

TREATMENT PLANT APPROVAL 24/2021

Plumbing and Drainage Act 2018

Approval

1. The **Taylex Concrete ABS 4200 (28EP/4200L)** (“the system”) described in the Specifications and Drawings in the attached Schedule and manufactured by **Taylex Australia Pty Ltd** (“the manufacturer”) (ABN 43 646 051 989) (“the manufacturer”) has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code) dated 26 March 2019.
2. Approval is granted for the advanced secondary quality wastewater treatment system, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Regulation 2018*, and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Treatment Plant Approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

Conditions of approval

5. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
6. The system when tested by a certification accreditation body in accordance with AS1546.3:2017 was found to comply with the advanced secondary 28EP/4200L level with nutrient reduction of 45.35% in Nitrogen and 13.72% for Phosphorus and must continue to meet the following requirements:

TABLE 2.1 (AS1546.3:2017)
EFFLUENT COMPLIANCE CRITERIA
FOR AN STS WITH NO NUTRIENT
REDUCTION FACILITIES

Parameter	Secondary effluent		Advanced secondary effluent	
	90% of samples	Maximum	90% of samples	Maximum
BOD ₅	≤20 mg/L	30 mg/L	≤10 mg/L	20 mg/L
TSS	≤30 mg/L	45 mg/L	≤10 mg/L	20 mg/L
<i>E. coli</i> *	≤10 cfu/100 mL	30 cfu/100 mL	≤10 cfu/100 mL	30 cfu/100 mL
FAC	Minimum 0.5 mg/L†	N/A	Minimum 0.5 mg/L†	N/A
Turbidity	N/A	N/A	N/A	5 NTU

* Where disinfection is required.

† Minimum level, not 90% of samples.

Treatment Plant Approval

Approved by: Lindsay Walker
Delegated Authority
Department of Energy & Public Works

7. Each system must be serviced in accordance with the accreditation certificate by Global Certification Pty Ltd on 18 October 2021, and details supplied in the owner's operation and maintenance manual.
8. Each system must be supplied with —
 - (a) a copy of this Treatment Plant Approval document;
 - (b) details of the system;
 - (c) instructions for authorised persons for its installation;
 - (d) a copy of the owner's manual to be given to the owner at the time of installation; and
 - (e) detailed instructions for authorised service personal for its operation and maintenance.
9. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the supplier's nominated NATA accredited laboratory which systems are to be audited for BOD⁵ and TSS. The sampling and testing of selected systems, if required, is to be done at the supplier's expense. The following results must be reported to the Chief Executive;
 - (a) Address of premises;
 - (b) Date inspected and sampled;
 - (c) Sample identification number;
 - (d) BOD⁵ for influent and effluent; and
 - (e) TSS for influent and effluent.
10. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier fails —
 - (a) to comply with one or more of the conditions of approval; or
 - (b) within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
11. This approval may only be assigned with the prior written consent of the Chief Executive.
12. This approval expires on 21 November 2026 unless cancelled earlier in accordance with paragraph 10 above.

Lindsay Walker

**Director
Plumbing, Drainage and Special Projects
Building Legislation and Policy**

Date approved: 22 November 2021

Level 15,
53 Albert Street Brisbane
GPO Box 2457, Brisbane Qld 4001

Telephone +61 7 3008 2557
Facsimile +61 7 3237 1248

Website www.epw.qld.gov.au

ABN 61 331 950 314



TREATMENT PLANT APPROVAL No. 24/2021
Plumbing and Drainage Act 2018

SCHEDULE

Attachment 1

Drawings and Specifications for the

Taylex Concrete ABS 2400 (28EP/4200L)

Treatment Plant Approval

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Delegated Authority

Department of Energy & Public Works

PRODUCT CERTIFICATE OF REGISTRATION



Global Certification Pty Ltd

Number 40/26

Product Performance Testing
Advanced Secondary 4200 L/day or 28EP level with a reduction of 45.35% for Nitrogen and 13.72% for Phosphorus

