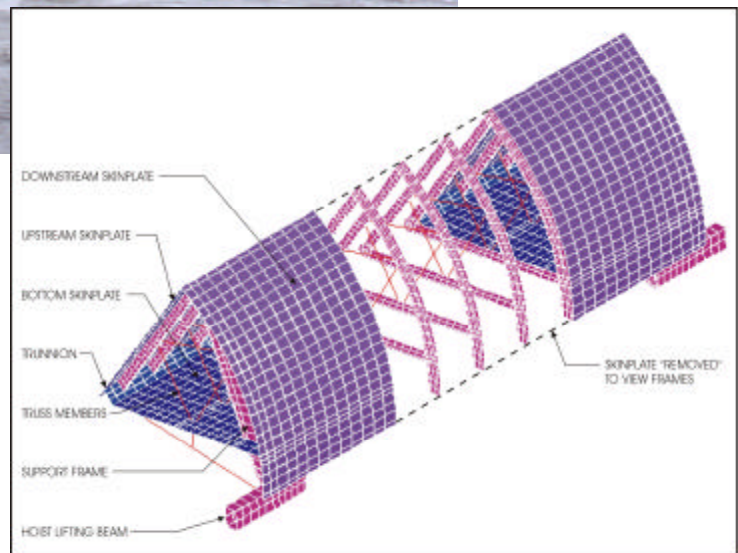


FLOODWAY INLET STRUCTURE ASSESSMENT

Manitoba Conservation, Water Resources Branch

Winnipeg, Manitoba



RADIAL GATE ANALYSIS
3D FINITE ELEMENT MODEL

Project Description

KGS Group conducted a condition assessment and definition of life extension requirements for the structural and mechanical systems for the Winnipeg Floodway Inlet Structure. Work included a finite element analysis and assessment of the 112 ft x 45 ft hydraulic bottom lift radial gates, assessment and testing of the hydraulic operating and control system for the gates, condition assessment of the bridge deck and access systems for maintenance, as well as the assessment and development of alternate methods for desilting the gate cavity within the structure. Recommendations for remediation and upgrading the systems, including preliminary design, cost estimates and a work plan for implementation were developed.