



**O'REILLY**  
— concrete —



## Pre-Cast Wall Panels

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**Previous Projects:**



Old Phoenix Park Racecourse, Dublin  
N3 Blocks, Cloonlara Square Blocks & Glesky Square Blocks (24000m<sup>2</sup>)



Adamstown Castle, Lucan - Residential Development Blocks 1,2,5 & 6  
(5200m<sup>2</sup>)



Bettystown Neighbourhood Centre Hotel, Bettystown, Co. Meath  
(6500m<sup>2</sup>)

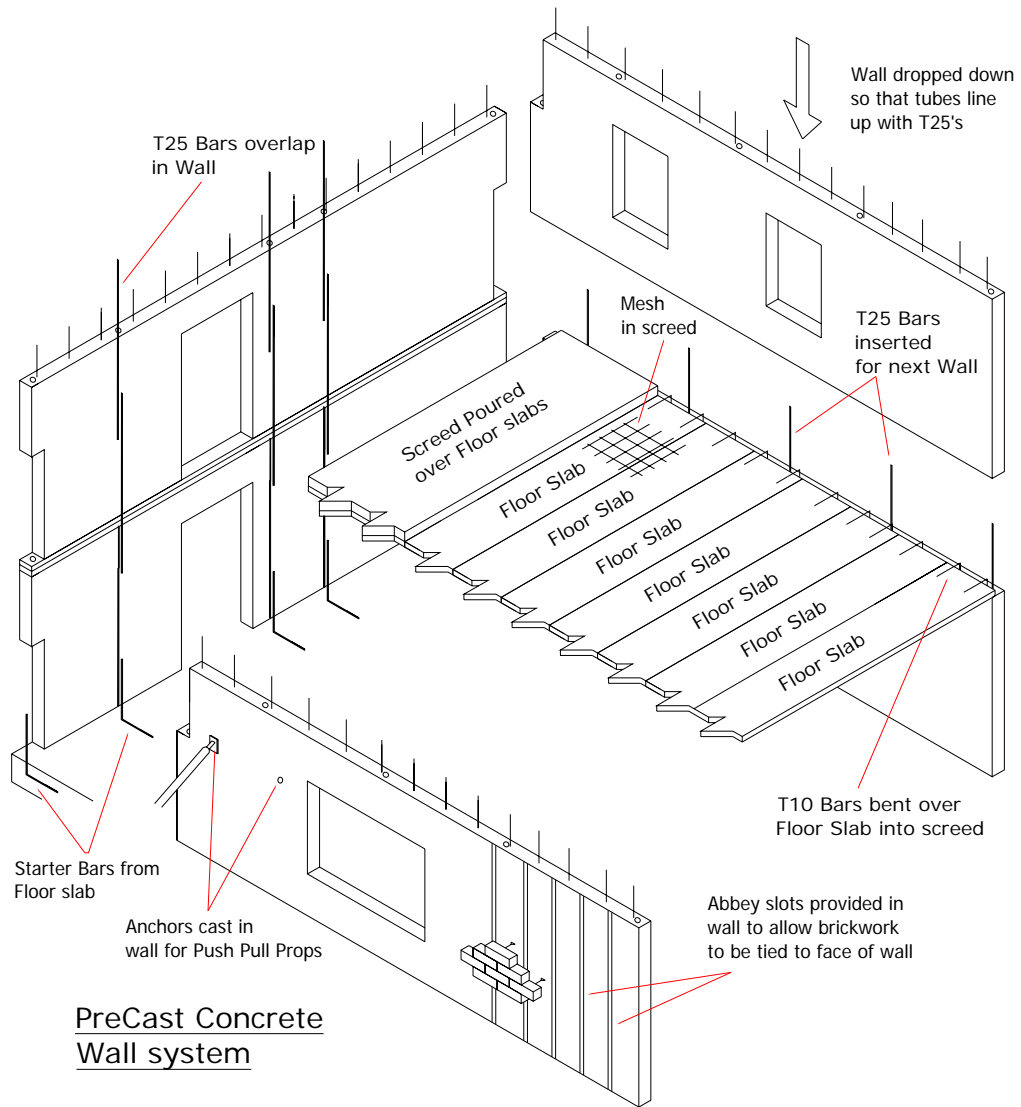


Own Door Units – Fingal Bay Business Park, Balbriggan (1600m<sup>2</sup>)

