# GENERAL

## SCOPE

This specification is to be read in conjunction with the Drawings and Bill of Quantities (BOQ). In the event of any discrepancy, the Specification and Bill of Quantities takes precedence over Drawings.

## Local regulations and standards

Work shall comply with local regulations and local construction standards. Discrepancies between designs and with regulations or standards shall be addressed before work commences.

Structural designs shall be reviewed by a local Engineer to confirm adequacy in relation to local regulations, construction practices, and site conditions.

# SITE

## SITE SELECTION

The site of works shall be selected to avoid risks of flooding, erosion, subsidence, exposure to high winds, contamination of ground water, and other avoidable risks.

## SITE SETOUT

The location of works shall be checked, set-out (marked) and approved before work commences.

## SOIL CONDITIONS AND TESTING

Site soil conditions shall be assessed prior to commencement of works for suitability in relation to structural and hydraulic requirements.

# materials

## sand

Sand should be clean, sharp, angular (gritty to touch), clean and free from impurities. River or pit sand should be used rather than sea sand which contains salt and other impurities that affect structural applications. All sands should be washed before use to ensure a clay/silt content of no more than 6%.

A rough field test of sand may be carried out by rubbing a sample of sand between damp hands and noting the extent of discolouration from soil, dust or other impurities.

## water

Water used for construction should be non-saline, and free oils, acids, alkalies and from impurities including soil/mud and organic matter.

## Gravel and aggregate

Gravel and aggregate for concrete and compacted sub-bases shall be clean and free from impurities including soil, dust, and organic material. Aggregates for concrete shall be 12-25mm to minimise crack propagation across load bearing concrete structures and to ensure an adequate covering of steel reinforcement.

## stone soling

Stone soling shall use stones of 10-20cm and not less than 10cm in any dimension. The height shall equal the height of the soling course with a tolerance of 25mm. The depth of stone soling courses shall be 15cm unless otherwise noted.

Soling stones should be packed by hand as close as possible with broadest side downwards and length across the road width. Joints should be staggered. Gaps between stones should be filled with smaller sones, well driven in to make tight packing and complete the filling of all interstices.

## asphalt

Hard, angular aggregates shall be used for pre-mixed asphalt. The maximum size of aggregate should not exceed ¾ of the thickness of the consolidated and compacted surface layer.

Sufficient binder should be used to coat thoroughly coat each piece of aggregate. However, only just-sufficient a quantity of bituminous binder should be used, noting that excess binder acts as a lubricant that encourages sliding movement rather than binding of aggregates.

Pre-mixing is preferred. However, on-site hand mixing may be done using drums, noting that hand mixing in a drum can be used to mix 2m3 of aggregate per drum per day. Larger outputs and better coating of aggregate can be achieved in hot weather and when aggregates are exposed to the sun. Pre-mixed asphalt shall be laid in a thicker layer and consolidated to around 25mm thick layer unless otherwise noted.