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128 Market Street
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MEMORANDUM

Date: January 19, 2016

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Rowan Land Capability Challenge; 771 Burgundy Road, Washoe County, NV;
Assessor's Parcel No: 126-271-08; TRPA File No: LCAP2016-0392

Proposed Action: Hearings Officer review and approval of the proposed Land Capability Challenge.

Staff Recommendation: Staff recommends the TRPA Hearings Officer approve this land capability challenge which would change the land capability from Class 1a and 1b to Class 4.

Background: The subject parcel is shown as Class 1a on TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps). The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974) places the majority of the subject parcel within Meeks very stony loamy coarse sand (MSE, 15 to 30% slopes) soil type. The Meeks soil type is deep, well drained and very rocky soil derived from mostly granitic parent material. The soil texture is typically loamy coarse sand. The vicinity of this parcel has a geomorphic mapping of D-2 for Streamcut volcanic flow lands – Headlands lands (moderate hazard lands).

A TRPA land capability verification was conducted for the subject property in 1992 as part of an IPES determination of allowable land coverage (DOAC). This verification identified a broad, northeast-southwest swale as SEZ on the basis of riparian shrubs, forbs and shallow, scattered channels. The remainder of the property was verified as Class 1a (MSE) 15 to 30% slopes. A land capability challenge (LCAP2016-0392) was filed with TRPA on October 13, 2016. At the direction of the owner's planning consultant, Gary R. Taylor, a detailed soil investigation was conducted for this land capability challenge on September 7, 2016 by consulting soil scientist Denny M. Churchill. TRPA's contractor (Terra Science/Phil Scoles) conducted a site visit on Oct. 24, 2016, with the applicant's representative, Gary R. Taylor. The field visit included examination of the same test pits utilized by Denny Churchill, and a walking tour of the property.

Findings: The aspect of the site is generally west to southwest, and slopes range from 18 to 24 percent. The appearance and condition of the property is similar to other residential lots in the upper part of Incline Village. The land in the vicinity of the residence has been partially terraced, graded and/or landscaped (typical for hillside residence). The center of the parcel has a broad swale or hollow that were previously verified as SEZ. The applicant's consulting soil scientist described three backhoe pits, which were located west to northwest and downslope of the existing residence (located in the eastern part of the site). Two pits were positioned on upland

flanking the Class 1b (SEZ) area, while the remaining pit was positioned in the middle of the SEZ area. The backhoe pits were also situated in areas that avoided the existing sewer line, landscaped and previously disturbed areas.

Overall, the site lacks exposed bedrock, but there are surface boulders ranging from 18 to 30 inches across. In the test pits, it was apparent these surface boulders are “floaters” and not extensions of bedrock. The soil consultant’s field data and TRPA contractor’s analysis indicates the soils across the property are deep (greater than 65 inches), with bedrock below that depth. All of the pits lacked a root-restricting layer in the upper 65 to 70 inches, as evident by medium- to coarse-sided roots extending to 50 or more inches, and fine roots extending below 65 inches.

Two soil pits were found to be well drained, with no evidence of seasonal high water table in upper 65 to 70 inches (no redoximorphic features, hence HSG-B). The third pit (located in the area previously verified as SEZ) had iron staining (redoximorphic features) beginning at 53 inches. This makes the soil moderately well drained and seasonal water table not sufficiently close to the 20 to 40 inch range for a secondary SEZ indicator. The vegetation in the broad swale or hollow consists mostly of white fir, Jeffrey pine (young), Scouler’s willow, green leaf manzanita, snowbush, snowberry, currant, bitterbrush, whitethorn, prostrate ceanothus, and mules ears. See photographs in consultant’s report and from TRPA’s contractor in Attachment C. Aside from the willow, the plant community in the broad swale is not typical of an SEZ, but rather an upland.

The field findings are substantially different than the 1992 field observations of willow, elderberry, sedges, and corn lily (false hellebore). These observations also noted the presence of sheetwash and mini-channels (presumably micro-braided channel). During the field visit, no eroded channels were visible in the vicinity of the mapped SEZ. In fact, ground cover by organic debris (pine and fir needles, plus leaves) was good and no indication that organic material had been pushed laterally during intense rain or snow melt events. It is speculated by TRPA contractor that maybe a change in highway drainage above the property may have redirected runoff away from this swale. That is, past runoff could have been redirected to a roadside BMP when the highway was widened or BMPs installed. The offsite hydrology was not investigated, since onsite soil and vegetation conditions did not qualify as SEZ indicators.

Instead of the Meeks soil type (as mapped by the 1974 soil survey), soils across the parcel resemble the Inville map unit (slopes 15 to 30 percent). Inville soils are deep and formed from mixed glacial outwash. They lack a root-restricting layer in the upper 65 or more inches of the soil; whereas, Meeks soils have a silica-cemented 40 to 65 inches below the surface. Additionally, the Inville soils typically have less stony-bouldery rocks and more fine-textured soils (between rock fragments). The mineralogy of the soil is mixed, hence the soil is outside of the definition of the Jorge and Tahoma soil (nearby).

