Constructions Engineering Challenges:
Innovative Solutions Two Case Studies

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Case Study #1 - Port Mann Bridge Tower Crane Removal (Vancouver, British Columbia, Canada)
Towering 550 feet above the Fraser River, the concrete pylons supporting the new Cable-Stayed Port Mann Bridge are an impressive sight. Not seen today but equally impressive from an engineering stand point were the tower cranes that that were used to build these behemoths. However the unique design of the bridges stay cables prevented the job team from removing the cranes by conventional methods. Tune in to find out how a team of high flying ironworkers safely dismantled the cranes 400 feet above the unknowing traveling public.

Case Study #2 - Access trestle for Pointe du Bois Spillway Replacement Project (Manitoba, Canada)
The 100 year old concrete structures on the existing dam and spillways deemed to be structurally deficient, the Winnipeg River poses a daunting obstacle to the construction of the new spillway structures which will divert the flow of the river and allow for the construction of a new dam. Early estimates anticipated moving materials and workers across the river by barge in the summer or ice road in the winter. Both options were deemed to be unreliable and unacceptable due to added costs and schedule. Learn how a motley crew of dock-builders conquered the violent currents, brutal cold, and the impenetrable granite to establish a fixed crossing.

Dave graduated from Notre Dame in 1999 and joined Kiewit Construction as an Engineer Estimator. Dave has sixteen years of experience in the design and construction industry. He has worked as a Structural Engineering Manager, Design Team Lead, Design Engineer, Field Engineer and Contracts Administrator on a range of projects across North America. Dave has spent the past ten years involved with the design of temporary structures and construction engineering in support of Kiewit’s projects. Dave has worked across all industries including Transportation, Power, Oil & Gas, Hydroelectric, Buildings, and Offshore Construction. Specialties include bascule (moveable) bridges, marine construction, and heavy crane lifts.