**Advantages of Precast:**

- Wall panels are constructed off-site regardless of weather conditions and are rapidly assembled on site.
- As a result projects are completed sooner, leading to earlier occupancy and faster revenue returns.
- Precast concrete has unsurpassed fire ratings, readily achieving up to 4 hours fire resistance.
- Concrete will not burn or give off lethal fumes, and will retain its structural integrity for safe evacuation and fire fighting.
- In real fire situations, in temperatures above 1100°C, concrete has retained its structural stability even in complete burn out situations.
- Because it is impervious to wet and dry rot, the structure will not weaken over time.
- The density of the concrete provides excellent sound attenuation, thus reducing sound transmission.
- Wall Panels reduce vibration and have fewer joints through which sound can potentially travel.
- Lower maintenance costs and insurance premiums, together with greater occupant satisfaction and re-sale value.

# O' Reilly Concrete Pre-Cast Concrete Wall Panels



## O'Reilly Concrete Precast concrete Walls

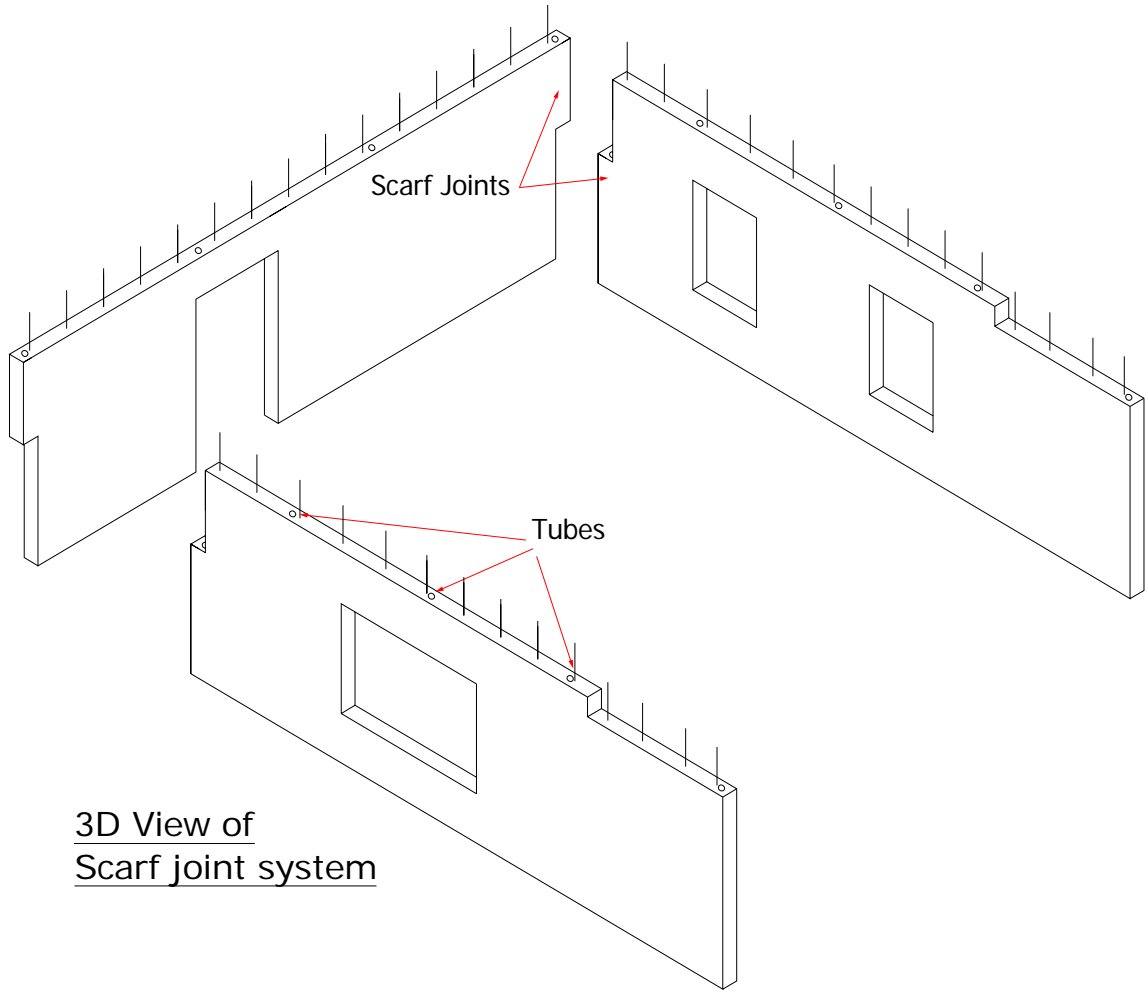
# Connection Details

Various connection methods can be used for Precast walls.

The most common are:

1. Scarf Joints system
2. Pfeifer VS Rail system

# O' Reilly Concrete Pre-Cast Concrete Wall Panels



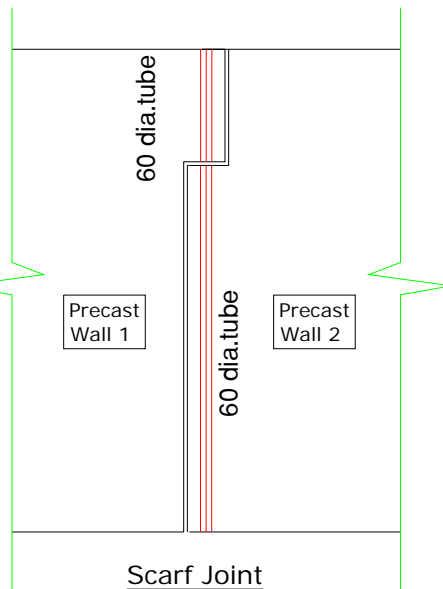
3D View of Scarf joint system

## 1. Scarf Joint system

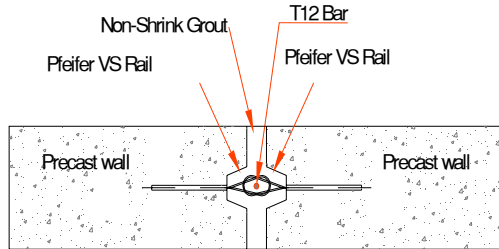
Scarf Joints line up as shown.

T25's are inserted and grouted.

T25's continue up to next Floor.

