



# CONSTRUCTION DRILLING INC

2958 Boys Rd  
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CSABC The Construction Safety Association of British Columbia  
COR CERTIFIED



## 3.0: Structural Concrete

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### PURPOSE

To establish required construction procedures for performing, testing, and documenting Structural Concrete placement.

### SCOPE

This procedure covers structural concrete placement or cast-in-place Portland cement concrete placed in structures per approved plans and the project documents.

### RESPONSIBILITIES

CDI is responsible for placing concrete in accordance with the Contract Documents.

CDI is not responsible for the supply and testing of concrete.

### PROCEDURE

1. Where tremie concrete is to be used, sufficient additional cement shall be added to the mix to compensate for dilution due to the depositing of concrete in the water.
2. Tremie concrete shall be deposited in a manner accepted by the Contract Administrator. Tremie concrete shall not be placed without the Contract Administrator's approval.
3. To prevent segregation, concrete deposited underwater shall be carefully deposited in a compact mass in its final position by means of a tremie pipe (see Figure 4) and shall not be disturbed after being deposited.
4. Continuous soundings shall be taken during the concrete pour and all irregularities in the concrete profile shall be noted. The tremie pipe shall be supported so as to permit:
  - a. Free movement of the discharge end over the entire top surface of the work.
  - b. Rapid lowering when necessary to retard or stop the flow of concrete.
5. The discharge end shall be closed at the start of the Work in order to prevent water from entering the tube and it shall be sealed at all times when not within the deposited concrete.
6. The tremie tube shall be kept full up to the bottom of the hopper. When a batch is dumped into the hopper, the flow of concrete shall be induced by slightly raising the discharge end, always keeping it within the deposited concrete.
7. Alternatively, the concrete pump truck can be connected directly to the tremie pipe.
8. Heating and hoarding to be done by others if required.
9. Mix design will be provided by others.



Figure 1 - Use of a tremie pipe in pouring a reinforced CIP pile.



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10. Concrete will be poured to top of casing cut-off. Survey to be provided by others.
11. Trash pumps will be placed in the pile 1m down, water will be displaced during the concrete pour and pumped to water tight bins for treatment and disposal by others.
12. Once concrete reaches within 1m of the top of pile cut off the tremie pour will be halted. The tremie pipe will be removed from the pile. Excess water and latent concrete will be pumped from the top of the pile using the trash pump. If the latent concrete can be removed the concrete inside the pile will then be carefully brought up to cut off elevation using the concrete pump. If the latent concrete cannot be removed the pile concrete will be poured 150mm above pile cut off and leveled. After the concrete has cured the casing will be cut off and excess concrete chipped down.