

23 August 2023

Queensland Alumina Limited
Alison Green
Parsons Point
GLADSTONE QLD 4680

Email: greena@qal.com.au

Dear Ms Green

REFERRAL AGENCY RESPONSE WITH CONDITIONS - RR2023/005/01

(GIVEN UNDER S56 PLANNING ACT 2016)

1 Application Details

The development application was referred to the Gladstone Ports Corporation Limited under section 54 of the *Planning Act 2016* on **22 June 2023** and properly made on 22 August 2023.

Application Number:	RR2023/005/01
Applicant Name:	Queensland Alumina Limited
Applicant Contact Details:	Alison Green Queensland Alumina Limited Parsons Point GLADSTONE QLD 4680 Email: greena@qal.com.au
Approval Sought (Port Limits):	Operational Works on land below high-water mark and within the limits of a port.
Details of Proposed Development:	Operational Works on land below high-water mark and within the limits of a port – ash dam dust seawater intake and aboveground distribution system.
Location Street Address:	Parsons Point, Gladstone
Location Real Property Description:	Lot 348 CTN 1664
Land Owner:	Department of Resources
Priority Port Overlay	Port Industry and Commerce

1. Description Of Proposed Development

Sea water intake and above ground distribution system within port limits.

2. Referral Triggers

This development application was referred to the Gladstone Ports Corporation Limited under the following provisions of the *Planning Regulation 2017*:

Schedule 10, Part 13, Division 3, Table 1, Item 1

- a. Prescribed assessable development within limits of a port; and
- b. On land below high-water mark and within the limits of a port under the *Transport Infrastructure Act 1994*

3. Details of Referral Response

This development application has been assessed against port authority functions under the *Transport Infrastructure Act 1994*, Chapter 8, Part 3 as required in Schedule 10, Part 13, Division 3, Table 1, Item 4 of the *Planning Regulation 2017* and also matters referred to in section 22.

The Gladstone Ports Corporation Limited directs the Assessment Manager, under section 56(1)(b)(i) of the *Planning Act 2016* to give any development approval subject to development conditions stated in Attachment 1.

For further information please contact Trudi Smith, Planning Specialist on 07 4976 1314 or via email planning@gpcl.com.au.

Yours sincerely



Craig Haymes
Chief Executive Officer

Cc: Assessment Manager

Enc. Attachment 1: Referral Agency Conditions

Attachment 1: Referral Agency Conditions

PART 1: REFERRAL AGENCY CONDITIONS

In general the development proposal is in compliance with the requirements of *Transport Infrastructure Act 1994* (Chapter 8, Part 3). This Referral Agency response is subject to each the following conditions which are stated by GPC, the Referral Agency.

Part 1a: Approval sought under the *Transport Infrastructure Act 1994* (Chapter 8, Part 3).

General

1. Development must be carried out generally in accordance with the Approved plans, except where modified by conditions of this permit.
2. Unless otherwise stated, all conditions must be complied with and completed prior to the commencement of the development.
3. Where additional "approval" is required under these conditions by the Referral Agency (Gladstone Ports Corporation Limited) for drawings or documentation the Applicant must submit for review, amend to the satisfaction of, and obtain written approval from the Referral Agency.

Furthermore, the Referral Agency will require no less than 20 business days, unless otherwise conditioned by the Assessment Manager, to initially assess the drawings or documentation provided prior to the commencement of the development/works. Should further information be required for assessment, the Referral Agency will require a further 5 business days to complete the information request assessment and response.

4. The development must be appropriately designed and constructed to mitigate potential adverse impacts to port operations, services and facilities, and to maintain safe navigable access within Port Limits.

Engineering

5. Upon completion of the works, the Applicant must supply the Referral Agency with RPEQ certified "As Constructed" plans in electronic (CAD format) which illustrate all infrastructure and services installed on, under or over Port Limits associated with the activity unless otherwise approved in writing by the Referral Agency.
6. The Applicant must inform the Referral Agency of completion of works within Port Limits within 14 days of practical completion and certify that the site is fit for purpose.
7. Any site lighting used during construction / development should not negatively impact on the visibility of Navigational Aids utilised for the primary shipping channels within Port Limits nor illuminate a landward glare beyond the site boundary. Lighting must be reviewed during construction and use of the development with respect to navigation. Where an issue is identified or a validated complaint received, the Applicant must immediately rectify to the satisfaction of the Referral Agency.
8. Any material which is deposited or any debris which falls or is deposited within Port Limits during the construction of the approved development shall be removed by the applicant at their cost and expense. The applicant is to notify the Port Authority if any material or debris is deposited.

9. Upon completion of construction, the applicant shall provide the Referral Agency with written confirmation that the seabed is clear of foreign materials.
10. If, as a result of the works, or other cause attributable to the Applicant, any bank or tidal structure within Port Limits is displaced, the Applicant at its cost and expense shall restore the bank or structure to its former condition and take such other action as is necessary to ensure the stability of the bank or structure to the satisfaction of the Regional Harbour Master.

Construction Environmental Management Plan

11. Prior to construction works commencing on site an Construction Environmental Management Plan (CEMP) specific to this application and its associated works must be submitted to the Referral Agency (GPC) for approval, that ensures:
 - (a) Environmental risks, including but not limited to, water, air, noise, land, biodiversity, waste and community are identified, managed and continually assessed in relation to the construction activity;
 - (b) That staff are trained, aware and competency assessed of their obligations under the CEMP, a copy of which must be kept and available on site at all times;
 - (c) That reviews of environmental performance are undertaken at least annually; and
 - (d) Any amendments to the CEMP are to be submitted to GPC for review and approval.
 - (e) Once approved by the Referral Agency (GPC), the construction activity must be carried out in accordance with this CEMP.

Note: GPC has a guideline for the development of environmental management plans that may be utilised in meeting the requirements of this condition.

Incident notification

12. Gladstone Ports Corporation's Environmental Hotline (07) 4976 1617 must be notified of the occurrence of any;
 - (a) release/spill of contaminants (e.g. fuels/chemicals/sewerage) greater than 20L to land;
 - (b) release/spill of contaminants (e.g. fuels/chemicals/sewerage) of any amount to water;
 - (c) environmental complaints received by the holder of this application;
 - (d) non-compliance with conditions of this application or any other environmental approval obtained in relation to the approved activity

Vessel Management (applicable where vessels are used)

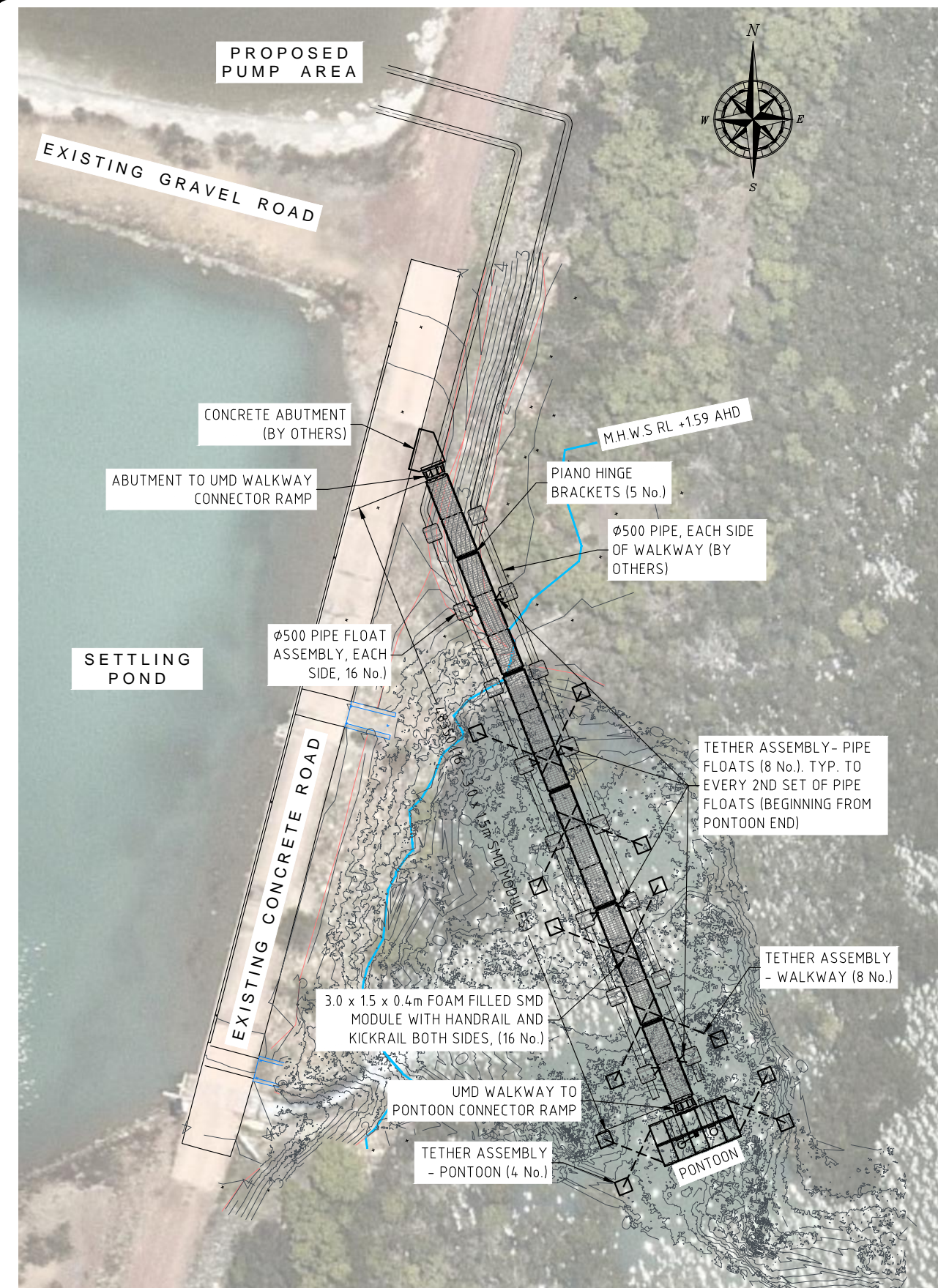
13. Prior to works within Port Limits commencing, supply to the Referral Agency a Marine Execution Plan that has been approved by the Regional Harbour Master, where relevant.
14. Prior to works within Port Limits commencing, the Applicant or their Contractor must supply to the Referral Agency for review and approval an Emergency Management Plan for works within Port Limits for all potential incidents e.g. contaminant spill, riverine flood, adverse weather etc.
15. Refuelling of vessels used in construction must be carried out by a licenced bunkers provider only on site, or off site at a licenced refuelling facility.