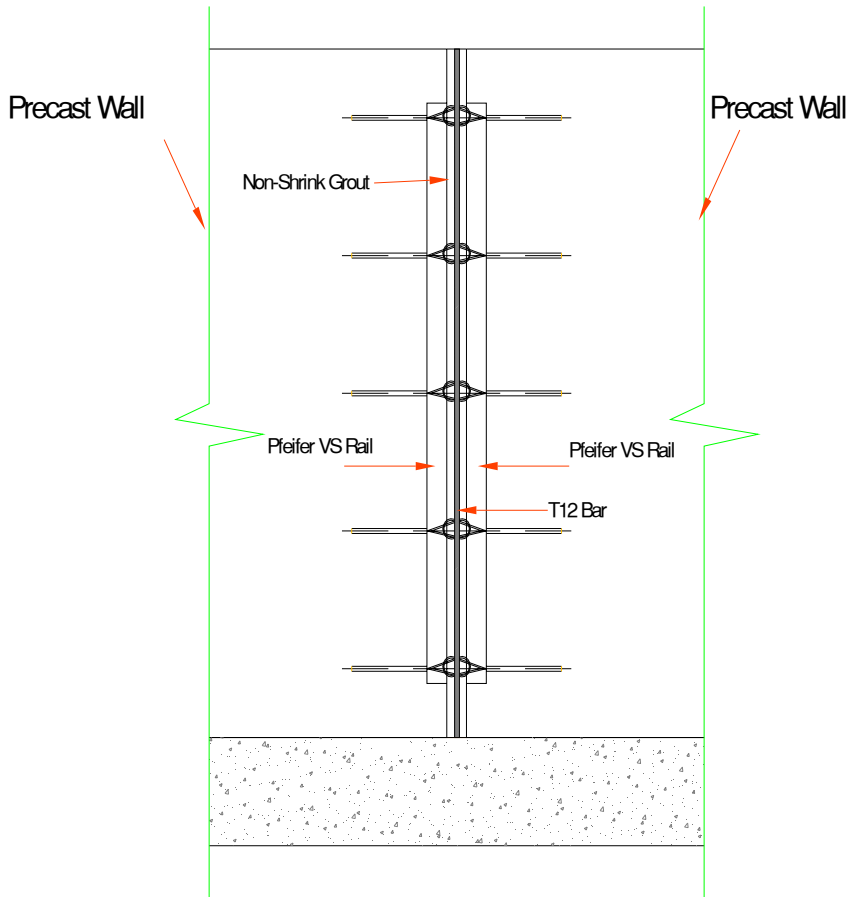


# O' Reilly Concrete Pre-Cast Concrete Wall Panels



Plan View

