Appendix

Appendix D Paleontological Data

Appendix

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3 December 2019

PlaceWorks, Inc. 3 MacArthur Place, Suite 1100 Santa Ana, CA 92707

Attn: Elizabeth Kim, Senior Associate

re: Paleontological Records Search for the proposed Heideman Elementary School Joint-Use Park Project, Project # TSD-17.0, in the City of Tustin, Orange County, project area

Dear Kim:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Heideman Elementary School Joint-Use Park Project, Project # TSD-17.0, in the City of Tustin, Orange County, project area as outlined on the portion of the Tustin USGS topographic quadrangle map that Tracy Chu sent to me via e-mail on 19 November 2019. We do not have any vertebrate fossil localities that lie within the proposed project area boundaries, but we do have localities somewhat nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

Surface sediments throughout the entire proposed project area and in the surrounding vicinity consist of younger terrestrial Quaternary Alluvium, derived primarily as alluvial fan deposits from the hills of the Santa Ana Mountains to the east. These younger Quaternary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but are underlain by older Quaternary deposits at varying depths that do contain significant vertebrate fossils. North-northwest of the proposed project area, along Rio Vista Avenue south of Lincoln Avenue, we have a vertebrate fossil locality, LACM 1652, that produced a fossil specimen of sheep, *Ovis*. Our closest fossil locality in older Quaternary sediments is LACM 4943, also situated north-northwest of the proposed project area almost due east of locality LACM 1652 along Fletcher Avenue east of Glassell Street east of the Santa Ana River, that



produced a specimen of fossil horse, *Equus*, at a depth of 8-10 feet below the surface. Southeast of the proposed project area, in what is now the Orange County Great Park near the intersection of C Street and 5th Street, our older Quaternary locality LACM 7867 produced fossil specimens of pocket gopher, *Thomomys*, at a depth of 25 feet below the surface.

Shallow excavations in the uppermost few feet of the younger Quaternary alluvial sediments exposed throughout the entire proposed project area are unlikely to uncover significant fossil vertebrate remains. Deeper excavations in the proposed project area that extend down into older Quaternary sediments, however, may well encounter significant vertebrate fossils. Any substantial excavations below the uppermost layers in the proposed project area, therefore, should be closely monitored to quickly and professionally collect any specimens without impeding development. Sediment samples should also be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Summel a. Mi Leod

Samuel A. McLeod, Ph.D. Vertebrate Paleontology

enclosure: invoice