

US Olympic Museum

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Abstract

The US Olympic Museum (USOM) Footbridge is a 245ft clear spanning footbridge over Union Pacific Rail Road. This bridge is situated at the foothills of Rocky Mountains in Colorado Springs, Colorado. The dramatic and unique Rip-Curl concept will enhance the landscape between future US Olympic Museum and America the Beautiful Park. The footbridge is designed in collaboration with AMD architects, DS+R architects, UP Rail Road and City of Colorado Springs.

The Rip Curl superstructure is a sweeping asymmetrical steel shell morphed from an arched 70 ksi steel top chord and a “stressed skin” web. The concept is designed to both integrate with the aesthetic vision for the US Olympic Museum and to minimize impact on busy rail operations during construction as well as reduce maintenance for the client. This paper describes the rigorous analysis and design behind this unique concept

Keywords: innovative structural systems; architecture; bridges; steel.



Proposed USOM Footbridge Isometric