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

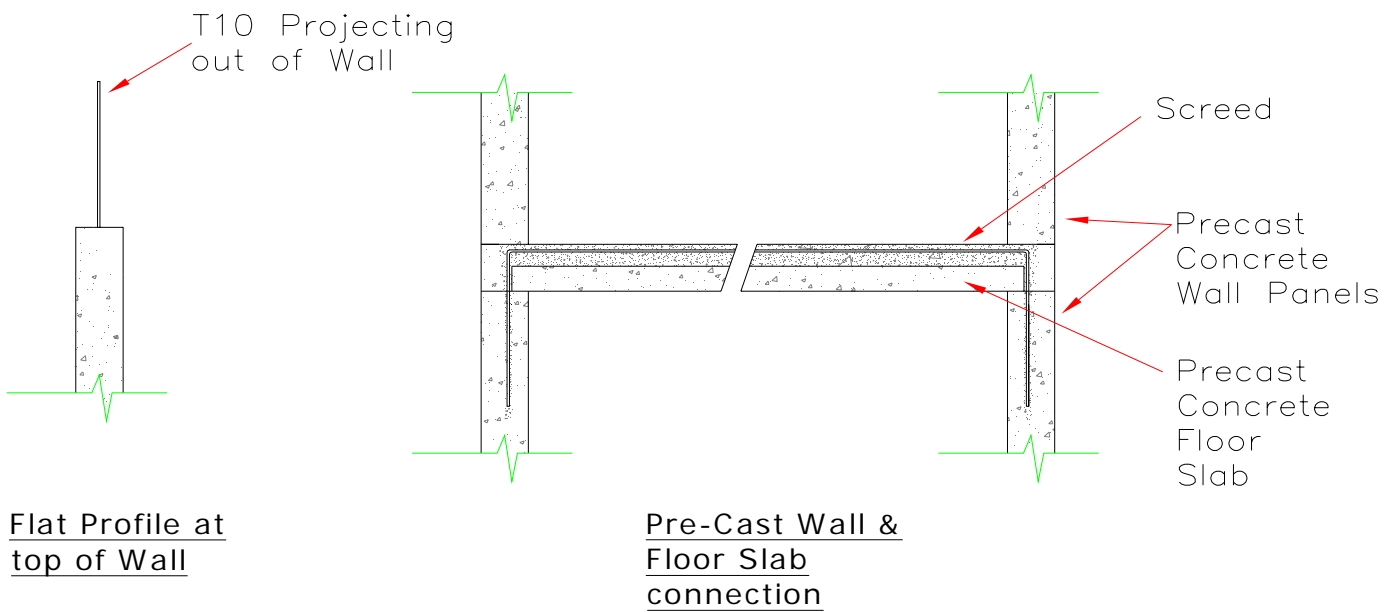
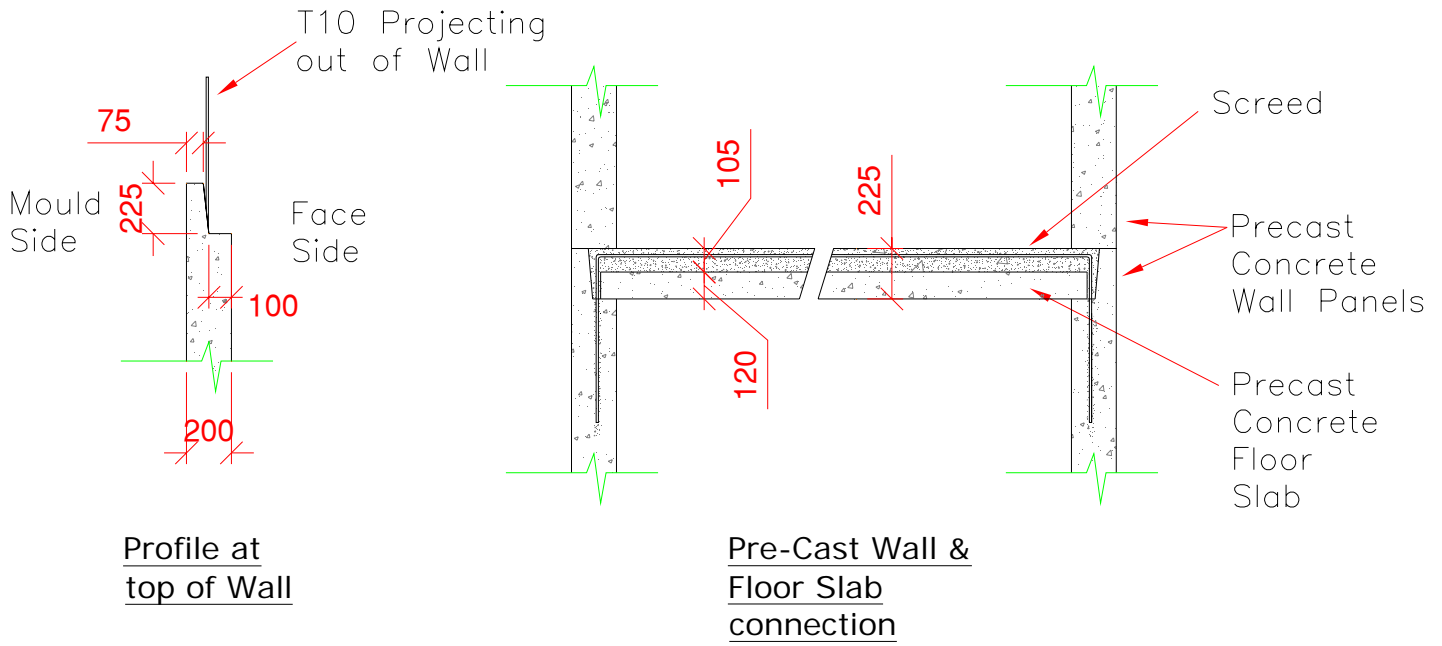


