

Summary of Decisions of the Structural Engineering Committee
SEC 05/2012 held on 15.03.2012

(a) Case 05/2012

Issue: Use of glass fiber reinforced polymer (GFRP) bars as reinforcement for the secant piles and perimeter in-situ walls at two boring positions of Tunnel Boring Machine (TBM)

Recommendation: To accept the use of glass fibre reinforced polymer (GFRP) bars (16mm, 25mm, 32mm and 40mm in diameter) adopting ACI440.1R-06 Code as reinforcement for the secant piles and perimeter in-situ walls at two boring positions of Tunnel Boring Machine (TBM)

Decision: After considering RSE's justification and making reference to precedent cases, members endorsed the recommendation on the condition that:

- (a) Submission of a detailed quality assurance report covering handling, transporting and fabricating of GFRP rebars and method and criteria of controlling the heat of hydration during concreting.
- (b) The GFRP rebars shall be manufactured to the proper shape, fabricated and well protected to avoid loss of strength and durability.
- (c) Qualified site supervision to the GFRP works should be provided by the CP and Registered Specialist Contractor.