TAHOE REGIONAL PLANNING AGENCY

Mail
PO Box 5310
Stateline, NV 89449-5310

Location
128 Market Street
Stateline, NV 89449

Contact
Phone: 775-588-4547
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www.trpa.gov

STAFF REPORT

Date: January 11, 2024

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Globetrotter Properties LLC Land Capability Challenge,
176 Highway 50, Douglas County, NV
APN: 1318-22-001-013, TRPA File No: LCAP2023-0144

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

Staff Recommendation:
Staff recommends the TRPA Hearings Officer approve the land capability challenge on the subject parcel. This challenge changes the land capability from Class 2 (CaE, 15 to 30% slopes), Class 3 (JeD, 5 to 15% slopes) and Class 5 (JaC, 0 to 9% slopes) to Class 2 (XXX, 30 to 50% slopes), Class 4 (CaD, 5 to 15% slopes), Class 4 (XXX, 16 to 30% slopes), and Class 6 (XXX, 0 to 16% slopes). This change is itemized on the table on Page 3 and depicted on a map included in Attachment C.

Background:
The parcel being challenged is largely mapped having Class 2 soils. The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974) identifies the site having Cagwin-Rock outcrop complex, 15 to 30% slopes (CaE). The Cagwin soil type is derived from granodiorite. Several distinctive components of the Cagwin series include shallow depth to grus (highly weathered bedrock), colluvial deposits in the upper part, and residuum soil in the lower part (forming directly from weathering bedrock). The southeast property corner is mapped having a small amount of Jabu coarse sandy loam, 0 to 9% slopes (JaC), while the extreme west edge is mapped having a small area of Jabu coarse sandy loam, shallow variant, 0 to 5% slopes (JeD). The vicinity of the parcel has a geomorphic mapping of C- for Granitic foothills (moderate hazard lands). The subject parcel has a surveyed size of 395,674 square feet (sf.), or 9.083 acres (from Lumos & Associates, Inc. 2-foot contour topographic map, September 2023).

A December 24, 2002, Land Capability Verification (LCV) completed by TRPA Staff (Attachment C) determined the majority of the parcel qualified as Class 4, with inclusions of Class 1A and Class 2 due to shallow soils and/or slopes greater than 30%. The LCV did not identify any Jabu soil types, as previously mapped by 1974 soil survey. A TRPA land capability challenge (LCAP2023-0144) was filed by the property owner and their representative Exline and Company, Inc. on June 26, 2023. On July 24, 2023, Sid Davis and Denny Churchill (Davis2 Consulting Earth

Scientists) conducted a site visit to document site conditions and describe five soil profiles for representative locations across the parcel. The TRPA contractor arrived while the field investigation was underway and interacted with Davis2 during their documentation of the soil pits. 4- to 5-foot-deep soil pits were dug by backhoe at these locations, which represent undisturbed, deep soils composing the majority of the parcel. During a second site visit on October 14, 2023, the TRPA contractor examined five different locations having shallower soils intermingled with rock outcrops. For all of the soil profiles, the soil scientists described matrix colors and ped structures; measured soil horizon depths; determined soil textures; estimated gravel volume and root distribution; depth to bedrock (if present) and conducted a walking tour of the remaining portion of the property. While soil depth and slope classes largely determined land capability delineations, the shallow soils surrounding large groupings of rock outcrops were mapped using a soil auger and observations of sparce vegetation and lack of duff layer.

Findings:
The subject parcel consists of a broad knoll that primarily slopes west and south, but small portions of the property slope north (toward office buildings) and east (toward U.S. Highway 50). The underlying geology is uplifted, then later wave-washed granodiorite. The land surface is 4% to greater than 35% slopes. The parent material is plutonic (underground volcanic), and naturally decays to sandy to loamy sand soils. The parcel is vacant and isolated spots show past evidence of minor grading or excavation (possibly for geotechnical testing). The east-center of the property has several groupings of rock outcrops, while the remainder of the site has many surface boulders scattered throughout. Such boulders (when excavated) appear to be “floaters” – not tethered to bedrock – and wave eroded (somewhat rounded, rather than tilted planes of rock). The observed soils are colluvial atop residuum or ancient beach deposits. The vegetated portions of the property consist of upland forest dominated by Jeffrey pine, with lesser amounts of white fir and incense cedar. The understory contains greenleaf manzanita, bitterbrush, whitethorn, sagebrush, prostrate ceanothus and grasses/forbs). The parcel lacks any Stream Environment Zones (SEZs).

The land capability challenge primarily utilized five backhoe test pits to characterize the deep soils, which do not match the Cagwin soils previously identified by the LCV or 1974 soil survey. These deep soils are also dissimilar to the Gefo and Elmira soil series, which often occur in similar proximity to Lake Tahoe. Soil pit no. 1 (labeled 7/24/23-1) was located in the west extent, where the property lines form a panhandle. Soil pit no. 2 (labeled 7/24/23-2) was situated in the south-center, while Soil pit no. 3 (labeled 7/24/23-3) was positioned in the north-center. Soil pit no. 4 was located in the south extent, just north of the property corner. And Soil pit no. 5 was roughly midpoint between Soil pits 1, 2 and 4, in the west-center of the property. The soil observed at these locations were undisturbed, deep and contained 15 to 35% gravels and 5 to 10% cobbles, stones and boulders (aka “floaters”). None of the soil pits exhibited any indication of seasonal water table and root penetration generally extended greater than 4 feet from the surface. Weathered granodiorite (black and white grus) was noted at one location, but deeper than 60 inches for the remaining locations. These deeper soils are also somewhat excessively drained and rate as Hydrologic Soil Group A (HSG-A) due to lack of subsurface soil limitations. Since these soils are deeper versions of the Cagwin soil, they are unnamed inclusions (labeled XXX by TRPA) mentioned in the 1974 Soil Survey of the Lake Tahoe Basin. While associated with

granodiorite landforms, these inclusions did not get delineated in the 1974 soil survey due to mapping scale and other soil survey limitations. The land capability classes for the XXX soils were determined from Page 20, Table 4 of Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (Bailey, 1974). Specifically, Class 6 for slopes 0 to 16%, Class 4 for slopes 16 to 30% and Class 2 for deep soils on slopes 30 to 50%.

The center part of the parcel has several groupings of rock outcrops. A smaller grouping is situated in the west extent of the property. The outcrops vary from low-relief boulders to vertical features 10 to 25 feet tall. Where grouped closely together, the rock outcrops commonly have shallow soils between rock features. Such soils are visually evident by few or no tree growth, stunted shrub height, patchy unvegetated soil surface, and lack of O horizon. When hand-augured, these shallow soils have variable rockiness, but generally less than 15% gravels, and 5 to 10% cobbles and stones. The soil textures are mostly loamy coarse sand that becomes less loamy with depth. Of the 5 auger holes, the shallowest soils encountered hard bedrock at 13 inches, while the deepest was at 22 inches. These shallow soils are considered Hydrologic Soil Group C. The combination of shallow soils and rock outcrops is consistent with the mapping unit for Cagwin-Rock outcrop, 5 to 15% slopes (CaD), which is rated as Class 4. There are small inclusions of this soil have 15 to 30% slopes that were included in the Class 2 unnamed soil map unit (XXX). The table below summarizes the soil types, slope classes, as well as changes in land capability concluded by this land capability challenge.

Land Capability District	Slope Class (Range)	2002 TRPA Land Cap. Verif. Area (sq. ft.)	2024 Land Cap. Challenge Area (sq. ft.)	Net Change Total Area (sq. ft.)
Class 1a (TrE)	15 to 30%	14,232	0	-14,232
Class 2 (CaE)	15 to 30%	68,554	0	-68,554
Class 2 (XXX)	30 to 50%	0	49,794	+49,794
Class 3 (JeD)*	5 to 15%	0	0	0
Class 4 (CaD)	5 to 15%	313,912	96,152	-217,760
Class 4 (XXX)	16 to 30%	0	65,777	+65,777
Class 5 (JeD)*	5 to 15%	0	0	0
Class 6 (XXX)	0 to 16%	0	183,951	+183,951
Total Parcel Area		**396,698**	**395,674**	**n/a**

* Soil types originally identified on TRPA land capability map and 1974 soil survey but determined not present for 2002 LCV and not observed during this investigation.

Contact Information:

This memorandum was jointly prepared by TRPA contractor Phil Scoles (Terra Science, Inc.) and TRPA Senior Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll at 775-589-5247 or jroll@trpa.gov. To submit a written public comment, email publiccomment@trpa.gov with the appropriate agenda item in the subject line. Written comments received by 4 p.m. the day before a scheduled public meeting will be distributed and posted to the TRPA website before the meeting begins. TRPA does not guarantee written

comments received after 4 p.m. the day before a meeting will be distributed and posted in time for the meeting.