Details of Pfeifer VS Rail Connection

## 2. Pfeifer VS Rail system

# Wall Profiles

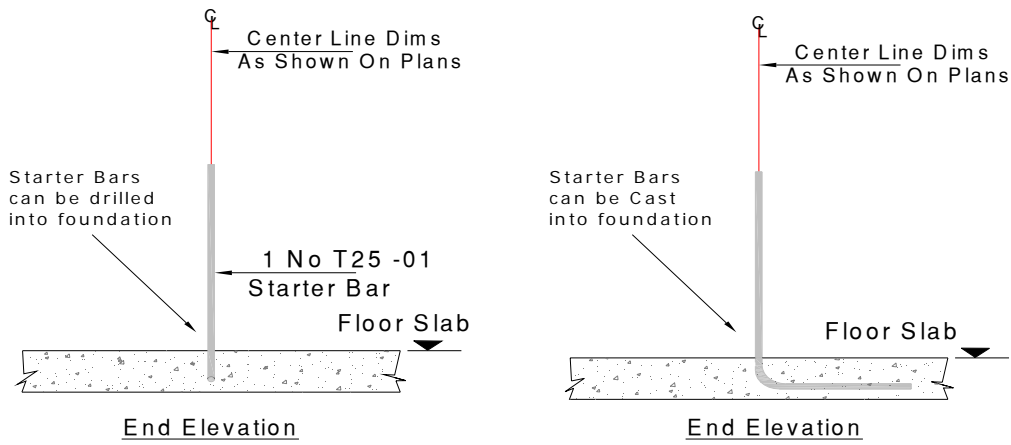
## O' Reilly Concrete Pre-Cast Concrete Wall Panels



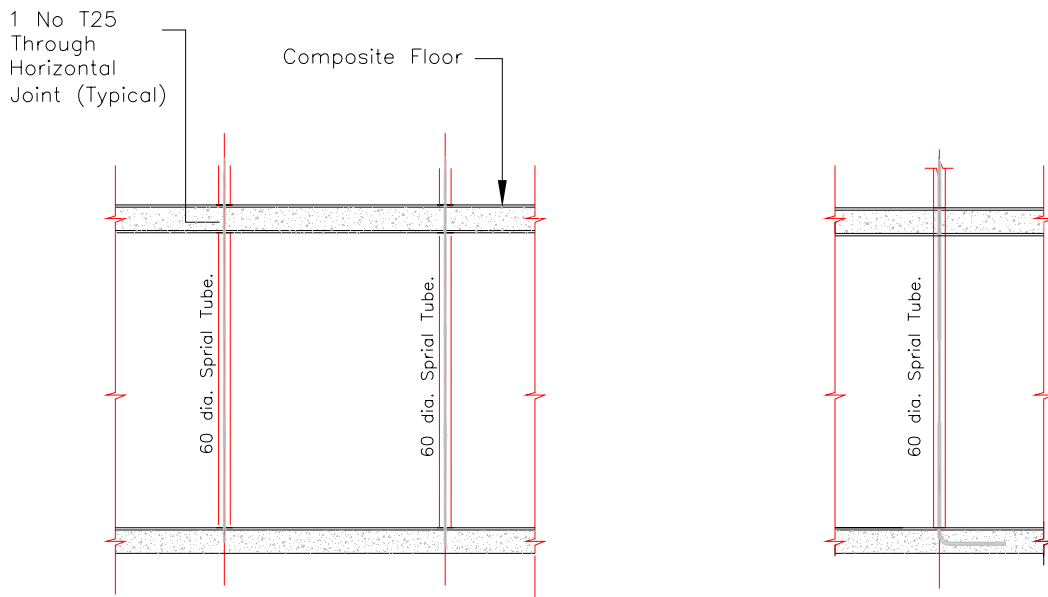
Different Profiles are available for Top of Wall

# Typical Wall Details

# O' Reilly Concrete Pre-Cast Concrete Wall Panels



Detail of Starter Bars



Typical Wall Details




# O' Reilly Concrete Pre-Cast Concrete Wall Panels

**NOTES:**

1. Cover to be 30mm.
2. A252. Mesh Each Face.
3. T10 U. Bars @ 400 c/c Around Perimeter.
4. 2 No. T16 bars around perimeter of wall panel.
5. T16 L Bars at corners.

