

# Using load optimizer to optimize tension in cables of a cable-stayed bridge

Tutorial	
Name:	Using CSiLoadOptimizer to optimize tension in cables of a cable-stayed bridge
Description:	This page provides the cable-stayed bridge model that is described in the CSiLoadOptimizer Technical Note.
Program:	CSiBridge
Version:	19.2.2
Model ID:	1784

On this page:

## Overview

The cable-stayed bridge model attached to this article is described in detail in the CSiLoadOptimizer Technical Note. The main purpose of the model is to optimize the cable tensions, such that the final negative moments in the deck are within 1% of -1000kN-m. Figures 1 to 3 below present the results of the optimization.

Note that soft lateral supports are provided at the deck level to provide stability during staged construction.

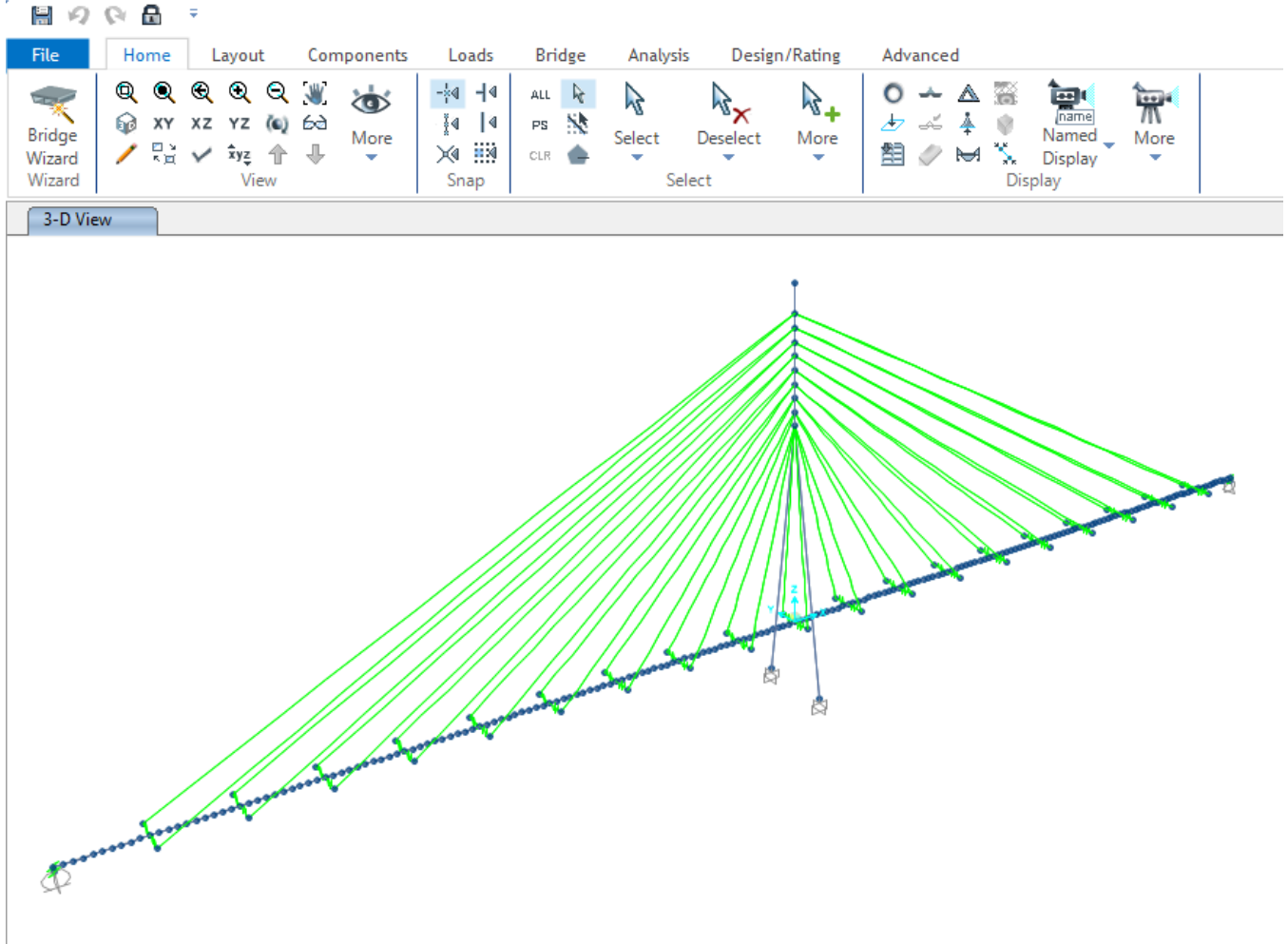


Figure 1: Bridge geometry

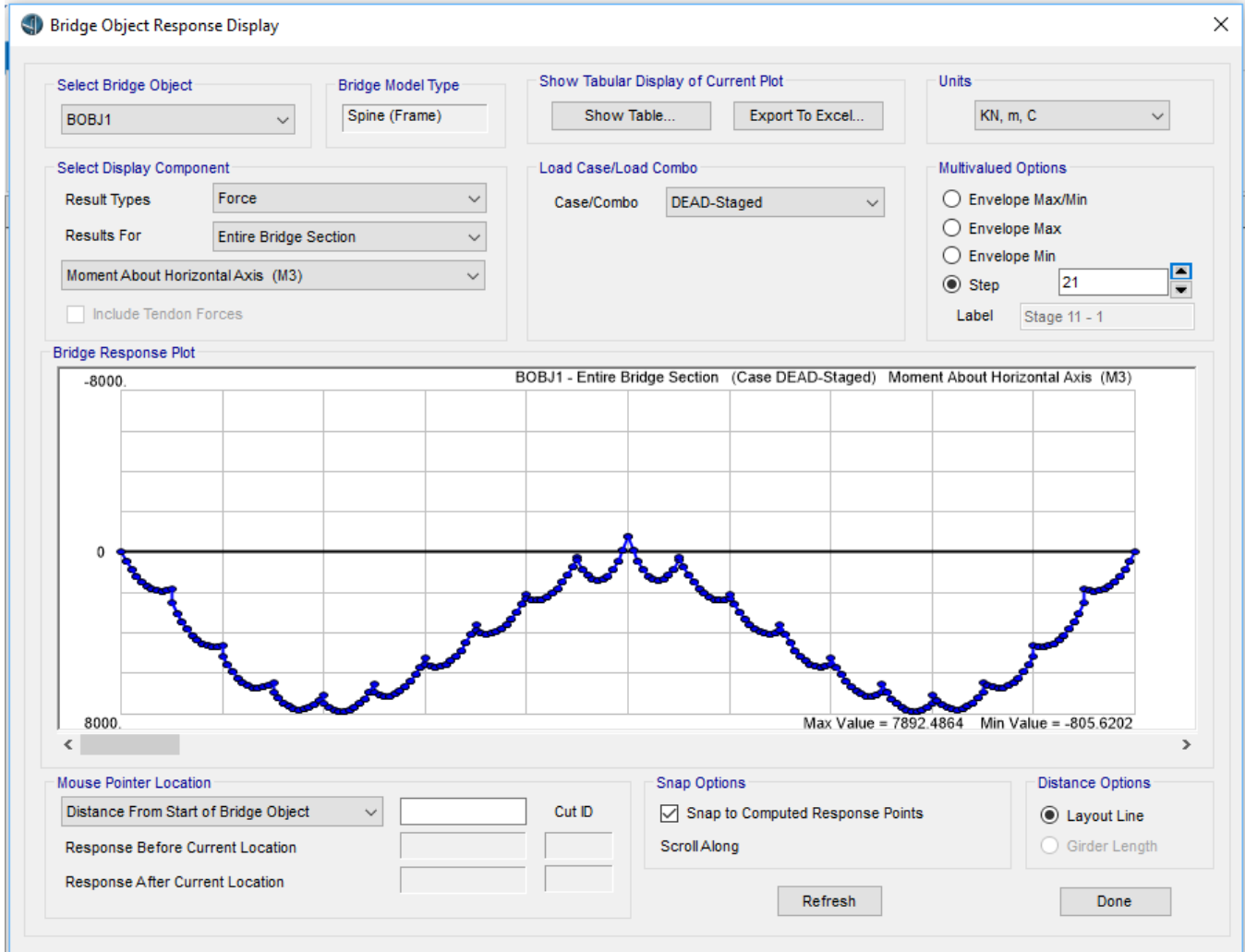


Figure 2: Deck moment when self-weight is applied

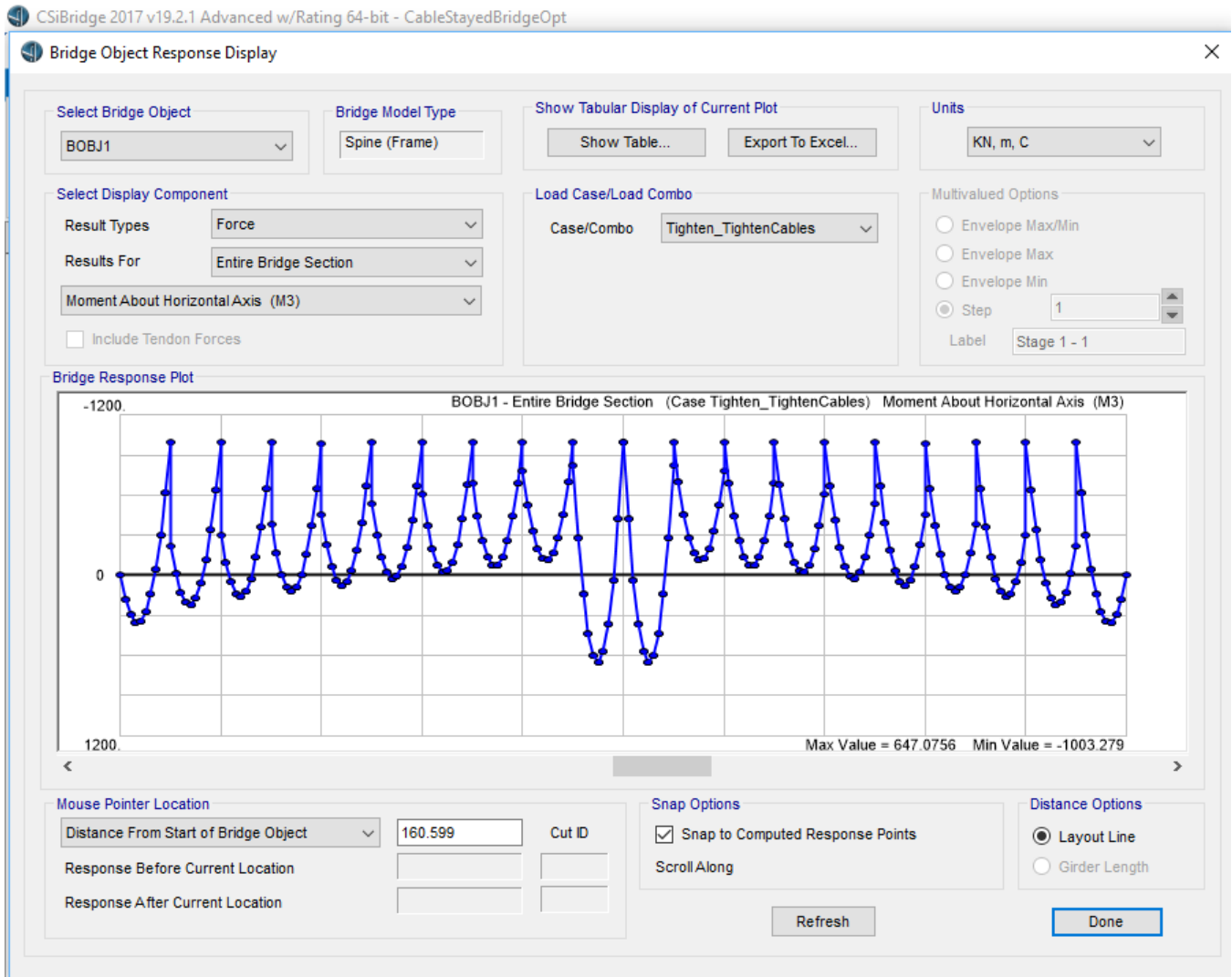


Figure 3: Deck moment for optimized cable forces

## Attachments

- [CSiBridge V19.2.2 zipped model file](#)