16. Spillage of any material e.g. sediment, wastes, contaminants etc. must be cleaned immediately. Such spillage must not be cleaned up by hosing, sweeping or otherwise releasing such materials to any waters.
17. All waste generated on vessels in carrying out the works must be disposed of at a proper and appropriate facility.
18. Environmental incident notification must be included in any Management Plans for the works within Port Limits.

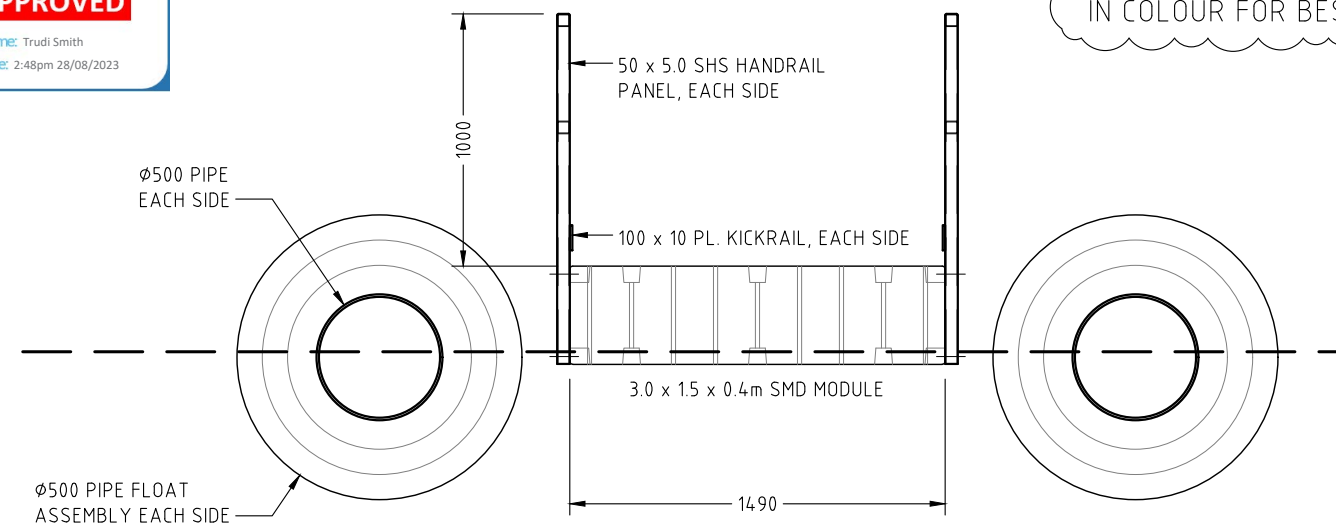
Part 1b Referral Agency Advice Notes

- a. Where the Applicant is required to submit further documentation to the Referral Agency, this is to be directed to the Planning section at planning@gpcl.com.au, including reference to the allocated referral response number RR2023/005/01.
- b. All development should proceed in accordance with the duty of care guidelines under the *Aboriginal Cultural Heritage Act 2003*. Penalties may apply where duty of care under that Act has been breached.
- c. The *Environmental Protection Act 1994* states that a person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm. Environmental harm includes environmental nuisance. In this regard persons and entities, involved in the civil, earthworks, construction, and operational phases of this development, are to adhere to their 'general environmental duty' to minimise the risk of causing environmental harm.

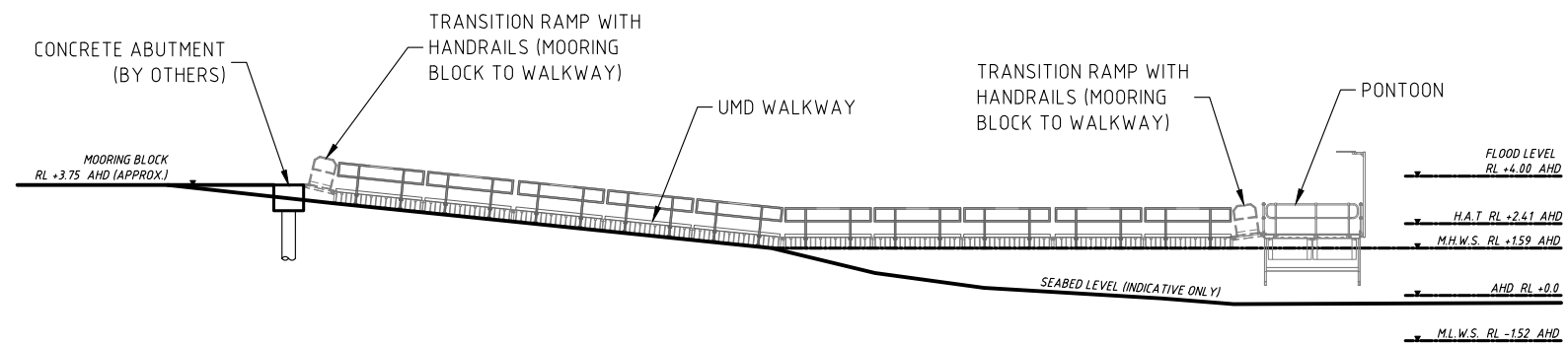
Attachment 2. Approved Plans and Specifications



GENERAL ARRANGEMENT SCALE 1 : 400



TYPICAL SECTION SCALE 1 : 30



ELEVATION (INDICATIVE ONLY) SCALE 1 : 250

NOTES:

1. ALL CABLES TO BE 12mm 7x19 STAINLESS STEEL U.N.O. (WITH MIN. 100kN MBS)
2. THE SUPERIOR TETHER SYSTEM MUST BE USED WITH EACH CABLE AND HEIGHT OF THE PONTOON SYSTEM IS ALWAYS REQUIRED TO BE MAINTAINED BASED ON THE ELASTIC LIMIT OF THE SUPERIOR TETHER SYSTEM, WHICH IS DESIGNED BY OTHERS.
3. THE LENGTH OF THE CABLE VARIES ACCORDING TO WATER DEPTH.
4. THE MAXIMUM LENGTH OF THE PONTOON WALKWAY SYSTEM IS 49.2m.
5. THE FREEBOARD OF THE PONTOON WALKWAY NEEDS TO BE MAINTAINED AT 355mm.
6. THE MAX. WIDTH OF THE PONTOON WALKWAY MUST BE 1.5m.
7. STABILITY AND STRENGTH OF THE UMD MODULES CERTIFIED BY SUPERIOR JETTIES.
8. THE DESIGN LIFE IS 20 YEARS.
9. THE MAX. WAVE HEIGHT IS 0.3m AS PER AS3962.
10. THE MAX. CURRENT VELOCITY IS 1m/s AS PER AS3962.
11. ALL THE ALUMINIUM MUST BE 6005-T5 AND BOLTS MUST BE 316 MARINE GRADE WITH CLASS 80.
12. ALL DISSIMILAR METALS ARE REQUIRED TO BE SEPARATED.
13. MAXIMUM 2 PEOPLE ON WALKWAY AT ANY TIME.
14. MAXIMUM WEIGHT OF DAVIT IS 60kg
15. MAXIMUM OPERATIONAL WEIGHT OF DAVIT IS 300kg.
16. MAXIMUM REACH OF DAVIT FROM ITS BASE IS 1.3m.
17. ALL WALKWAY CONNECTIONS MUST HAVE M12-316 (CLASS 80) COMPONENTS / BOLTS U.N.O
18. ALL STEEL MEMBERS / COMPONENTS MUST BE GALVANIZED AS PER AUSTRALIAN STANDARDS AND ALL STAINLESS STEEL MEMBERS MUST BE 316
19. MAXIMUM 2 PEOPLE ON PUMP PONTOON AT ANY TIME.
20. FRP DECKING SYSTEM OF THE PUMP PONTOON IS 38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH AND 12.9 kg/SQM MASS

No:	DATE	REVISION	DRAWN BY
A	24.11.22	BACKGROUND IMAGE REVISED	S.D.
B	31.05.23	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.