Attachments:

A. Vicinity map and TRPA land capability map
B. Site Photographs (July 24 and Oct. 14, 2023)
C. December 24, 2002, TRPA Land Capability Verification and October 2022 land capability challenge recommendation map
D. Soil consultant's land capability report, incl. profile descriptions (5 soil pits)
E. Auger Hole Descriptions

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel No. (APN):	1318-22-001-013
TRPA File No. / Submittal Date:	LCAP2023-0144 / June 26, 2023
Owner or Applicant:	Globetrotter Properties LLC; Post Office Box 12578; Zephyr Cove, Nev. 89449; info.globetrotterproperties @gmail.com
Site Address:	176 Highway 50, Douglas County, Nev.; T. 13N, R. 18E, NW1/ 4 of NE1/4 of Sec. 22.

Environmental Setting	
Bailey Soil Mapping Unit / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	Cagwin-Rock outcrop complex, 15 to 30% slopes (CaE, HSG-C). Smaller areas mapped as Jabu coarse sandy loam, 0 to 9% slopes (JaC), and Jabu coarse sandy loam, shallow variant, 0 to 5% slopes (JeD) / C-1 Granitic foothills (moderate hazard lands as per 1974 Bailey Land Capability Report)
Landform and Soil Parent Material	Knoll formed from granodiorite. Soil formed from colluvium and residuum.
Slopes and Aspect	4 to 35% slopes / slopes in all directions.
Elevation and Datum	6,274 to 6,368 feet (NAVD 88 datum); Lumos & Associates, Inc. (September 2023)
Rock Outcrops and Surface Configuration	Rock outcrops primarily in north-center of parcel and smaller outcrop groups in south-center and west part of parcel. Many scattered, large boulders throughout property ("floaters", not bedrock).
SEZ and Hydrology Source	None.
Vegetation	Jeffrey pine, plus lesser amounts of white fir, incense cedar and saplings. Understory includes chinquapin, whitethorn, bitterbrush, greenleaf manzanita, currant, prostrate ceanothus, and forbs/grass.
Ground Cover Condition	Good (veg. 30 to 40%, boulders 5-10%, duff 50 to 65%)
Site Features	Vacant parcel surrounded by metal fencing. Many large boulders present, plus several rock outcrops groupings.

Field Investigation and Procedures	
Consultant and Address	Sidney Davis, Davis2 Consulting Earth Scientists; Post Office Box 734; Georgetown, CA; Phone (530) 599-1405; davis2consulting@sbcglobal.net
Consultant Field Dates	July 24, 2023.
SEZ Mapping / NRCS Hydric Soil	None present.
Number of Soil Pits or Auger Holes and Description Depth	Five backhoe pits excavated to 45 to 60 inches.

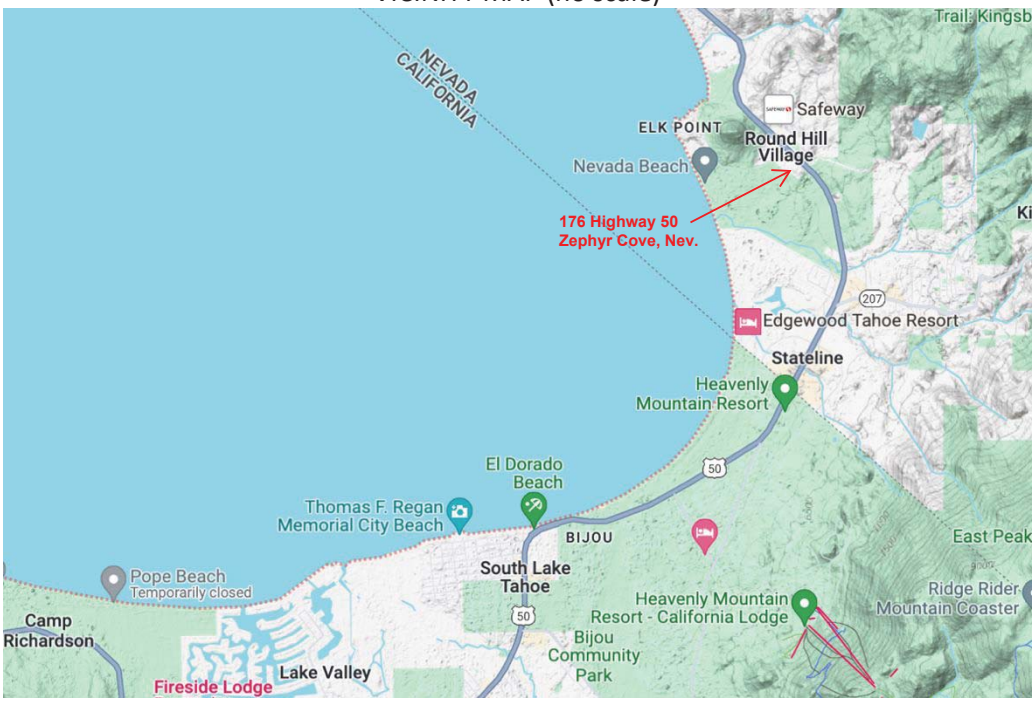
Additional or Repetitive TRPA Sample Locations	Five hand-augered holes, ranging 13 to 22 inches deep.
TRPA Contractor Field Dates	July 24 and October 14, 2023.
Areas Not Examined	None. Pedestrian access across entire site.

TRPA Findings	
2006 Soil Survey Map Unit[1]	Cagwin-Rock outcrop complex, 5 to 15% slopes, extremely stony (Mixed, frigid Dystric Xeropsamments), (map unit 7411, Class 5, HSG-C).
Contractor Soil Mapping Determination and Rationale	The majority of the parcel is a deeper version of Cagwin-Rock outcrop map unit. The 1974 soil survey noted presence of deeper soils in this map unit, but the mapping scale could not differentiate these inclusions. While the Cagwin soil is a shallow soil, the areas documented by the Davis2 soil pits are sufficiently deep and qualify as HSG-A. These deeper soils are considered an unnamed soil, which is also unlike the Jabu series which has a subsurface restricting layer and finer textures throughout. As such, the soil rating for the unnamed XXX soils were determined from Page 20, Table 4 of Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (Bailey, 1974). Specifically, unnamed soil qualifies as Class 2, Class 4 and Class 6, depending upon slope class. The shallow soils surrounding larger groupings of rock outcrops are consistent with the Cagwin map unit for slopes 5 to 15%. See staff report and TRPA contractor profile description for additional discussion.
Slope Determination	For the deeper unnamed soils, the slopes range from 4 to 16% in the center part, and 16 to 30% for certain areas downgradient of rock outcrops. The north-center of the site has small ridge with slopes 30 to 35%. See land capability map based upon September 2023 Lumos & Associates topographic survey. For Cagwin soil in the center and west parts, the slopes range from 5 to 15%.
TRPA Conclusion(s)	Class 2 (unnamed soil XXX, HSG-A for 30 to 50% slopes); Class 4 (CaD for 5 to 15% slopes, HSG-C); Class 4 (unnamed soil XXX, HSG-A for 16 to 30% slopes); and Class 6 (unnamed soil XXX, HSG-A for 0 to 16% slopes).
Applicable Area	Entire site (see map, Attachment C, Dec. 2023).

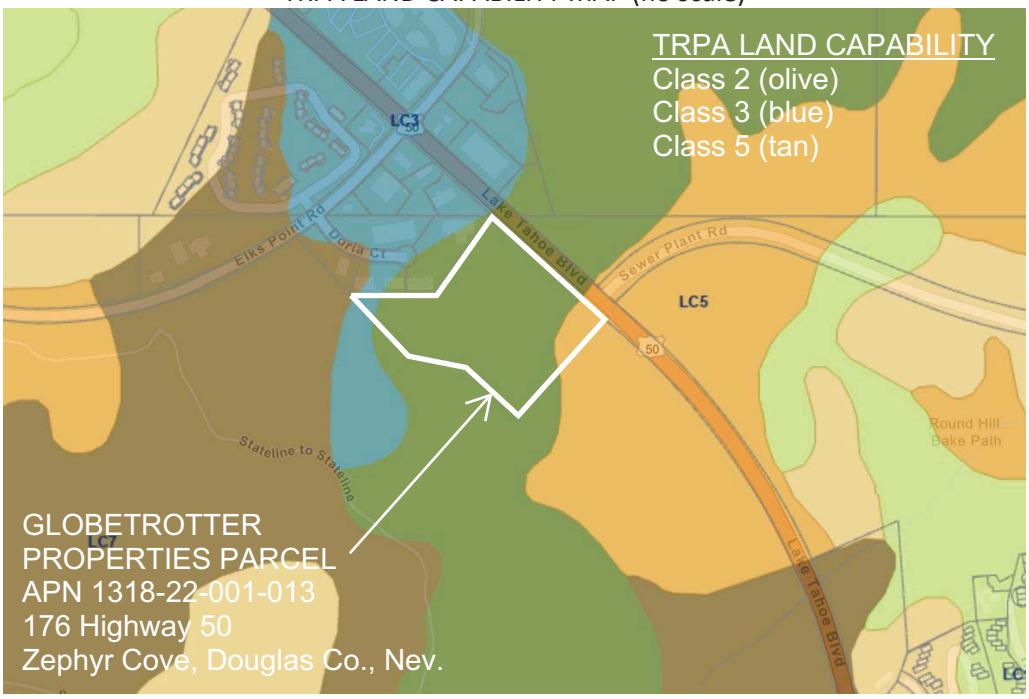
[1] TRPA currently relies upon the Soil Survey of Tahoe Basin, California-Nevada (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon. The 2006 soil survey update has not yet been formally adopted by TRPA for use with land capability matters.

