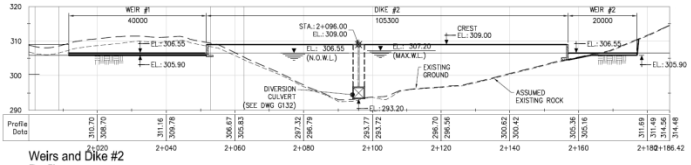
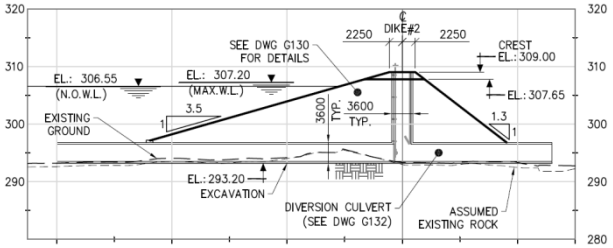
The Pecors Power Generating Station Project

DAM DESIGN

Two rock-fill dikes will create a controlled area of inundation upstream, and direct flows towards the powerhouse intake. The dikes will have a crest elevation of 309 metres above sea level (masl). The primary dike spanning the Serpent River will have one overflow weir on either side, with crest elevations of 306.55 masl.



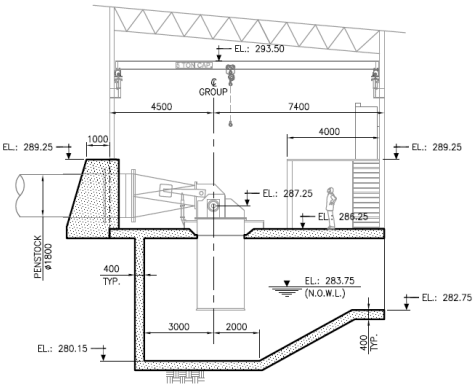
Weirs and Dike #2 Profile



Dike #2 Section

POWERHOUSE

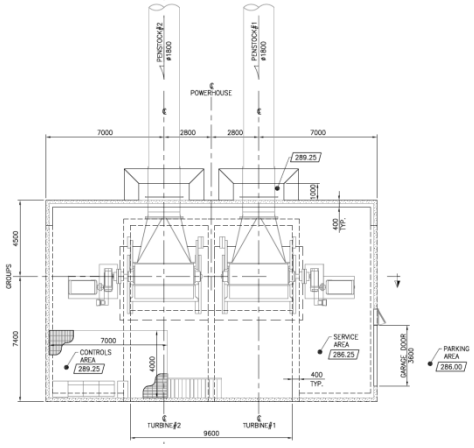
A powerhouse will be constructed on the east bank of the Serpent River at the base of a section of rapids. The powerhouse will house two 1-MW cross-flow turbines, each being able to operate at flows of 0.3 – 6 m^3/s.



Powerhouse cross-section

BYPASS REACH

The bypass reach refers to a 400 m long stretch of the Serpent River between the overflow weirs and the tailrace. It represents the length of river that is "bypassed" by the flows passing through the turbines and includes two sets of rapids. A minimum ecological flow as well as any flows in excess of the facilities capacity will be passed over the weirs and down the bypass reach.



Powerhouse plan view