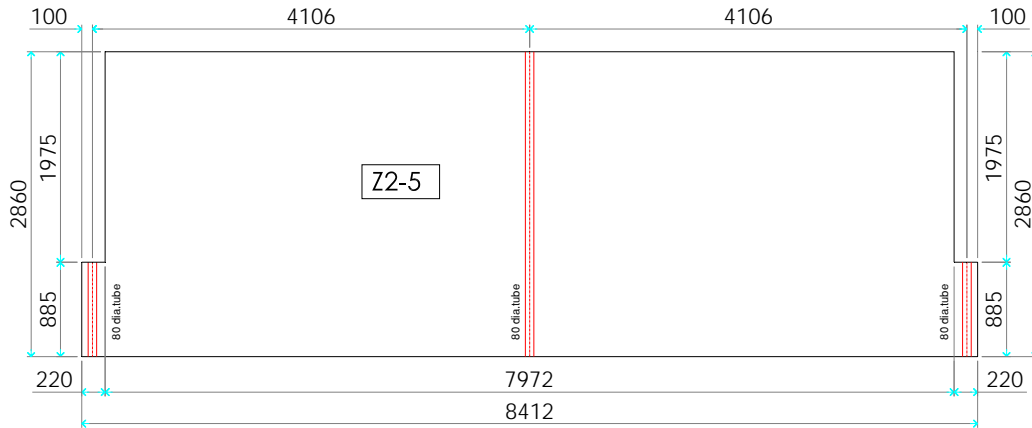
**PANELS WITH OPES.**  
 Use Rebar Detail as shown above.  
 Lintel over opes to be reinforced with 2 No. T20 Bars in top, 2 No. T16 Bars in Center and 2 T20 Bars in Bottom. and T10 Links @ 200 c/c.  
 Use 2T20 Bars under ope., T16 Bars at sides of opes with T10 U Bars @ 200 c/c.  
 Provide T16 anti-crack Bars 800mm Long @ 45 degs. at corners of all opes. as shown.

				PROJECT: Typical Rebar Drawing	GENERAL NOTES :	 KINGS COURT, Co. CAVAN Email: O'ReillyBros@eircom.net Tel: (042) 8687227 Fax: (042) 8688286		
				TITLE: Pre-Cast Panel Rebar Details		SCALE:	DWG NO:	DATE:
REV	BY	DATE	AMENDMENTS	DRAWN: Tom Russell		CHECKED: Matte von Ramin	N.I.s.	ORB-RB-01

## Typical Rebar Drawing notes

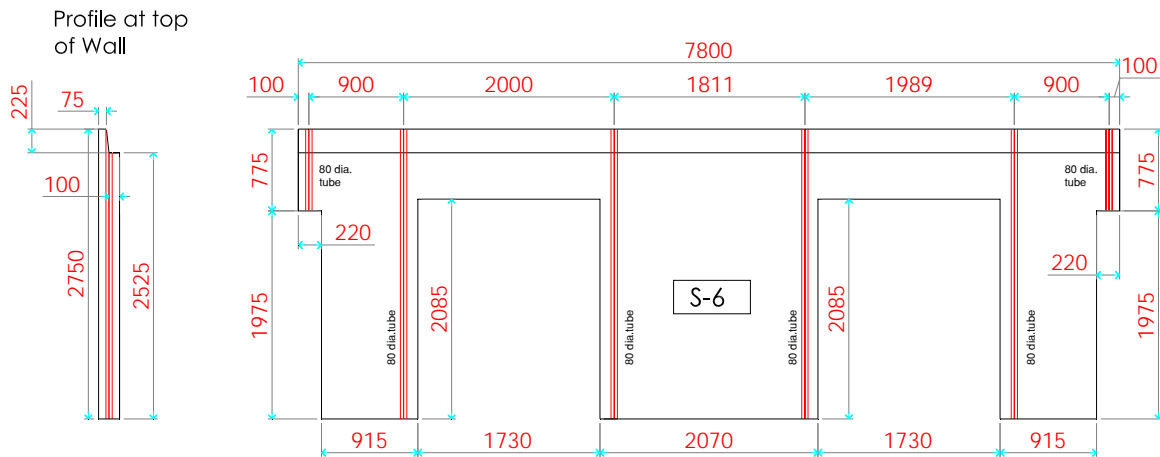
Typical Fabrication Drawings

Single row of T10 Bars Projecting 700mm @ 400 c/c



Push/Pull fittings 1.65m  
 from bottom of Wall (Both Sides)  
 Weight: 11595 kg  
 Concrete Volume: 4.64

