

Internal Wall Thickness (m)	External Wall Thickness (m)	Base Thickness (m)	Roof Slab Thickness (m)	Insitu Roof Thickness (m)	Internal Tank Dimensions		
					Length (m)	Width (m)	Height (m)
0.275	0.250	0.250	0.120	0.120	20.4	10.225	2.2

Insitu Roof Volume (m ³)	Insitu Base Volume (m ³)	Blinding Volume (m ³)	Total Insitu (m ³)	Insitu Rebar (tonnes)	Precast Weight (tonnes)	Storage Volume (m3)
25.7	50.1	17.3	93.1	5.2	212.9	441.55

Excavation Requirements	
Length (m)	23.300
Width (m)	13.125
Height (m)	TBC

* Blinding to cover full extent of excavation
** Minimum dimensions at base of excavation

Precast Installation Program	
Estimated Duration	2 - 3 weeks

*** Duration of works is weather dependent

Unit Type:	Qty	Combined Weight (T)
Coverslab	36	66.0
External Wall	16	104.8
Internal Wall	10	42.1
Total		212.9

Unit Ref:	Qty	Individual Weight (t)	Total Weight (t)
CU-0001	2	3.3	6.5
CU-0002	2	3.3	6.5
CU-0003	2	3.3	6.5
ET-0001	2	6.2	12.5
ET-0002	2	6.2	12.5
ET-2201	6	7.7	46.4
ET-2202	2	5.8	11.6
ET-2203	2	6.9	13.8
ET-2204	2	4.0	8.1
IT-2201	8	4.6	37.2
IT-2205	2	2.5	4.9
PS-3455	20	1.5	30.9
PS-3456	10	1.6	15.5
Total			212.9

The Construction (Design & Management) Regulations 2015

a) If you are unsure about your responsibilities please refer to the HSE Website.

b) The notes below and design details (5) should be read by all CDM duty holders alongside the Tank layout, section details and additional notes.

Potential hazard/ risks are identified and should be assessed accordingly by the main contractor and his design team prior to any site works commencing.

c) The FP McCann GA should be read in conjunction with all other relevant drawings from the contract design team e.g. Engineers, M&E sub-contractors.

Installation

The units should be lifted using only the lifting equipment noted in (1), all elements must be lifted with the installation method (RAMS) provided by FP McCann.

Bearings

It is the responsibility of the overall scheme designer to ensure that the bearings provided are structurally adequate in both temporary and final condition, for the support of the precast units, please also refer to the sections on the GA. Applied bearing pressure due to ULS/SL5 load conditions shown in structural calculations.

Voids & Openings

Where pre-formed voids and holes are provided, suitable edge protection or temporary cover should be supplied, installed and maintained by others. The provision and installation of cover, frames and any insitu pipe connections are to be by others.

Dry Weather Flow

To be added as requested by relevant Water Authority.

1. Handling "Hazard"

a) Volume/ Weight (based on a concrete density of 2.5 t/m³):

b) All lifting points shall be used as specified.

c) Also refer to Lifting & handling Instructions Diagram on Drawing

d) Anchor Recesses to be filled by others on site

e) Site Lifting: Spherical-Head Clutch fitted to spherical head anchor

f) Site Lifting: Rotating Clutch fitted to wavy tail anchor (200mm wall)

g) Refer to individual unit drawings for anchor quantities and setting out.

h) In the design of the lifting anchors, we have adopted a Dynamic Factor = 1.3 (Stationary Crane/Mobile Crane, (Hoisting speed >90m/min).

2. Concrete (Precast)

a) Lifting strength based on 2 cubes = 25N/mm².

b) Characteristic 28 day cube strength = 50N/mm².

3. Reinforcement

a) Reinforcement (500B or C) to BS4449.

b) Scheduling, dimensioning, bending and cutting to BS8666.

c) Cage to be tack welded and/ or tied with 17 gauge annealed tying wire.

4. Manufacture

a) Manufactured to BS EN 13369:2013

b) Tolerances to BS EN 13369:2013 & BS EN 13670:2009

c) Finishes as indicated below unless otherwise detailed on unit;

- Top (As Cast) Surface: *Steel Trowelled*

- Front Face & Sides (Struck from Steel/ Timber Mould): *Type A*

d) Prestressed or reinforced roof slabs used as required

5. Installation

a) Refer to site specific installation guide.

6. Sealing

a) As shown on General Arrangement drawing.

7. Insitu-Concrete

a) Min. required characteristic 28 day cube strength = 37N/mm².

b) Concrete mix specification to incorporate min. cement content = 360kg/m³ max, w/c ratio = 0.45 and material specification to achieve class DC2.

8. Temporary Works

a) FP McCann are responsible for the temporary works associated with the erection of the precast only. All temporary works design to be by others.

b) The main contractor is responsible for the provision of required temporary works to ensure a stable excavation is maintained for the full period of the tank installation.

c) Due consideration is required with regard to the nature of the backfill and type/ size of plant used.

d) Protection of precast units during temporary works (backfilling) is the responsibility of others.

e) Any plant used for backfilling or subsequent works, around or over tank, should be suitably sized to ensure that the net applied loads are no greater than the permanent design loads.

f) Any temporary works should be designed/ installed/ removed to ensure that the net applied loads are no greater than the permanent design loads.

9. Design

a) Water Tightness: Class 1 to BS EN 1992-3

b) Refer to Design calculations for details.

P01	22-06-23	Initial Drawing	JC		
Rev	Date	Revision Detail	By	Chk	App
Status:					Suitability:

Suitable for Costing

D1



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Client.