In accordance with the TRPA Land Capability Classification system, Inville soils having 15 to 30 percent slopes qualify as Class 4 (20% land coverage). The revised mapping concluded by this field investigation is consistent with the 2006 soil survey that identified the parcel as Class 4 (Meeks series which is similar to Inville series). The table below summarizes the changes in land capability and allowable land coverage as concluded by this land capability challenge.

Land Capability District, Slope Range	1992 TRPA Determ. Of Allowable Coverage Map; Area (sq. ft.)	2016 Land Capability Challenge; Area (sq. ft.)	Net Change (sq. ft.)
Class 1a (MsE), 15-30% sl.	23,729		-23,729
Class 1b (SEZ)	7,537		-7,537
IPES Building Lot (11% base allowable coverage)	14,520	14,520	0
Class 4 (IsE), 15-30% sl.	0	30,966	+30,966
Total Parcel Area	45,486	45,486	0

This memorandum was jointly prepared by TRPA contractor Phil Scoles (Terra Science, Inc.) and TRPA Associate Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll at 775-589-5247 (jroll@trpa.org).

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel Numbers: (APN)	126-271-08
TRPA File No. / Submittal Date:	LCAP2016-0392 / October 13, 2016
Owner or Applicant:	Karina Rowan; Post Office Box 6974; Incline Village, NV 89450
Address:	771 Burgundy Road, Incline Village, Washoe County, NV

Environmental Setting	
Bailey Soil Mapping Unit¹ / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	MsE (Meeks very stony loamy coarse sand, 15-30% slopes) / HSG B / D-2 Streamcut volcanic flow lands-headlands (moderate hazard).
Soil Parent Material	Glacial outwash (with recent colluvium)
Slopes and Aspect	18 to 25%, sloping to west and southwest
Elevation and Datum	7173 to 7229 (from Welsh-Hagen Associates topography survey, Lake Tahoe datum)
Rock Outcrops and Surface Configuration	No outcrops, but common large surface boulders exposed throughout parcel.
SEZ and Hydrology Source	None present. See staff summary discussion about field conditions found to be upland, but location mapped having SEZ in broad swale.
Vegetation	Jeffrey pine, white fir, incense cedar, snowbush, greenleaf manzanita, white thorn, snowberry, thimbleberry, mules ears, grasses/forbs.
Ground Cover Condition	Good (vegetation cover 70%, duff/rocks 30%)
Site Features	Residence, garage, decks, driveway, pathways, and landscaping.

Field Investigation and Procedures	
Consultant and Address	Denny M. Churchill, Consulting Soil Scientist 145 Cottonwood Court, Quincy, CA 95971 (530) 283-1271; dennychurchill@sbcglobal.net
Consultant Field Date	September 7, 2016
SEZ Mapping / NRCS Hydric Soil	None present.
Number of Soil Pits or Auger Holes and Description Depth	3 backhoe pits dug 65 to 70 inches deep (large boulders in profile, but no bedrock encountered)
Additional or Repetitive TRPA	Same backhoe pits used by soil consultant inspected by

¹ TRPA currently relies upon the Soil Survey of Tahoe Basin, California-Nevada (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon.

Sample Locations	TRPA contractor.
Representative Soil Profile Descriptions	TRPA contractor Phil Scoles examined same test pits as applicant's soil consultant.
Areas Not Examined	Residence, garage, decks, driveway, pathways, and landscaped areas

TRPA Findings	
2006 Soil Survey Map Unit	Meeks gravelly loamy coarse sand, HSG-B; 15 to 30% slopes, extremely bouldery (Class 4).
Consultant Soil Mapping Determination and Rationale	Inville stony sandy loam, 15 to 30% slopes (IsE, Class 4) for entire parcel. The Inville soil is deep, well drained, and no root-restricting layer within 60 inches of the surface. This soil is finer textured than the Meeks series and shows evidence of illuviated clays in the subsoil (Bw and Bt horizon). This soil also lacks a subsurface silica-cemented hardpan (or lens layer).
Slope Determination	18 to 28% (slopes to west and southwest)
TRPA Conclusion(s)	Inville stony coarse sandy loam (IsE), HSG B, Class 4 (15 to 30% slopes),
Applicable Area	Entire parcel, 45,486 sf. -- See map (Attachment B, Sept. 2016)

