

Brightline - Goldenrod Rd. and SR-528

Underpasses

Orlando and Cocoa, Florida

Project Description

The new railway between the Orlando International Airport (MP 98.54) and the FEC Railway (MP 137.58) is part of a larger master plan aiming to connect Central and South Florida with a double-track rail line. Two of the new roadway crossings under Goldenrod Rd. in Orlando and SR-528 in Cocoa are proposed to be jacked to final position throughout the box jacking system by Petrucco USA. For Goldenrod Rd., the underpass consists of two 130-foot long concrete box segments with a clear inside opening of 24-feet high by 37.5-feet wide. The maximum segment weight is 3600 tons. A trench is excavated simultaneously to the jacking operation and the roadway is reconstructed after the jacking is performed. SR-528 underpass includes three concrete box segments with a weight of 4300 tons max. and clear inside opening of 23-feet high by 43.5-feet wide are jacked while partial live traffic is maintained overhead.

Owner

Brightline Trains LLC (Florida East Coast Industries)

Total Contract Value

N/A

Contractor

Granite Construction Company / Petrucco USA

Timeline

2019 to 2021

Designer

Our Role

McNary Bergeron, working with Granite Construction and Petrucco USA, designed the box structures and temporary works required to adapt the original design to the box jacking construction method. McNary Bergeron provide construction engineering for the project including installation procedures and coordination.

Construction Method and Specifications

Box jacking

