



O'REILLY
— concrete —



Pre-Cast Concrete Tanks

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Previous Projects:



Attenuation Tank at Walshtown, Co. Kildare



Water Tank at Taghart, Co. Cavan



Attenuation Tank at Cornacassa, Co. Monaghan



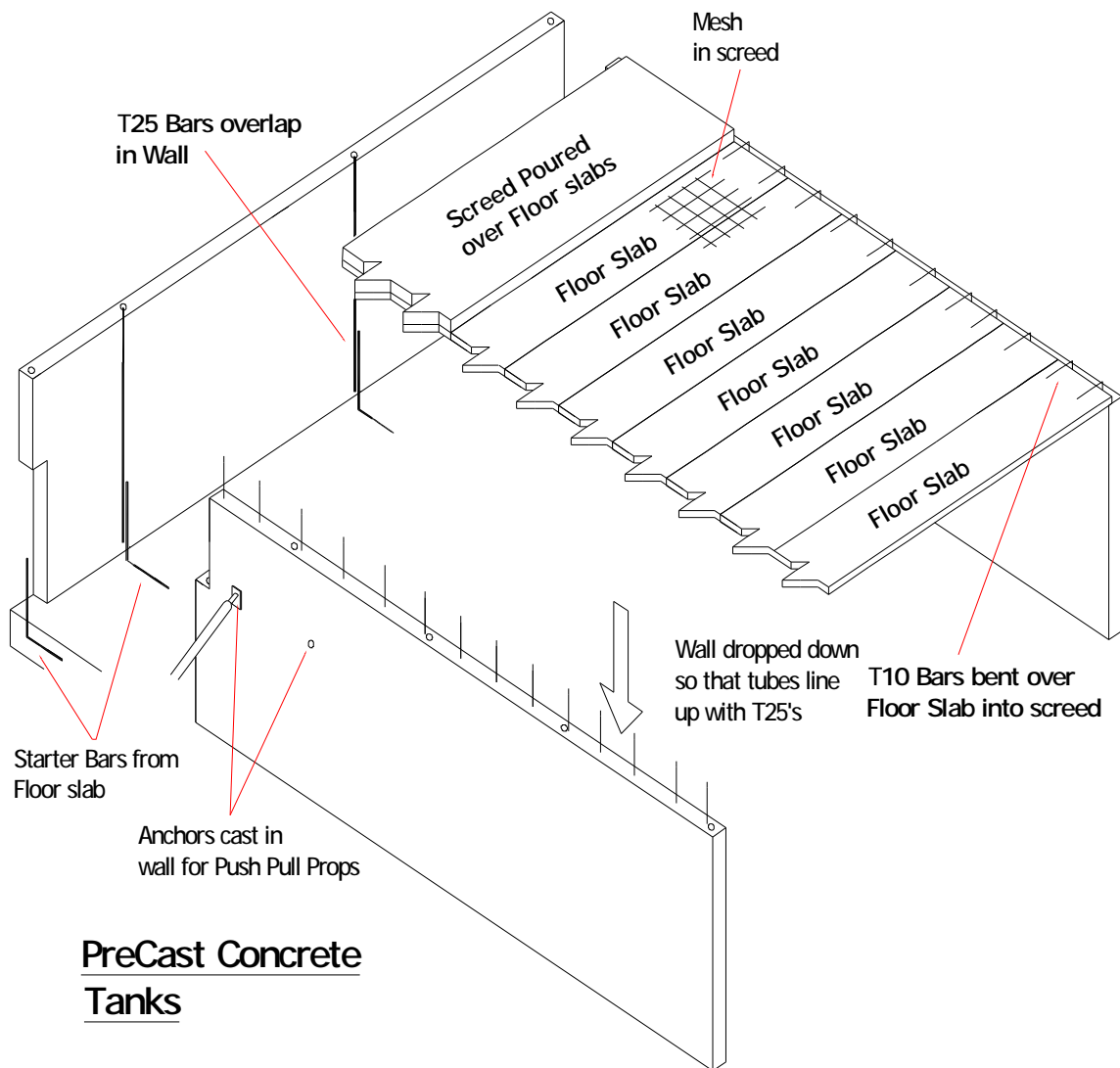
Aeration Tank at St. Margarets Golf Course, St Margarets, Co. Dublin



Attenuation Tank at Ramsfort Park, Gorey, Co. Wexford

Advantages of Precast:

- Suitable for Water storage tanks, attenuation tanks, aeration tanks. etc
- Wall panels and floor slabs are constructed off-site regardless of weather conditions and are rapidly assembled on site.
- Tanks can be designed to required capacity.