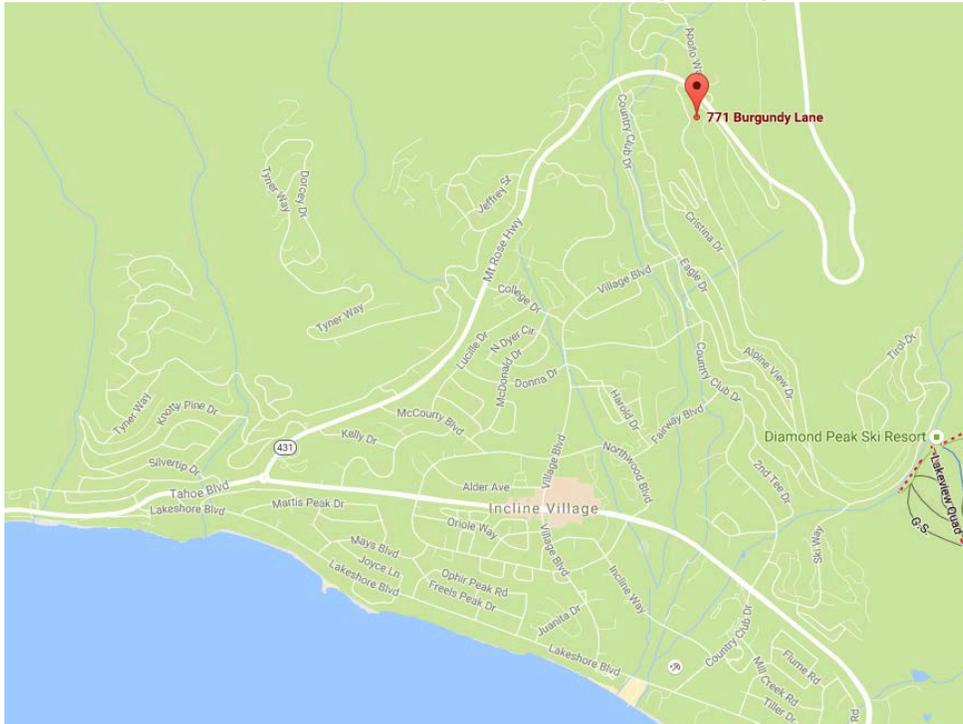
Attachments:

- A. Vicinity map, TRPA land capability map.
- B. Existing conditions map showing topography and land capability challenge recommendation
- C. Applicant's soil consultant report with soil profile descriptions (3 pits)

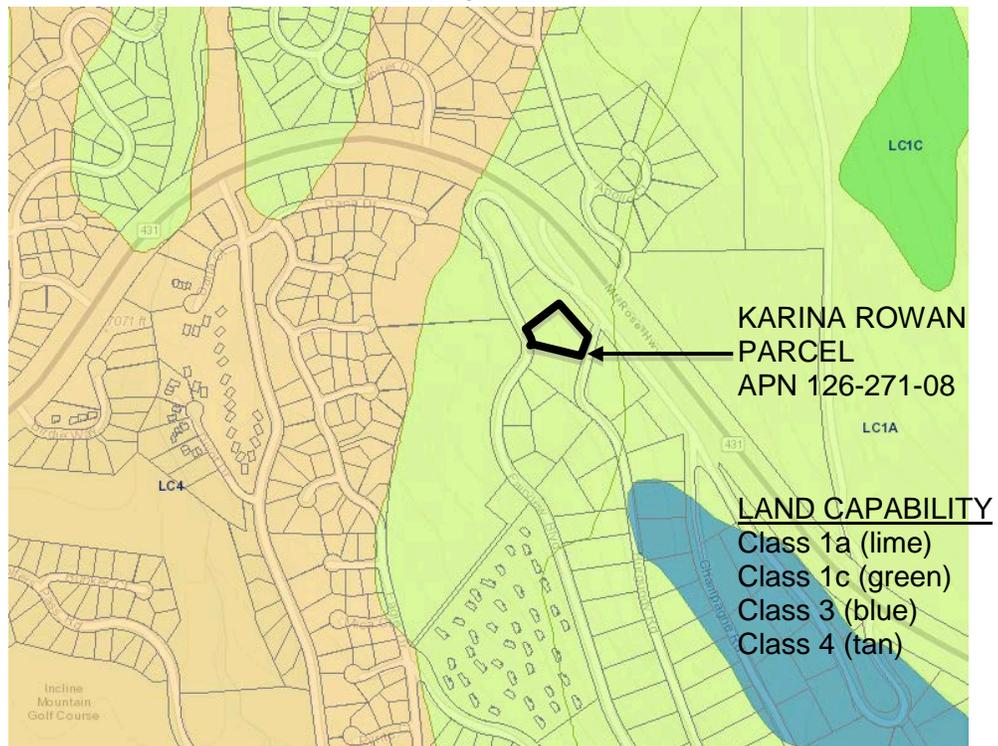
Attachment A

Vicinity Map and TRPA Land Capability Map

VICINITY MAP – INCLINE VILLAGE, NV (no scale)



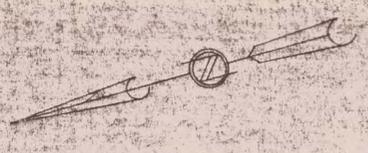
TRPA LAND CAPABILITY MAP



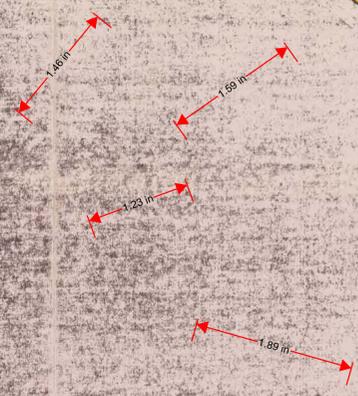
Attachment B

Existing Conditions Map and Recommended Land
Capability Challenge for LCAP2016-0392

RECEIVED
PLANNING AGENCY
AUG 27 1989



TOTAL OBJECT SIZE = 45300 sq. ft.