Issued to
Taylex Australia Pty Ltd
56 Prairie Road Ormeau Qld 4208

Initial Certification Date: - 18th October 2021 Expiry Date: - 18th October 2026

Product Certified:

Model	Disinfection	Average Results over the Test Period	Servicing Frequency	Discharge	Manufactured and assembled
Taylex Concrete ABS 4200	Yes	TSS: 4.41mg/l BODs: 1.07mg/l E Coli: 0.32 CFU/100mL Nitrogen: 38.54 mg/L Phosphorous: 9.64 mg/L	3 Month Service 5.4 yearly sedimentation pump out or as required	Pumped via disinfection/pump chamber with chlorine dispenser	Manufactured and Assembled: 56 Prairie Road, Ormeau, QLD 4208

The system took 2 weeks to meet the advanced secondary standard.
Note: The E coli result was compliant for the entire period from installation.
The vertical axis tanks are certified to AS/NZS 1546.1:2008

NACE CODES: 3700

This Certificate of Conformance to the Product Certificate Scheme for "Domestic Wastewater Treatment Units (AWTS)" remains the property of Global Certification Pty. Ltd. and is granted subject to the terms and conditions of the Contract Application, in respect of the Product certified on this page and the attached schedule to the Certification of Conformance, bearing the same number as this certificate.

Treatment Plant Approval

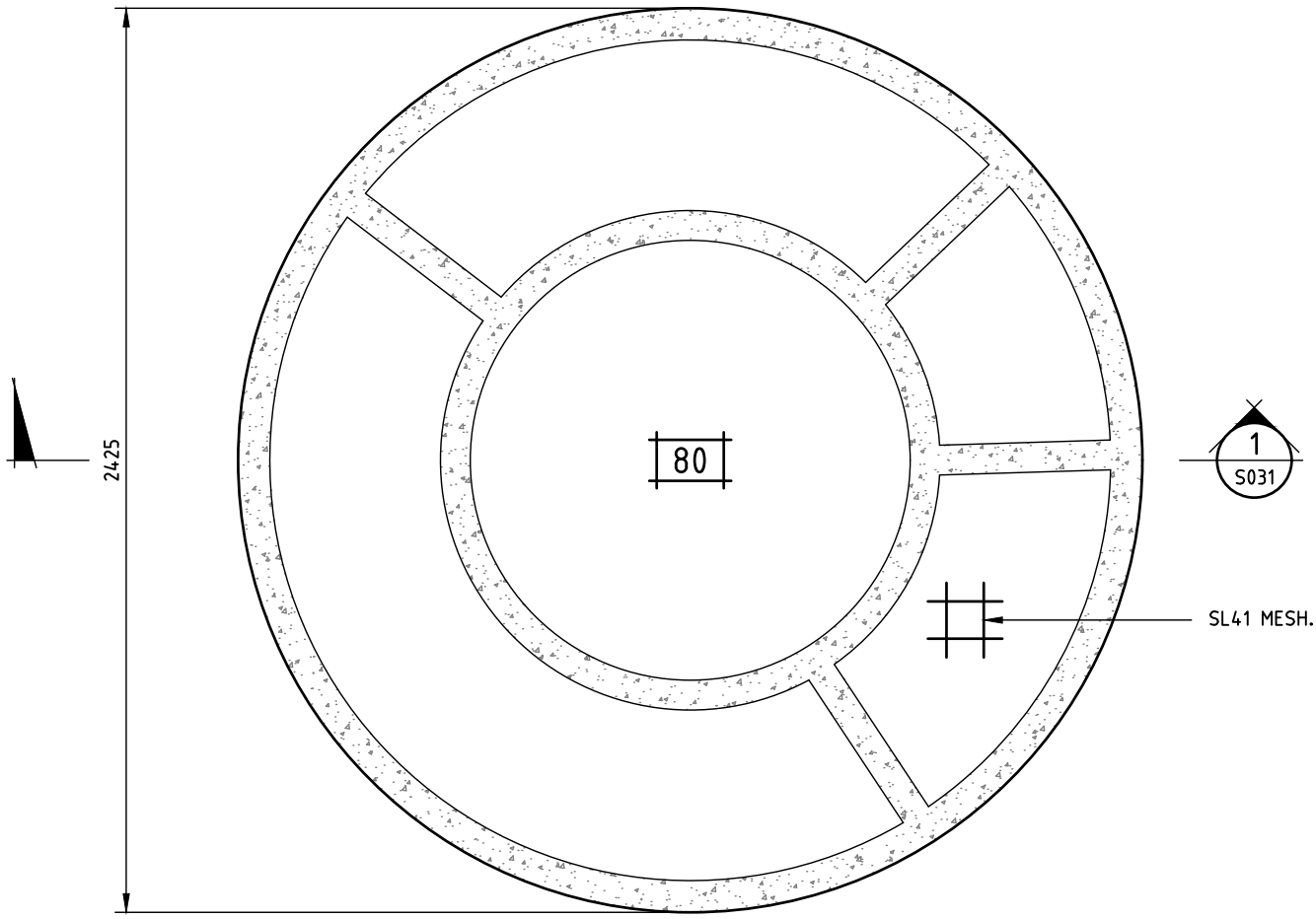
Approved by: Lindsay Walker
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Department of Energy & Public Works