Attachment A
Vicinity map and TRPA land capability map

VICINITY MAP (no scale)



TRPA LAND CAPABILITY MAP (no scale)



Attachment B
Site Photographs (July 24 and Oct. 14, 2023)

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PO Box 5310
Stateline, NV 89449-5310

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128 Market Street
Stateline, NV 89449

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Fax: 775-588-4527
www.trpa.org

176 Highway 50, Zephyr Cove, Nev.
(Globetrotter Properties Parcels; APN: 1318-22-001-013)

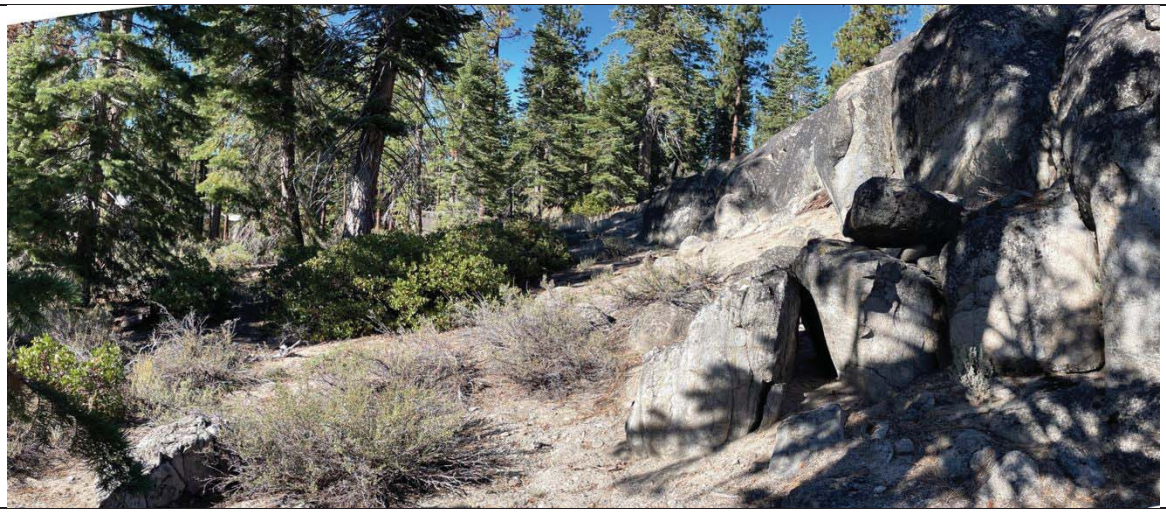


Photo 1 – View to north along west face of rock outcrop located in west-center of subject parcel. This is the largest grouping of rock outcrops. High capability soils present where trees occur, while soils become increasingly shallower closer to the rock outcrops.

Photo 2 – View to west from northeast corner. Such area slopes to the north (office buildings at far right). The slopes are mostly 17 to 25%, but the upper right portion of photo has slopes between 30 and 35%. Surface stones and boulders amount to 5% ground cover. The deep soils documented in the soil pits qualifies this vicinity for Class 4.

Photo 3 – View to northeast at Soil pit no. 1. This soil has minimal soil formation with an 18-inch topsoil atop several feet of highly weathered bedrock (C horizon). Soil textures are loamy coarse sand to coarse sand with 15 to 40% gravels and cobbles in the subsoil horizons.

Photo 4 – View to northeast at Soil pit no. 3, located in the north-center of the subject parcel. This soil qualifies as Class 6, as per Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (Bailey, 1974). This location has 4 to 10% slopes that dip to the south. The upland forest is dominated by Jeffrey pine and lesser amounts of white fir and incense cedar. The understory vegetation consists of sagebrush, bitterbrush, greenleaf manzanita, and scattered grasses/forbs. While variable, the vegetated ground cover in this vicinity is 30 to 40% and duff cover is 60 to 70%.

Photo 5 – View to northwest toward Soil pit no. 3, situated in a broad area east of the rock outcrops shown in Photo 1. The slopes in foreground are 10 to 15%, which drain to the south by southwest. All of the soil pit locations have undisturbed soils, but trees have been harvested and/or thinned over several decades (no recent cutting evident). Visible rocks in foreground and far left are large boulders but not attached to bedrock.

Photo 6 – View to west at Soil pit no. 2. This location has a gentle slope with rock outcrops to the east, south and west. The observed soil profile has 2 inches of conifer needles and duff, then 14 inches of a dark grayish brown to dark brown topsoil (A horizon). The underlying subsoil (cambic Bw horizon) is a dark yellowish brown loamy coarse sand having 15 to 25% gravels, plus a few cobbles and stones. At 48 inches, the soil material becomes highly decayed bedrock (C horizon) having very gravelly coarse sand textures. The observed soil does not match the Cagwin series, which was mapped as such in the 1974 Soil Survey of Lake Tahoe Basin. These soils are significantly deeper, somewhat excessively drained and have rapid permeability in the subsoil.

Photo 7 – View to northeast at Soil pit no. 4, located near the south corner of the property. Slopes in this area are 8 to 12%, dipping to the southwest. While the duff layer is only 1 inch thick here, the soils are sufficiently sandy and have granular to subangular blocky structure that effectively transmits rain and snowmelt through the profile. Such conditions are consistent with Hydrologic Soil Group A (no subsurface water and no limitations for root penetration). Soil erosion within parcel is very low and regeneration after disturbance is relatively quick.

Photo 8 – View to west along south property line (metal fence at far left). Except for rock outcrops, this vacant parcel has similar vegetation and ground cover conditions throughout. The slope in center-foreground is 20 to 25% (right), that becomes 10 to 15% at left. These unnamed, deep soils (labeled XXX by TRPA) have 3 slope classes, namely 0 to 16% (Class 6), 16 to 30% (Class 4), and 30 to 50% (Class 2). Boulders and small outcrops included in this map unit.

Photo 9 – View to east along south property line (east of Soil pit no. 4). The exposed bedrock typically has smooth, rounded edges because this location was formerly wave-washed when Lake Tahoe was naturally higher. The resultant soils have subsoil layers composed of highly decayed granodiorite bedrock that is naturally buried by soil materials eroded from higher elevations (colluvium).

Photo 10 – View to north and parallel to Highway 50 (east edge of parcel). This east-facing slope has slightly greater tree cover (Jeffrey pine, white fir). Foreground vegetation is predominantly bitterbrush and sagebrush. Other shrub species present on this parcel include currant, prostrate ceanothus, greenleaf manzanita and snowberry. Non-native plant composition is very low due harsh winter climate and relatively low ground disturbance (adjacent to U.S.F.S. land).

Photo 11 – View to southwest at Auger hole no. 1, located in the western extent of the property. This vicinity is has a small grouping of rock outcrops with separated by shallow soils. The soil near the center of the photo is about 14 inches deep, then the underlying material is too hard to cut with the auger blades. This soil is consistent with the Cagwin series described in the 1974 soil survey. The Cagwin-Rock outcrop, 5 to 15% slopes map unit includes rock outcrops that amount to approximate 15% of the soil delineation. This soil qualifies as Class 4.

Photo 12 – View to northwest at eastside of rock outcrop near Auger hole no. 5. Shallow soils around the rock outcrops typically have few or no trees, stunted or sparse shrubs, and exposed mineral soil surface (due to lack of natural duff layer). For Auger hole no. 5, the topsoil is 11 inches thick that is underlain by 8 inches of subsoil (C horizon). At 19-inch depth, the hand auger could no longer cut through the decayed bedrock. This soil qualifies as Class 4.

Photo 13 – View to east at rock outcrop located at highest elevation of property. Such location is situated north of Soil pit no. 3. The presence of larger trees in this vicinity indicates that presence of shallow soils around bedrock is not uniform. The mapping of rock outcrops was based on hand-augering depth, ground cover, proximity to exposed bedrock, and thin or absent duff layer. Thus, presence of several large trees alone did not disqualify the mapping of shallow soils.

Photo 14 – View to southeast from Auger hole no. 2 (west-center of property). The soil at this location was 17 inches deep before augering could no longer cut into the weathered bedrock. To assure that subsurface rocks were not mistaken as bedrock, the TRPA contractor augered 2 to 4 more holes in this vicinity. The profile documented was the deepest of the holes augered.

Attachment C
December 24, 2002, TRPA Land Capability Verification and October 2022 land capability challenge recommendation map.

