



AGS

ADVANCED GEOTECHNICAL SOLUTIONS, INC.

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444 West Beech Street, Suite 300
San Diego, California 92101

November 19, 2020

P/W 1406-06

Report No. 1406-06-B-7

Attention: Mrs. Rita Mahoney

Subject: *Geotechnical Addendum, Questhaven Property, San Elijo Road, APNs 223-080-46, 223-070-08 & 223-070-07, County of San Diego, California*

References: See Appendix

In accordance with your request, Advanced Geotechnical Solutions, Inc. (AGS) has prepared this letter response to comments presented in the County of San Diego Scoping Letter dated September 25, 2020 regarding the proposed Questhaven residential development located south of San Elijo Road in the San Marcos area of San Diego County, California. Specifically, AGS is addressing Item No. 16-1: *Please submit a letter from the geo consultant stating that the conclusions remain valid.*

AGS has reviewed the 50-scale Preliminary Grading Plans for the Questhaven Project prepared by Excel Engineering dated July 13, 2020, and the recommendations in our referenced Preliminary Geotechnical Investigation report (AGS 2016) for the proposed development. Based on our review, the recommendations in our referenced Preliminary Geotechnical Investigation report (AGS 2016) remain valid with the exception of the Seismic Design Parameters presented in Section 9.5, which had been based on the 2016 California Building Code. The following section provides updated Seismic Design Parameters in accordance with the 2019 California Building Code (CBC). Geotechnical/geologic plans have been updated to reflect the current proposed development and are included herewith as Plates 1 and 2.

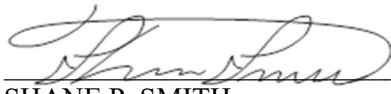
UPDATED SEISMIC DESIGN PARAMETERS

Based on our previous subsurface exploration, the site may be classified as Seismic Site Class C consisting of a very dense soil and soft rock profile. Site coordinates of Latitude 33.0923° N and Longitude 117.2054° W were utilized in conjunction with the SEAOC/OSHPD Seismic Design Maps web-based ground motion calculator (<https://seismicmaps.org/>) to obtain the seismic design parameters presented in Table 1.0. Seismic design parameters are in accordance with 2019 CBC mapped spectral acceleration parameters.

TABLE 1.0 2019 CALIFORNIA BUILDING CODE SEISMIC DESIGN PARAMETERS	
Seismic Site Class	C
Mapped Spectral Acceleration Parameter at Period of 0.2-Second, S_s	0.909g
Mapped Spectral Acceleration Parameter at Period 1-Second, S_1	0.334g
Site Coefficient, F_a	1.2
Site Coefficient, F_v	1.5
Adjusted MCE_R^1 Spectral Response Acceleration Parameter at Short Period, S_{MS}	1.091g
1-Second Period Adjusted MCE_R^1 Spectral Response Acceleration Parameter, S_{M1}	0.501g
Short Period Design Spectral Response Acceleration Parameter, S_{DS}	0.728g
1-Second Period Design Spectral Response Acceleration Parameter, S_{D1}	0.334g
Peak Ground Acceleration, PGA_M^2	0.474g
Seismic Design Category	D
Notes: ¹ Risk-Targeted Maximum Considered Earthquake	
² Peak Ground Acceleration adjusted for site effects	

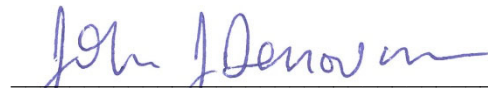
Advanced Geotechnical Solutions, Inc. appreciates the opportunity to provide you with geotechnical consulting services and professional opinions. If you have any questions, please contact the undersigned at (619) 867-0487.

Respectfully Submitted,
Advanced Geotechnical Solutions, Inc.