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K and K Consulting Engineers Pty Ltd
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 Eight Mile Plains, QLD 4113
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 Phone: (07) 3195 5692
 Web: www.knkengeers.com.au

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Mail Address: P.O. Box 202 Labrador 4215

Ph: (07) 5594 8200
 Email: info@superiorjetties.com

DATE
06/06/2022

DRAWING NO:
19441-D01

REVISION NO:
B

PROJECT
PROPOSED PONTOON AND WALKWAY

DRG. TITLE
GENERAL ARRANGEMENT

CLIENT
QAL

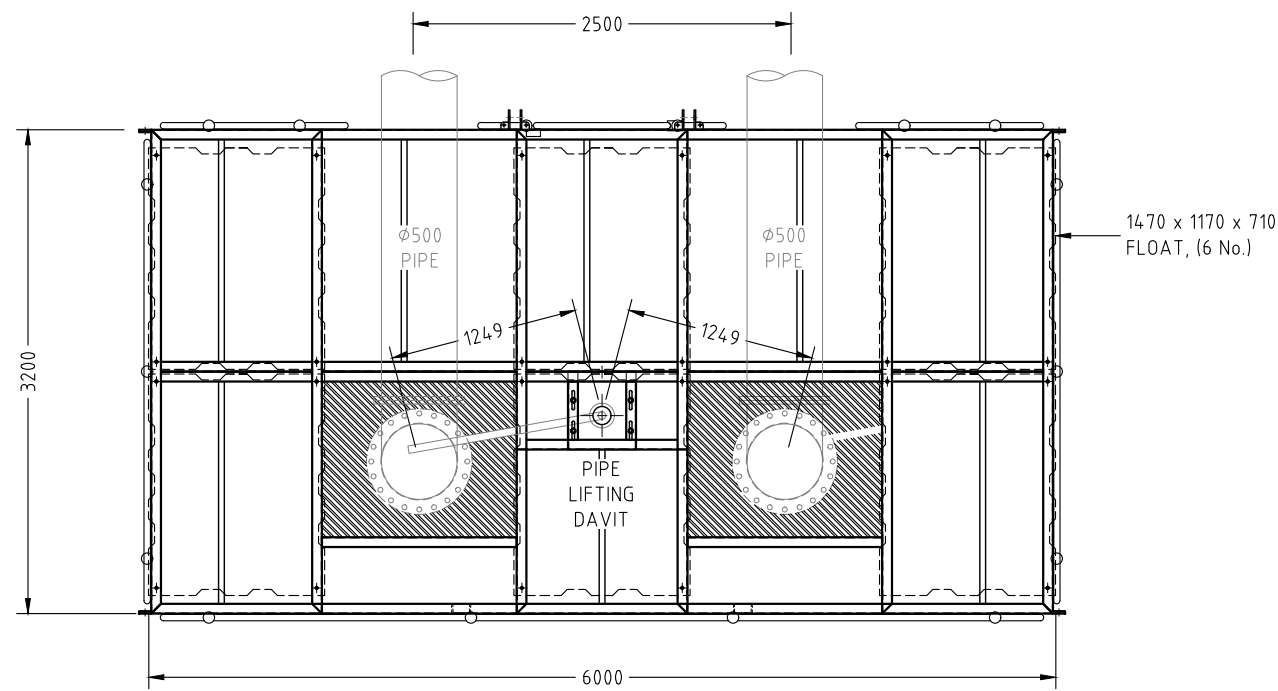
ADDRESS
**QAL WALKWAY
GLADSTONE**

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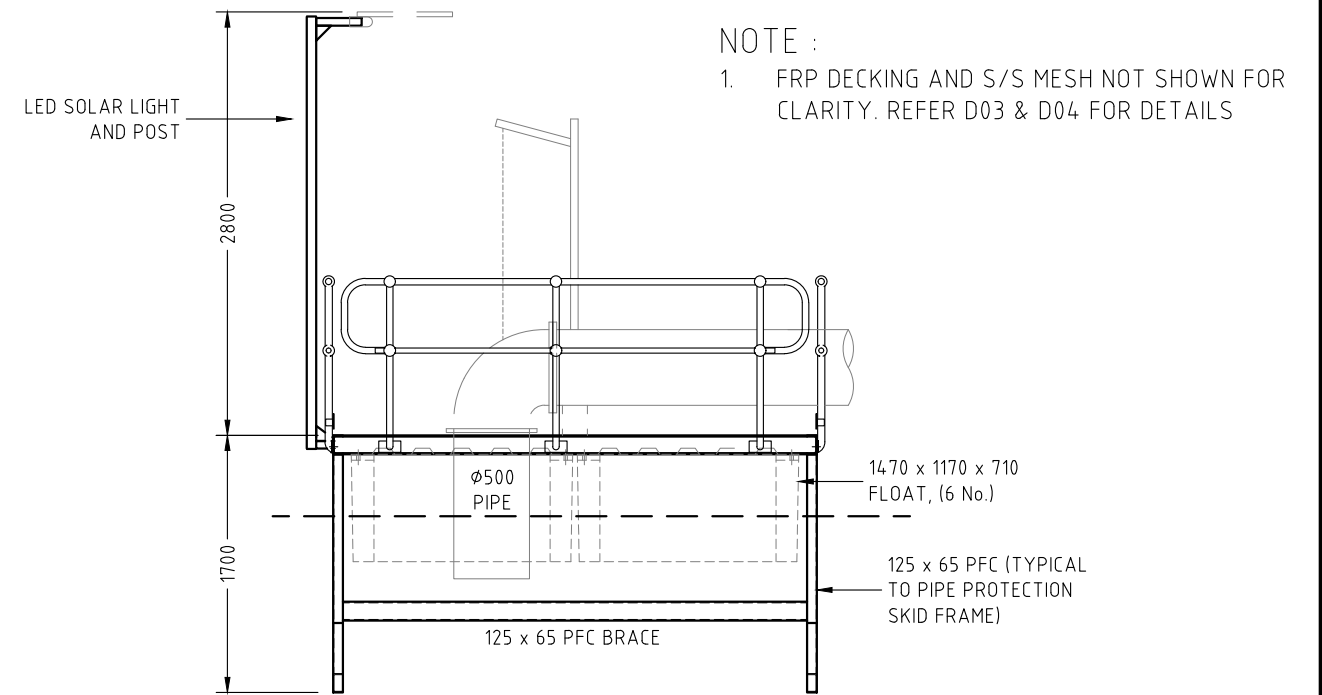
CERTIFIED