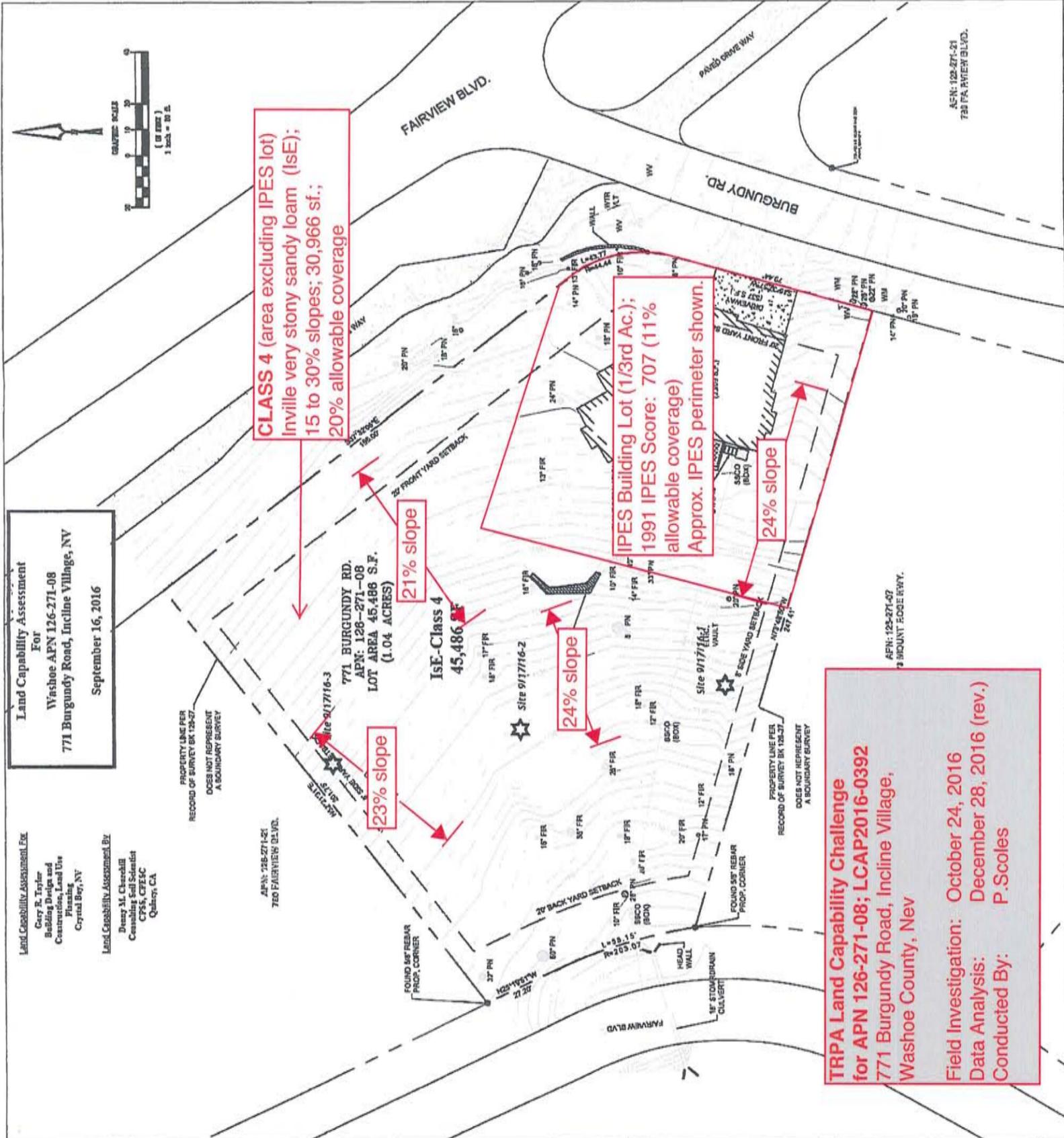
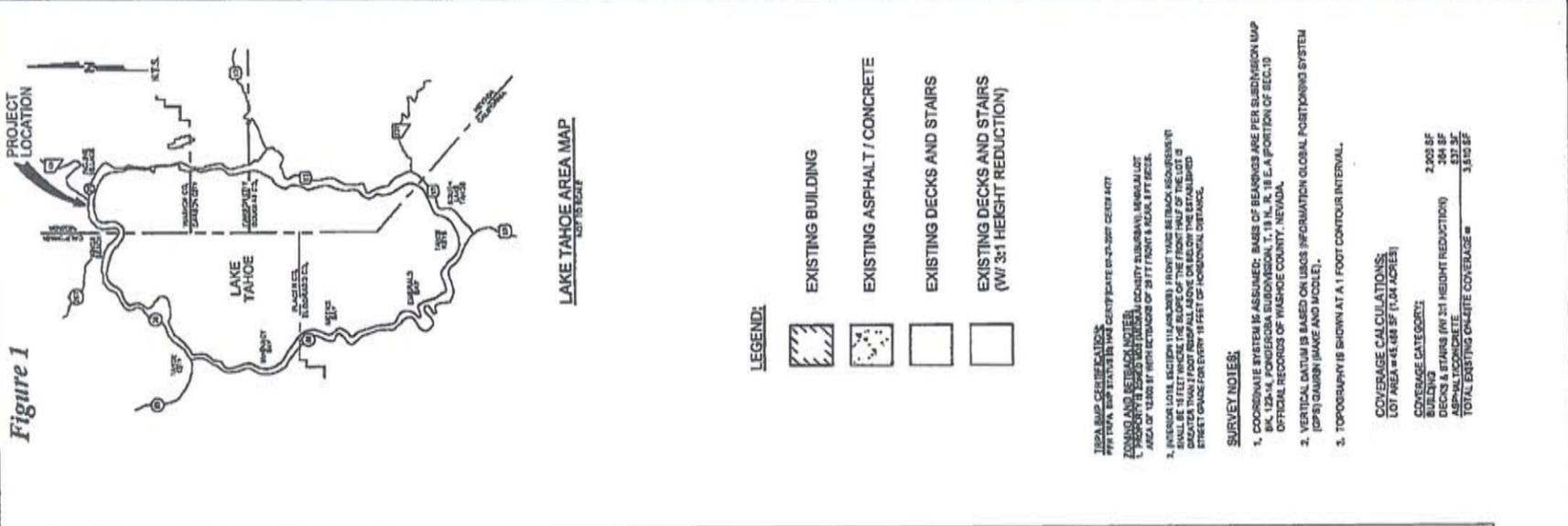


