TAHOE REGIONAL PLANNING AGENCY

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Stateline, NV 89449-5310

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STAFF REPORT

Date: January 25, 2024

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Lands End, LLC Land Capability Challenge
2221 Lands End, Douglas County, Nevada
APN: 1418-03-401-011, TRPA File #: LCAP2023-0254

Proposed Action:
Hearings Officer review and approve the proposed land capability challenge.

Staff Recommendation:
Staff recommends the TRPA Hearings Officer approve the land capability challenge on the subject parcel. A 1999 land capability verification determined this parcel to be Class 4 – CaD (4,979 square feet, 15 percent of the parcel) and Class 2- CaE (28,856 square feet, 85 percent of the parcel). This land capability challenge results Class 4 - XXX (27,396 square feet, 81 percent of the parcel), Class 2- XXX (6,113 square feet, 18 percent of the parcel), and Class 1a- TrE (326 square feet, 1 percent of the parcel).

Background:
The subject parcel is shown as Class 1a TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps). The Soil Conservation Service *Soil Survey of Tahoe Basin Area, California-Nevada* (Roger 1974) places the subject parcel within the CaF, Cagwin-Rockout crop complex, 30 to 50 percent slopes mapunit. This parcel has a geomorphic mapping of C2-
Stream cut granitic mountain slopes, strongly dissected lands (moderate hazard lands). The Cagwin soils are moderately deep, somewhat excessively drained soils that formed in material weathered from granitic rock. Cagwin soils have loamy coarse sand textures in the A-horizon, with loamy coarse sand or coarse sand subsurface textures in the upper 27 inches. Weathered granitic bedrock (grus) is encountered between 20 and 40 inches below ground surface.

A land capability challenge (LCAP2023-0254) was filed with TRPA on September 27, 2023. Ogilvy Consulting represents the owner, Lands End LLC. TRPA consultant, Marchel Munnecke visited the site on October 13, 2023 and observed and reviewed one soil pit description provided by Davis2 Consulting Earth Scientists.

Findings:
One soil pit was excavated by a backhoe to 60 inches. The pit was located between Lands End Road and the driveway, approximately 60 feet from the west boundary of the parcel, and 8 feet north of the driveway. The soil is characterized by a loamy coarse sand surface texture with

gravelly loamy coarse sand, loamy coarse sand, and very bouldery sandy loam subsurface textures. A weak argillic horizon is present between 32 and 52 inches. This soil is very deep, well drained, and is a member of Soil Hydrologic Group B. The vegetation in the vicinity of the soil pit is irrigated lawn under an open Jeffrey pine canopy. Native vegetation is an open Jeffrey pine forest with montane shrubs such as greenleaf manzanita and huckleberry oak in the canopy openings.

This soil does not meet the range and characteristics of the Cagwin soil series as described in the *Soil Survey of Tahoe Basin Area, California-Nevada* (Rogers 1974) because it is deeper than 40 inches and has argillic soil development. This soil differs from the Jabu soil because it does not have a fragipan and differs from the Inville soil because it has less than 35 percent rock fragments in the particle control section. This soil does not meet the range and characteristics of other soils in the 1974 Tahoe Basin Soil Survey, so is an unmapped soil (XXX).

Using Table 4 in the *Land Capability Classification of Lake Tahoe Basin, California-Nevada*, and based on the slopes, this parcel is mapped as land capability Class 4 -XXX, 15 to 30 percent slopes and Class 2- XXX, greater than 30 percent slopes. A small portion is mapped Class 1a, TrE, Toem-Rock outcrop complex, 9 to 30 percent slopes.

This parcel is mapped as Cassenai gravelly loamy coarse sand, 15 to 30 percent slopes in the 2007 *Soil Survey of the Tahoe Basin Area, California and Nevada* (USDA 2007). The Cassenai soils are very deep sandy soils with little soil development. The soil on this site has argillic soil development, so does not meet the criteria of the Cassenai soils.