TOPOGRAPHIC SURVEY
A PORTION OF THE NE1/4 SECTION 22, T.13N., R18E., M.D.M.
U.S. HIGHWAY 50, A.P.N. 1318-22-001-008
DOUGLAS COUNTY, NV

APN 1318-22-001-008		DATE 9/02	TURNER & ASSOCIATES, INC.
LOT NA	BLOCK NA		LAND SURVEYING
SUBDIVISION NA		SHEET 1 OF 1	(702) 588-3588 FAX (702) 588-4098 162 S. RHODES - STATELINE, NEVADA 89449 P.O. BOX 5427 - STATELINE, NEVADA 89449
ADDRESS ROUND HILL			
COUNTY DOUGLAS	JOB NO. 02044		

LAND AREA
5.1 ACRES

NOTES
ADD 6300' TO ALL SPOT ELEVATIONS.

THE PROPERTY LINE INFORMATION SHOWN HEREON IS FROM RECORD DATA AND DOES NOT REPRESENT A BOUNDARY SURVEY.

ELEVATION DATUM = 9397.7' AT FOUND 5/8" REBAR WITH NO REFERENCE - AERIAL TARGET.

LEGEND

P	PINE	△	TOPO STATION
UP	UTILITY POLE	7177	SPOT ELEVATION
F	FIR	IP	IRON PIPE
C	CEDAR	CIP	CAPPED IRON PIPE
J	JUNIPER	(R)	RECORD
OT	OTHER TREE	(M)	MEASURED
(BTBC)	MARKED TO BE CUT		
EOP	EDGE OF PAVEMENT		
AC	ASPHALTIC CONCRETE		
SMH	SANITARY SEWER MANHOLE	●	FOUND 3/4" IP W/PLUG PLS 3519 OR AS NOTED
DI	DRAIN INLET		
PP	POWER POLE		
GW	GUY WIRE	└	NOTHING FOUND OR SET
TW	TOP OF WALL		
BW	BOTTOM OF WALL		

PARCEL 2
APN 07-040-02

PARCEL 3
APN 07-040-03

PARCEL 4
APN 07-040-04

N 89°55'52" W
17.75'

EXISTING BUILDING

CLASS 2

CaE (2)

N 36°00'00" E 400.00'

CaE Class (2)

CaD Class (4)

EAST 360.00'

EXISTING BUILDING

CaD (4)

SIMILAR & CONTIGUOUS

N 43°16'57" W
350.00'

TrE (2)

TrE Class (1a)

CaD Class (4)

SIMILAR & CONTIGUOUS

14% @ 12%

N 80°14'42" W
237.94'

N 47°36'00" W
630.00'

40'

FND 5/8" REBAR
NO REFERENCE

FND 6"X6" CONCRETE HIGHWAY MONUMENT

U.S. HIGHWAY 50

TOP OF BANK

EXISTING FENCING - TYP.

CaD (4)

IPES Score
902
29%

Modified access evaluation

20'-0" TENNIS COURT

GARDEN

PATIO

WALL

ROCKS

LOW LAND CAPABILITY

VIEW

PM SUN

SWIMMING POOL

SPA POOL

ROCKERY WALL
POSSIBLE SOLAR ARRAY

OPTIONAL GARAGE/STABLE FOR 2 CAR GARAGE

FOREST

MID DAY SUN

ARRIVAL COURT

SNOW STORAGE

DRIVEWAY

ROCKERY WALL

AM SUN

CaE (2)

LOW LAND CAPABILITY

PARTIAL SITE PLAN
1"=30'-0"

LUNDAHL & ASSOCIATES
McCALL RESIDENCE

EB OCT. ROOF

FND NAIL & TAG IN ROCK
PLS 3519

U.S.F.S.

TRPA LAND COVERAGE CALCULATIONS

LAND CAPABILITY :	TrE - (1a)	CaE - # 2	CaD - # 4	TOTAL
LOT AREA :	14232 SQ. FT.	68554 SQ. FT.	313,912 SQ. FT.	396,698 SQ. FT.
ALLOWABLE LAND COVERAGE (BAILEY) :	142 SQ. FT. (1%)	686 SQ. FT. (1%)	62,782 SQ. FT. (20%)	63,610 SQ. FT.
TOTAL EXISTING ON-SITE LAND COVERAGE :	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.
TOTAL PROPOSED ON-SITE LAND COVERAGE :	- SQ. FT.	- SQ. FT.	- SQ. FT.	- SQ. FT.
DRIVEWAY :	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
MONUMENTS :	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
RESIDENCE :	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
PATIOS :	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
POOLS & DECK	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
TENNIS COURT :	Ø SQ. FT.	Ø SQ. FT.	7,000 SQ. FT.	7,000 SQ. FT.
GUEST BUILDING	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
GREEN HOUSE :	Ø SQ. FT.	Ø SQ. FT.	- SQ. FT.	- SQ. FT.
EXISTING OFF-SITE LAND COVERAGE :	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.
PROPOSED OFF-SITE LAND COVERAGE :	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.	Ø SQ. FT.

RECEIVED
NOV 07 2002
TAHOE REGIONAL PLANNING AGENCY

PROPOSED SITE PLAN 1
1"=30'-0"

GENERAL NOTES :
1. -

TRPA NOTES :
1. -

1318-22-001-008 // 20021343STD // 08/07/2002
THANE MCCALL
BASIN STRATEGIES
176 HWY 50 - Douglas County
078 - Re-evaluation IPES (Access/Utility Connection)

Tim Hagan 12.20.02
Applicants Copy
DOAC Building site = Similar + Contiguous to area delineated as CaD(4)

AGENDA ITEM NO. V. E.

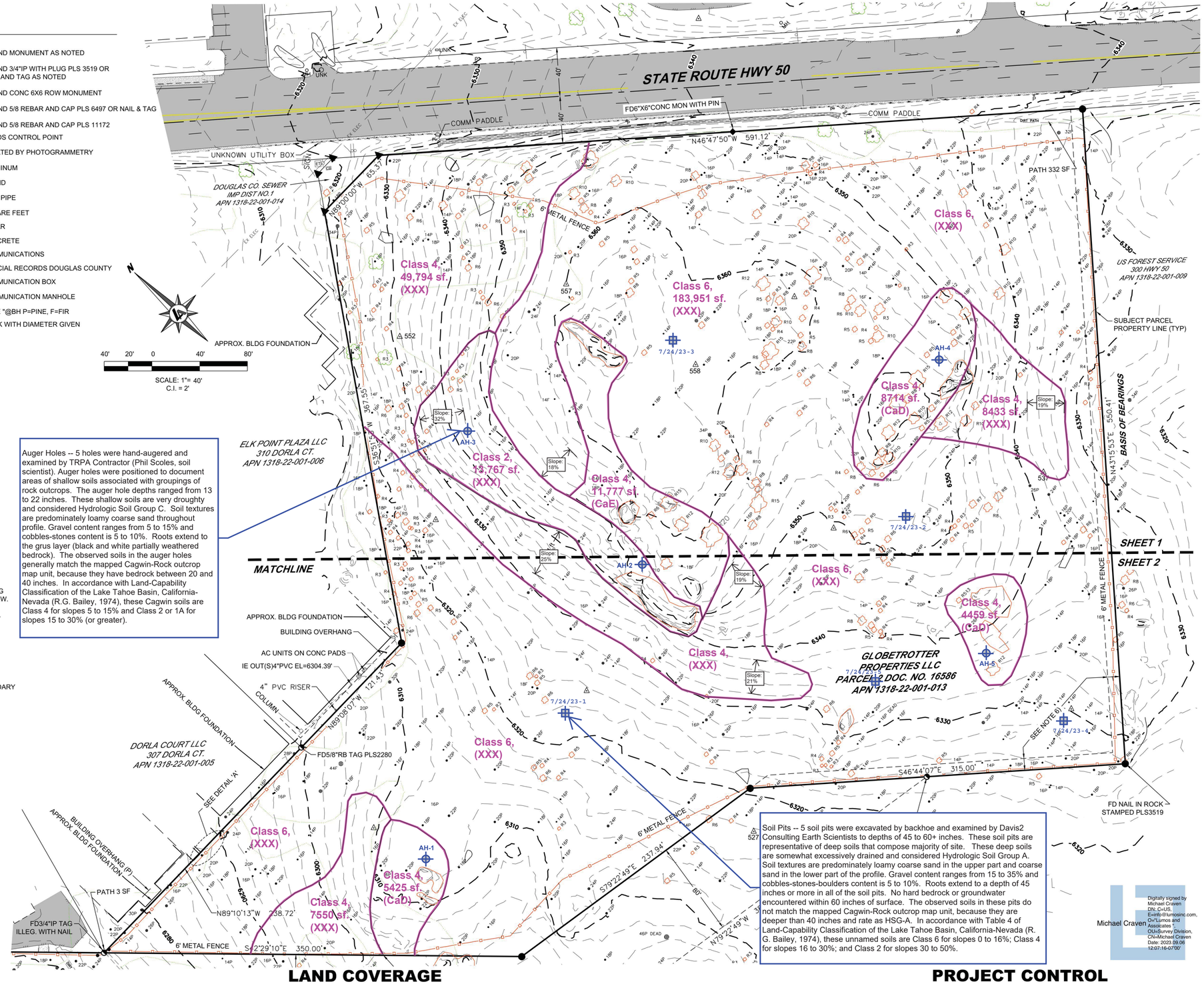
RECEIVED
JAN 13
LAHONTAN PLANNING

LEGEND:

- CURB AND GUTTER
- FENCE LINE
- FLOWLINE
- EDGE OF PAVEMENT (P)

(PRIOR 3 FEATURES LOCATED BY TRADITIONAL METHODS AND P)

- AREAS OF VEGETATION AND OR TREES (P)
- CONCRETE (P)
- ROCK WALL
- ASPHALT (P)
- TREE DRIPLINE (P)
- UTILITY POLE
- MANHOLE (P)
- UNKNOWN UTILITY (P)
- POST (P)
- ELECTRIC TRANSFORMER
- SIGN
- FOUND MONUMENT AS NOTED
- FOUND 3/4"IP WITH PLUG PLS 3519 OR NAIL AND TAG AS NOTED
- FOUND CONC 6X6 ROW MONUMENT
- FOUND 5/8 REBAR AND CAP PLS 6497 OR NAIL & TAG
- FOUND 5/8 REBAR AND CAP PLS 11172
- LUMOS CONTROL POINT
- (P) LOCATED BY PHOTOGRAMMETRY
- AL ALUMINUM
- FD FOUND
- IP IRON PIPE
- SF SQUARE FEET
- RB REBAR
- CONC CONCRETE
- COMM COMMUNICATIONS
- O.R.D.C. OFFICIAL RECORDS DOUGLAS COUNTY
- CB COMMUNICATION BOX
- © COMMUNICATION MANHOLE
- TREE "@BH P=PINE, F=FIR
- ROCK WITH DIAMETER GIVEN



N

40' 20' 0 40' 80'

SCALE: 1"= 40'
C.I. = 2'

TRPA Land Capability Challenge for

LCAP2023-0268 for APN 090-212-010
362 Beaver St., Kings Beach, Placer County, Cal.
and LCAP2023-0269 for APN 090-212-024
370 Beaver St., Kings Beach, Placer County, Cal.

Field Investigation: October 13, 2023
Data Analysis: December 22, 2023
Conducted By: P.Scoles (Soil Scientist)

Auger Holes -- 5 holes were hand-augered and examined by TRPA Contractor (Phil Scoles, soil scientist). Auger holes were positioned to document areas of shallow soils associated with groupings of rock outcrops. The auger hole depths ranged from 13 to 22 inches. These shallow soils are very droughty and considered Hydrologic Soil Group C. Soil textures are predominately loamy coarse sand throughout profile. Gravel content ranges from 5 to 15% and cobbles-stones content is 5 to 10%. Roots extend to the grus layer (black and white partially weathered bedrock). The observed soils in the auger holes generally match the mapped Cagwin-Rock outcrop map unit, because they have bedrock between 20 and 40 inches. In accordance with Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (R.G. Bailey, 1974), these Cagwin soils are Class 4 for slopes 5 to 15% and Class 2 or 1A for slopes 15 to 30% (or greater).

Soil Pits -- 5 soil pits were excavated by backhoe and examined by Davis2 Consulting Earth Scientists to depths of 45 to 60+ inches. These soil pits are representative of deep soils that compose majority of site. These deep soils are somewhat excessively drained and considered Hydrologic Soil Group A. Soil textures are predominately loamy coarse sand in the upper part and coarse sand in the lower part of the profile. Gravel content ranges from 15 to 35% and cobbles-stones-boulders content is 5 to 10%. Roots extend to a depth of 45 inches or more in all of the soil pits. No hard bedrock or groundwater encountered within 60 inches of surface. The observed soils in these pits do not match the mapped Cagwin-Rock outcrop map unit, because they are deeper than 40 inches and rate as HSG-A. In accordance with Table 4 of Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (R. G. Bailey, 1974), these unnamed soils are Class 6 for slopes 0 to 16%; Class 4 for slopes 16 to 30%; and Class 2 for slopes 30 to 50%.

BASIS OF ELEVATIONS

DATUM: NAVD 88, PER NGS OPUS STATIC GPS OBSERVATION
PROJECT BENCHMARK = LUMOS NO. 53
HAVING AN ELEVATION OF 6323.52'

NOTES

1) THIS SHEET IS PROVIDED FOR INFORMATION ONLY, SHOWING EXISTING CONDITIONS AT THE TIME OF SURVEY AND NOT A PART OF DESIGN REVIEW.

2) FIELD WORK WAS PERFORMED ON JUNE 15,29 & JULY 6,7,10,13,14 2023.

3) EASEMENTS MAY EXIST THAT ARE NOT SHOWN HEREON.

4) BOUNDARY SHOWN PER LUMOS BOUNDARY SURVEY. A RECORD OF SURVEY WILL BE FILLED TO DOCUMENT THE BOUNDARY SOLUTION.

5) ONLY TREES 14" DBH AND LARGER WERE INCLUDED IN THE SURVEY.

6) 10' UTILITY EASEMENT ALONG THE SOUTHERLY AND WESTERLY BOUNDARY OF PARCEL 2 PER R3)

SITE INFORMATION:

A.P.N.: 1318-22-001-013
DOUGLAS COUNTY, NV
PARCEL 2 OF DOCUMENT NO. 16586, BOOK 178 OF PARCEL MAPS AT PAGE 562, O.R.D.C.
9.083 ACRES; 395,674 SQ. FT.

PROPERTY OWNER:

NAME: GLOBETROTTER PROPERTIES, LLC
ADDRESS: P.O. BOX 12578, ZEPHYR COVE, NV 89448

REFERENCES

R1) RECORD DATA PER NDOT R/W PLANS, MAP E.A. NO. 72925, DECEMBER 16, 2003
R2) RECORD DATA PER NDOT CONSTRUCTION PLANS, PROJECT NO. STP-0760, MARTH 5, 2002
R3) PARCEL MAP FOR LOIS & EDWIN SARMAN, FILED JANUARY 10, 1978, DOCUMENT NO. 16586, BK. 178 OF PARCEL MAPS PG. 562, O.R.D.C.
R4) PARCEL MAP FOR ELIZABETH RABE & EDWIN SARMAN, FILED MAY 7, 1974, DOCUMENT NO. 73081, BK. 574 PG. 235, O.R.D.C.
R5) PARCEL MAP FOR DR. C.O. THOMPSON, FILED MAY 7, 1975, DOCUMENT NO. 80018, BK. 575 OF PARCEL MAPS PG. 220, O.R.D.C.
R6) PARCEL MAP FOR ROUND HILL, LTD, FILED SEPTEMBER 19, DOCUMENT NO. 36918, BK. 979 OF PARCEL MAPS PG. 1667, O.R.D.C.
R7) RECORD OF SURVEY FOR JUDY ALEXANDER, FILED SEPTEMBER 8, 1994, DOCUMENT NO. 345711, BK. 994 PG. 1199, O.R.D.C.
R8) RECORD OF SURVEY TO SUPPORT A BOUNDARY LINE ADJUSTMENT FOR D.C.S.I.D. NO.1, FILED OCTOBER 22, 2013, DOCUMENT NO. 841059, BK. 414 PG. 2885, O.R.D.C.
R9) TITLE REPORT FROM FIRST CENTENNIAL TITLE COMPANY OF NEVADA, DATED FEBRUARY 3, 2023, ORDER NO. 23033049-CT.

LAND COVERAGE

APN 1318-22-001-013		
PARCEL AREA	=	395,674 s.f.
ONSITE		
COMPACTED DIRT PATHS	=	335 s.f.
SHEDS	=	7 s.f.
ONSITE GRAND TOTAL	=	342 s.f.

PROJECT CONTROL

POINT	NORTH	EAST	ELEVATION	DESCRIPTION
552	2239052.16'	14670420.51'	6332.32'	CP 5/8 R/C CONTROL
557	2239178.72'	14670347.61'	6360.19'	CP 5/8 R/C CONTROL
558	2239204.13'	14670223.15'	6361.64'	CP 5/8 R/C CONTROL
53	2241083.17'	14666139.85'	6323.52'	CP 5/8 R/C CONTROL

Michael Craven
Digitally signed by Michael Craven
DN: C=US, E=info@lumosinc.com, O="Lumos and Associates", OU=Survey Division, CN=Michael Craven
Date: 2023.09.06 12:07:16-07'00'

LUMOS & ASSOCIATES
312 DORLA COURT, SUITE 202
ZEPHYR COVE, NV 89448
TEL: 775.588.6490
WWW.LUMOSINC.COM

REGISTERED LAND SURVEYOR - STATE OF NEVADA
MICHAEL B. CRAVEN
Exp: 12-31-2024
No. 28229

GLOBE TROTTER PROPERTIES, LLC

RETREAT 50 GLAMPING RESORT
EXISTING SITE CONDITIONS
TOPOGRAPHIC MAP

ZEPHYR COVE — DOUGLAS COUNTY — NEVADA

REV	DATE	DESCRIPTION	BY

SEPTEMBER 2023

BAR IS 1 INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

V1.0

DRAWN BY: BG
DESIGNED BY:
CHECKED BY: MBC
JOB NO.: 11039.000
SHEETS AGENDA ITEM NO. V.C. OF 2

Attachment D
Soil consultant's land capability report, incl. profile descriptions (5 soil pits)

DAVIS²
CONSULTING EARTH SCIENTISTS
P.0. Box 734 · Georgetown, CA 95634 · Tel. (530) 559-1405; davis2consulting@sbcglobal.net

Land Capability Challenge
Globetrotters Properties, LLC
Douglas County, NV
(APN 1318-22-001-013)

September 21, 2023

INTRODUCTION

A soil investigation was conducted on Globetrotter Properties, LLC, on July 25, 2023. 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 impervious coverage regulation, by Chapter 30 of the Code of Ordinances.