Date of Issue: 18th October 2021 Dave Steer – General Manager

Signed for and on behalf of Global Certification Pty Ltd
PO Box 195, Morayfield QLD 4506

www.jas-anz.com.au/register



TANK BASE PLAN
SCALE 1:20

TANK NOTES

1. TANK STRUCTURE TO BE SEATED ON...
50mm THICK BED OF 5mm CRUSHED ROCK
COMPACTED AND LEVELLED ALL ON APPROVED PREPARED SUB BASE.

NOTE - SUB BASE PREPARATION
APPROVED PREPARED SUB-BASE TO HAVE MINIMUM BEARING CAPACITY OF 100 kPa.
(TO BE CONFIRMED ON SITE BY A QUALIFIED GEOTECHNICAL ENGINEER).
EXCAVATE ALL LOOSE MATERIAL.
WHERE AREAS DO NOT EXCEED MINIMUM BEARING CAPACITY, REMOVE MATERIAL AND IMPORT AND RECOMPACT CBR5 MATERIAL IN 300mm LAYERS TO ACHIEVE REQUIRED BEARING CAPACITY.
PROOF ROLL PRIOR TO PLACING TANK STRUCTURE.

2. BACKFILLING OF EXCAVATION TO BE COMPLETED IN NOT MORE THAN 500mm EQUALLY DISTRIBUTED LAYERS AROUND THE TANK PERIMETER.

3. 888 DENOTES MINIMUM SLAB OR WALL THICKNESS

4. DESIGN LOADS
TANK HAS BEEN DESIGNED TO SUIT **NON-TRAFFICABLE LOADS**
MAXIMUM HEIGHT OF FILL ABOVE TANK ROOF **AS SHOWN ON S031**

5. CONCRETE PROPERTIES
CONCRETE GRADE (f'c) **32 MPa** BASE + WALLS + ROOF
MAXIMUM DRYING SHRINKAGE **700 MICROSTRAIN**
MAXIMUM WATER TO CEMENT RATIO **0.46**

6. CLEAR CONCRETE COVER TO REINFORCEMENT:
TOP = 30mm BOTTOM = 30mm SIDES = 30mm

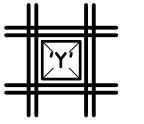
7. REINFORCEMENT LAP LENGTHS AS FOLLOWS...
N10 400 N16 700 N24 1000
N12 450 N20 800