**Himenshu Nalindrajith
Praveen Moragaspiya**

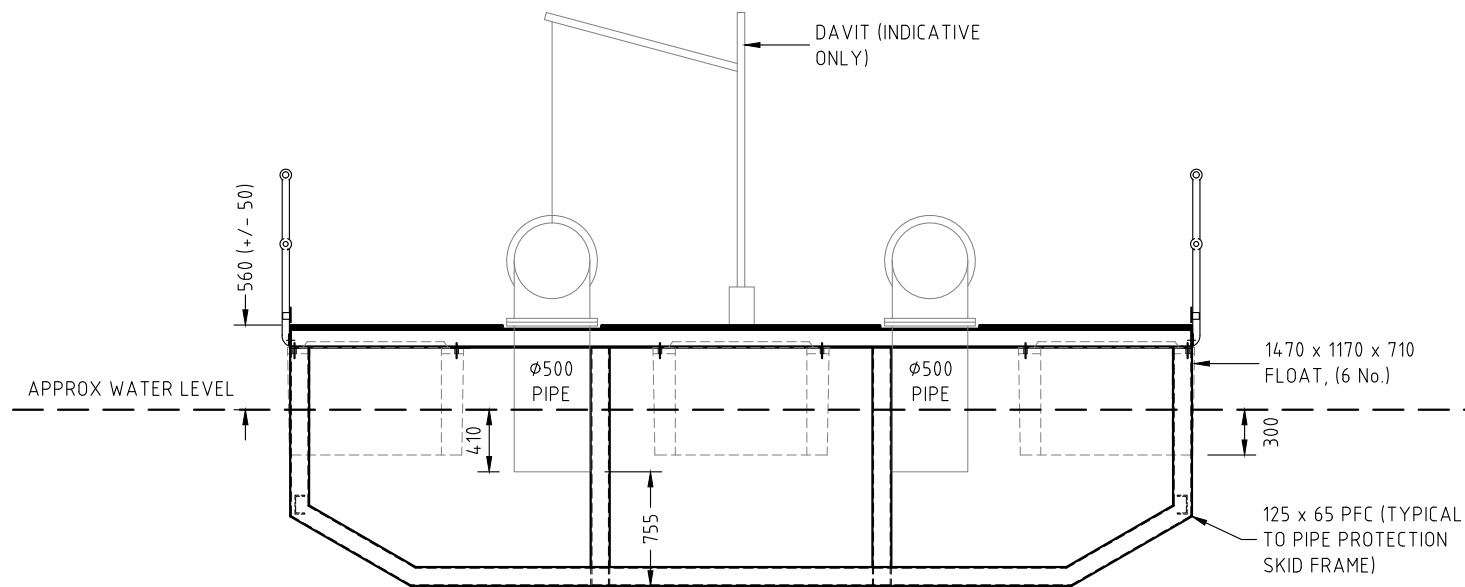
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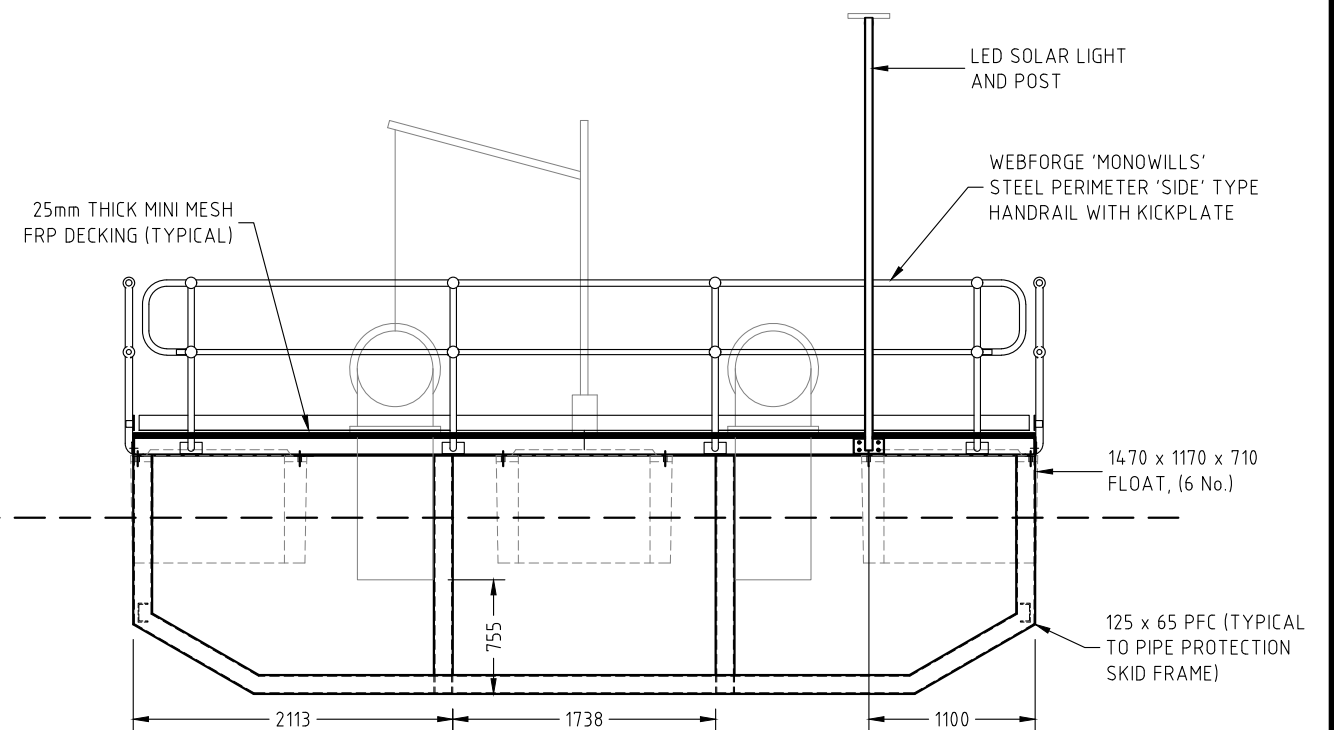
PLAN SCALE 1 : 50



SIDE ELEVATION SCALE 1 : 50



TYPICAL SECTION SCALE 1 : 50



FRONT ELEVATION SCALE 1 : 50



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Mail Address: P.O. Box 202 Labrador 4215

Ph: (07) 5594 8200
 Email: info@superiorjetties.com

DATE: 06/06/2022

DRAWING NO: 19441-D02

REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: PONTOON GENERAL ARRANGEMENT

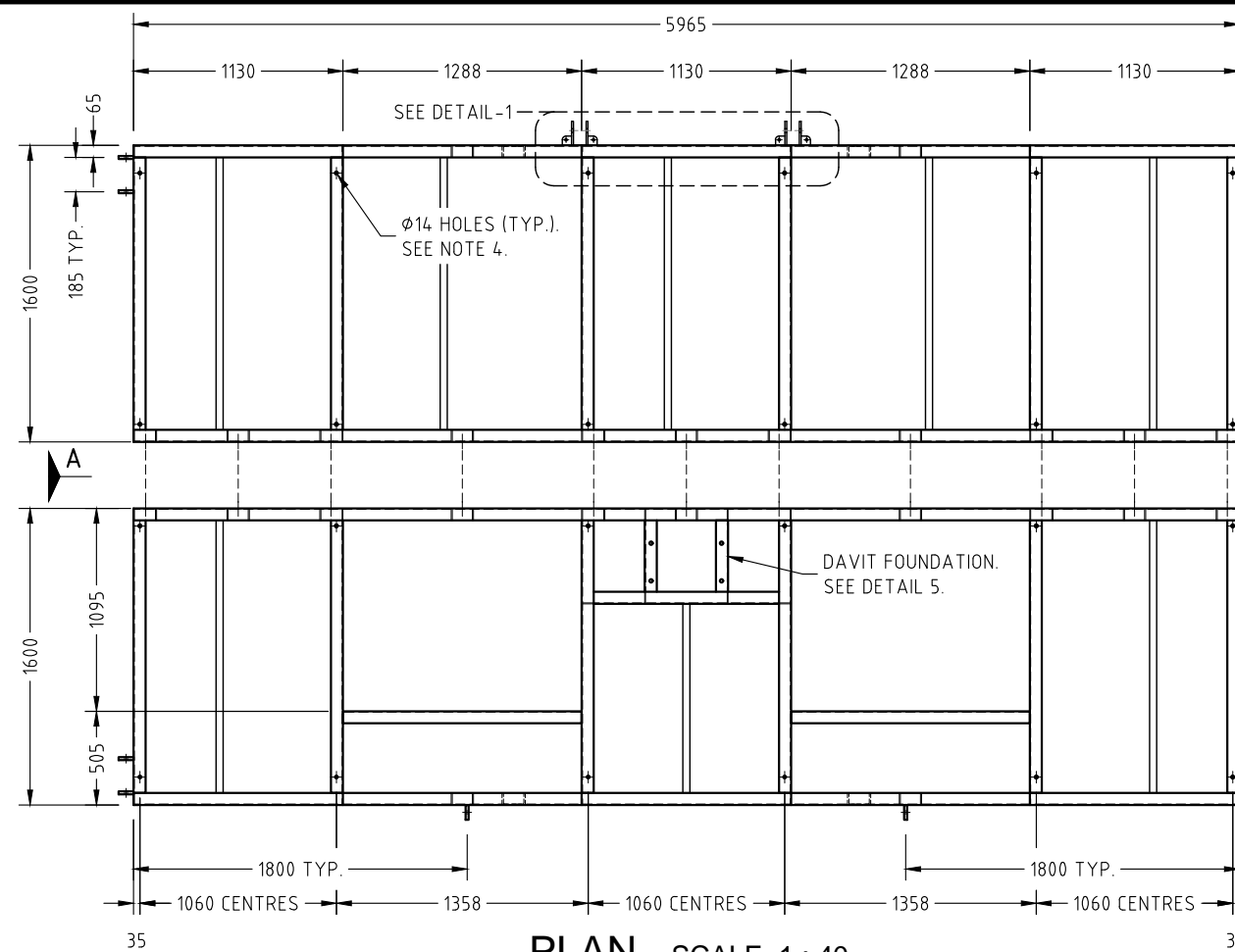
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 Praveen Moragaspiya