Single row of T10 Bars Projecting 700mm @800c/c



Push/Pull fittings 1.65m  
 from bottom of Wall (face side)  
 Weight: 7320kg  
 Concrete Volume: 2.9cu.m.  
 Abbey Slots on Mould side @ 750mm centers

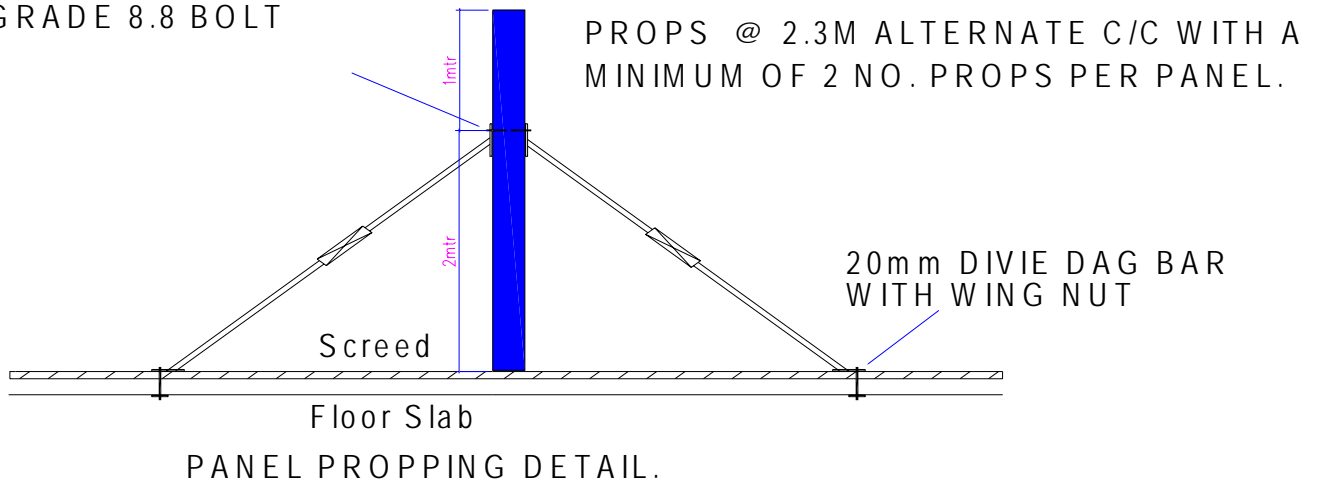
## Propping Sheet

Wall Length	No. of Props Required
9Mts – 10Mts	<b>5 PROPS</b>
7Mts – 9 Mts	<b>4 Props</b>
4Mts – 7Mts	<b>3 Props</b>
0Mts – 4Mts	<b>2 Props</b>

\* All Props must be bolted through Floor Slabs.

\* If for any reason bolting through is not possible, O' Reilly design office must be contacted immediately.

M16 GRADE 8.8 BOLT



Type of Prop: Perri Props RSS

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

John Lynch Safety Officer ORB

# Photographs

O' Reilly Concrete Pre-Cast Concrete Wall Panels



Walls Delivered to site on A-Frames



Walls unloaded from Trailers

## O' Reilly Concrete Pre-Cast Concrete Wall Panels



Walls stored on site in Wall Racks



Walls dropped into position – T25 Bars line up with tubes in wall

O' Reilly Concrete Pre-Cast Concrete Wall Panels



Walls propped and plumbed with Push-Pull props



Joints grouted

O' Reilly Concrete Pre-Cast Concrete Wall Panels



Building constructed with precast Walls & Floors



Precast Walls, Floors & Stairs

## O' Reilly Concrete Pre-Cast Concrete Wall Panels



Apartment Blocks constructed with precast Walls



Prestressed Floors fitted on Precast walls