SHANE P. SMITH
Staff Engineer





JOHN J. DONOVAN
RCE 65051, RGE 2790, Reg. Exp. 6-30-21



PAUL J. DERISI
PG 8457/CEG 2536, Reg. Exp. 5-31-21

Distribution: (1) Addressee
Attachments: References
Plates 1 & 2 – Geologic Map and Exploration Location Plan

APPENDIX
REFERENCES

- Advanced Geotechnical Solutions, Inc., 2014, "Geotechnical/Geologic Due Diligence Evaluation of San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California", dated September 2, 2014, Report No. 1406-06-B-2.
- . (2015), "Preliminary Infiltration Testing Results and Conclusions Regarding Hydrologic Conditions, San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California", dated November 18, 2015, Report No. 1406-06-B-3.
- . (2016), "Preliminary Geotechnical Investigation of San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California", dated March 11, 2016, Report No. 1406-06-B-6.
- California Buildings Standards Commission, 2019, 2019 California Building Code, California Code of Regulations, Title 24, Volumes 1 and 2.
- Excel Engineering (2020). 50-scale Preliminary Grading Plans for Questhaven, San Marcos, California, Sheets 1 through 5, plot date July 13, 2020.

CONSTRUCTION NOTES

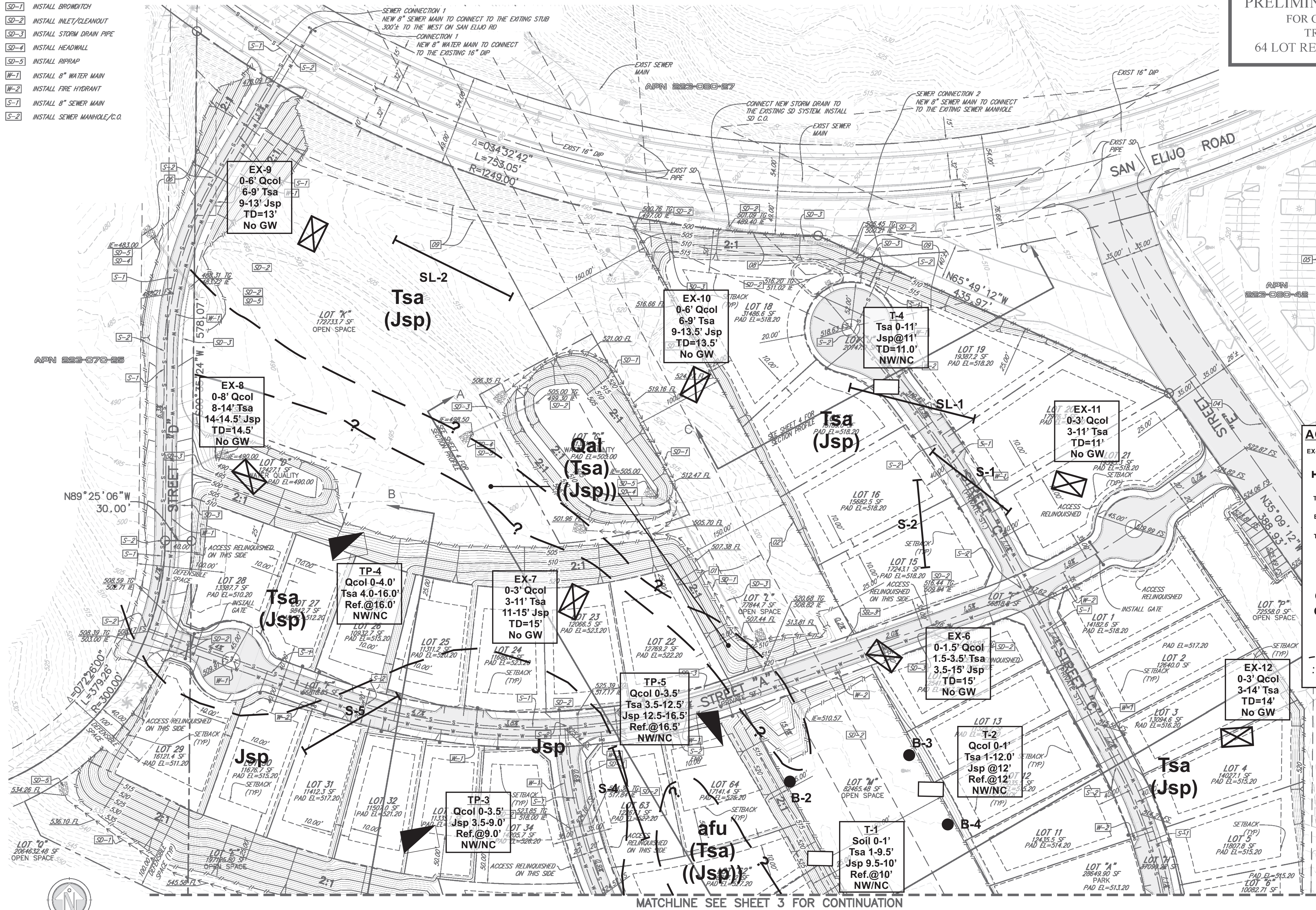
- SD-1 INSTALL BROWDTICH
- SD-2 INSTALL INLET/CLEANOUT
- SD-3 INSTALL STORM DRAIN PIPE
- SD-4 INSTALL HEADWALL
- SD-5 INSTALL RIPRAP
- W-1 INSTALL 8" WATER MAIN
- W-2 INSTALL FIRE HYDRANT
- S-1 INSTALL 8" SEWER MAIN
- S-2 INSTALL SEWER MANHOLE/C.O.