Method of Erection of Pre-Cast Tank

Preparation of Floor

- All Reinforcement Steel for Floor is delivered to Site.
- Steel Fixer ties Reinforcement as per Floor Reinforcement Drawing. Starter Bars are fixed at positions as shown in Drawing.
- The Floor is then poured with any profile, which there may be in the floor as per drawing.

Erection of Pre-Cast Walls

- The Walls are erected in sequence as shown on the Wall Erection Drawings.
- The Operative hooks lifting hooks into the two lifting eyes on each Pre-cast wall. Lifting eyes are checked before unit is lifted.
- Operative signals to driver either by hand signal or two-way radio that wall is ready to be lifted.
- A strip of Waterbar is attached to the underside of the Walls before it is placed on the Floor.
- A Waterbar Strip is also placed on the Walls at each Joint as indicated in drawings.
- 10-15mm of Mortar is placed on the floor where Wall is to be fitted.
- Driver lifts the wall to its position. Operative guides the wall to its final position.
- Shims are used under the Wall to ensure that they are placed level.
- If the Walls are landed in Floor recess, the wall has to cover a minimum of 40mm into the recess
- Push - Pull Props are then connected to the Wall (Anchors are cast into Wall during the manufacturing process). One end of Prop is connected to Wall and the other is connected to the Floor by appropriate bolts.
- When this process is complete, operatives will then place the next Wall and continue until all Walls have been fitted.
- The Tubes in the Wall are then grouted. The areas where Walls meet each other are shuttered and grouted. All Grout operations are to be made using non-shrink grout. The joints are closed properly and the surface is made smooth along the joints.

Sealing of Tank

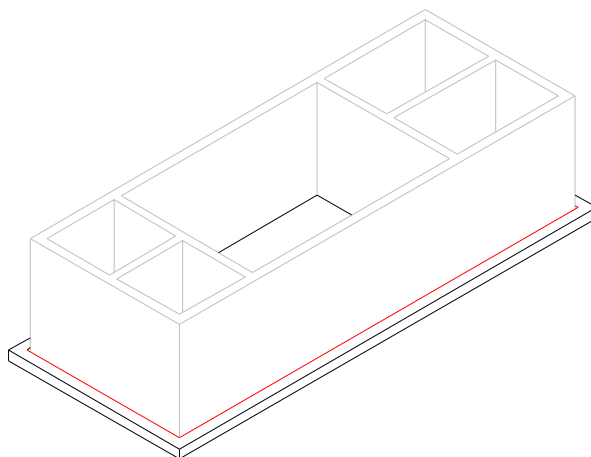
- The Walls of the Tank are then sealed along all joints. This will be carried out by a third Party. The Walls can be sealed before the floors are placed or alternatively after, as there are manholes in the floor slabs.

Erection of Floors

- The Floor Slabs are erected in positions as shown on the Floor Erection Drawings.
- Operative hooks chains into the four lifting hooks on each slab. Hooks are checked before unit is lifted.
- Operative signals to crane driver either by hand signal or by two-way radio that slab is ready to be lifted.
- Crane driver slings slab to its position. Slab foreman guides the slab to its final position, ensuring correct bearing is achieved.
- Erection will begin in sequence as shown on drawing.

Pouring of Screed

- The Rebar's protruding out of the top of the Walls are Bent over the Floor Slabs.
- The Reinforcement steel A252 Mesh is then placed on top of floor slabs as per drawings.
- The Screed is then poured to height indicated on drawings.
- The Screed is then Power-Floated.
- The Push-Pull Props are removed after screed on floor is cured.



