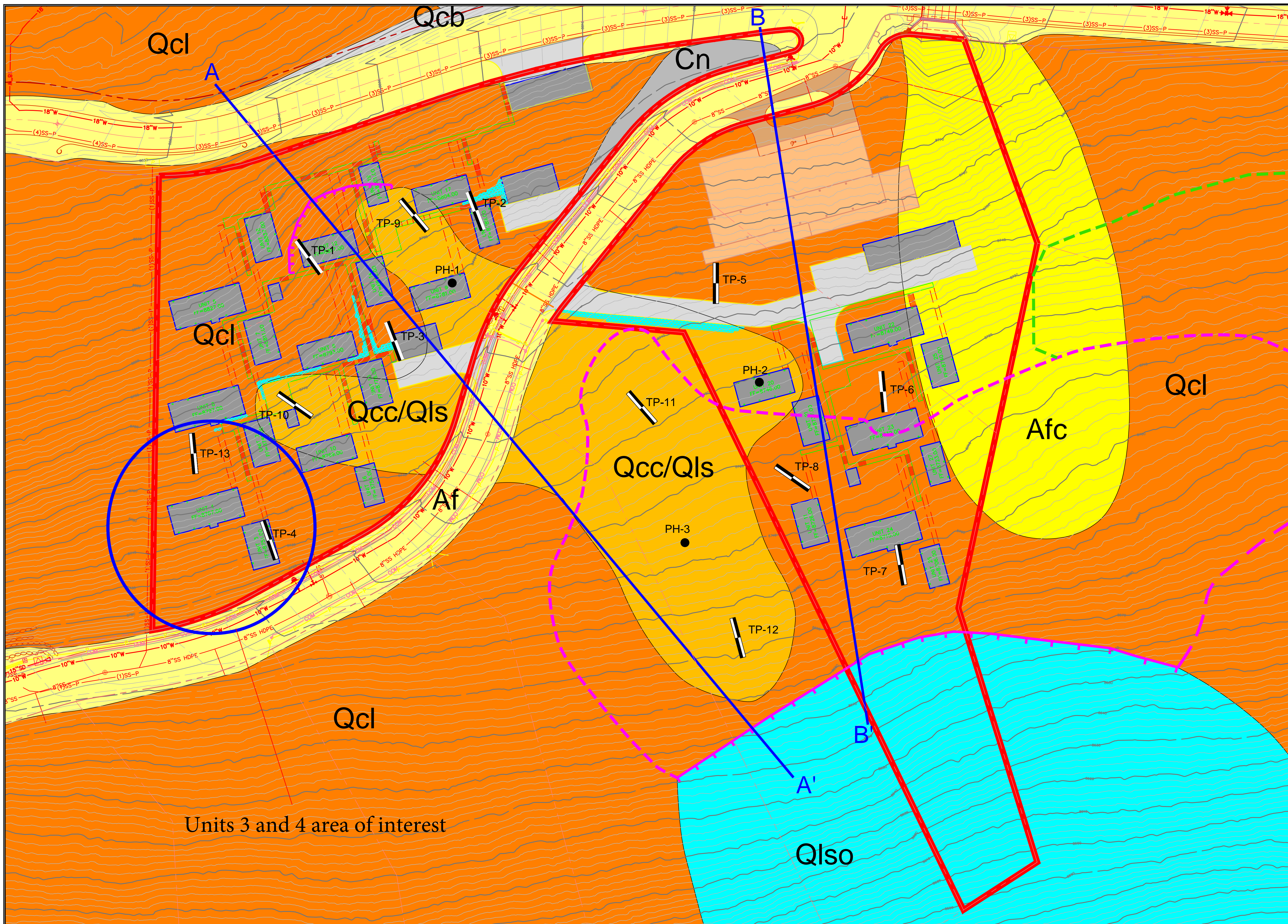
4. Wasatch Fm: > 4' thick; moderate reddish brown (10R 4/6) to dark reddish brown (10R 3/4); sandy fat CLAY with gravel (CH), stiff to very stiff, moist, moderate to high plasticity, massive; gravel and larger sized clasts comprise ~20-25% of unit; clasts entirely subrounded quartzite as above up to 8" in diameter, though mode size 1-2"; sparse pinholes; unit is consistent with Wasatch Fm seen in other test pits.

FIGURE 1 TP-13 LOG

SUMMIT HORIZON NEIGHBOURHOOD
UNITS 3 AND 4
GEOLOGIC HAZARD AND GEOTECH STUDY
POWDER MOUNTAIN RESORT
WEBER COUNTY, UTAH

DATE: 11/14/2016 SCALE: 1"=5'
PROJECT: 016228-018





LEGEND

- HORIZON NEIGHBORHOOD PROPERTY BOUNDARY
- TP-10 TEST PIT LOCATION
- PH-3 POTHOLE LOCATION
- CROSS-SECTION LINE
- LANDSLIDE HEADSCARP
- APPROXIMATE SUBSURFACE PLEISTOCENE LANDSLIDE TRACE
- APPROXIMATE PLEISTOCENE LANDSLIDE TRACE (WESTERN GEOLOGIC, 2012)
- Afc: CURRENT CONSTRUCTION
- Af: ARTIFICIAL FILL (ROADS)
- Qcl: LOOSE COLLUVIUM
- Qcc/Qls: CEMENTED LANDSLIDE COLLUVIUM
- Qcb: BEDROCK COLLUVIUM
- Qlso: PLEISTOCENE LANDSLIDE
- Cn: NOUNAN DOLOMITE

N

0 40' 80'
1" = 40'

FIGURE 2
 UPDATED PLATE A-1 FROM IGES (2016)
 SUMMIT HORIZON NEIGHBOURHOOD
 UNITS 3 AND 4
 GEOLOGIC HAZARD AND GEOTECH STUDY
 POWDER MOUNTAIN RESORT
 WEBER COUNTY, UTAH
 DATE: 11/14/2016 SCALE: 1"=40'
 FILE: 01628-018 REV. 2

Units 3 and 4 area of interest