



PROJECT PROFILE



Challenge: Come up with a viable replacement to the existing steel camels being used by Cruise Terminals of America (CTA) and the Port of Seattle at Terminal 91-Seattle. The existing steel camels are severely corroded and require costly yearly maintenance. Camels are required to provide extra stand-off at this location as well as to provide safe berthing and mooring. CTA and the Port were seeking a lightweight, minimal maintenance and most importantly a cost effective solution to the current system.



Constraints: The solution had to be extremely durable to withstand high wind and wave loads yet also light weight and low maintenance to allow easy removal and storage during the off season.

Solution: Two 54' x 11' x 4' **Composite** Camels as designed and manufactured by Harbor Technologies of Brunswick ,ME.

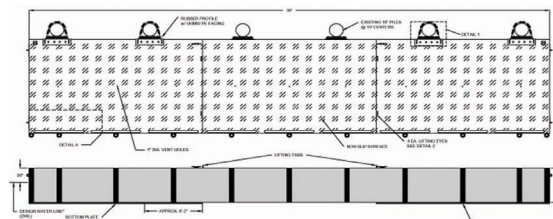


These cruise ship camels feature heavy duty “D” fendering on the vessel side and UHMW wear surface on the Pier side. A unique dock plate system allows seawater to serve as ballast yet freely drain from the camels when not in use. The Camels were so light weight that they required only one truck for shipment.

Harbor Technologies is a world leader in composite products including piling, camels, Hybrid Composite Beams and other FRP products.



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