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20 July 2017

CAJA Environmental Services, LLC 15350 Sherman Way, Suite 315 Van Nuys, CA 91406

Attn: Andrea Schultz, Head of Operations

re: Paleontological resources for the proposed Central Plaza Project, in the City of Los Angeles, Los Angeles County, project area

Dear Andrea:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Central Plaza Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Hollywood USGS topographic quadrangle map that you sent to me via e-mail on 6 July 2017. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have localities nearby from the same sedimentary deposits that occur subsurface in the proposed project area.

The entire proposed project area has surface deposits composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the elevated terrain to the northeast. These deposits typically do not contain significant vertebrate fossils in the uppermost layers, but at varying depths there are older sedimentary deposits that do contain significant fossil vertebrate remains. Our closest vertebrate fossil locality from older Quaternary deposits, LACM 6204, occurs directly west of the northern-most part of the proposed project area near the intersection of Wilshire Boulevard and Serrano Avenue. Locality LACM 6204 produced a fossil specimen of mammoth, *Mammuthus*, at a depth of 65 feet below grade. North-northwest of the proposed project area, near the intersection of Western Avenue and Council Street, our locality LACM 5845, also from these older Quaternary sediments, produced a specimen of fossil mastodon,





Mammutidae, at a depth of only 5-6 feet below the surface. Northeast of the proposed project area, at about the intersection of Madison Avenue and Middlebury Street, our locality LACM 3250, produced a fossil specimen of mammoth, *Mammuthus*, at a depth of about eight feet below street level.

Beginning east-northeast of the proposed project area, west of Vermont Avenue between 5th Street and 6th Street, there are exposures of the marine late Miocene Puente Formation (also sometimes referred to as the Upper Modelo Formation or as an unnamed shale in this area), and these deposits probably underlie the Quaternary Alluvium in the proposed project area at depth. Just north of east of the proposed project area, around the intersection of Vermont Avenue and Wilshire Boulevard, we have the vertebrate fossil localities LACM 6202 and 6203 from the Puente Formation discovered during excavation for the Meterorail Wilshire / Vermont station at a depth of 60 to 80 feet beneath the surface. Fossil specimens of eels, Anguilliformes, and needlefishes, Belonidae, were recovered at locality LACM 6203. Locality LACM 6202, however, was an extremely productive locality that contained an extensive fauna of fossil fish. A list of the fossil fish taxa from locality LACM 6202 is provided in the attached appendix.

Very shallow excavations of only a few feet in the younger Quaternary Alluvium exposed throughout the proposed project area may not encounter any significant fossil vertebrate remains. Deeper excavations that extend down into older sedimentary deposits, however, may very well uncover significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples from the finer-grained deposits should 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 Lood

Samuel A. McLeod, Ph.D. Vertebrate Paleontology

enclosures: appendix; invoice

Osteichthyes		- bony fishes
Anguilliformes		- eels
Atheriniformes		
Belonidae		- needlefishes
Beryciformes		
Anoplogasteridae		- fangtooths
Anoplogaster		-
Melamphaeidae		- bigscales
Scopelogadus		C
Clupeiformes		
Clupeidae		- herrings
Ganolytes	cameo	C
Xyne	grex	
Gadiformes	U	
Gadidae		- cods
Physiculus		
Macrouridae		- grenadiers
Merlucciidae		- hakes
Merluccius		
Moridae		- flatnoses
Lophiiformes		- frogfishes
Linophrynidae		C
Oneirodidae		
Oneirodes		
Myctophiformes		
Myctophidae		- lanternfishes
Diaphus		
Lampanyctus		
Perciformes		
Carangidae		- jacks
Pseudoseriola		J
Gempylidae		- snake mackerals
Thvrsocles		
Sciaenidae		- croakers
Lompoquia		
Scombridae		- tunas & mackerals
Sarda		
Scomber		
Serranidae		- groupers
Trichiuridae		- cutlassfishes

Fossil fish taxa from LACM 6202, Metrorail Red Line Vermont / Wilshire Station

Pleuronectiformes	
Citharidae	- sanddabs
Citharichthys	
Pleuronectidae	- fluonders & soles
Hippoglossus	
Pleuronichthys	
Salmoniformes	
Alepocephalidae	- slickheads
Argentinidae	- argentinas
Bathylagidae	- smoothtongues
Bathylagus	
Opisthoproctidae	- spookfishes
Searsiidae	- tubeshoulders
Scorpaeniformes	
Scorpaenidae	- rockfishes
Sebastes	
Stomiatiformes	
Chauliodontidae	- viperfishes
Chauliodus	eximius
Gonostomidae	- bristlemouths
Cyclothone	
Vinciguerria	
Sternoptychidae	- hatchetfishes
Argyropelecus	
Stomiatidae	- dragonfishes
Stomias	