PRELIMINARY GRADING PLAN
FOR COUNTY OF SAN DIEGO
TRACT NO. _____
64 LOT RESIDENTIAL SUBDIVISION

GRADING PLAN
SHEET 2 OF 5 SHEETS

- LEGEND
- BOUNDARY LINE
 - RIGHT OF WAY LINE
 - PARCEL LOT LINE
 - PCC CURB
 - PCC CURB & GUTTER
 - SEWER LINE
 - WATER LINE
 - FIRE LINE
 - FIRE HYDRANT
 - BLDG FIRE SERVICE LATERAL
 - WATER SERVICE LATERAL
 - SEWER SERVICE LATERAL
 - DOUBLE DETECTOR CHECK VALVE
 - STORM DRAIN INLETS / CLEANOUTS
 - HEADWALL
 - RIPRAP
 - EXIST. TOPO MAJOR CONTOUR
 - EXIST. TOPO MINOR CONTOUR
 - PROPOSED TOPO MAJOR CONTOUR
 - PROPOSED TOPO MINOR CONTOUR
 - ACCESS RELINQUISHED SIDE

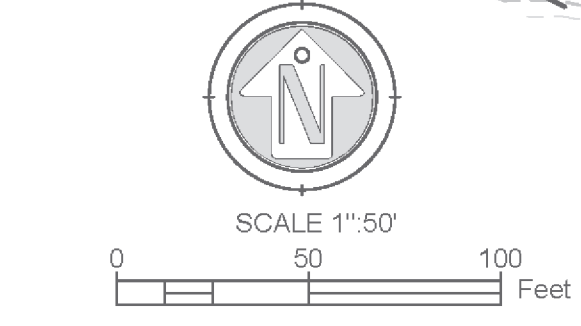
- AGS LEGEND:
- EX-1 Approximate location of exploratory excavator pits (AGS, 2016)
 - SL-5 Approximate location of seismic refraction survey (AGS, 2016)
 - T-1 Approximate location of exploratory backhoe test pit (AGS, 2015)
 - B-1 Approximate location of infiltration test boring (AGS, 2015)
 - TP-1 Approximate location of exploratory test pits (AGS, 2014)
 - S-5 Approximate location of seismic refraction line (Geotechnics, 2003)
 - afu Artificial Fill - Undocumented
 - Qal Alluvium
 - Qcol Colluvium
 - Tsa Santiago Formation
 - Jsp Santiago Peak Volcanics
 - Approximate Location of Geologic Contact; Queried where Uncertain, Dotted where buried



