

Islington Avenue - Highway 407 Bridge

LEA carried out structural design and prepared contract documents for a new 4 lane cast-in-place post-tensioned bridge, carrying Islington Ave. over Highway 407 in Toronto, Ontario.

The superstructure consists of two equal 50.5 metre spans carrying four lanes of traffic for Islington Avenue. A 2.0 metre deep concrete trapezoidal multi-cell box girder deck section was chosen and engineered. The overall deck width for this bridge is 20.41 metres, including a 2 metre sidewalk canilever on both sides.

Abutments and piers are supported on deep steel H-piles due to poor ground conditions. Abutments are enclosed by a cost effective, proprietary precast concrete retaining wall system.



Islington Ave. bridge over Highway 407 deck after post-tensioning.



Islington Ave. bridge over Highway 407 open to traffic. Note the precast wingwall and abutment face details.

PROJECT SUMMARY

Client:
Ministry of Transportation - Ontario

Location:
City of Toronto, Canada

Services Provided:
Preliminary and Detailed Structural Design, Contract Preparation

Cost:
\$4.0 Million