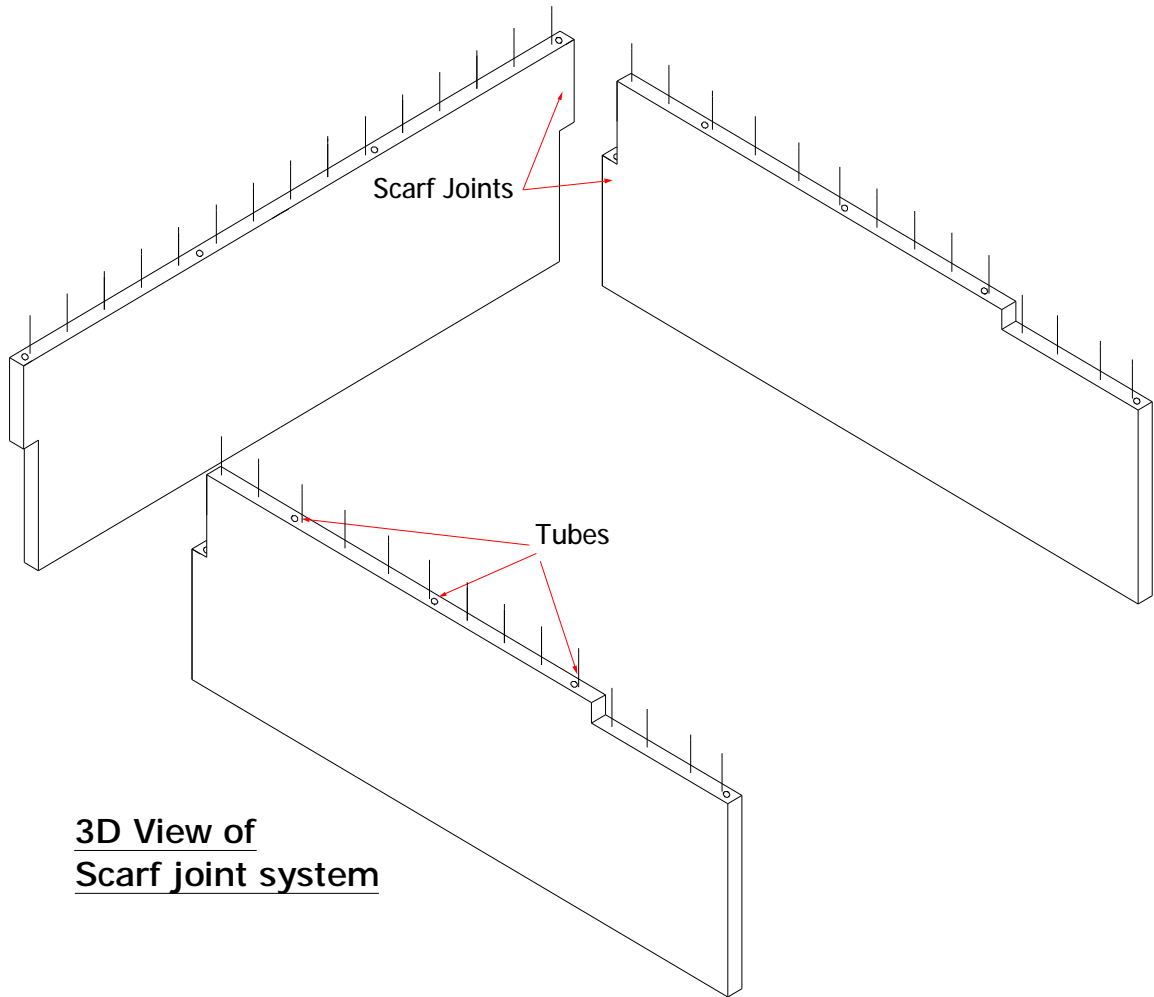
Typical Concrete Pre-cast Tank with chambers

Connection Details

Various connection methods can be used for Precast walls.

