



NEW JERSEY DEPARTMENT OF TRANSPORTATION
NEWS

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New Route 7/Wittpenn Bridge deck being transported to New Jersey through Panama Canal

Follow the progress of the ship online as it makes its way to Kearny/Jersey City

(Trenton) – The New Jersey Department of Transportation (NJDOT) today announced the launch of a new web page to track the shipping progress of the new bridge deck for the Wittpenn Bridge as it makes its way from the West Coast through the Panama Canal to New Jersey.

The Orthotropic Deck for the new Route 7 Wittpenn Bridge is the first time this innovative type of deck is being used in New Jersey. It was manufactured by Vigor LLC at its facilities in Clackamas, Oregon and Vancouver, Washington. The deck, being transported by barge, departed Washington State on June 6.

NJDOT has created a [website to track the shipping progress of the deck](#) on its journey to the Wittpenn Bridge project in Hudson County. The barge is scheduled to enter the first lock of the Panama Canal from the Pacific Ocean tomorrow, Wednesday, June 28 and begin an expected 16-hour trip through the Canal and its six locks before reaching the Caribbean Sea, and then traveling north up the Atlantic Coast of the United States. The final leg of the journey will be through the Hackensack River with the deck expected to arrive at the project site in Kearny/Jersey City on July 15. The deck will be lifted in place this fall once the tower portion of the bridge is completed.

The \$480 million [Route 7/Wittpenn Bridge project](#) is being carried out in five contracts to build a new vertical lift bridge just north of the aging, structurally deficient bridge. The replacement bridge will double the vertical clearance over Hackensack River from 35-feet to 70-feet, and increase traffic safety by making the lanes wider, creating shoulders, constructing a median barrier, and providing pedestrian and bicycle accommodations. As part of the project, improvements will be made to Fish House Road in Kearny to mitigate flooding and improve traffic service in the area.

Innovative Deck Design

The [Orthotropic Deck](#) is a lightweight design that has a thin steel plate and a series of ribs and floor beams. It was developed in Germany in the 1930's, and is similar to U.S. Battleship decks, as well as some types of corrugated cardboard.

Vigor is one of the few manufacturers in the U.S. that make Orthotropic decks. Prefabricating the deck results in faster construction and higher quality control. Having a lightweight deck allows the bridge to operate more efficiently, and reduces the amount of future maintenance. The deck also allows for longer span length providing a smoother driving surface.

Although this design has been utilized successfully for thousands of bridges worldwide, it is considered an "Up and Coming" type of bridge deck in this country with about 100 orthotropic bridge decks in the U.S. Some of the most notable bridges that have used an orthotropic deck include the Golden Gate Bridge in California and the Verrazano-Narrows Upper Deck in New York. Both projects used an Orthotropic deck to replace the original deck. The new decks on Tacoma Narrows Bridge in Washington and the Alfred Zampa

Memorial Bridge in California are using this design, and many movable bridges in Alaska have been constructed with orthotropic decks.

Motorists are encouraged to check NJDOT's traffic information website www.511nj.org for real-time travel information and for NJDOT news follow us on Twitter [@NJDOT_info](https://twitter.com/NJDOT_info).

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