RPEQ: 16451

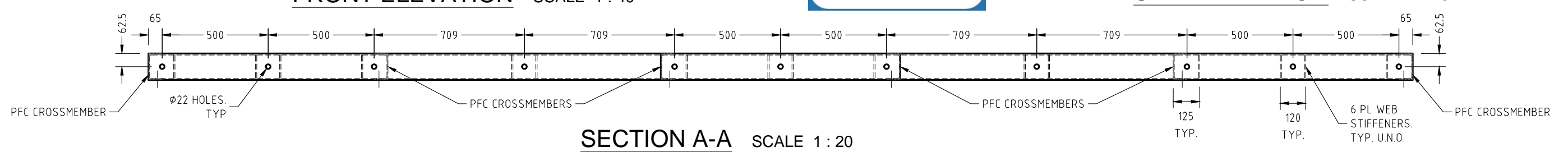
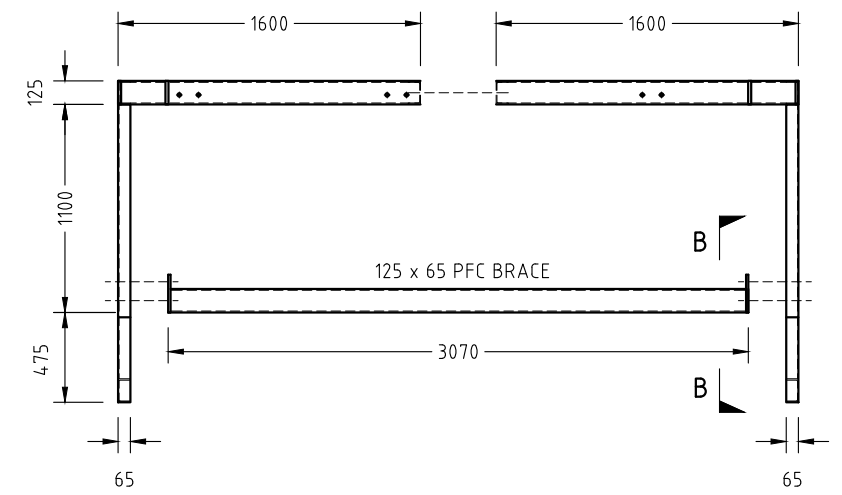
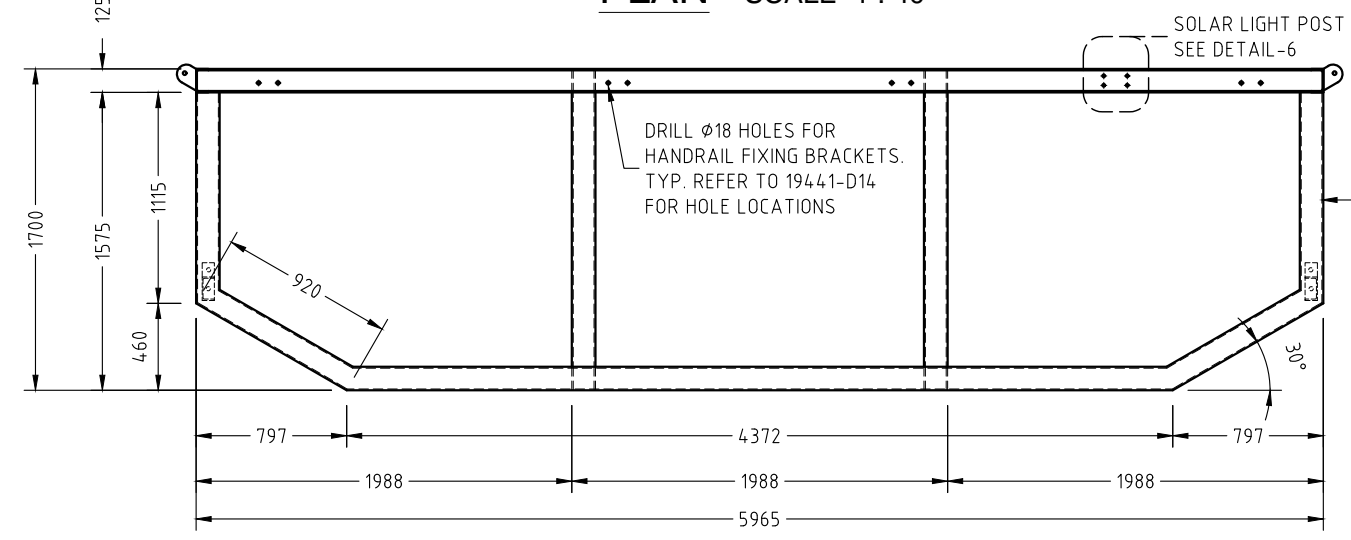
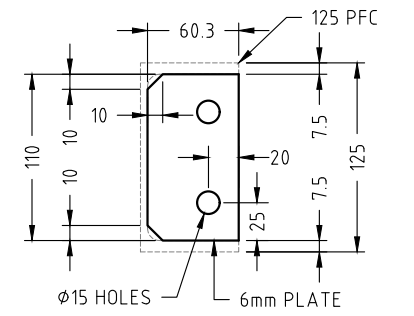
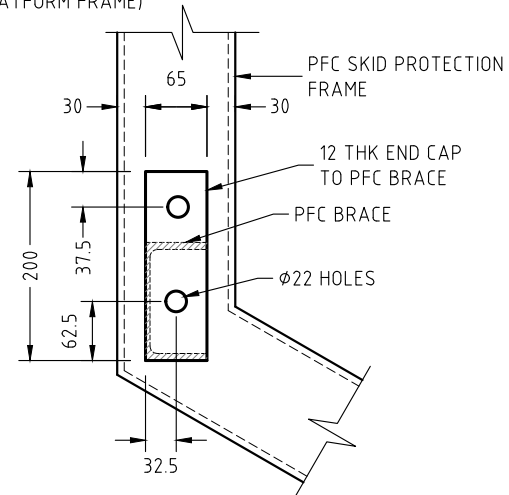


LIFTING LUG ON ALL CORNERS (4 No.)
SEE DETAIL 3
CABLE ANCHORS ON OPPOSING SIDES (4 No.)
SEE DETAIL 4

NOTE :

1. ALL PONTOONS MEMBER SHALL BE STEEL 125 PFC
2. ALL MEMBERS TO BE WELDED WITH CONTINUOUS 6mm FILLET, TYP. U.N.O.
3. ALL HOLE CENTRES TO BE VERIFIED AGAINST FLOAT MODULE FIXING HOLES PRIOR TO DRILLING.
4. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR).
5. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
6. FRP DECKING SYSTEM OF THE PUMP PONTOON IS 38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH AND 12.9 kg/SQM MASS

FRAME MASS = 1785kg



No:	DATE	REVISION	DRAWN BY
A	28/07/2022	DAVIT FOUNDATION REVISED	S.D.
B	04/04/2023	FRP STIFFENER DETAILS ADDED - REFER D03.3	S.D.
C	11/05/2023	MESH PANEL DETAILS ADDED - REFER D03.4 & D03.5	S.D.
D	31/05/2023	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.

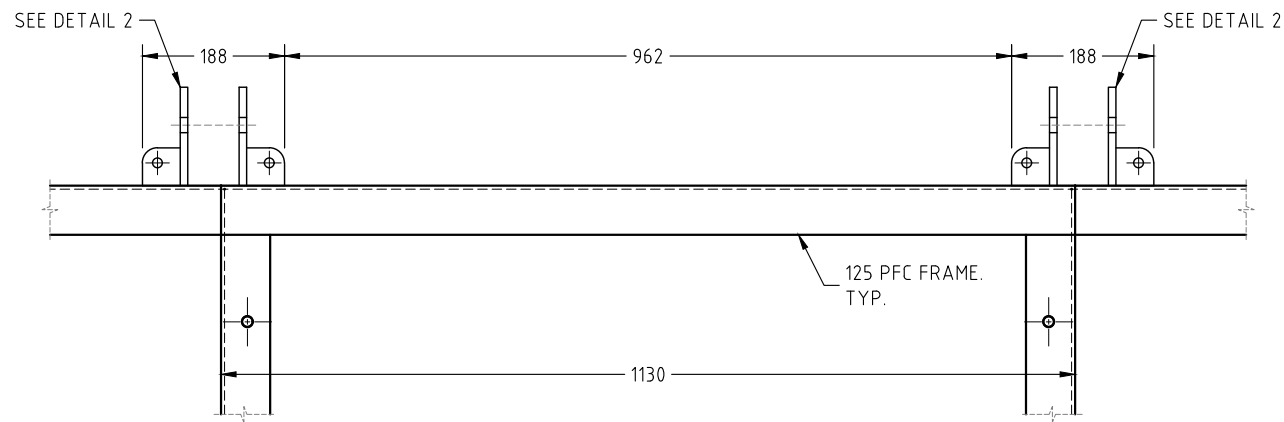
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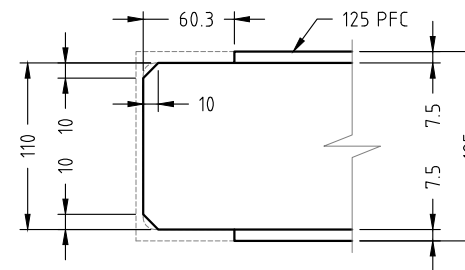
DATE
06/06/2022
DRAWING NO:
19441-D03.1
REVISION NO:
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PROJECT
PROPOSED PONTOON AND WALKWAY
DRG. TITLE
PONTOON FRAME CONSTRUCTION DETAILS
CLIENT
QAL
ADDRESS
QAL WALKWAY
GLADSTONE
DRAWN BY
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Himenshu Nalindrajith
Praveen Moragaspiya
RPEQ: 16451