The table below summarizes the changes in land capability as concluded by this land capability challenge.660

Land Capability District	**Area (sq. ft.) 1999 LCV**	**Area (sq. ft.) 2023 LCC**
Class 2 (CaD, 5 to 30 % slopes)	28,856	6,113
Class 4 (CaE, 15 to 30 % slopes)	4,979	27,396
Class 2 (XXX, >30 % slopes)	0	
Class 4 (XXX, 16 to 30 % slopes)	0	
1a (TrE, 9 to 30 % slopes)	0	326
Total Parcel Area	33,835	33,835

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel Numbers: (APN)	1418-03-401-011
TRPA File No. / Submittal Date:	LCAP2023-0254/ 9/27/2023
Owner or Applicant:	Lands End LLC
Address:	204 Second Ave., San Mateo, CA 94401

Environmental Setting	
Bailey Soil Mapping Unit[1] / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	CaF, Cagwin-Rock outcrop complex, 30 to 50 percent slopes/ HSG C/ C2-Stream cut granitic mountain slopes, strongly dissected lands (moderate hazard lands).
Soil Parent Material	Colluvium over residuum
Slopes and Aspect	16 to 40 percent; sloping to the southeast
Elevation and Datum	6,271 to 6,301 Turner and Associates, 10-18-2023
Rock Outcrops and Surface Configuration	There are scattered stones and boulders are on the surface, with a small area of shallow soil and bedrock along the south parcel boundary.
SEZ and Hydrology Source	There is no SEZ on this parcel.
Vegetation	Landscaping and patches of lawn are near the residence. Native vegetation is a Jeffrey pine forest with montane shrubs such as greenleaf manzanita and huckleberry oak in canopy openings.
Ground Cover Condition	Good (vegetation 65%, duff/mulch 55% cover)
Site Features	Residence, decks, rocked walkway, A/C driveway, road easement, retaining walls and tie steps.

Field Investigation and Procedures	
Consultant and Address	Marchel Munnecke (TRPA consultant) Post Office Box 1015; Twin Bridges, CA 95735-1015
TRPA Staff Field Dates	October 13, 2023
SEZ Mapping / NRCS Hydric Soil	No SEZ on the parcel.
Number of Soil Pits or Auger Holes and Description Depth	1 pit excavated by backhoe to 60 inches.
Additional or Repetitive TRPA Sample Locations	NA
Representative Soil Profile Descriptions	Davis 2 Consulting, Land Capability Report, See Attachment B.
Areas Not Examined	Residence, decks, rocked walkway, A/C driveway, road easement, retaining walls and tie steps.

[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.

TRPA Findings	
2006 Soil Survey Map Unit	Cassenai, gravelly loamy coarse sand 15 to 30 percent slopes
Consultant Soil Mapping Determination and Rationale	This parcel is determined to be Class 4- XXX, 16 to 30 percent slopes, Class 2- XXX, >30 percent slopes, and Class 1a, TrE- Toem- Rock outcrop 9 to 30 percent slopes. This soil does not meet the range and characteristics of the Cagwin soil series as described in the *Soil Survey of Tahoe Basin Area, California-Nevada* (Rogers 1974) because it is deeper than 40 inches and has argillic soil development. This soil differs from the Jabu soil because it does not have a fragipan and differs from the Inville soil because it has less than 35 percent rock fragments in the particle control section. This soil does not meet the range and characteristics of other soils in the 1974 Tahoe Basin Soil Survey, so is an unmapped soil (XXX).
Slope Determination	16 to 40 percent slopes
TRPA Conclusion(s)	TRPA concurs with consultants' determination and rationale above.
Applicable Area	Entire parcel, see Attachment A.