The parcel supports bare land consisting of 9.08 acres, located at US Highway 50 and Elk Point Road, Douglas County, Nevada. This work is advanced at the request of Globetrotter Properties, LLC.

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, hazard waste assessment or seismic analyses. In this report the term "soil" refers to the surface weathering of rocks and sediments as typically used in agriculture, forestry, and erosion control. In contrast, the typical engineering use of the "soil" refers to the strength of deeper materials, often a few to tens or more feet deep.

ENVIRONMENTAL SETTING

The site is located at US Highway 50 and Elk Point Road, Douglas County, Nevada. Vegetation consists of Jeffrey pine, white fir, bitterbrush and sagebrush. Convex slopes range between 3 to 25 percent on an all aspects. There are no stream environment zones (SEZ) influencing this parcel.

Soils are shown on TRPA map sheet H-15 as: CaE (Cagwin-rock outcrop 15 to 30 percent slopes); JaC (Jabu coarse sandy loam, 0 to 9 percent slopes); JeD (Jabu coarse sandy loam, shallow variant, 5 to 15 percent slope; EfB (Elmira-Gefo loamy coarse sand, 0 to 5 percent slopes. Geology (Bernett, 1968) is characterized as Qg (glacial outwash) and gr (Granitic intrusive rocks). Bailey's (1974) geomorphic analysis shows the parcel within C_1 (Granitic foothills) and E_2 (Outwash, till and lake deposits).

METHODOLOGY

For this investigation, we surveyed the parcel and immediately adjacent areas (attached Land Capability Assessment Map). We then measured and technically described five (5) discrete soil profiles, each representative of site-specific landforms. By use of hand augers and backhoe excavators, we exposed the near- surface sediments to depths ranging from 0 to 5 ft deep. We then formally described and measured the physical properties of

the soils following procedures of the National Cooperative Soil Survey. We similarly documented groundwater levels using visual methodologies. Information gathered at the site was compared to the *Soil Survey of the Lake Tahoe Basin, California-Nevada* (Rogers et al, 1974) and to criteria of 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 Lumos and Associates was available in the field for ground control and slope analysis. Information pertaining to land capability districts is shown on the base map.

FINDINGS

The parcel consists of granitic rocks that have been mantled by lacustrine deposits. Soils are found to be deep and somewhat excessively drained, members of Soil Hydrologic Group A. They can be characterized having dark grayish brown loamy coarse sand topsoil approximately 16 inches thick, over brown and olive brown gravelly to very gravelly loamy coarse sand subsoil to 60 inches depth. Scattered rock outcrops occur but are of a minor extent within overall map units and considered inclusion within higher land capability ratings.

The soils viewed and described are different than those shown on the TRPA map sheet because they are deeper than the Cagwin series and show weak (structural) cambic sub horizons. The soil profiles described are other than the Jabu series because argillic sub horizons and fragipan characteristic are nonexistent. Elmira series was not observed.

None of the soils described are mentioned in the 1974 Soil Survey. For purposes of Land Capability Classification (Bailey, 1974) *Table 4 – Basis of capability classification for Lake Tahoe Basin lands* is used. Where soils range from 0 to 16 percent slope in hydrologic soil groups A and B, Class 6 is assessed. Where soils are within the range of 16 to 30 percent, in hydrologic soil group A and B, Class 4 is assessed.

CONCLUSIONS AND RECOMMENDATIONS

Soils found are unnamed (XXX) and place in Land Capability Classes 6 and 4, based on slope ranges and Hydrologic Soil Group A. Rock outcrops are estimated at less than 10 percent and do not qualify for "rock outcrop" complex but are mentioned as surface modifier "rocky".

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

Respectfully submitted,

Sidney W. Davis,
CPSS /SC No. 1031

Stop No. 1

Oi 1 – 0 inches,

A1 1 - 8 inches, brown (10YR 5/3) and dark brown (10YR 3/3) moist; gravelly loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine common and medium roots; many very fine and fine interstitial pores; fifteen percent gravel, clear smooth boundary.

A2 8 - 18 inches, light yellowish brown (10YR 6/4) and dark yellowish brown (10YR 4/4) moist; gravelly loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine medium and few coarse roots; many very fine and fine interstitial pores; gradual wavy boundary.

C1 18 - 24 inches, light yellowish brown (10YR 6/4) and dark yellowish brown (10YR 4/4) moist; gravelly loamy coarse sand; single grain; soft, loose, nonsticky and nonplastic; common fine and few medium roots; many very fine and fine interstitial pores; thirty percent gravel; gradual wavy boundary.

C2 24 – 48 inches, light yellowish brown (2.5Y 6/4) and light olive brown (2.5Y 5/4) moist; very gravelly coarse sand; single grain; soft, loose, nonsticky and nonplastic; common fine and few medium roots; many very fine and fine interstitial pores; seventy-five percent gravel; gradual irregular boundary.

C3 48+ inches, pale brown (2.5Y 7/4) and light yellowish brown (2.5Y 6/4) moist; very gravelly loamy coarse sand; single grain; slightly hard, very friable, nonsticky and nonplastic; common medium and few fine roots; many very fine and fine interstitial pores; sixty-five percent gravel.

Notes: Deeper than Cagwin – Hydrologic Group A.

Soil Series: Unnamed (XXX)
Soil Classification: Sandy, mixed, frigid, Dystric Xerumbrepts
Soil Drainage Class: Somewhat excessive
Hydrologic Soil Group A

Stop No. 2

Oi 0 – 2 inches, Conifer, needles and duff.

A1 2 – 6 inches, very dark grayish brown (10YR 3/2 moist; loamy coarse sand; weak medium granular structure; soft, loose, nonsticky and nonplastic; many very fine, fine and few medium roots; many very fine and fine interstitial pores; ten percent gravel; clear smooth boundary.

A2 6 – 16 inches, dark brown (10YR 3/3) moist; loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; common fine medium roots; many very fine and fine interstitial pores; ten percent gravel; gradual smooth boundary.

Bw1 16 – 32 inches, dark yellowish brown (10YR 4/4) moist: gravelly loamy coarse sand; moderate fine subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine and many medium thick roots; many very fine and fine interstitial pores; fifteen percent gravel; gradual wavy boundary.

Bw2 32 – 48 inches, dark yellowish brown (10YR 4/4) moist; loamy coarse sand; moderate medium subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine medium roots; many very fine and fine interstitial pores; ten percent gravel; gradual wavy boundary.

C1 48 – 60 inches, dark yellowish brown (10YR 4/4) moist; very gravelly coarse sand; single grain; soft, loose, nonsticky and nonplastic; many very fine and fine interstitial pores; thirty-five percent gravel.

Notes: Deeper than Cagwin series.

Soil series: Unnamed (XXX)
Soil Classification: Sandy, mixed, frigid, Dystric Xerumbrepts
Soil Drainage Class: Somewhat excessive
Soil Hydrologic Group: A

Stop No. 3

Oi 0 – 1 inch, conifer needles and duff.

A1 1 – 8 inches, dark brown (10YR 3/3) moist; loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine and common medium roots; many very fine and fine interstitial pores; ten percent gravel; clear smooth boundary.

A2 8 – 16 inches, dark yellowish brown (10YR 3/4) moist; gravelly loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; common fine moderate medium and few coarse roots; many very fine and fine interstitial pores; fifteen percent gravel; gradual smooth boundary.

Bw 16 – 28 inches, dark yellowish brown (10YR 4/4) moist; gravelly loamy coarse sand; weak fine subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine many medium and few coarse roots; many very fine and fine interstitial pores; fifteen percent gravel; gradual wavy boundary

C1 28 – 44 inches, light olive brown (2.5Y 5/4) moist; very gravelly coarse sand; single grain; soft, loose, nonsticky and nonplastic; few fine common medium roots; many very fine and fine interstitial pores; thirty-five percent gravel; gradual wavy boundary.

C2 44 – 60 inches, light olive brown (2.5Y 5/4) moist; very gravelly coarse sand; single grain; soft, loose, nonsticky and nonplastic; few fine roots; many very fine and fine interstitial pores; thirty-five to forty percent gravel.

