

Form Follows Function in a new Roundabout Bridge

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When I was an undergraduate student, a civil engineering professor asked us: why do you think bridges are not aesthetically pleasing? His answer was: because they are designed by engineers, not ARCHITECTS.

This statement from a civil engineering professor, while there were no architects in the class, is not only an objective statement, but it is factual, as I found out later in my career. While we pride ourselves in being engineers and innovators, we still need an architect: The structural engineer designs and the architect beautifies.

To give this professor the credit he deserves, he was Dr. David Ardit, of the Illinois Institute of Technology (IIT).



The new roundabout bridge shown below was recently completed in Uruguay. It was designed by an Architect (Rafael Vinoly) and when I saw how simple and elegant it is, it reminded me with Dr. Ardit's statement.



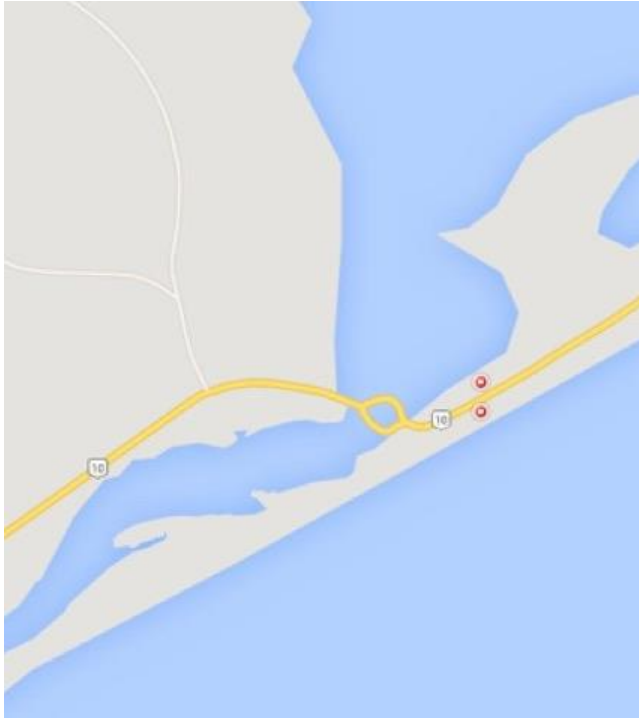
Form and Function

The bridge certainly could have been designed as a straight line, or a simple horizontal curve, but no one would have noticed it, and it would have not received the publicity it is currently enjoying. Form does follow function in this design. The functions that this circular bridge provides include:

1. Slows down drivers heading over the environmentally sensitive lagoon
2. Provide new pavilions and views for pedestrians. This is especially needed, since

the number of pedestrians is expected to dramatically increase, as a result of this infrastructure improvement, which will spur residential, commercial, and other development in the area .

3. Adds to the simple beauty of the land



Public Private Partnership

The circular bridge cost \$11 million, and Constantini (the Argentine developer) paid \$10 million, since Constantini owns property near the bridge, and development has been slow. The bridge will help speed up the development in the area.



Summary

Elaborate designs certainly adds to the project cost, however, the additional cost can be justified as long as the proposed form meets the project objectives. In the case of this elegant yet simple bridge, the form follows the function resulting in a bridge that contributed to better aesthetics and revival of the area