MATCHLINE SEE SHEET 3 FOR CONTINUATION

PLATE 1
Geologic Map and Exploration Location Plan

ADVANCED GEOTECHNICAL SOLUTIONS, INC.
Project: P/W 1406-06 Report: 1406-06-B-7 Date: Nov. 2020



I:\19_1406-06 [Engineering] TM 11027 [Prelim] 1406-06 Prelim.dwg 7/13/2020 11:28 AM ORIGINAL PLOT SIZE:

PRELIMINARY GRADING PLAN
FOR COUNTY OF SAN DIEGO
TRACT NO. _____
64 LOT RESIDENTIAL SUBDIVISION

GRADING PLAN
SHEET 3 OF 5 SHEETS

LEGEND

BOUNDARY LINE	---
RIGHT OF WAY LINE	RW ---
PARCEL LOT LINE	PL ---
PCC CURB	---
PCC CURB & GUTTER	---
SEWER LINE	S ---
WATER LINE	W ---
FIRE LINE	F ---
FIRE HYDRANT	⊗
BLDG FIRE SERVICE LATERAL	⊗
WATER SERVICE LATERAL	⊗
SEWER SERVICE LATERAL	⊗
DOUBLE DETECTOR CHECK VALVE	⊗
STORM DRAIN INLETS / CLEANOUTS	⊗
HEADWALL	⊗
RIPRAP	⊗
EXIST. TOPO MAJOR CONTOUR	---1000---
EXIST. TOPO MINOR CONTOUR	---
PROPOSED TOPO MAJOR CONTOUR	—1000—
PROPOSED TOPO MINOR CONTOUR	---
ACCESS RELINQUISHED SIDE	///