TRPA
COPY

LOT AREA = 45200 SQ. FT. 5 608

TOPOGRAPHIC SURVEY

SCALE 1/2" = 10'	APPROVED BY	DRAWN BY
DATE 12-8-82	LOUIS B. CHATELAIN	REVISOR
WILSON ENGINEERING & SURVEYING		
1001 W. BOSTON ST. #200		



Land Capability Assessment
 For
 Washoe APN 126-271-08
 771 Burgundy Road, Incline Village, NV
 September 16, 2016

Land Capability Assessment, Inc.
 Gerry R. Taylor
 Building Design and
 Construction, Land Use
 Planning
 Crystal Bay, NV

Land Capability Assessment, Inc.
 Denny M. Cherabelli
 Consulting Soil Scientist
 CPSC, CPESC
 Quincy, CA

Attachment C

Applicant's Soil Consultant Land Capability Soil Report
And TRPA Contractor's Photographs

**Land Capability Assessment
For
Washoe Parcel APN 126-271-08**

September 16, 2016

INTRODUCTION

A soil investigation was conducted by Denny M. Churchill, Consulting Soil Scientist on Washoe County Parcel APN 126-271-08 on September 7, 2016. The objective of the study was to identify soils and other features and relate them to Land Capability which is administered by the Tahoe Regional Planning Agency (TRPA) for the purpose of impervious coverage regulation, as defined in Chapter 30 of the Code of Ordinances.

The parcel supports a single-family dwelling in a mixed residential setting on approximately 1.04 acres of land located at 771 Burgundy Road, Incline Village, NV. This work is advanced at the request of Mr. Gary R. Taylor, representative for Ms. Karina Rowan.

Soil information contained in this report is for the strict use of land capability and it should not be used for building foundation design, slope stability or seismic analysis.

ENVIRONMENTAL SETTING

The parcel site is located at T16N R18E, NE/4 of section 10. Vegetation on the parcel is representative of Type 17-Mixed conifer and consists of Jefferey pine, white fir, incense cedar, greenleaf manzanita, white thorn, snowberry, snow brush, thimble berry and mules ear. Slopes range from 18 to 25 percent on a south west to north west aspect. An agency (TRPA) review of the property in March of 1992 identified a sizable SEZ (stream environment zone) along the north west portion of the parcel. This determination appears to have been made based the presence of concentrated road drainage from both Fairview Boulevard and Burgundy Road, as well as scattered Scouler's willow in a small depression immediately below the Burgundy Road shoulder. No other secondary indicators such as evidence of ground water between 20-40 inches, presence of alluvial soils or designated flood plain were identified, therefore no SEZ exists on this parcel.

Soils are shown on the TRPA GIS Data Base (<http://gis.trpa.org/datadownloader/>) as MsE- Meeks very stony loamy coarse sand, 15 to 30 percent slopes. Geology (Lewis, 1988) is characterized as Qta- Unconsolidated bouldery till. Baileys' geomorphic analysis (1974) shows the parcel as E2-Outwash till and lake deposits (low hazard lands).

METHODOLOGY

The parcel was surveyed based on slope delineations and landscape position. Three sites considered representative of the landform were chosen and excavations were placed to open and examine the soil profiles in detail. Standards of the National Cooperative Soil Survey were used to describe and interpret soil physical properties. Information gathered

at the site was compared to the *Soil Survey of the Lake Tahoe Basin, California-Nevada* (Rogers et al, 1974) and to the *Land-Capability Classification of the Lake Tahoe Basin, California-Nevada* (Bailey, 1974) for proper placement in the appropriate land capability class. A detailed topographic base map supplied by Welsh-Hagen Associates (Sept., 2015) was available in the field for ground control and slope analysis. Information pertaining to land capability districts is shown on Figure 1.

FINDINGS

Referring to Figure 1, soils at site 9/7/16-1 are found to be deep, well drained, and members of Soil Hydrologic Group B. They can be characterized as having brown or dark yellowish brown very gravelly coarse sandy loam top soil approximately 12 inches thick, over a dark yellowish brown or brown subsoil to a depth of 65 inches. These soils are dissimilar to the Meeks very stony loamy coarse sand because they are finer textured, have the presence of illuviated clays, and lack a silica cemented pan at depth. Soils at this site fall within the range of characteristics of Inville stony coarse sandy loam.

