

CONSTRUCTION OF PILING BY USING PONTOON METHOD

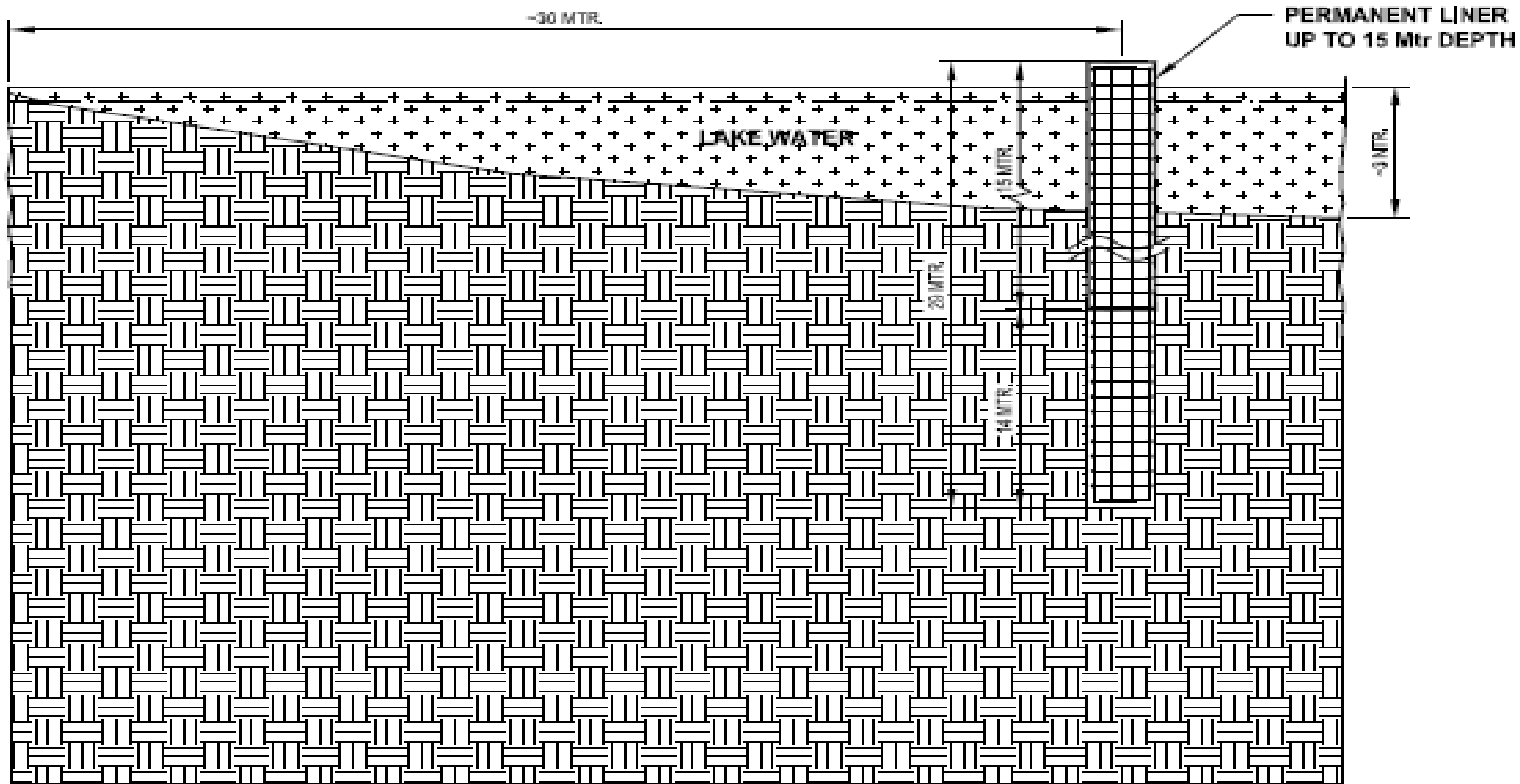
UNDER WATER PILING



LAKE WATER PILE

Lake piling is the process of setting deep foundations into the bedrock below lake level to support deck slab near shore & offshore based structures.