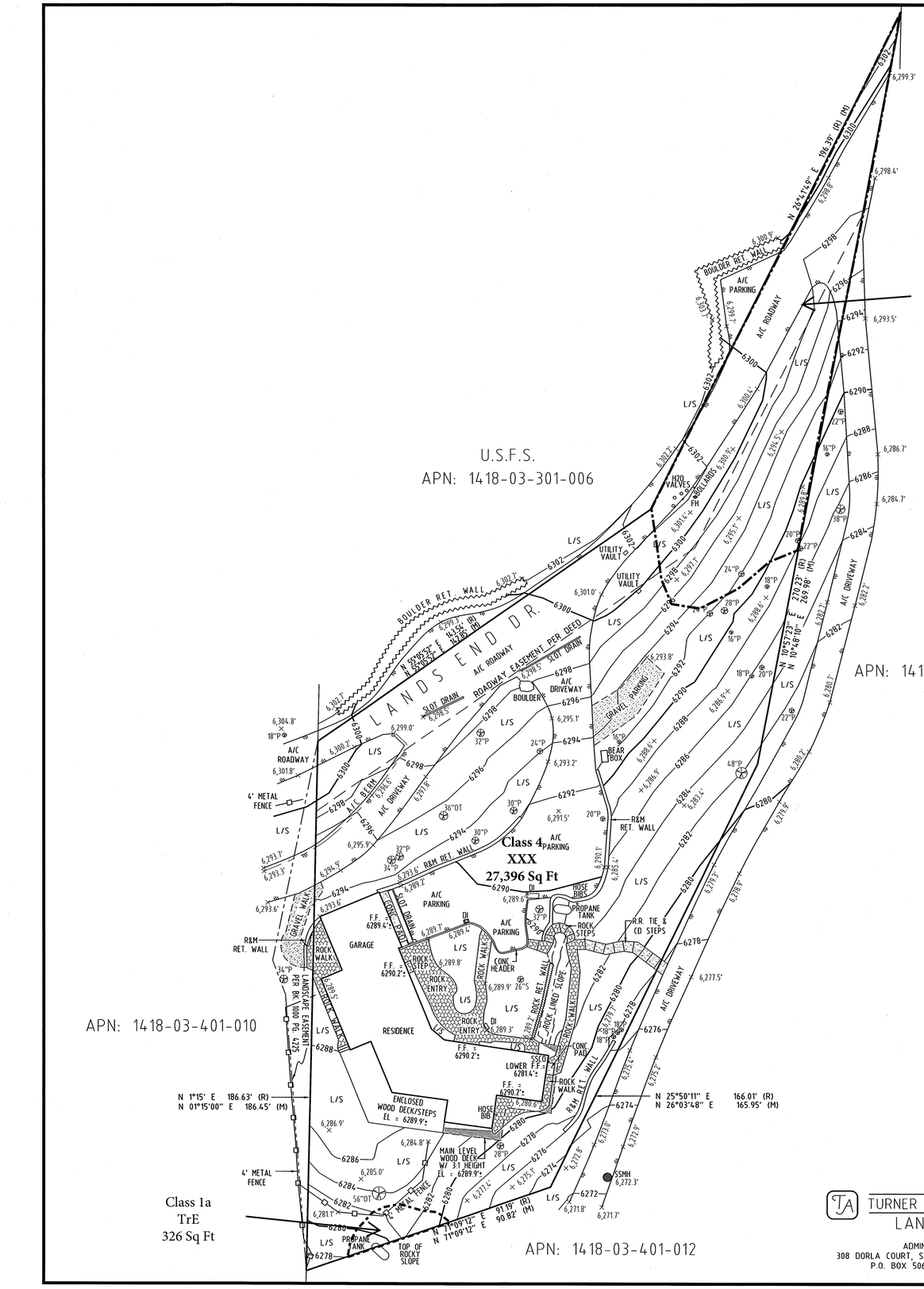
Contact Information:

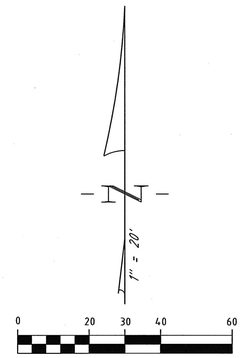
This memorandum was jointly prepared by TRPA consultant, Marchel Munnecke (Pyramid Botanical Consultants) and TRPA Associate Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll, 775-589-5247, or email at jroll@trpa.gov.
To submit a written public comment, 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. Site Plan
B. Soils report, prepared by Davis2 Consulting Earth Scientists

Attachment A
Site Plan





LEGEND

A/C	ASPHALTIC CONCRETE
CD	COMPACTED DIRT
DI	DRAIN INLET
FH	FIRE HYDRANT
L/S	LANDSCAPE/NATURAL GROUND
OT	OTHER TREE
P	PINE TREE
PP	POWER POLE
R&M	ROCK AND MORTAR
R.R.	RAILROAD
S	SPRUCE TREE
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
x7777.7'	SPOT ELEVATION
⎯⎯	EDGE OF PAVEMENT
(R)	RECORD PER DEED
(M)	MEASURED

COVERAGE W/ 3:1 HEIGHT REDUCTION WHERE APPLICABLE

CATEGORY	SQUARE FEET
RESIDENCE/GARAGE	2579
A/C DRIVEWAY/PARKING	3252
A/C DRIVEWAYS (USED BY OTHERS)	1032
GRAVEL PARKING	322
ROCK WALKS/ENTRY/STEPS	1162
WOOD DECK/STEPS	570
R.R. TIE & CD STEPS	107
CONCRETE PADS	106
TOTAL	9,130

COVERAGE WITHIN ROADWAY EASEMENT PER DEED

CATEGORY	SQUARE FEET
A/C ROADWAY (LANDS END RD.)	4485
TOTAL	4,485

OWNER & MAILING ADDRESS

2221 LANDS END LLC
204 2ND AVE. #901
SAN MATEO, CA 94401

GROSS LAND AREA

33,835 SQUARE FEET

NET LAND AREA (SUBTRACT ROADWAY EASEMENT)

27,505 SQUARE FEET

NOTES

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BENCH MARK
NUMBER
ELEVATION 6222.63'
DATUM BUREAU OF RECLAMATION
DESCRIPTION WATER LEVEL OF LAKE TAHOE ON 05AUG15

TOPOGRAPHIC SURVEY
PROPERTY PER DOC. NO. 2023-998961
APN: 1418-03-401-011, 2221 LANDS END RD.
DOUGLAS CO., NV

SCALE HORIZ. 1"=20' VERT. 2' C.I.

FIELD SW-JF | DRAWN JF | FILE NAME 23172.DWG | CHECKED JWT | JOB NO. 23172

DATE OCT 2023
SHEET 1 OF 1

PROFESSIONAL LAND SURVEYOR STATE OF NEVADA JEFFERY W. TURNER No. 21280 Exp. 6/30/24
10 OCT 23

REVISION NO.	DATE	DESCRIPTION	BY	CHKD

TURNER & ASSOCIATES, INC.
LAND SURVEYING
(775) 588-5658
ADMIN@TURNERSURVEYING.NET
308 DORLA COURT, SUITE 203 - ROUND HILL, NEVADA 89448
P.O. BOX 5067 - STATELINE, NEVADA 89449

AGENDA ITEM NO. V. A.

Attachment B
Soils report, prepared by Davis2 Consulting Earth Scientists

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

Land Capability Challenge
Glenbrook Lands End LLC
Douglas County Nevada
(APN 1418-03-401-011)

November 30, 2023

INTRODUCTION

A soil investigation was conducted on the parcel on October 12, 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 an existing single-family residential dwelling on 0.659 acres of land, located at 2221 Lands End Road. This work is advanced at the request of Ogilvy Consulting, Tahoe City, California.

