

Construction Safety Guidelines No.9

Excavation

		
<p>PRIOR TO EXCAVATION</p> <ul style="list-style-type: none"> Identify the presence of underground installations & take necessary safety precautions. Obtain NOC from service authorities & Roads Department. Ensure that Risk Assessment is done for excavations exceeding 1.2mtrs. & necessary safety precautions taken. Employ cable avoidance tool (CAT) prior to excavating. 	<p>BARRICADE THE AREA</p> <ul style="list-style-type: none"> Adequately barricade the area to be excavated. Do not stack any material near the edge of any excavation, shaft, pit or opening in the ground. No load or plant or equipment shall be placed near excavation to prevent collapse. Provide sufficient lighting for safe operations. 	<p>DISPLAY NOTICES</p> <ul style="list-style-type: none"> Display adequate warning notices in languages understood by the workers. Provide flashing amber lights if excavation is left open overnight & there is a risk of vehicles passing by. No unauthorized access to be permitted.
		
<p>PPE & FRESH AIR</p> <ul style="list-style-type: none"> Personal protective clothing & equipment shall be provided to the employees & be worn. Contractor shall provide instruments to test the atmosphere for oxygen deficiency in any excavation. Provide adequate ventilation where there is insufficient movement of air. Ensure that minimum of 19.5% & maximum of 23.5% oxygen level by volume is maintained in the air. Do not allow any person to enter if the air is suspected to be poisonous or asphyxiating. 	<p>SAFE ACCESS & EGRESS</p> <ul style="list-style-type: none"> Provide ladder or steps for safe access & egress. Evacuation plans & procedures must be made known to employees. As per DM Regulations an emergency hoisting facility shall be readily available at shafts more than 15 mtrs. in depth. 	<p>SHORING & DEWATERING</p> <ul style="list-style-type: none"> If the depth of vertical cut exceeds 1.5m provide shoring. Provide shoring if there is a possibility of fall or dislodgement of earth, rock or other material. The angle of repose & design of the supporting system shall be based on depth of cut, soil, loading, system of dewatering, vibrations, traffic etc. Ensure that surface water does not enter the excavated areas & / or water shall not be allowed to accumulate in an excavation.