

July 02, 2009

Ministry of Transportation Ontario
Pavement and Foundation Section
1201 Wilson Avenue
Room 232, Building C
Downsview, Ontario
M3M 1J8

Attention: Mr. Tae Kim, P.Eng.
Senior Foundation Engineer

Ms. Marcia Mora, P.Eng.
Foundation Engineer

Dear Sirs:

RE: Comments on the Draft Foundation Investigation and Design Reports, Replacement of Portage Creek- Hwy 124, Township of McDougall, Ontario, G.W.P No. 5176-06-00, Geocres No. 41H-70

Further to your memorandum dated on June 04, 2009, regarding the captioned project, the following is our response, as requested.

Part 1 – FACTUAL INFORMATION

1. *MTO Geocres No. 41H-70 has been assigned to the Final Report and Foundation Drawing (BH Locations and Soil Strata).*
 - This was implemented.
2. *The Final Foundation Investigation and Design Report and Foundation Drawings must be signed and stamped by two Professional Engineers licensed by PEO, one of which shall be Coffey's Designated Principal Contact identified for MTO Foundation Engineering Projects.*
 - This was done

3. General Comment– All boreholes should contain GWP information and District number. GWP number is mentioned above and District is number 52.
 - This was done.
4. Drawing # 1 – Section and profiles presented in drawings 2, 3 and 4 should be presented in drawing # 1. Please consider a review.
 - This was done.

Section 1.0 (page 1) – Drawing # 2 – The water level included in the drawings is from August 2008. Some boreholes were drilled during January 2009 and the water level encountered in them was approximately 192.9/193.0m. Please include the highest water level encountered.

- The water level was changed to January 2009, as suggested.

PART 2 - ENGINEERING DISCUSSION AND RECOMMENDATIONS

5. Section 5.2 (page 11) – Backfilling - This section presents bedding and backfilling recommendations. It is our understanding that both, bedding and backfilling should be inspected by a QVE in accordance with special provision SP 902S01 Excavating and Backfilling Structures. The bedding should also be compacted in accordance with SP 105S10.

The second paragraph states that organic soils should be removed within a suitable distance. Please be specific about the extension of the organic soils to be removed, or include the minimum distance from the footprint of the culvert that the organic soils should be removed.

- These were incorporated into the report.
6. Section 5.4 (page 14) – Construction Comments – A NSSP should be included in the Contract Documents alerting the Contractor of the subsurface and groundwater conditions and that the groundwater control requirements should be planned accordingly by the Contractor prior the construction.
 - This was included in the report, as requested.
 7. Drawing – Figure F1 – Suggested Staging Plans – Stages 1 and 2 are presented in the drawing. Please consider including a note that informs that prior the Stage 1 be constructed, the subgrade should be prepared and all organic soils should be removed to the surface of the inorganic subgrade.
 - These were implemented in the final Contract Documents. The organic soils are to be removed from beneath the new culvert, which has been included in the contract. The organic soil beneath the rock fill widening will remain. Rock fill is to be pushed into the organic/clayey materials for the widening.

8. Drawing - Figure F2 – Suggested Staging Sections – On the Final Configuration legend should be applied according since rockfill and culverts rings will be removed upon completion.

At the same drawing, figure F2, on the Final Configuration Section, it is not clear if the rockfill was removed or not. According section 5.1.1 Widening on the Left side, page 10, last paragraph, the report mentioned that the rockfill placed during the staging will essentially be removed. Please clarify if the rockfill will be removed, and if so, make sure the Final Configuration Section presents the final recommendations.

- The final drawings in the Contract Documents show the requirement for the removal of the rock fill and the culvert rings on the left side of the embankment.

We hope that the foregoing is satisfactory. We thank you for your fair review of our draft report and look forward to working with you on other projects.

For and on behalf of Coffey Geotechnics Inc.



Zuhtu Ozden, P.Eng.
Senior Principal