8. REINFORCEMENT SYMBOLS **8.N16.200.1**
8 NUMBER OF BARS IN GROUP
N16 BAR GRADE/TYPE AND DIAMETER
200 SPACING IN mm
1 DENOTES LAYER BAR PLACED IN

9. ALL LIFTING PROCEDURES, MECHANISMS, DEVICES, STABILITY, PROPPING, ADDITIONAL SUPPORT AND REINFORCEMENT REQUIRED FOR LIFT AND DURING CONSTRUCTION IS TO BE PROVIDED AND CERTIFIED BY A TEMPORARY WORKS REGISTERED PROFESSIONAL ENGINEER AND LIFTING MANUFACTURER AND IT'S REGISTERED PROFESSIONAL ENGINEER.
ALL REINFORCEMENT + CONNECTIONS SHOWN ARE FOR TANKS IN PLACE ONLY.

ALL WALLS TO REMAIN FULLY PROPPED UNTIL ALL ELEMENTS HAVE BEEN POURED/PLACED AND FIXED/GROUTED TOGETHER AND FULL STRUCTURE COMPLETED.
(PROPPING DESIGN/CERTIFICATION BY OTHERS)

10. TRIMMER SCHEDULE
'Y' DENOTES 2.N10 TRIMMER BARS AT 100mm CENTRES EACH SIDE OF PENETRATION. EXTEND MINIMUM 450mm PAST EACH CORNER.
TRIMMER BARS NOT SHOWN ON PLAN.



11. THIS TANK HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING STANDARDS.
- AS 1170 SERIES STRUCTURAL DESIGN ACTIONS
 - AS 1546.1:2008 ONSITE DOMESTIC WASTE WATER TREATMENT UNITS.
 - AS 3600: 2018 CONCRETE STRUCTURES.
 - AS 4678 EARTH-RETAINING STRUCTURES.
 - AS 5100.2 DESIGN LOADS.

Rev	Date	Description	By	Chk
C01	10.12.20	ISSUED FOR CONSTRUCTION	RI	SK
P01	08.12.20	PRELIMINARY - Issued for Information	RI	SK

Taylex Industries Pty Ltd
56 Profile Road
Ormeau QLD 4208
Australia
T: 07 3441 5200

EDGE
Gold Coast - Australia
Suite 3, 112 Siganto Drive,
Helensvale,
Queensland, 4212,
Australia
T: +61 7 5561 8699
E: goldcoast@edgece.com
ABN: 15 610 150 957