The most common are:

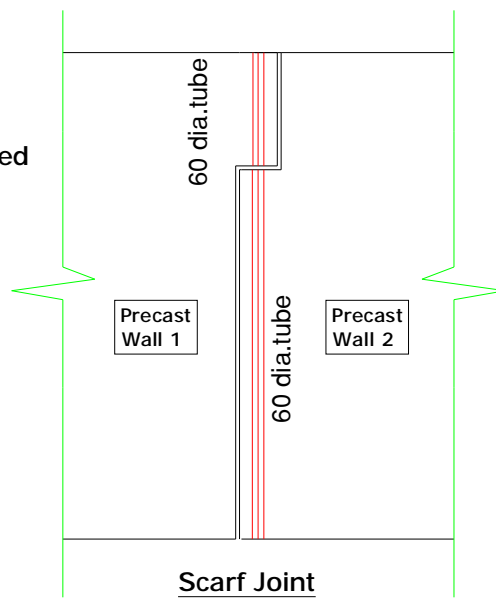
1. Scarf Joints system
2. Pfeifer VS Rail system



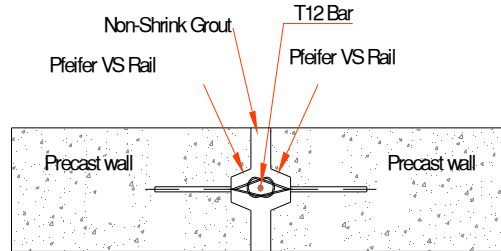
3D View of Scarf joint system

1. Scarf Joint system

Scarf Joints line up as shown.
T25's are inserted and grouted.

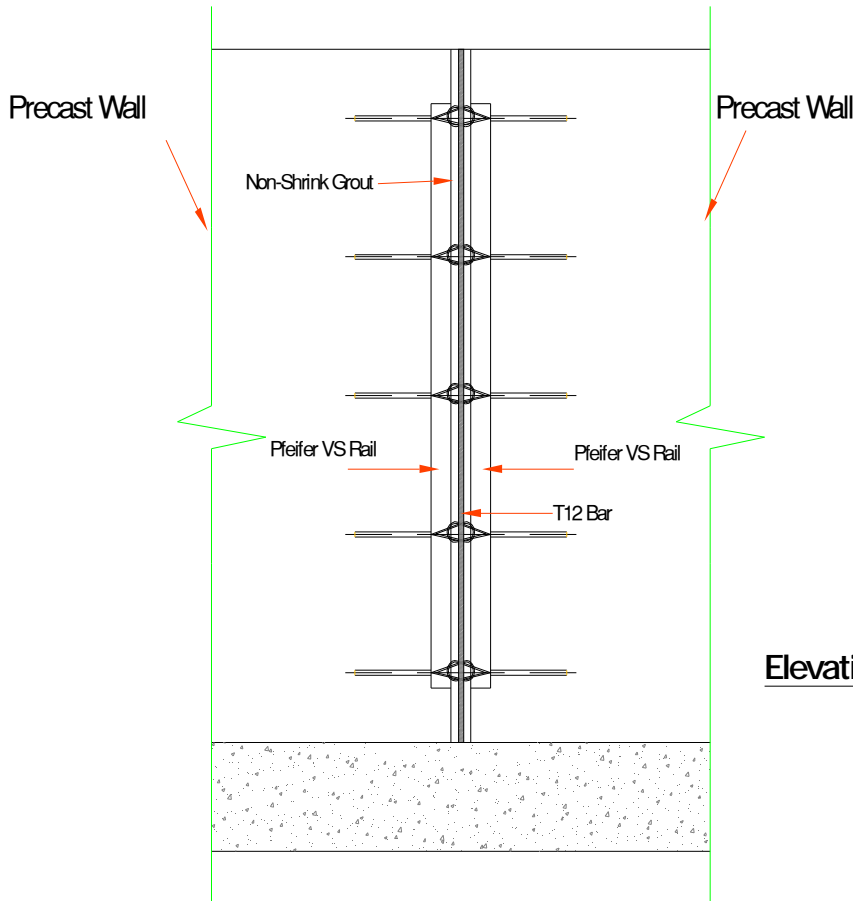


O' Reilly Concrete Pre-Cast Concrete Tanks



Plan View

Precast Walls line up.
T12 Bar inserted into
loops.
Joint is shuttered
either side.
Walls are grouted
as shown.

