

1672 Donlon Street Ventura, CA 93003 Local 805 654-6977 Fax 805 654-6979 www.jdscivil.com

BEA04.6154 Friday , April 9, 2021

RE: Design Intent and Criteria for Mondos Beach Stairs

To Whom It May Concern,

This letter is to document the design criteria for the location and layout of the Mondos Beach Stairs dated Mar. 15, 2021.

<u>Location</u>: Early input was gathered from local homeowners and beach users to determine where the stairs would be best suited for placement. It was determined that they should be equally distant from the homes to the west and east in order to respect the privacy issues of the nearby homeowners. Additionally, this location is near the semi-portable restrooms for ease of access for beach users and an anticipated crosswalk installed by Caltrans in late 2022.

<u>Orientation:</u> An initial layout of the stairs was developed with an angle nearly 40° from perpendicular to the road. This angle was vetted with Terra Costa (Structural Engineer specializing in marine areas), and determined to be enough angle to prevent high tides and waves running up the stairs. During a community meeting to present this design to the neighbors, it was almost unanimous that this was not enough angle away from the water, and the stairs needed to be rotated much more. The more rotated stairs is where the design stands today. The stairs are now rotated nearly 70° from perpendicular to the road.

<u>Wildlife Observation Deck:</u> At the top of the stairs, there is a 16' X 18' observation deck. This doubles as a landing at the top of the stairs. This observation deck is to observe local wildlife and the ocean. There is to be railing along the concrete stem wall to protect the public from falling onto the rocks. The railing is also intended to hold story boards that are to inform the public about the beach and local wildlife.

<u>Layout Rationale:</u> The top of the stairs dictates the layout. Between the edge of the traveled lane and the top of the bluff there is two telephone lines, two gas lines, electrical line, sewer force main, and a waterline. The top of the stairs have been placed to avoid these utilities during excavation.

<u>Structural Considerations:</u> The top of the stairs, and the associated observation platform sit atop steel and concrete piles that are driven/drilled into bedrock at approximate elevation zero.

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The bottom of the stairs are keyed into the bedrock at approximate elevation zero. These are the two major anchoring points for the stairs. Otherwise all improvements, other than handrails, are structural marine grade concrete with epoxy coated rebar. Extreme care and caution is to be had during final design to ensure the steel and concrete piles do not conflict with the existing utilities. The large revetment rocks will be replaced against the concrete stairs to break the energy of large waves at high tide, and protect the people and stair structure itself.

<u>Public Access:</u> There are two loading zones proposed: one on the north side and one on the south side of Hwy 1. This is for people to temporarily park to unload their goods, and promptly move along to find a parking space. The cross walk is a CalTrans design, and CalTrans has been kept in the loop of these proposed stairs. The landing area north-south dimension is dictated by the location of the top of the stairs (discussed earlier). The width of the landing is an arbitrary number that was developed to provide adequate room for wildlife observation. The stairs are nine feet wide to allow safe and easy passing of people walking up and down with beach going items.

We feel this design development level drawing has taken into consideration existing infrastructure, ease of access and public input. If there are any questions or comments, please feel free to reach out to me.

No C076941

EXP. 12/31/27

Regards,

James C. McCoskey, P.E.

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MONDOS BEACH PUBLIC BEACH ACCESS STAIRWAY PACIFIC COAST HIGHWAY 6" & 8" SS (FORCE MAIN) 6" WTR. PROJECT SITE 34° 7'54.38"N 119° 4'20.53"W PLAN AND PROFILE SHEET MONDO'S BEACH STAIRS GRAPHIC SCALE: 1"=30' **BEACON** J.N.: <u>BEA</u>01.6154 **OF** 2 DWG. NAME: 6154_BASE_EXH.dwg STATE OF CALIFORNIA COUNTY OF VENTURA