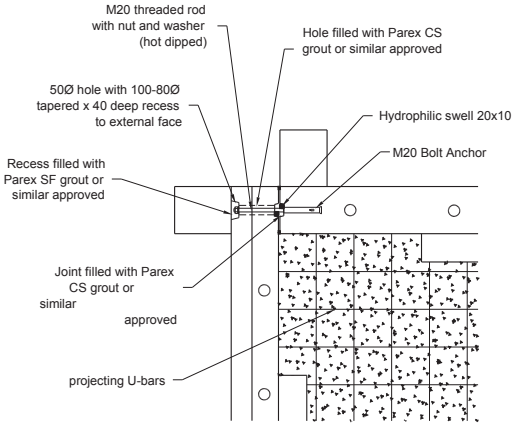
Project.
**Slaitwhaite
Lingard Road**

Title.
**General Arrangement of
StormTank MPS
20.4 x 10.225 x 2.2 m**

Drawn: JC	Checked:	Approved:
Internal Ref: 161404	Date: 22-06-23	Scale: NTS
Drawing No : SLA-FPM-ZZ-XX-DR-X-0001	Rev:	P01

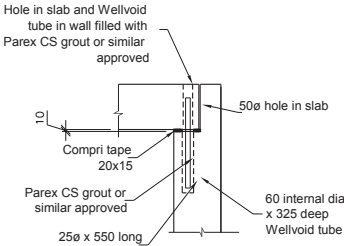
FP McCann Precast Tank Installation Guide:

<https://www.youtube.com/watch?v=yuEKwqdGjJw&feature=youtu.be>



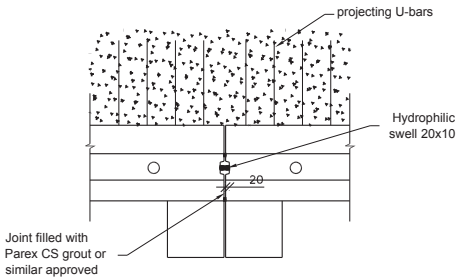
Detail A

External Wall Corner Connection
(1:20)



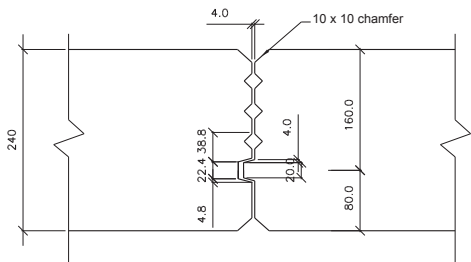
Detail B

Roof Slab to Wall Connection
(1:20)



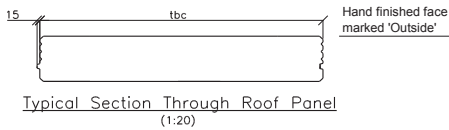
Detail C

External Wall Joint
(1:20)

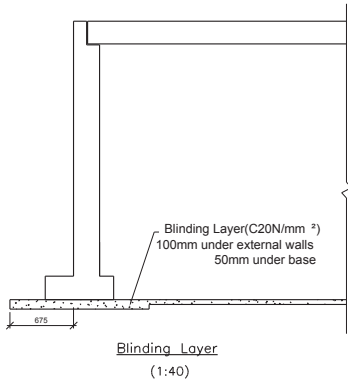


Detail D

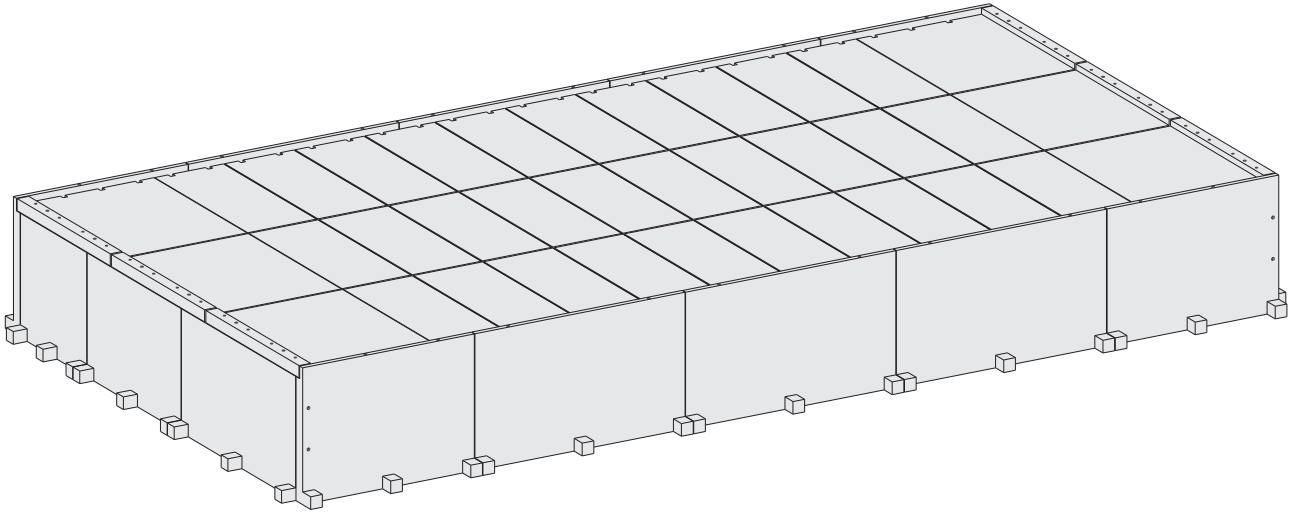
Roof Panel Connection
(1:5)



Typical Section Through Roof Panel
(1:20)



Blinding Layer
(1:40)



(Slabs not shown)

