V2-S2&S3&S4-2
ATTACHMENT-2 DE-WATERING

1. SCOPE

This specification covers the general requirements of dewatering excavations in general.

2. DEWATERING

All excavations shall be kept free of water. Grading and surface water drainage scheme in the vicinity of excavation shall be properly closed to prevent surface water from draining into excavated areas. CONTRACTOR shall remove by pumping or other means approved by ENGINEER any water inclusive of rain water and subsoil water accumulated in excavation and keep all excavations dewatered until the foundation work is completed and backfilled. Sumps made for dewatering must be kept clear of the excavation/ trench areas required for further work of foundation construction. Method of pumping shall be approved by ENGINEER; but in any case, the pumping arrangement shall be such that there shall be no movement of subsoil or blowing in or excavation wall collapse due to differential head of water during pumping. Pumping arrangements shall be adequate to ensure no delays in construction.

The CONTRACTOR shall take adequate measures for bailing and/ or pumping out water from excavations and construct diversion channels, bunds, sumps, coffer dams, etc. as may be required. Pumping shall be done directly from the foundation trenches or from a sump outside the excavation in such a manner as to preclude the possibility of movement of water through any fresh concrete or masonry and washing away parts of concrete or mortar. During laying of concrete or masonry and for a period of at least 24 hours thereafter, pumping shall be done to ensure that the surface below the concrete remains dry.

Capacity and number of pumps, location at which the pumps are to be installed, pumping hours, etc. shall be reviewed by the CONTRACTOR from time to time. The ENGINEER may direct the CONTRACTOR to make changes in his scheme if the adopted scheme fails to achieve the desired results.

Pumping shall be done in such a way as not to cause damage to the work or adjoining property by subsidence, etc. Disposal of water shall not cause inconvenience or nuisance in the area or cause damage to the property and structures nearby or shall not be a cause for environmental pollution of natural water bodies.

When there is a continuous inflow of water and quantum of water to be handled is considered in the opinion of ENGINEER as large, well point system - Single stage or multi stage, shall be adopted. CONTRACTOR shall submit to ENGINEER his scheme of well point system including the stages, the spacing, number and diameter of well points, headers, etc. and the numbers, capacity and location of pumps of approvals.

In case well point dewatering is required, the Indian Standard IS 9759: 1981 (Reaffirmed 2016) - Guidelines for De-Watering During Construction shall be used for design of the dewatering system