Project Name
**TAYLEX
ABS 2 TANK SYSTEM
(TANK 1 & 2)**

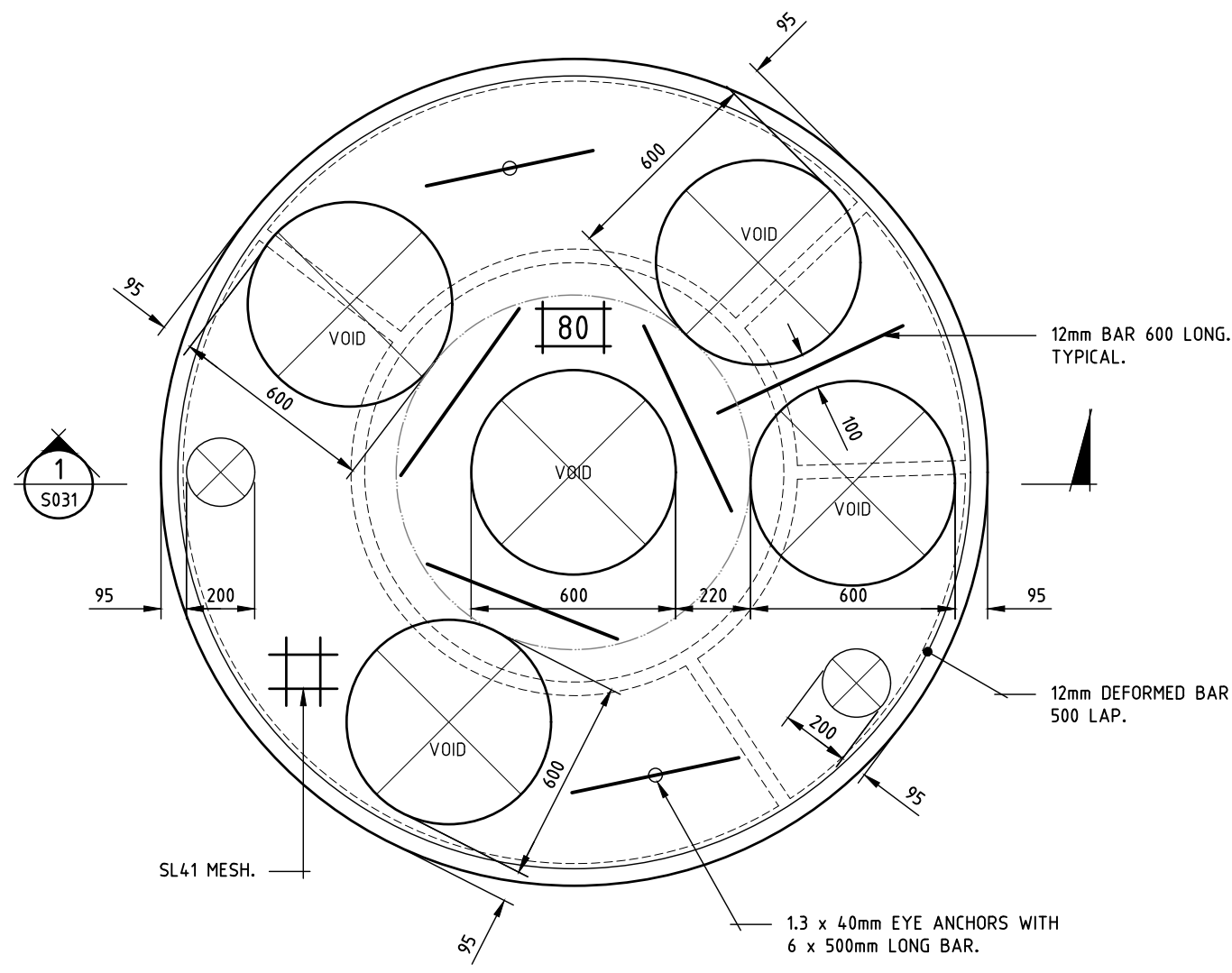
Title
**TANK
BASE PLAN**

Designed S.K.	Drawn R.I.	Approved Tim Peters RPEQ 5496	Scale at A3 1:20
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Project No. TAYLEX-090	Drawing No. S011	Revision C01
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Treatment Plant Approval