Notes: Large cobble-size rotten fragments in C1 and C2 horizons (~10%).

Soil Series: Unnamed (XXX)
Soil Classification: Sandy-skeletal, mixed, frigid, Dystric Xerumbrepts
Soi Drainage Class: Somewhat excessive
Hydrologic Soil Group: A

Stop No. 4

Oi 0 – 1 inch, conifer needles and duff

A1 1 – 6 inches, very dark brown (10YR 2/2) moist; loamy coarse sand; moderate fine granular structure; soft, loose, nonsticky and nonplastic; many fine and few medium roots; many very fine and fine interstitial pores; ten percent gravel; clear smooth boundary.

A2 6 – 16 inches, dark brown (10YR 3/3) moist; very gravelly loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine medium and coarse roots; many very fine and fine interstitial pores; ten percent gravel and twenty-five percent stones; gradual wavy boundary.

Bw 16 – 24 inches, dark yellowish brown (10YR 3/4) moist; very gravelly loamy coarse sand; weak subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine and many medium common coarse roots; many very fine and fine interstitial pores; ten percent stones and thirty percent gravel; gradual wavy boundary.

C1 24 – 45 inches, light olive brown (2.5Y 5/4) moist; very gravelly coarse sand; massive; hard, friable, nonsticky and nonplastic; few fine medium coarse roots; few fine interstitial pores.

Cr 45+ inches, weathered granite.

Notes: Hydrologic Group A.

Soil Series: Unnamed (XXX)
Soil Classification: Sandy-skeletal, mixed, frigid, Dystric Xerumbrepts
Soil Drainage Class: Somewhat excessive
Hydrologic Soil Group: A

Stop No. 5

Oi 0 – 2 inches, conifer needles and duff.

A1 2 – 4 inches, dark brown (10YR 3/3) moist; loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine common medium roots; many very fine and fine interstitial pores; ten percent gravel; clear smooth boundary.

A2 4 – 12 inches, dark brown (10YR 3/3) moist; gravelly loamy coarse sand; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine common medium and few coarse roots; many very fine and fine interstitial pores; fifteen percent gravel; gradual wavy boundary.

Bw1 12 – 32 inches, dark brown (10YR 3/3) moist; gravelly loamy coarse sand; weak fine subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine medium and few coarse roots; many very fine and fine interstitial pores; fifteen percent gravel; gradual wavy boundary.

Bw2 32 – 60 inches, olive brown (2.5Y 4/4) moist; gravelly loamy coarse sand; weak fine subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine medium and few coarse roots; many very fine and fine interstitial pores; fifteen percent gravel.

Note: Hydrologic Group A.

Soil Series: Unnamed (XXX)
Soil Classification: Sandy, mixed, frigid, Dystric Xerumbrepts
Soil Drainage Class: Somewhat excessive
Hydrologic Soil Group: A

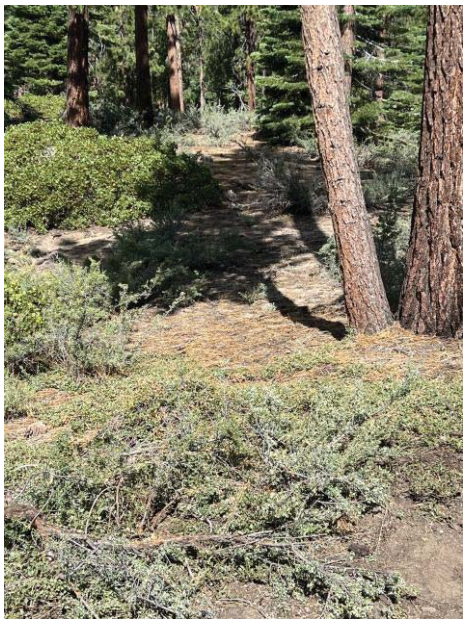


Figure 1. Pit 1 landscape.

Figure 2. Pit 1 profile.

Figure 3. Pit 2 landscape.

Figure 4, Pit 2 profile.

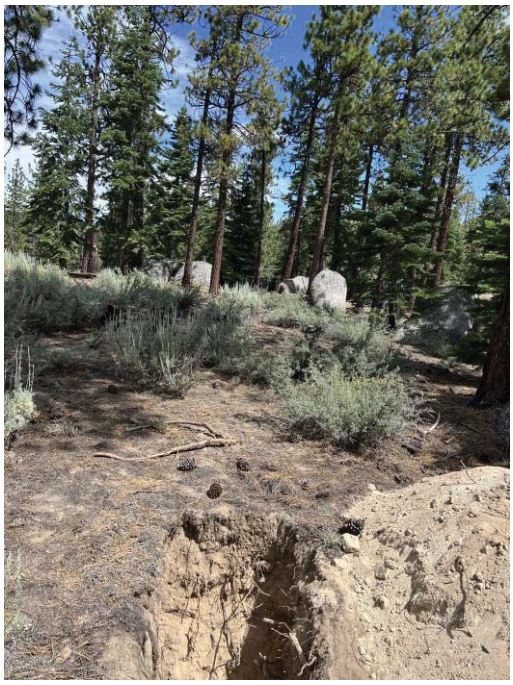


Figure 5. Pit 3 landscape.

Figure 6. Pit 3 profile.

Figure 7. Pit 4 profile.

Figure 8. Pit 4 landscape.

Figure 9. Pit 5 landscape.

Figure 10. Pit 5 profile.

Attachment E
Auger Hole Descriptions

TRPA Contractor Profile Descriptions (5 auger holes)

Auger Hole no. 1 (AH-1). The location of the auger hole is approximately 80 feet northeast of south property line and 280 feet east of west corner of parcel, in west panhandle of parcel (see site map). Sample location is representative of 5,425 sf. CaD map unit, surrounded by unnamed soil (XXX, 0 to 16% slopes) to the north and east; and unnamed deep soil (XXX, 16 to 30% slopes) to the west. Profile photos at end of this attachment.

Described by soil scientist Phil Scoles on October 14, 2023 using a hand auger on a shallow soil (5% slope to southwest). Somewhat excessively drained. Sandy soil with little soil formation (residuum). About 40% of ground cover is shallow soil and 60% is exposed granodiorite bedrock. Vegetation consists of scattered Jeffrey pine along perimeter of shallow soil. The understory composed of scattered sagebrush, bitterbrush, few scattered forbs and grasses.

A1—0 to 5 inches; very dark brown (10YR 2/2) **loamy coarse sand**; black (10YR 2/1) moist; weak fine granular structure; soft, very friable, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 10% gravels; abrupt boundary.

A2—5 to 9 inches; very dark grayish brown (10YR 3/2) **loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots and few medium roots; many fine and medium interstitial pores; 10% gravels; clear boundary. No redoximorphic features.

C—9 to 18 inches; dark yellowish brown (10YR 3/4) **gravelly loamy coarse sand**; dark brown (10YR 2/2) moist; single grain structure; loose, very friable, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 15% gravels; abrupt boundary. No redoximorphic features.

R or Cr—18 inches; auger refusal (bedrock, additional attempt with refusal at 14 in.)

Parent material:	Granitic residuum.
Drainage class:	Somewhat excessive drained. Rapid permeability above bedrock.
Hydrologic Soil Group:	HSG-C (bedrock <40 inches from surface).
Soil Taxonomy:	Mixed, frigid, Dystric Xeropsamments
TRPA Geomorph. Map:	C-1 Granitic foothills (moderate hazard lands, HSG-C)
1974 NRCS Mapping:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2)
2006 NRCS Mapping:	7411-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).
TRPA Determination:	CaD-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).

Auger Hole no. 2 (AH-2). The location of the auger hole is approximately 210 feet southeast of northwest property line and 205 feet northeast of south property line, near center of parcel (see site map). Sample location is shallow and less steep inclusion within a 13,767 sf. map unit of deep, unnamed soil, 30 to 50% slopes). Adjacent map unit of unnamed soil (XXX, 0 to 16% slopes) and Cagwin-Rock outcrop complex, 5 to 15% slopes to the east; and unnamed deep soil (XXX, 16 to 30% slopes) to the west and south. Profile photos at end of this attachment.

Described by soil scientist Phil Scoles on October 14, 2023 using a hand auger on a shallow soil (17% slope to west). Somewhat excessively drained. Sandy soil with little soil formation (residuum). About 20% of ground cover is vegetated, 60% is duff or barren; and 20% is exposed granodiorite bedrock. Vegetation consists of scattered Jeffrey pine and white fir. The understory composed of scattered sagebrush, bitterbrush, greenleaf manzanita, prostrate ceanothus, plus few scattered forbs and grasses.

A1—0 to 3 inches; very dark brown (10YR 2/2) **gravelly loamy coarse sand**; black (10YR 2/1) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 15% gravels; abrupt boundary.

A2—3 to 8 inches; very dark grayish brown (10YR 3/2) **gravelly loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 15% gravels; clear boundary. No redoximorphic features.