TYP. VIEW OF PILE IN LAKE

UNDER WATER PILE



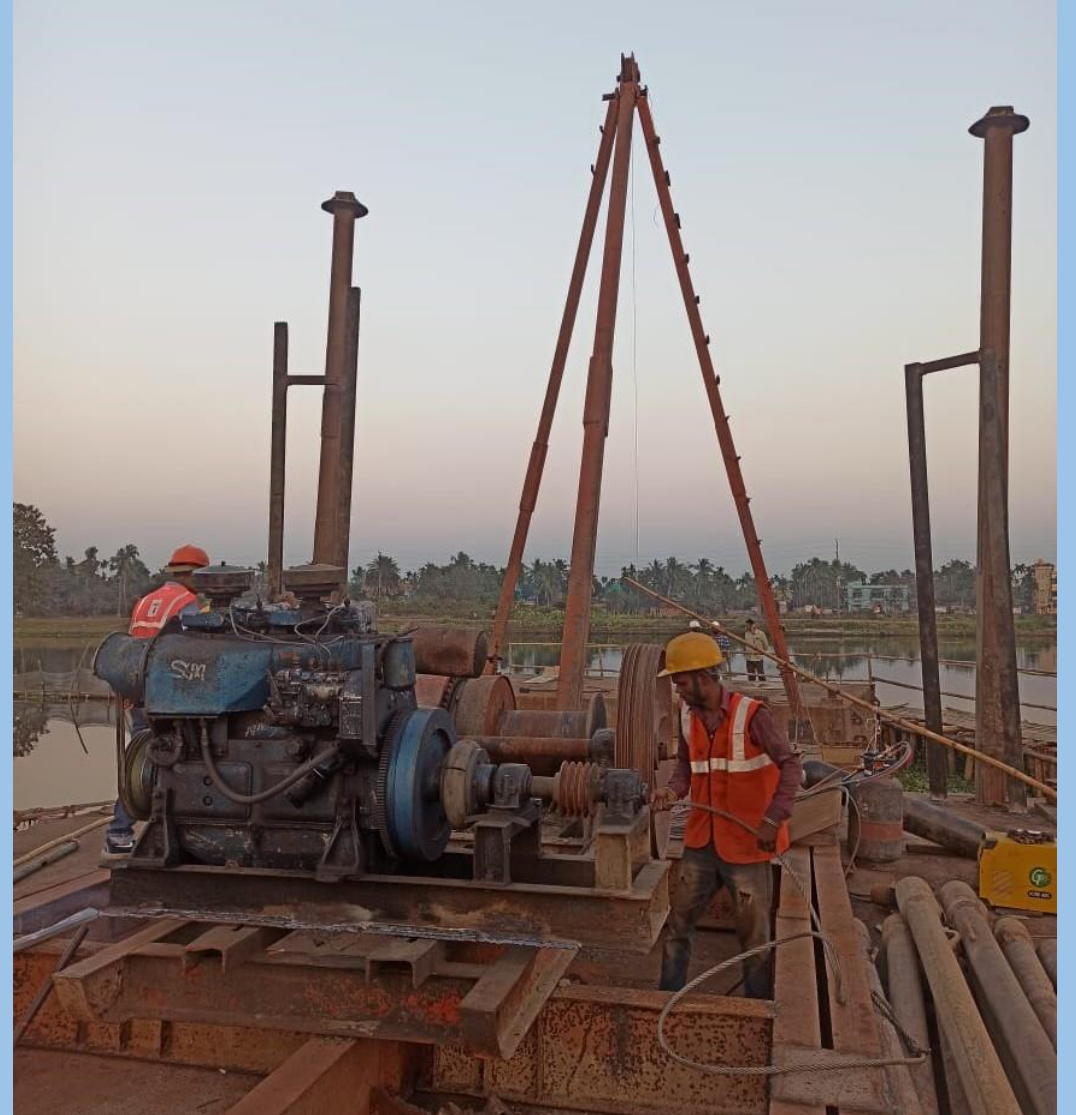
MARINE OR LAKE PILE

- Marine or lake piling is a part of the construction process where large piles are set deep into the ground below the lakebed to provide the foundation and support for lake construction. This is also known as deep foundation.
- Piling can be used in the development of several projects including mooring piles, fixed jetties, private jetties and of course, floating pontoons.
- In the term of the role they play in the construction of a floating pontoon, piles usually two or three –are erected to fix a pontoon to float up and down, but always in position, with the tide.



PONTOON METHOD

- Pontoon
pontoon is used in construction of lake piling to create a deep-set foundation that holds the pontoon in place while allowing it to move up and down with the tide.





MAJOR EQUIPMENTS

- Pontoon for a Machine
- Pontoon for a cage
- Rig machine
- DG set
- Water tank
- Approach road materials
- Total station
- Dumpy level
- Tractor trolley with truck



- Welding machine with welding cables, rectifiers etc