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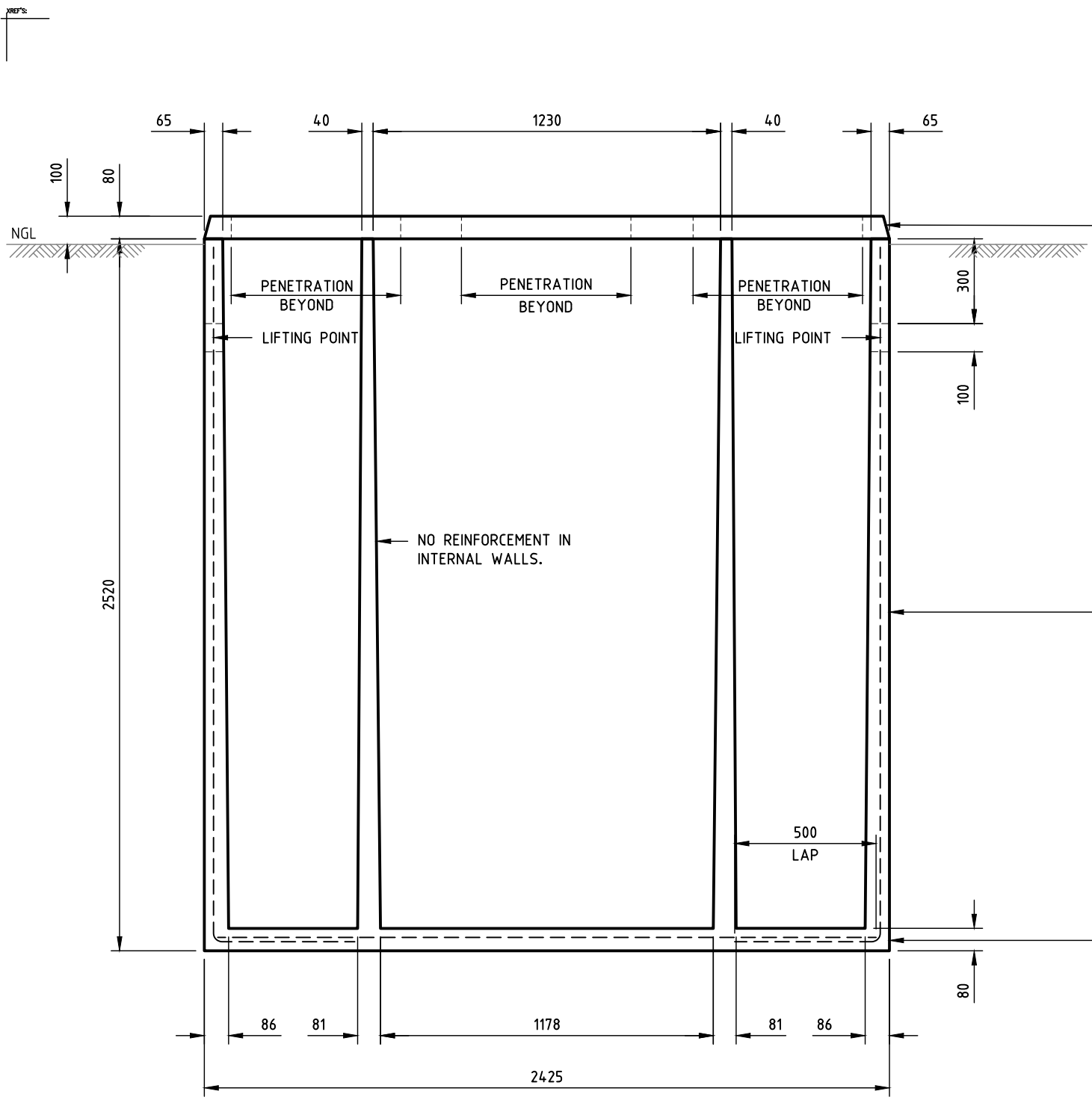
TANK ROOF PLAN
SCALE 1:20

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TANK MASS	
ROOF SLAB	681 kg
WALLS	6,482 kg
TOTAL	7,163 kg

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C01	10.12.20	ISSUED FOR CONSTRUCTION	RI	SK
P01	08.12.20	PRELIMINARY - Issued for Information	RI	SK
<p>Taylex Industries Pty Ltd 56 Profile Road Ormeau QLD 4208 Australia T: 07 3441 5200</p> <p>EDGE Gold Coast - Australia Suite 3, 112 Siganto Drive, Heavenvale, Queensland, 4212, Australia T: +61 7 5561 8699 E: goldcoast@edgece.com ABN: 15 610 150 957</p>				
<p>Project Name TAYLEX ABS 2 TANK SYSTEM (TANK 1 & 2)</p>				
<p>Title TANK ROOF PLAN</p>				
Designed S.K.	Drawn R.I.	Approved Tim Peters RPEQ 5496	Scale at A3 1:20	
Project No. TAYLEX-090	Drawing No. S021	Revision C01		



TANK SECTION
SCALE 1:20

TANK ROOF - 80 THICK
CENTRAL REINFORCEMENT SL41 FABRIC
FOR ADDITIONAL BARS REFER TO 'TANK ROOF PLAN'

TANK WALL - 65-86 THICK
VERTICAL REINFORCEMENT SL41 FABRIC CENTRAL

TANK BASE - 80 THICK
REINFORCEMENT TOP REFER S011
BOTTOM REFER S011

FABRIC LAPPED 2 CROSS WIRES + 50mm.

