

KILKENNY DRIVE NORTH COMMUNITY RING DIKE PROJECT

City of Winnipeg

Winnipeg, Manitoba



Project Description

Following the 1997 Red River flood, the City of Winnipeg retained KGS Group to design and implement permanent flood proofing measures for the Kilkenny Drive North residential community in the City of Winnipeg. The design goal was to provide a community ring dike that retained water and was structurally sound and aesthetically pleasing. The intent was also to avoid future risk, stress and disruption to residents as well as minimize environmental impacts to preserve existing trees and vegetation in the riverbank setting.

A composite of curvilinear dike structures was developed with a central clay core utilizing vertical *segmental masonry retaining wall units* to minimize the footprint. The retaining walls were terraced for stability and incorporated access ramps. Dike limits were designed to be entirely within the property limits and located to preserve trees and maximize yard use and aesthetics. This permanent flood protection dike was constructed up to 8 ft (2.4 m) in height with horizontal geo-grid to provide the necessary stability under flood events. Yard drainage is provided through culverts with gate valves and watertight caps.

KGS Group was responsible for all stages of the project, from conceptual and preliminary design through to detailed design and contract administration.

The \$400,000 project was awarded the Award of Honor in the Landscape Category at the National Concrete Masonry Association (NCMA) Design Awards in Atlanta in 2004.