



**NOTES:**

- IT IS PROPOSED TO EXTEND THE EXISTING TWIN-BOX CULVERT BY ADDING HEADWALL AND RETAINING WING-WALLS AT 45 DEGREE TO ACCOMMODATE ADDITION OF THIRD TRACK ON NORTH SIDE. RETAINING WALLS ARE TO BE TIED TO THE EXISTING CULVERT SIDE WALLS AND TO THE TOP SLAB BY MEANS OF DOWELS.
  - BASE OF RAIL ELEVATION OF PROPOSED TRACK TO MATCH EXISTING NORTH LINE.
  - DESIGN: AREMA 2008, CHAPTER 8, PART 16 AND CHAPTER 1, PART 4.
  - DESIGN LOAD: COOPER E-90+IMPACT.
- REFERENCES:**
- GEOTECHNICAL REPORT BY JACQUES WHITFORD STANTEC LTD., JUNE 2009
  - SURVEY OF EXISTING CULVERT BY AECOM, DWG.AA840-201.01-4.01, DATED 09/05/06
  - HYDRAULIC INVESTIGATION COMPLETED BY AECOM, MISSISSAUGA, ON (MEMORANDUM DATED JULY 10, 2009, PROJECT NUMBER: 0431-388-32).
  - BACKFILL: GRANULAR MATERIAL COMPACTED TO 95% PROCTOR, TO BE PLACED IN 6" LAYERS TO COME UP SIMULTANEOUSLY ON OUTSIDE OF CULVERTS.
  - RIP-RAP ARMORING TO BE 400mm AVG. DIAMETER D50 AS REQUIRED. LAYOUT OF STONE RIP-RAP PROTECTION MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	By/Par
A	NOV 19, 2010	GENERAL REVISION	SH
	FEB 16, 2010	ISSUED FOR CONSTRUCTION	DGT
	NOV 23, 2009	ISSUED FOR TENDER	DGT

**CONCRETE BOX CULVERT**  
NEAR MOHAWK, ONTARIO  
**CULVERT NORTH EXTENSION DETAILS**  
**GENERAL PLAN AND SECTIONS**

Drawn	Designed	Checked	Scale	Date
DGT	DGT	TK	1:100	FEB 16, 2010

Office of Chief Engineer  
Bureau de l'ingénieur en chef

