

TABLE 4 : FOUNDATION DESIGN, BUILDING PROCEDURES AND PRECAUTIONARY MEASURES

AREA	GEOTECHNICAL CLASS	% OF TOTAL AREA	ESTIMATED SOIL MOVEMENT	SOIL PROFILE	DEVELOPMENT POTENTIAL	CONSTRUCTION TYPE	FOUNDATION DESIGN	ASSOCIATED PROBLEMS
I	C	4,3	<5mm of collapse and consolidation settlement	<1000mm of residual sand overlying bedrock, shale	Favourable	Normal	Normal strip foundations Slab-on-the ground foundations	Conditions of hard rock excavation
II	H2	2,7	15mm to 30mm unrestrained heave	Transported and residual clayey sand overlying bedrock diabase or shale	Intermediate	Modified normal	Reinforced concrete raft Soil replacement raft Reinforced strip foundations	Localized areas of hard rock excavations
III	C1-H2	16,9	Combination of 15mm to 30mm unrestrained heave and 5mm to 10mm collapse and consolidation settlement	Reworked fine colluvium overlying residual shale and diabase	Intermediate	Modified normal	Reinforced concrete raft Soil replacement raft Reinforced strip foundations	None
IV(a)	H3	56,6	30mm to 60mm of unrestrained heave	Black, colluvial sandy clay overlying residual diabase and shale	Intermediate	Modified normal	Reinforced concrete raft Soil replacement raft	Possible presence of perched water and surface water
IV(b)	H3	5,7	60mm to 90mm of unrestrained heave	Black, colluvial sandy clay overlying residual clay	Intermediate	Modified normal	Reinforced concrete raft Soil replacement raft	Possible presence of perched water and surface water

TABLE 4 : FOUNDATION DESIGN, BUILDING PROCEDURES AND PRECAUTIONARY MEASURES (continued)

AREA	GEOTECHNICAL CLASS	% OF TOTAL AREA	ESTIMATED SOIL MOVEMENT	SOIL PROFILE	DEVELOPMENT POTENTIAL	CONSTRUCTION TYPE	FOUNDATION DESIGN	ASSOCIATED PROBLEMS
V	C1-H3	7,7	Combination of 30mm to 60mm unrestrained heave and 5mm to 10mm collapse and consolidation settlement	Reworked fine colluvium overlying residual shale and diabase	Intermediate	Modified normal	Reinforced concrete raft Soil replacement raft	Possible presence of perched water and surface water
VI	P(Fill)	6,1	Undetermined settlement	Up to 3000mm uncompacted, unsorted earthbackfill overlying residual shale or diabase	Poor	Modified normal or reserve as public open space	Dynamic compaction by falling weight Soil replacement raft Piled foundations	Sidewalls of excavations collapse