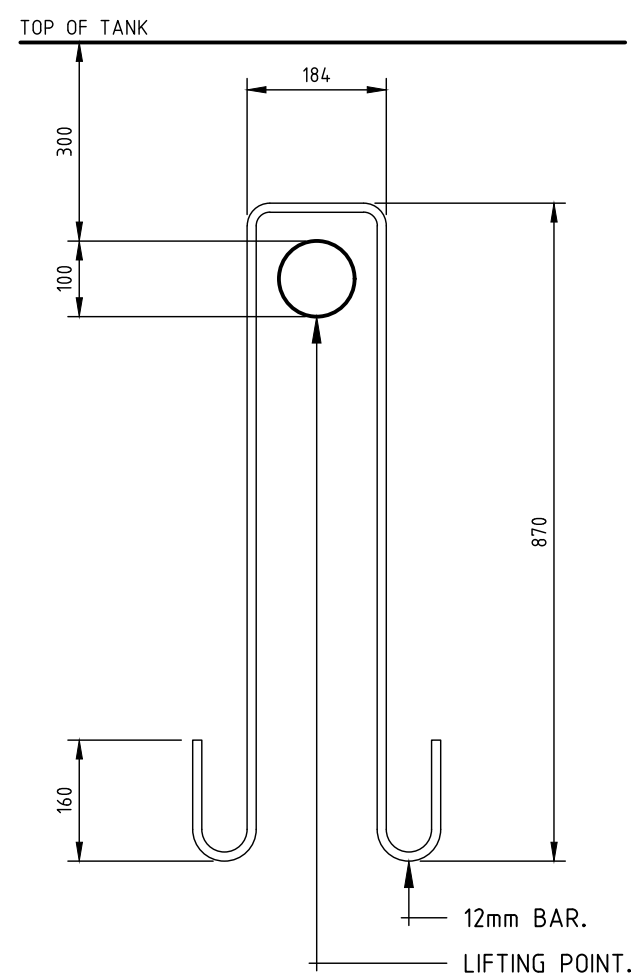


LAPPING OF FABRIC - IN BASE + ROOF

MAIN VERTICAL BAR POSITION REVERSED TO EACH ALTERNATE SHEET OF FABRIC. FABRIC LAPPED 2 CROSS WIRES + 50mm. POSITION LAPS AWAY FROM WALL PENETRATIONS WHERE POSSIBLE



LAPPING OF FABRIC - IN WALLS



LIFTING POINT DETAIL
SCALE 1:10

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C01	10.12.20	ISSUED FOR CONSTRUCTION	RI	SK
P01	08.12.20	PRELIMINARY - Issued for Information	RI	SK

Taylex Tanks Taylex Industries Pty Ltd 56 Profile Road Ormeau QLD 4208 Australia T: 07 3441 5200		EDGE Gold Coast - Australia Suite 3, 112 Siganto Drive, Helensvale, Queensland, 4212, Australia T: +61 7 5561 8699 E: goldcoast@edgece.com ABN: 15 610 150 957	
Project Name TAYLEX ABS 2 TANK SYSTEM (TANK 1 & 2)			
Title TANK SECTION			
Designed S.K.	Drawn R.I.	Approved Tim Peters RPECQ 5496	Scale at A3 AS SHOWN
Project No. TAYLEX-090		Drawing No. S021	
			Revision C01