- Gas cutting set with flash back arrester
- De-watering pump
- Vibrators
- DMC and rig machine
- Miller /ajex aiori
- Bar cutting machine
- Shuttering plates and accessories



- Props and support, staging materials
steel pipes
- Hydra/JCB
- Concrete pump
- Cube mould
- Electrical distribution board with proper
protection and power cable.



SEQUENCE OF WORK

- Assembly of pontoon
- Erection of rig and components with equipment.
- Guide frame fixing
- Installation of casing.
- Pile boring and chiseling
- Lowering of reinforcement cage.
- Tremie lowering and flushing
- Concreting of pile
- Shifting of rig

INSTALLATION OF CASINGS

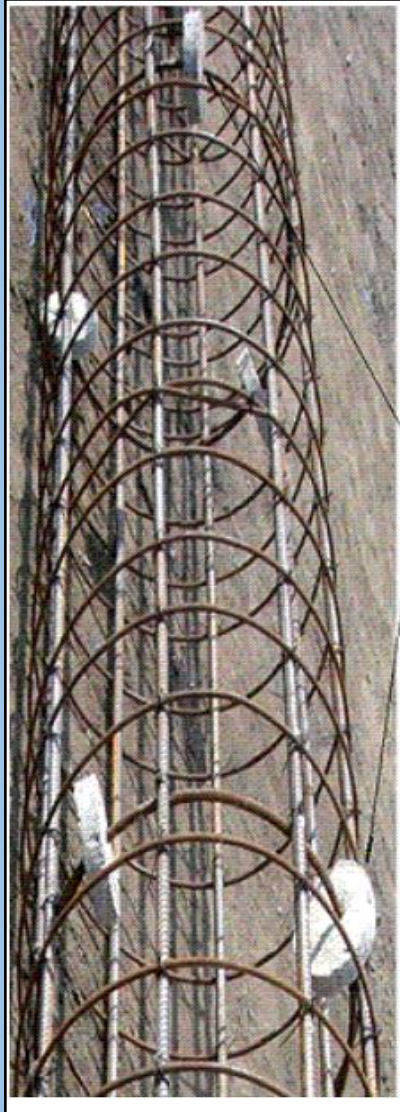
- M.S casings are fabricated on land.
- Lifted by Crane & lowered into the guide frame until it rests on the lake bed.
- Thereafter driven into the lakebed by drop hammer up to the refusal, maintaining the verticality & position.
- If found beyond the tolerance then it is retrieved and re-driven in position.
- No boring commences until they are checked to be within tolerance.
- The top and toe level of the installed permanent casing is recorded.