Soils at site 9/7/16-2 are found to be deep, well drained, and members of Soil Hydrologic Group B. They can be characterized as having brown or dark yellowish brown very gravelly or stony sandy loam top soil approximately 16 inches thick, over a dark yellowish brown or brown subsoil to a depth of 70 inches. These soils are dissimilar to the Meeks very stony loamy coarse sand because they are finer textured, have the presence of illuviated clays, and lack a silica cemented pan at depth. Soils at this site fall within the range of characteristics of Inville stony coarse sandy loam.

Soils at site 9/7/16-3 are found to be deep, well drained, and members of Soil Hydrologic Group B. They can be characterized as having brown or dark yellowish brown very gravelly or very stony coarse sandy loam top soil approximately 16 inches thick, over a dark yellowish brown or brown subsoil to a depth of 70 inches. These soils are dissimilar to the Meeks very stony loamy coarse sand because they are finer textured, have the presence of illuviated clays, and lack a silica cemented pan at depth. Soils at this site fall within the range of characteristics of Inville stony coarse sandy loam.

CONCLUSIONS AND RECOMMENDATIONS

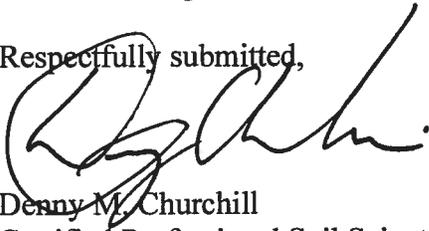
Soils found at site 9/7/16-1 fall within the range of characteristics of the Inville series, place in map unit IsE-Inville stony coarse sandy loam, 15 to 30 percent slopes, and land capability district 4.

Soils found at site 9/7/16-2 fall within the range of characteristics of the Inville series, place in map unit IsE-Inville stony coarse sandy loam, 15 to 30 percent slopes, and land capability district 4.

Soils found at site 9/7/16-3 fall within the range of characteristics of the Inville series, place in map unit IsE-Inville stony coarse sandy loam, 15 to 30 percent slopes, and land capability district 4.

Please refer to the following soil profile descriptions that support the findings and the attached Figure 1 showing the spatial distribution of the appropriate land capability classes on the parcel.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Denny M. Churchill". The signature is fluid and cursive, with a large initial "D" and "M".

Denny M. Churchill
Certified Professional Soil Scientist No. 0755

Representative Soil Profile Descriptions

Site 9/7/16-1: Backhoe pit to 75 inches.

Location: 39° 16' 18.69" N. Latitude; 119° 56' 29.70" W. Longitude (WG84 datum)

Elevation: 7193 feet (from Welsh-Hagen Assoc., 9/2015)

Landform: Outwash terrace (slopes to the north west).

Vegetation: Jeffery pine, white fir, greenleaf manzanita, snow berry, thimble berry and snow brush.

- Oi 0 to 2 inches, duff, needles and leaves.
- A1 2 to 6 inches, brown (10YR 4/3) gravelly loamy coarse sand, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common to many very fine to medium and few coarse roots throughout; common fine interstitial pores; 15 percent gravels and 5 percent stones; clear wavy boundary.
- A2 6 to 12 inches, dark yellowish brown (10YR 4/4) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common to many very fine to medium roots throughout; common fine interstitial pores; 15 percent gravels and 10 percent stones; clear wavy boundary.
- Bt1 12 to 24 inches, dark yellowish brown (10YR 4/4) very gravelly sandy loam, very dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few to common, discontinuous, faint to distinct clay films and sand coats; many fine to medium and few coarse roots; many fine interstitial pores; 35 percent gravels and 20 percent stones; clear wavy boundary.
- Bt2 24 to 48 inches, brown (10YR 5/3) very stony coarse sandy loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common, discontinuous, distinct clay films, sand coats and dark organic films; common fine to medium and few coarse roots; many fine interstitial pores; 35 percent stones, 25 percent gravels and 10 percent boulders; abrupt boundary.
- C1 48 to 65 inches, pale brown (10YR 6/3) very stony coarse sandy loam, brown (10YR 4/3) moist; strong medium subangular structure grading to massive; hard, friable, slightly sticky and slightly plastic; common, discontinuous, distinct clay films on peds and in root pores; few fine, medium and coarse roots; many fine interstitial pores; 40 percent stones, 20 percent gravels and 5 percent boulders; clear irregular boundary.

Some root massing on peds starting at 48 to 50 inches.

Parent material: Mixed colluvium over alluvium

Drainage class: Well drained. Moderately rapid permeability.

Slope: 22-24 percent sloping north 70 degrees west.

1974 soil series: Similar to Jorge but not developed from basic volcanic rocks; meets criteria for Inville.

2003 soil series: Inville stony coarse sandy loam.

Soil classification: Loamy-skeletal, mixed, frigid, Ultic Haploxeralfs.

Hydrologic Soil Group: B

No physical evidence was observed to imply any ground water intrusion or poor drainage at this site.

Site 9/7/16-2: Backhoe pit to 70 inches.

Location: 39° 16' 19.84" N. Latitude; 119° 56' 29.77" W. Longitude (WG84 datum)

Elevation: 7190 feet (from Welsh-Hagen Assoc., 9/2015)

Landform: Outwash terrace (slopes to the north west).

