

Geum-gang 1st Bridge—Extradosed Bridge with V-Shape Pylon

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Summary

This paper introduce Geum-gang 1st Bridge—Extradosed Bridge with V-Shape Pylon which will operate on October 2012. Geum-gang 1st Bridge is the first bridge of the outer circulation road in Sejong multifunctional administrative city.

The Requirements about Geum-gang 1st Bridge in the bid document are that the length of the main span is over 180m and the height of the pylon is under 26.4m(from ordinary water level ??? to bridge-deck). Because of these regulations, Geum-gang 1st Bridge is designed to extradosed bridge with the V-shape pylon to cover the cable-load distribution ratio of the pylon.

In preliminary design, bikeway was applied only one side. But, after design optimization, plan is changed with the application of both sides under the main girder. By separating each bike way, both car drivers and bike drivers can get a clear view and enough pedestrian space so they feel safe and pleasant. At the ramp of the bike way near the abutment, the observation space is installed and make people take a view of Gum-gang and Sejong multifunctional administrative city.

Keywords: Extradosed Bridge, V-shape Pylon, Bike way, Inner strut

1. Introduction

Geum-gang 1st Bridge, which is located in Yeongi-gun, Chungnam, is the first bridge crossing over the Geum-gang at outer circulation road in Multifunctional Administrative City. Also, it is ordered by LH(Korea Land & Housing Corp.) to build a symbolic bridge in the city, to harmonize with Geum-gang 2nd Bridge and to provide comfortable pedestrian environment and traffic flow on the 1st national road.

The Geum-gang 1st Bridge is designed as 740m length Extradosed Bridge with the longest span, main span is 180m, in Korea. The detail design of this bridge was completed in March 2008, and construction will be completed in 2012.



Figure 1 : Location of Bridge