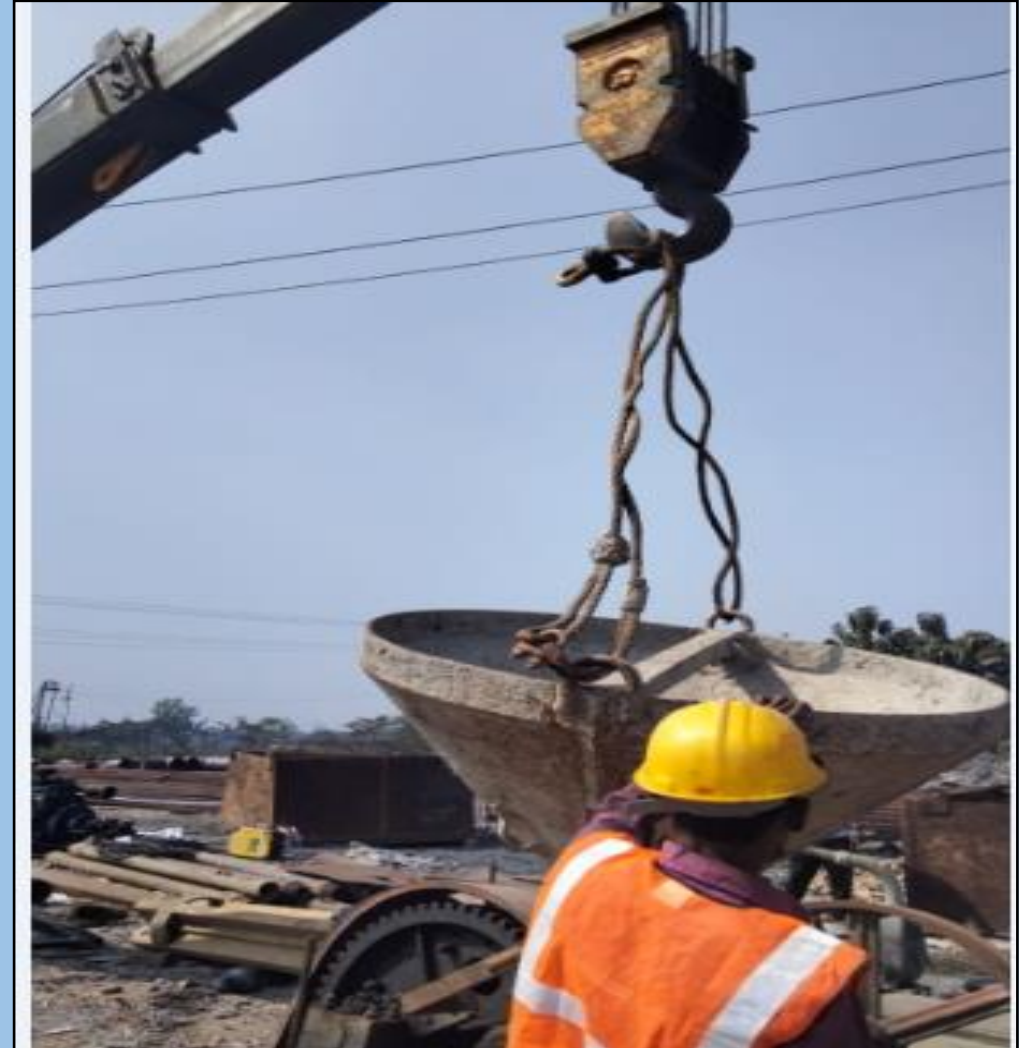


REINFORCEMENT CAGE INSTALLATION





TREMIE METHOD





PILE CONCRETING

- Concrete is poured by Tremie Method
- After placing the reinforcement cage, Tremie pipe (150/200mm dia) elements are assembled and lowered inside the pile.
- Tremie pipe connected to a hopper is held by frame.
- Borehole is cleaned by air/ water flushing method till clear water is obtained.
- The concreting shall be done by using the crane and bucket arrangement from the transit mixture to pile.
- The concrete shall be poured into the tremie pipe hopper without interruption.