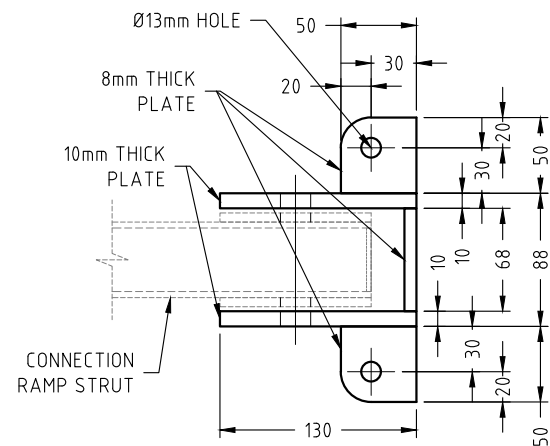
DETAIL - 1 SCALE 1:10



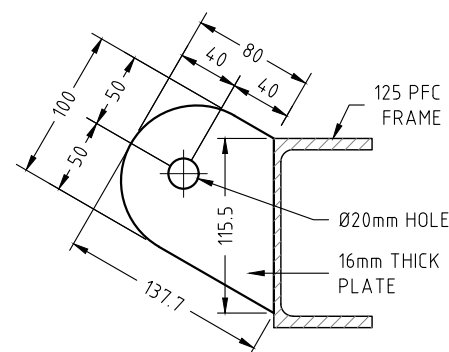
125 PFC JOINT DETAIL - TYPICAL
SCALE 1:5

NOTE :

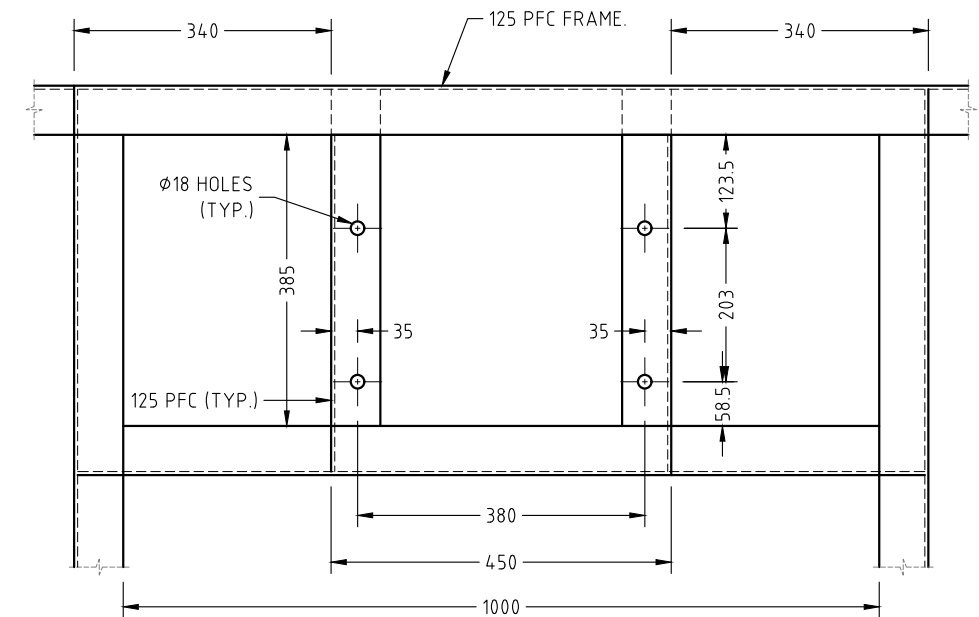
1. ALL PONTOONS MEMBER SHALL BE STEEL 125 PFC
2. ALL MEMBERS TO BE WELDED WITH CONTINUOUS 6mm FILLET, TYP. U.N.O.
3. ALL HOLE CENTRES TO BE VERIFIED AGAINST FLOAT MODULE FIXING HOLES PRIOR TO DRILLING.
4. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR).
5. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
6. FRP DECKING SYSTEM OF THE PUMP PONTOON IS 38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH AND 12.9 kg/SQM MASS



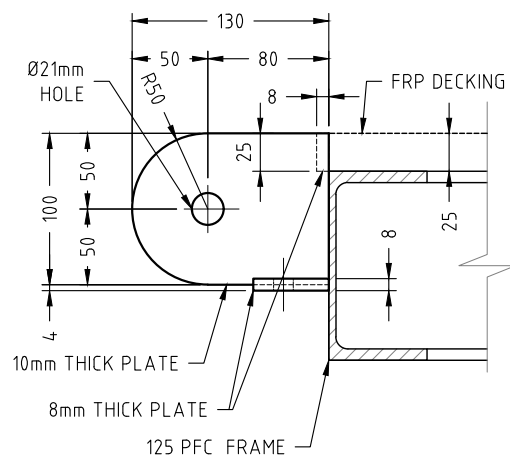
PLAN



DETAIL 3 - LIFTING PLATE
SCALE 1:5 (4 ONLY REQUIRED)

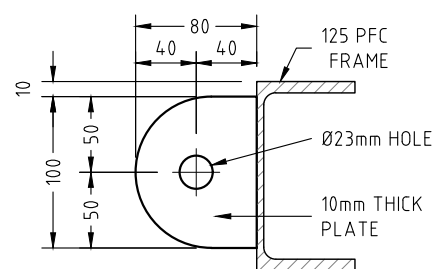


DETAIL 5 - DAVIT FOUNDATION
SCALE 1:10

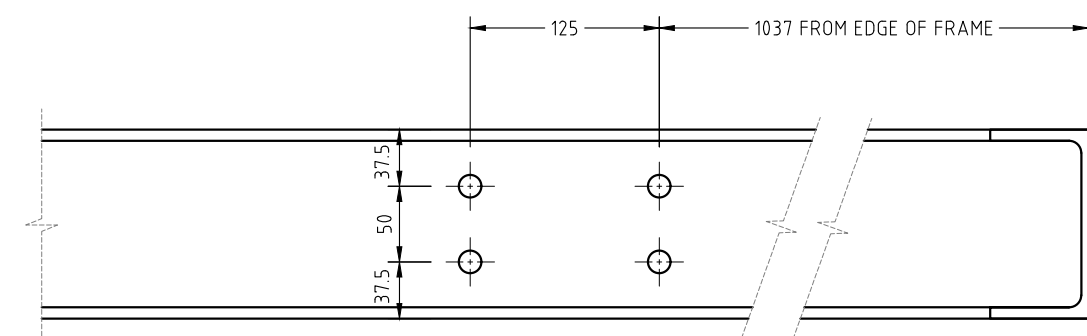


ELEVATION

DETAIL 2 - CONNECTION RAMP BRACKET
DETAIL - PONTOON END
SCALE 1:5 (2 ONLY REQUIRED)



DETAIL 4 - CABLE ANCHOR PLATE
SCALE 1:5 (4 ONLY REQUIRED)



DETAIL 5 - SOLAR LIGHT POST FIXING HOLES
SCALE 1:5



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B	31/05/2023	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.

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DATE: 06/06/2022

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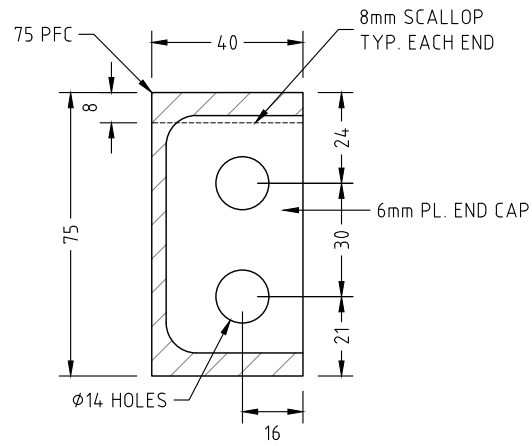
PROJECT: PROPOSED PONTOON AND WALKWAY
DRG. TITLE: PONTOON FRAME CONSTRUCTION DETAILS

CLIENT: QAL
ADDRESS: QAL WALKWAY GLADSTONE

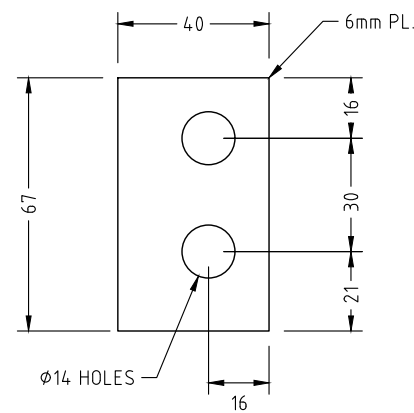
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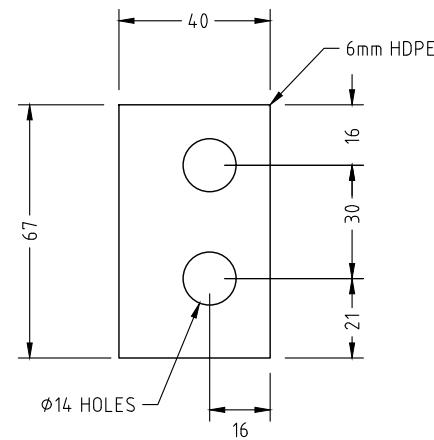
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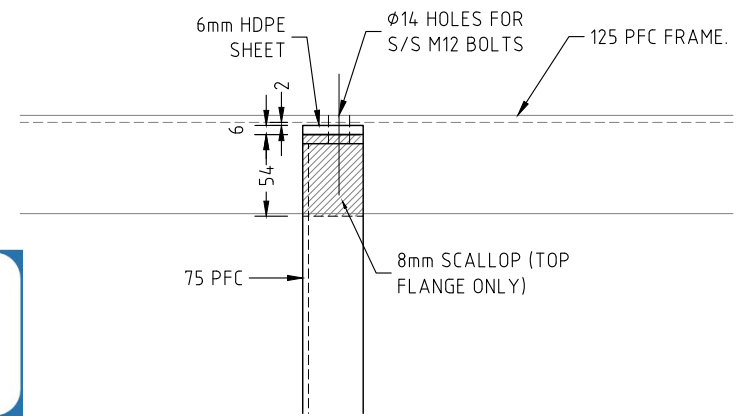
SECTION A-A
SCALE 1:2



