

Memorandum

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| To | Susan Murphy, Mattamy Homes | Page | 1 |
| CC | Adam Fobert, DSEL | | |
| Subject | Richmond – Fortune Street Culvert - Enlargement | | |
| From | Paul Frigon, AECOM | | |
| Date | March 8, 2010 | Project Number | 60117455 |

We have completed an initial review of the impact on 1:100 Year summer flood levels between Perth Street and Fortune Street through an increase in capacity of the Fortune Street culvert.

An increase in the span of the existing culvert can result in a significant change in upstream water level for major summer flood flows.

By increasing the Fortune Street culvert span from 4.2m to 6.3m (a 50% increase) the upstream water level, for the 1:100 Year summer event, can be reduced by 0.2 to 0.3m for 300m+/- upstream of Fortune Street. For example, at XS 840, water levels are reduced from 93.91m to 93.65m (a 0.26m reduction) and, at XS 1002, water levels are reduced from 93.92m to 93.72m (a 0.2m reduction).

These changes in water level are summarised in the attached table and reflected, in plan view, on the attached sketch. In the table, existing conditions are identified by plan name "14jan09 S-F" and culvert enlargement conditions are identified by plan name ""culvonly".