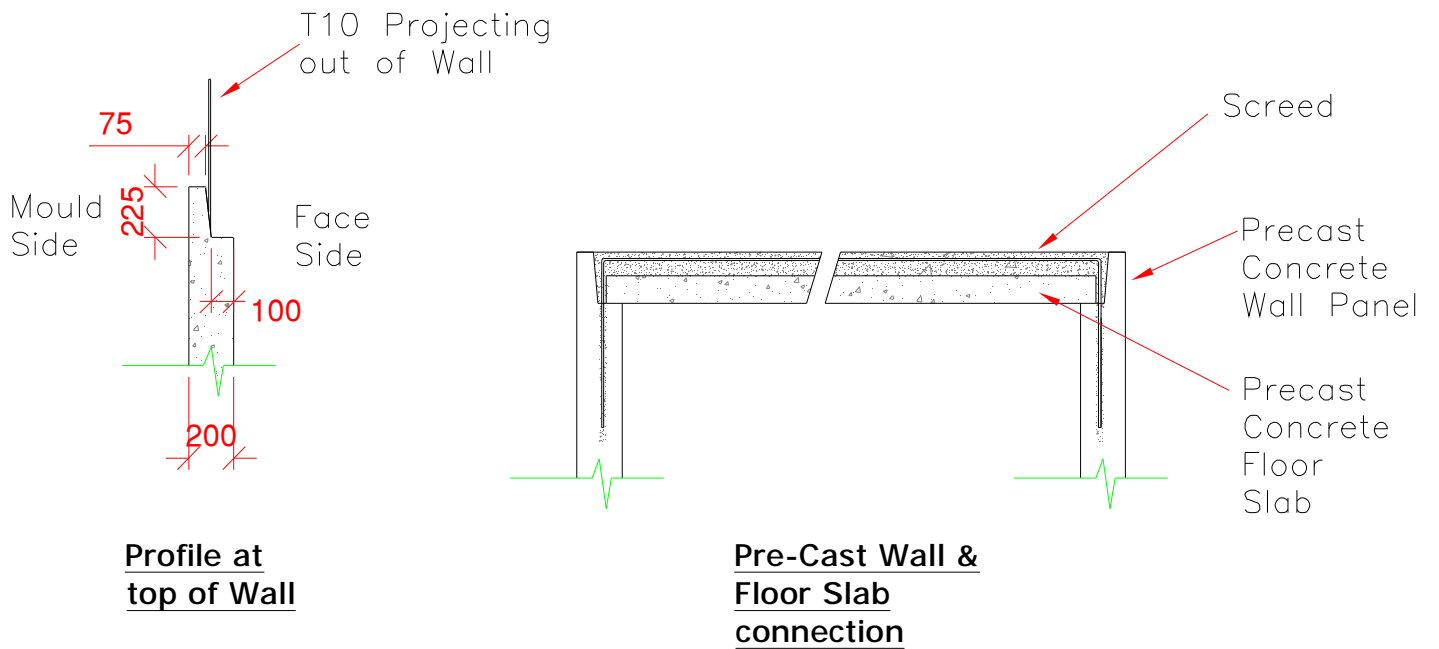


Details of
Pfeifer VS
Rail Connection

Elevation View

2. Pfeifer VS Rail system

Wall Profiles



Profile at Top of Wall

Typical Wall Details

Photographs

O' Reilly Concrete Pre-Cast Concrete Tanks



Typical Attenuation Tank in progress

Other Products from O'Reilly Concrete



• Pre-stressed Floors



• Pre-cast Walls



• Pre-stressed Walls



• Pre-cast "L" Walls



• Pre-cast Attenuation Tanks



• Pre-cast Stairs



• Pre-cast Houses



• Slats



• Fencing



• Ready Mix/Sand/Stone/
Blocks/Kerbs/Sills/Lentils