END CAP (16 IN TOTAL)
SCALE 1:2



HDPE SHEET (16 IN TOTAL)
SCALE 1:2

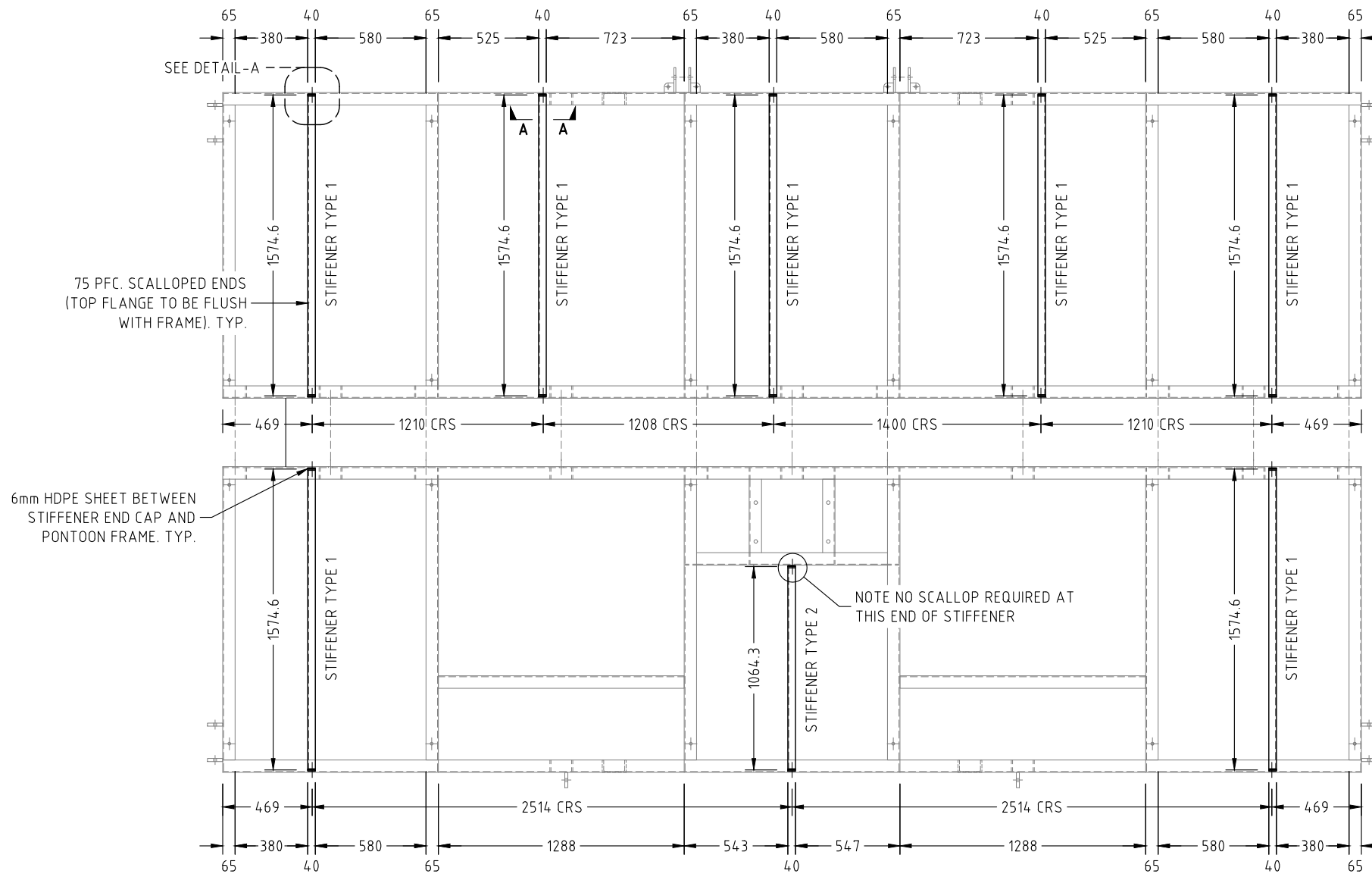


DETAIL A (TYP. 15 PLACES)
SCALE 1:5

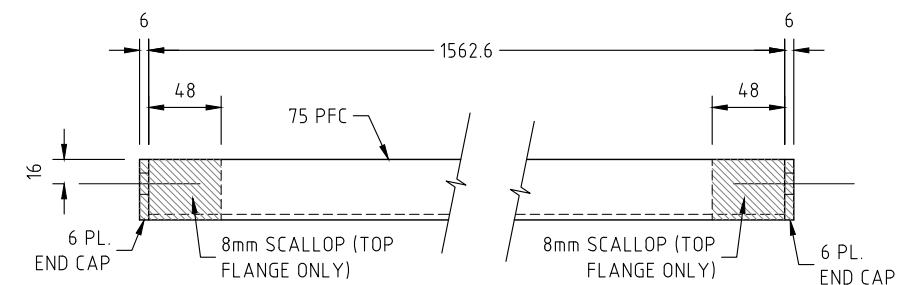


NOTE :

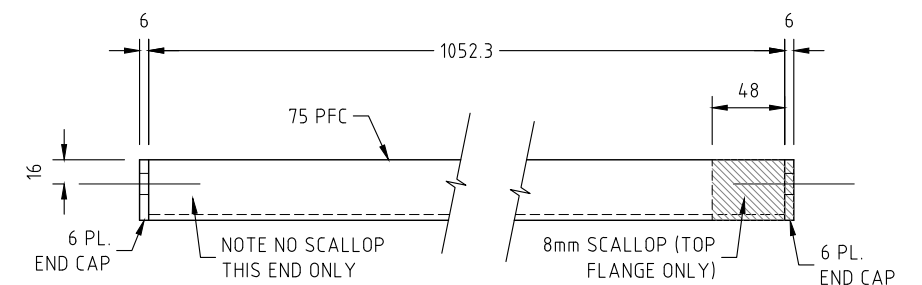
1. ALL STIFFENERS SHALL BE STEEL 75 PFC
2. ALL STIFFENERS SHALL BE PAINTED TO MATCH PONTOON FRAME
3. ALL MEMBERS TO BE WELDED WITH CONTINUOUS 6mm FILLET, TYP. U.N.O.
4. ALL HOLE CENTRES TO BE VERIFIED AGAINST EXISTING PONTOON FRAME PRIOR TO DRILLING.
5. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR).
6. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
7. FRP DECKING SYSTEM OF THE PUMP PONTOON IS 38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH AND 12.9 kg/SQM MASS



PLAN SCALE 1:40



STIFFENER TYPE 1 - PLAN (7 IN TOTAL)
SCALE 1:5



STIFFENER TYPE 2 - PLAN (1 IN TOTAL)
SCALE 1:5

No:	DATE	REVISION	DRAWN BY
A	04/04/2023	STIFFENER CONSTRUCTION DETAILS INCLUDED	S.D.
B	31/05/2023	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.

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Ph: (07) 5594 8200
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DATE
17/03/2023

DRAWING NO:
19441-D03.3

REVISION NO:
B

PROJECT
PROPOSED PONTOON AND WALKWAY MODIFICATION - ADDITION OF FRP STIFFENERS

DRG. TITLE

CLIENT
QAL

ADDRESS
QAL WALKWAY GLADSTONE

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S.D.

DESIGNED
M.W.