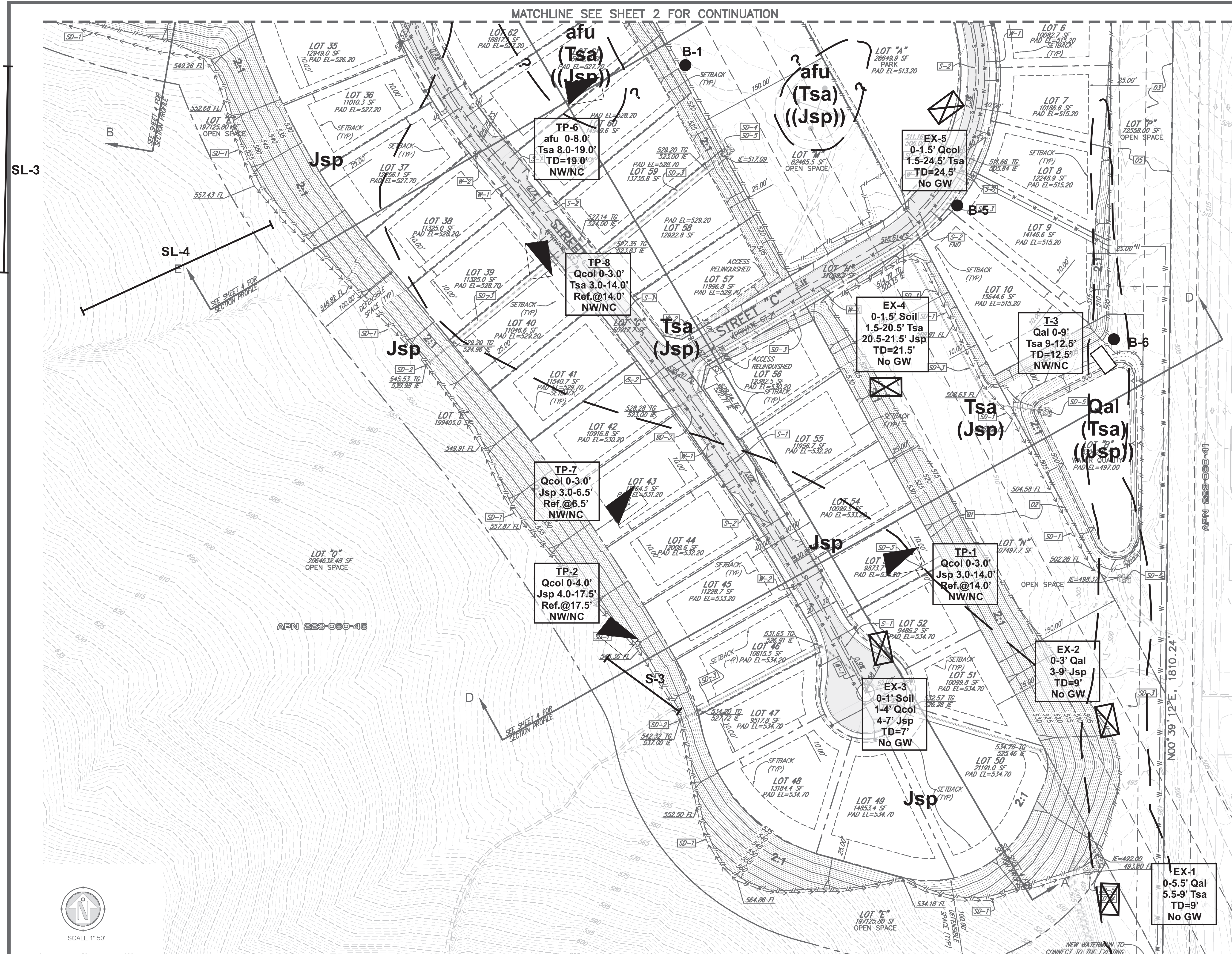
CONSTRUCTION NOTES

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SEE PLATE 1 FOR LEGEND
PLATE 2
Geologic Map and Exploration Location Plan

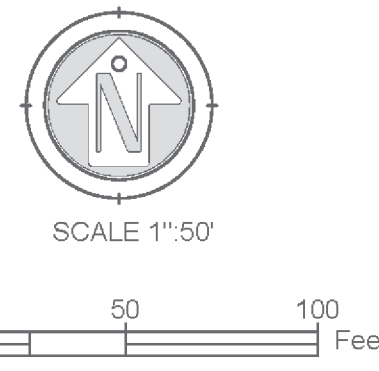
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MATCHLINE SEE SHEET 2 FOR CONTINUATION



SL-3

SL-4



APN 223-000-46

EX-1
0-5.5' Qal
5.5-9' Tsa
TD=9'
No GW

EX-2
0-3' Qal
3-9' Jsp
TD=9'
No GW

EX-3
0-1' Soil
1-4' Qcol
4-7' Jsp
TD=7'
No GW

TP-1
Qcol 0-3.0'
Jsp 3.0-14.0'
Ref.@14.0'
NW/NC

TP-2
Qcol 0-4.0'
Jsp 4.0-17.5'
Ref.@17.5'
NW/NC

TP-7
Qcol 0-3.0'
Jsp 3.0-6.5'
Ref.@6.5'
NW/NC

TP-8
Qcol 0-3.0'
Tsa 3.0-14.0'
Ref.@14.0'
NW/NC

TP-6
afu 0-8.0'
Tsa 8.0-19.0'
TD=19.0'
NW/NC

EX-4
0-1.5' Soil
1.5-20.5' Tsa
20.5-21.5' Jsp
TD=21.5'
No GW

EX-5
0-1.5' Qcol
1.5-24.5' Tsa
TD=24.5'
No GW

afu
(Tsa)
((Jsp))

afu
(Tsa)
((Jsp))

Tsa
(Jsp)

Qal
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