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 2221 Lands End Road, Glenbrook, Nevada. Vegetation consists of Jeffrey pine, landscaped ornamentals and sod lawn. Slopes range between 16 and 30 percent on a southeasterly aspect. There are no stream environment zones (SEZ) influencing this parcel.

Soils are shown on TRPA map sheet H-10 as CaF (Cagwin-rock outcrop complex, 30 to 50 percent slopes). Geology (Bernett, 1968) is characterized as Gr (granite). Bailey's (1974) geomorphic analysis shows the parcel within C_2 (Strongly dissected lands).

METHODOLOGY

For this investigation, we surveyed the parcel and immediately adjacent areas (Figure attached). We then measured and technically described a discrete soil profile, representative of the site-specific landform. By use of a backhoe excavator, we exposed the near- surface sediments to depths ranging from 0 to x 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 Turner and Associates, Inc., was available in the field for ground control and slope analysis. Information pertaining to land capability districts is shown on the base map.

FINDINGS

Soils are found to be deep and well drained, members of Soil Hydrologic Group B. They can be characterized having very dark grayish brown gravely loamy coarse sand topsoil approximately 16 thick, over brown very bouldery sandy loam subsoil to 52 inches depth underlain by olive brown loamy coarse sand. A weak argillic subhorizon is expressed which excludes this soil from the range and characteristics of Cagwin series. These soils are also other than Jabu series which displays a fragipan or Inville series, which are skeletal.

Soils found are unnamed in the Lake Tahoe basin soil survey and are treated as "XXX" for evaluation. Soils with slopes ranging from 16 to 30 percent slopes and members of Soil Hydrologic Group B place in Land Capability Class 4. Slopes exceeding 30 percent rate in Class 2. Class 2 areas were not evaluated because coverage could not be improved.

CONCLUSIONS AND RECOMMENDATIONS

Soils found are unnamed (XXX) and place in Land Capability Classes 4 and 2.
Please refer to the following soil profile description that supports 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

Representative Soil Profile Description

O 0 – 2 inches, turf

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

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

Bw 16 – 32 inches, dark brown (10YR 3/3) moist; loamy coarse sand; moderate medium subangular blocky structure; soft, loose, nonsticky and nonplastic; common fine and many medium and many coarse roots; many fine and fine interstitial pores; ten percent gravel; gradual wavy boundary.

Bt 32 – 52 inches, brown (10YR 4/3) moist; very bouldery sandy loam; strong medium subangular blocky structure; slightly hard, friable; slightly sticky and plastic; few fine moderate medium and few coarse roots; many fine and medium tubular pores; few thin bridges holding mineral grains together; ten percent gravel and thirty percent boulders; gradual wavy boundary.

C 52 – 60 inches, light olive brown (2.5Y 5/4) moist; loamy coarse sand; massive; slightly hard, very friable, nonsticky and nonplastic; few fine and coarse roots; common very fine interstitial pores.

Note: Landscaped yard. Irrigated.

Soil Series: Unnamed (XXX)
Soil Classification: Sandy, mixed, frigid Ultic Haploxeralfs
Soil Drainage Class: Well drained
Hydrologic Soil Group: B