Vegetation: Jeffery pine, white fir, white thorn, snow berry, thimble berry, snow brush and mules ear.

- Oi 0 to 2 inches, duff, needles, leaves and thick root mass.
- A1 2 to 8 inches, dark yellowish brown (10YR 4/4) very gravelly sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common to many very fine to medium and few coarse roots throughout; common fine interstitial pores; 35 percent gravels and 10 percent stones; clear wavy boundary.
- A2 8 to 16 inches, dark yellowish brown (10YR 4/4) very gravelly sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common to many very fine to medium and few coarse roots throughout; common fine interstitial pores; 35 percent gravels and 10 percent stones; clear wavy boundary.
- Bt1 16 to 24 inches, brown (10YR 5/3) very stony coarse sandy loam, brown (10YR 4/3) moist; moderate to strong medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few to common, discontinuous, faint clay films and sand coats; common to many fine to medium and few coarse roots; many fine interstitial pores; 35 percent stones, 30 percent gravels and 15 percent boulders; clear irregular boundary.
- Bt2 24 to 44 inches, brown (10YR 5/3) very bouldery coarse sandy loam, brown (10YR 4/3) moist; strong medium subangular blocky structure; hard, friable,

nonsticky and nonplastic; common, discontinuous, distinct clay films (mostly in root channels); common fine to medium and few coarse roots; many fine interstitial pores; 40 percent boulders, 20 percent stones and 30 percent gravels; clear irregular boundary.

- C1 44 to 70 inches, yellowish brown (10YR 5/4) very gravelly coarse sandy loam, dark yellowish brown (10YR 3/4) moist; massive; hard, friable, slightly sticky and slightly plastic; common, discontinuous, distinct clay films (mostly in root channels); few fine, medium and coarse roots; many fine interstitial pores; 50 percent gravels, 35 percent stones and 5 percent boulders; clear irregular boundary.
Some root massing on peds starting at 56 inches.

Parent material: Mixed colluvium over alluvium

Drainage class: Well drained. Moderately rapid permeability.

Slope: 18-22 percent sloping south 80 degrees west.

1974 soil series: Similar to Jorge but not developed from basic volcanic rocks; meets criteria for Inville..

2003 soil series: Inville stony coarse sandy loam.

Soil classification: Loamy-skeletal, mixed, frigid, Ultic Haploxeralfs.

Hydrologic Soil Group: B

No physical evidence was observed to imply any ground water intrusion or poor drainage at this site.

Site 9/7/16-3: Backhoe pit to 70 inches.

Location: 39° 16' 20.36" N. Latitude; 119° 56' 29.26" W. Longitude (WG84 datum)

Elevation: 7200 feet (from Welsh-Hagen Assoc., 9/2015)

Landform: Outwash terrace (slopes to the south west).

Vegetation: Jeffery pine, white fir, incense cedar, snow brush, squaw carpet, snow berry, coffee berry and scattered Scouler's willow.

- Oi 0 to 1 inches, duff, needles, leaves and thick root mass.
- A1 1 to 4 inches, brown (10YR 4/3) gravelly loamy coarse sand, dark brown (10YR 3/3) moist; weak to moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common very fine to medium and few coarse roots throughout; common fine interstitial pores; 15 percent gravels and 5 percent stones; clear wavy boundary.
- A2 4 to 16 inches, brown (10YR 4/3) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; common to many very fine to medium and few coarse roots

throughout; common fine interstitial pores; 15 percent gravels and 5 percent stones; clear wavy boundary.

- A/Bt1 16 to 32 inches, yellowish brown (10YR 5/4) very gravelly coarse sandy loam, brown (10YR 4/3) moist; moderate to strong medium granular grading to weak fine subangular blocky structure; soft, friable, nonsticky and nonplastic; few, discontinuous, faint clay films and sand coats; common to many fine to medium and few coarse roots; many fine interstitial pores; 35 percent gravels and 20 percent stones; clear irregular boundary.
- Bt2 32 to 48 inches, yellowish brown (10YR 5/4) very gravelly sandy loam, brown (10YR 4/3) moist; strong medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few, discontinuous, faint clay films (mostly in root channels); few to common fine to medium and few coarse roots; many fine interstitial pores; 40 percent gravels and 10 percent stones; clear irregular boundary.
- C1 48 to 65 inches, pale brown (10YR 6/3) very gravelly loamy coarse sand, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; common, continuous, distinct clay films (mostly in root channels); few fine, medium and coarse roots; many fine interstitial pores; 40 percent gravels and 30 percent stones; abrupt boundary.
Some root massing on peds starting at 56-60 inches. Some faint redox beginning at 56 inches but not considered contemporary.

Parent material: Mixed colluvium over alluvium

Drainage class: Well drained. Moderately rapid permeability.

Slope: 22-24 percent sloping south 20 degrees west.

1974 soil series: Similar to Jorge but not developed from basic volcanic rocks; minimally meets criteria for Inville.

2003 soil series: Inville stony coarse sandy loam.