AC—8 to 13 inches; dark brown (10YR 3/3) **gravelly loamy coarse sand**; very dark brown (10YR 2/2) moist; single grain structure; loose, nonsticky, nonplastic; few fine roots and few medium roots; many fine and medium interstitial pores; 20% gravels; clear boundary. No redoximorphic features.

C—13 to 17 inches; brown (10YR 5/3) **gravelly loamy coarse sand**; very dark grayish brown (10YR 3/2) moist; single grain structure; loose, nonsticky, nonplastic; few fine roots and few medium roots; many fine and medium interstitial pores; 25% gravels; abrupt boundary. No redoximorphic features.

R or Cr—17 inches; auger refusal (bedrock, additional 2 attempts with refusal at 3 and 7 inches)

Parent material:	Granitic residuum.
Drainage class:	Somewhat excessive drained. Rapid permeability above bedrock.
Hydrologic Soil Group:	HSG-C (bedrock <40 inches from surface).
Soil Taxonomy:	Mixed, frigid, Dystric Xeropsamments
TRPA Geomorph. Map:	C-1 Granitic foothills (moderate hazard lands, HSG-C)
1974 NRCS Mapping:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2)
2006 NRCS Mapping:	7411-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).
TRPA Determination:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2).

Auger Hole no. 3 (AH-3). The location of the auger hole is approximately 85 feet east of west property line and 225 feet southwest of east property line, near north-center of parcel (see site map). Sample location is a representative of a Cagwin-Rock outcrop complex inclusion within a 13,767 sf. map unit of deep, unnamed soil, 30 to 50% slopes). Adjacent map unit of unnamed soil (XXX, 0 to 16% slopes) and Cagwin-Rock outcrop complex, 5 to 15% slopes to the east; and unnamed deep soil (XXX, 16 to 30% slopes) to the west and south. Photos at end of this attach.

Described by soil scientist Phil Scoles on October 14, 2023 using a hand auger on a shallow soil (32% slope to west). Somewhat excessively drained. Sandy soil with little soil formation (residuum). About 25% of ground cover is vegetated, 55% is duff and 20% is exposed

granodiorite bedrock. Vegetation consists of white fir with lesser amounts of Jeffrey pine. The understory composed of bitterbrush, greenleaf manzanita, prostrate ceanothus, plus few scattered forbs and grasses.

Oi—0 to 2 inches; **duff,** composed of white fir and pine needles, twigs; abrupt boundary.

A—2 to 6 inches; very dark grayish brown (10YR 3/2) **loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 10% gravels; abrupt boundary.

AC—6 to 12 inches; dark brown (10YR 3/3) **gravelly loamy coarse sand**; very dark brown (10YR 2/2) moist; single grain structure; loose, nonsticky, nonplastic; common fine roots and few medium roots; many fine and medium interstitial pores; 15% gravels; clear boundary. No redoximorphic features.

C—12 to 22 inches; dark yellowish brown (10YR 3/4) **gravelly loamy coarse sand**; dark brown (10YR 3/3) moist; single grain structure; loose, nonsticky, nonplastic; few fine roots and few medium roots; many fine and medium interstitial pores; 20% gravels; abrupt boundary. No redoximorphic features.

R or Cr—22 inches; auger refusal (bedrock, additional 3 attempts with refusal at 5, 8 and 12 inches)

Parent material:	Granitic residuum.
Drainage class:	Somewhat excessive drained. Rapid permeability above bedrock.
Hydrologic Soil Group:	HSG-C (bedrock <40 inches from surface).
Soil Taxonomy:	Mixed, frigid, Dystric Xeropsamments
TRPA Geomorph. Map:	C-1 Granitic foothills (moderate hazard lands, HSG-C)
1974 NRCS Mapping:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2)
2006 NRCS Mapping:	7411-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).
TRPA Determination:	CaE-Cagwin-Rock outcrop complex, 30-50% slopes (Class 2).

Auger Hole no. 4 (AH-4). The location of the auger hole is approximately 135 feet northwest of south property line and 200 feet southwest of east property line, near east-center of parcel (see site map). Sample location is representative of 8,714 sf. CaD map unit, surrounded by unnamed soil (XXX, 0 to 16% slopes) to the north, east and west; and unnamed deep soil (XXX, 16 to 30% slopes) to the south. Profile photos at end of this appendix.

Described by soil scientist Phil Scoles on October 14, 2023 using a hand auger on a shallow soil (13% slope to east). Somewhat excessively drained. Sandy soil with little soil formation (residuum). About 20% of ground cover is vegetated, 65% is duff or barren and 15% is exposed granodiorite bedrock. Vegetation consists of mixed stand of white fir and Jeffrey pine. The understory composed of sagebrush, bitterbrush, Sierra coffeeberry, plus few scattered forbs and grasses.

A1—0 to 7 inches; very dark brown (10YR 2/2) **loamy coarse sand**; black (10YR 2/1) moist; weak fine granular structure; loose, nonsticky, nonplastic; few fine roots; many fine and medium interstitial pores; 15% gravels; abrupt boundary.

A2—7 to 10 inches; dark brown (10YR 3/3) **loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots; many fine and medium interstitial pores; 20% gravels; clear boundary. No redoximorphic features.

C—10 to 13 inches; brown (10YR 5/3) **gravelly loamy coarse sand**; very dark grayish brown (10YR 3/2) moist; single grain structure; loose, nonsticky, nonplastic; common fine roots and few medium roots; many fine and medium interstitial pores; 25% gravels; abrupt boundary. No redoximorphic features.

R or Cr—13 inches; auger refusal (bedrock, additional 4 attempts with refusal at 3, 4, 5 and 7 inches)

Parent material:	Granitic residuum.
Drainage class:	Somewhat excessive drained. Rapid permeability above bedrock.
Hydrologic Soil Group:	HSG-C (bedrock <40 inches from surface).
Soil Taxonomy:	Mixed, frigid, Dystric Xeropsamments
TRPA Geomorph. Map:	C-1 Granitic foothills (moderate hazard lands, HSG-C)
1974 NRCS Mapping:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2)
2006 NRCS Mapping:	7411-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).
TRPA Determination:	CaD-Cagwin-Rock outcrop complex, 5-15% slopes (Class 4).

Auger Hole no. 5 (AH-5). The location of the auger hole is approximately 110 feet northwest of south property line and 145 feet north of south corner of parcel, near south-center of parcel (see site map). Sample location is representative of 4,459 sf. CaD map unit, surrounded by unnamed soil (XXX, 0 to 16% slopes) in all directions Profile photos at end of this appendix.

Described by soil scientist Phil Scoles on October 14, 2023 using a hand auger on a shallow soil (14% slope to southwest). Somewhat excessively drained. Sandy soil with little soil formation (residuum). About 30% of ground cover is vegetated, 50% is duff or barren and 20% is exposed granodiorite bedrock. Vegetation consists of white fir and Jeffrey pine. The understory composed of sagebrush, bitterbrush, Sierra coffeeberry, prostrate ceanothus, plus few scattered forbs and grasses.

Oi—0 to 1 inch; **duff,** composed of white fir and pine needles, twigs; abrupt boundary.

A1—1 to 6 inches; very dark grayish brown (10YR 3/2) **loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; few fine roots; many fine and medium interstitial pores; 5% gravels; abrupt boundary.

A2—6 to 11 inches; brown (10YR 4/3) **loamy coarse sand**; very dark brown (10YR 2/2) moist; weak fine granular structure; loose, nonsticky, nonplastic; common fine roots and few

medium roots; many fine and medium interstitial pores; 10% gravels; clear boundary. No redoximorphic features.

C—11 to 19 inches; brown (10YR 5/3) **gravelly loamy coarse sand**; dark brown (10YR 3/3) moist; single grain structure; loose, nonsticky, nonplastic; few fine roots and few medium roots; many fine and medium interstitial pores; 15% gravels; abrupt boundary. No redoximorphic features.

R or Cr—19 inches; auger refusal (bedrock, additional 1 attempt with refusal at 13 inches)

Parent material:	Granitic residuum.
Drainage class:	Somewhat excessive drained. Rapid permeability above bedrock.
Hydrologic Soil Group:	HSG-C (bedrock <40 inches from surface).
Soil Taxonomy:	Mixed, frigid, Dystric Xeropsamments
TRPA Geomorph. Map:	C-1 Granitic foothills (moderate hazard lands, HSG-C)
1974 NRCS Mapping:	CaE-Cagwin-Rock outcrop complex, 15 to 30% slopes (Class 2)
2006 NRCS Mapping:	7411-Cagwin-Rock outcrop complex, 5 to 15% slopes (Class 4).
TRPA Determination:	CaD-Cagwin-Rock outcrop complex, 5-15% slopes (Class 4).

AH-1 Profile and Landscape Photo (view to northeast).

AH-2 Profile and Landscape Photo (view to northeast).

AH-3 Profile and Landscape Photo (view to south).

AH-4 Profile and Landscape Photo (view to north).

AH-5 Profile and Landscape Photo (view to northwest).