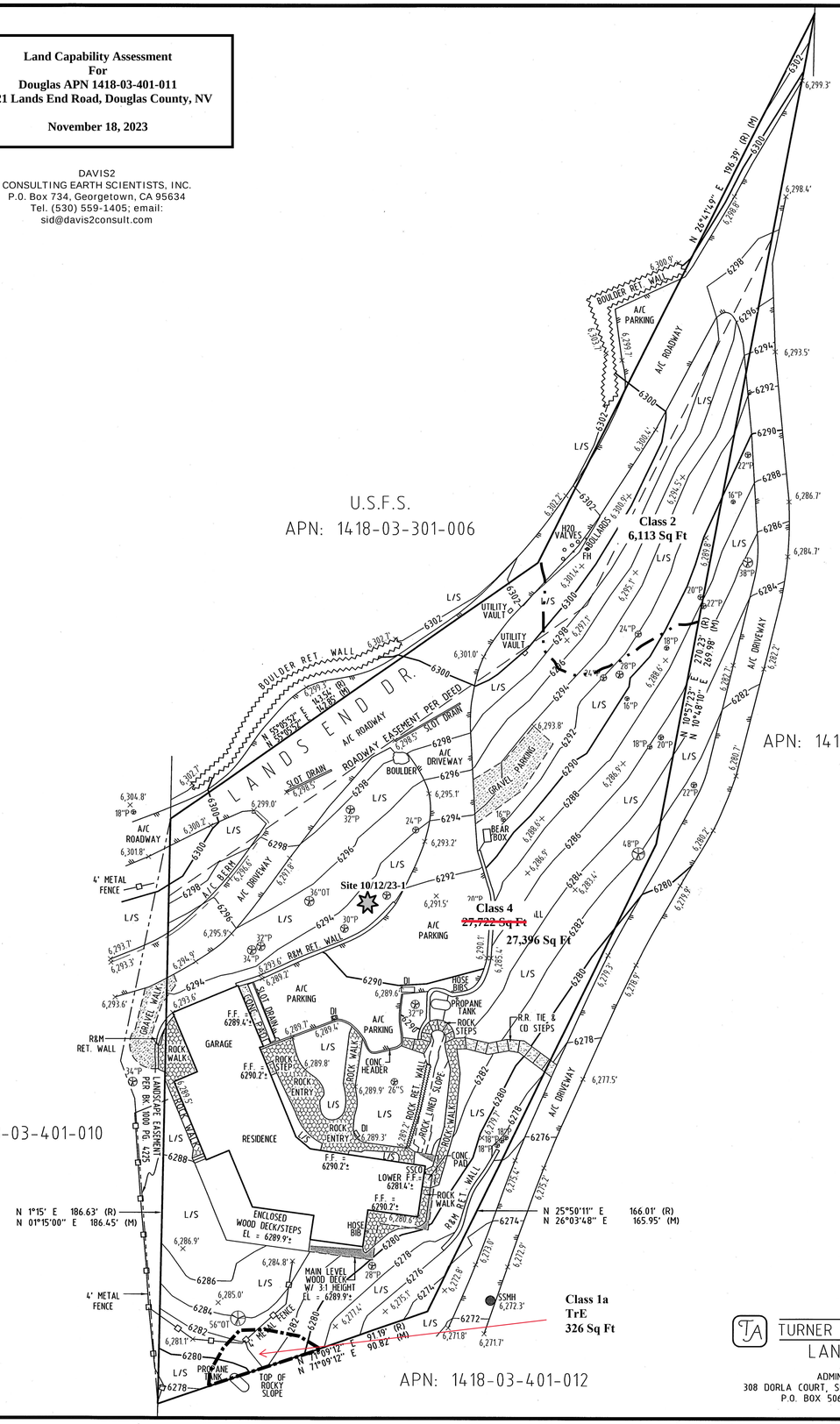
Figure 1 - Soil profile

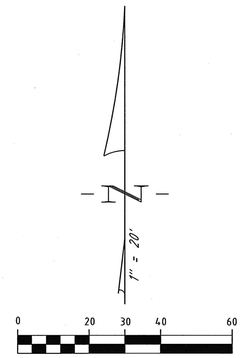
Figure 2- Landscape

Land Capability Assessment
For
Douglas APN 1418-03-401-011
2221 Lands End Road, Douglas County, NV

November 18, 2023

DAVIS2
CONSULTING EARTH SCIENTISTS, INC.
P.O. Box 734, Georgetown, CA 95634
Tel. (530) 559-1405; email:
sid@davis2consult.com





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DRAWN JF
FILE NAME 23172.DWG
CHECKED JWT

REVISION NO.	DATE	DESCRIPTION	BY	CHKD

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