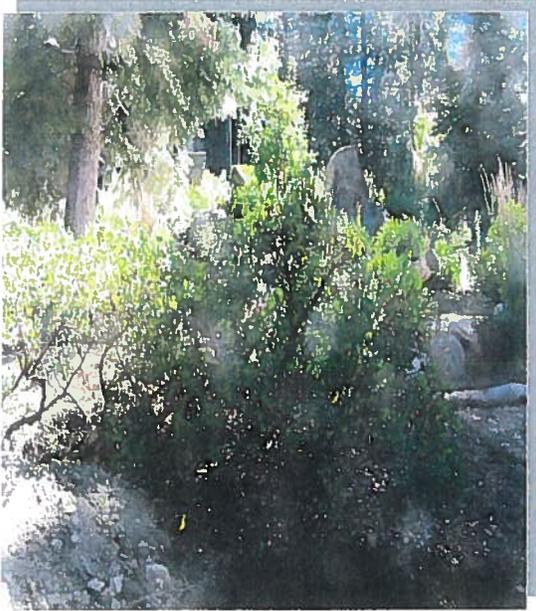
Soil classification: Loamy-skeletal, mixed, frigid, Ultic Haploxeralfs.

Hydrologic Soil Group: B

No physical evidence was observed to imply any ground water intrusion or poor drainage at this site.

Photo Series

Site 9/7/16-1



Up Slope Towards The House

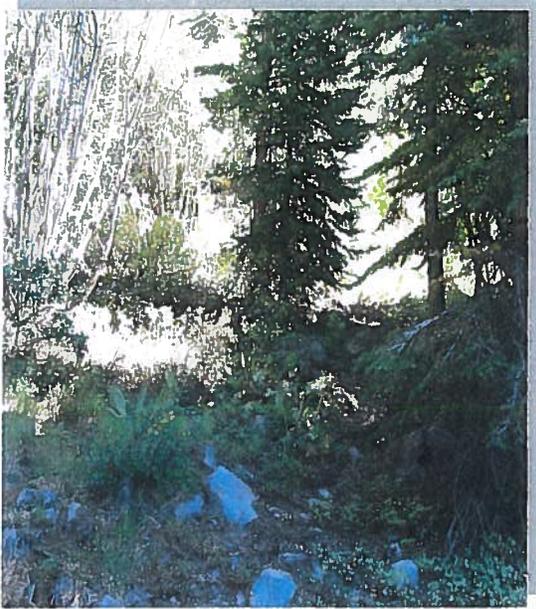


Down Slope Towards Lower Fairview



Representative Soil Profile

Site 9/7/16-2



Up Slope Towards Burgundy

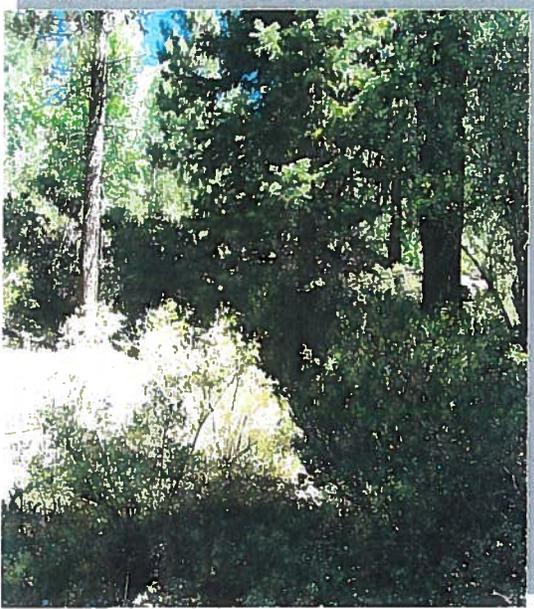


Down Slope Towards Lower Fairview



Representative Soil Profile

Site 9/7/16-3



Up Slope Towards Burgundy



Down Slope Towards Lower Fairview



Representative Soil Profile

**APN 126-271-08 – 771 Burgundy Road (Karina Rowan Residence),
Incline Village, Washoe County, Nev. – Photos 1 and 2**



Photo 1 – View to north toward broad swale situated north by northwest of existing residence. While swale includes some ornamental trees, shrubs and herbaceous plants, the upper reach contains white fir, scouler’s willow, incense cedar, snowberry, whitethorn, and bitterbrush.



Photo 2 – View to northeast upward at broad swale situated north by northwest of existing residence. Vegetation with close proximity of soil test pit 9/7/16-2 includes white fir, scouler’s willow, green leaf Manzanita, bitterbrush, whitethorn and prostrate ceanothus. This plant community does not qualify for primary or secondary SEZ plant community.

APN 126-271-08 – 771 Burgundy Road (Karina Rowan Residence),
Incline Village, Washoe County, Nev. – Photos 3, 4 and 5



Photo 3 – View of vegetation in vicinity of soil test pit 9/7/16-2 (located in center of mapped SEZ). Ground cover plants are typically most indicative of SEZ conditions, but this location contains green leaf manzanita, currant, snowberry, mulesears, and whitethorn (foreground).



Photo 4 – View of test pit 9/7/16-2 soil with large stones and boulders. Upper 53 inches lacks evidence of water table.



Photo 5 – Close up view of test pit 9/7/16-2 soil profile. Iron staining on soil at 53 in. is evidence of upper limit of seasonal high water table. Soil does not qualify as secondary SEZ.