CHECKED BY

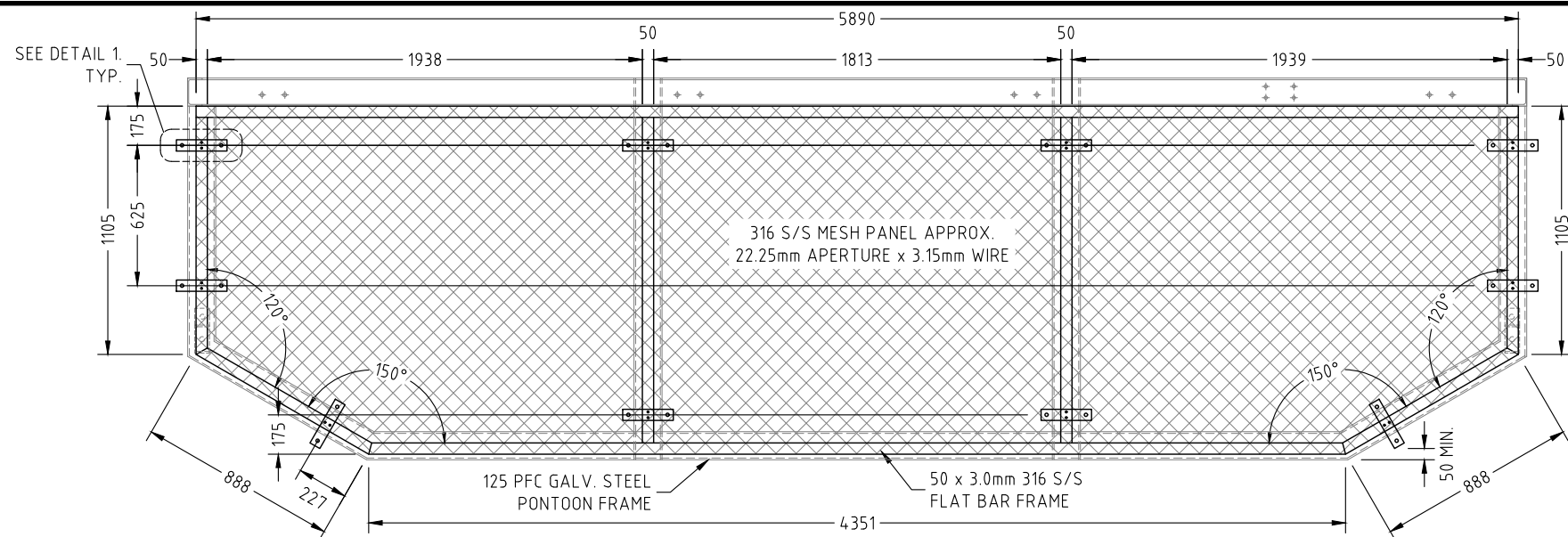
PAPER SIZE
A3

SCALE
AS NOTED

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Praveen Moragaspiya

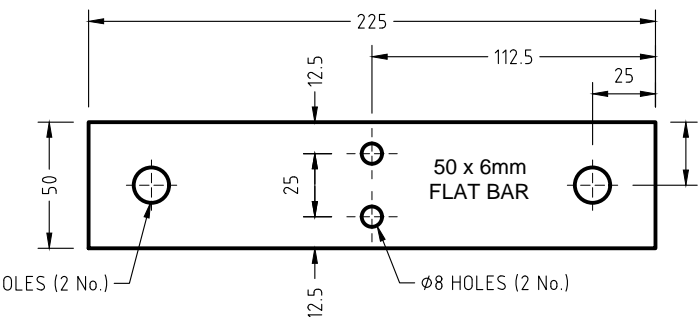
RPEQ: 16451



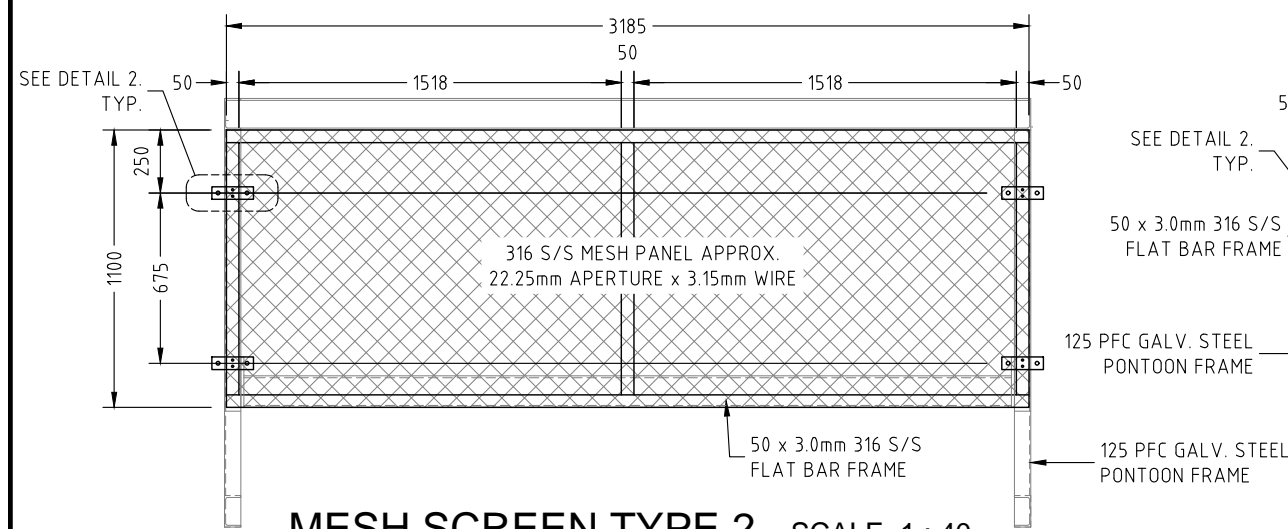
MESH SCREEN TYPE 1 SCALE 1 : 40
2 ONLY REQUIRED

NOTE :

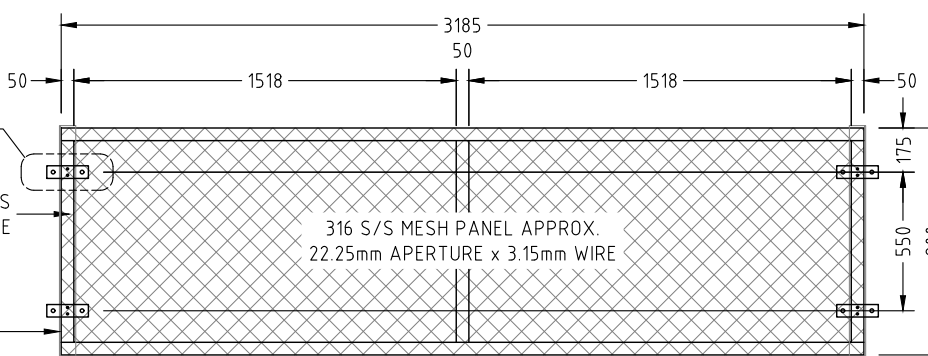
1. ALL MESH SCREEN FRAME MEMBERS SHALL BE STAINLESS STEEL, GRADE 316, 50x3.0 FLAT BAR
2. ALL MEMBERS TO BE WELDED WITH CONTINUOUS 6mm FILLET, TYP. U.N.O.
3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR).
4. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.



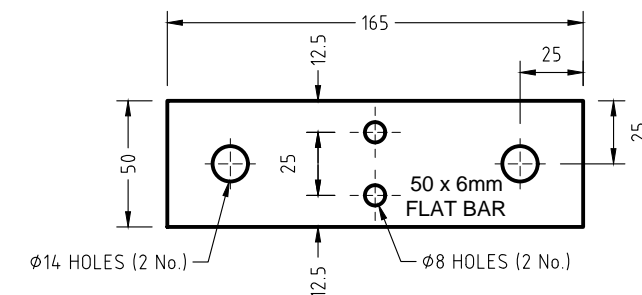
S/S PLATE TYPE 1 SCALE 1 : 3
40 ONLY REQUIRED



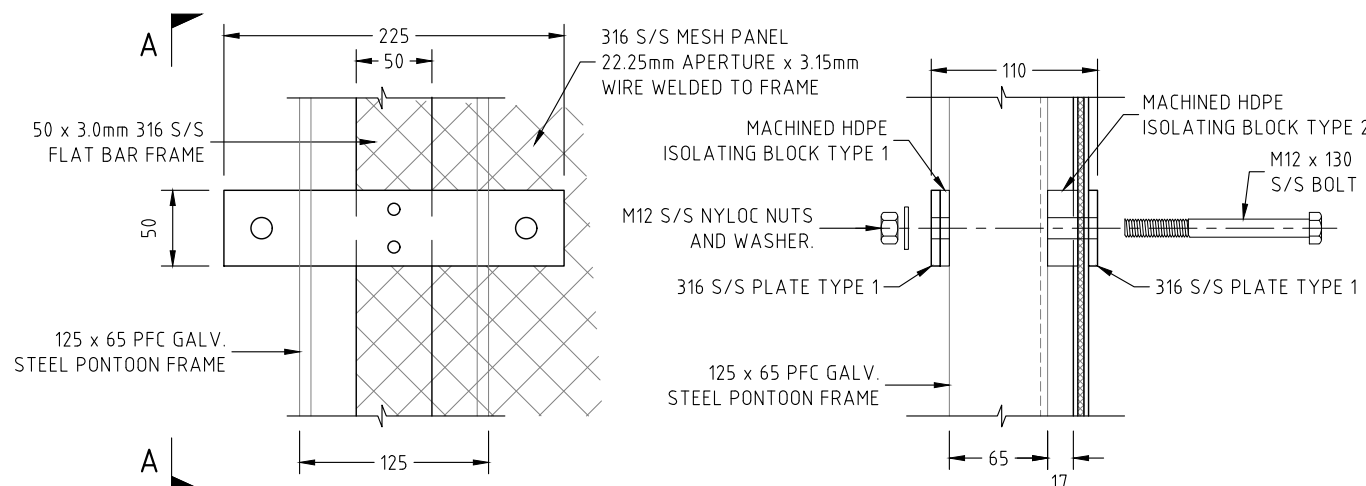
MESH SCREEN TYPE 2 SCALE 1 : 40
2 ONLY REQUIRED



MESH SCREEN TYPE 3 SCALE 1 : 40
2 ONLY REQUIRED

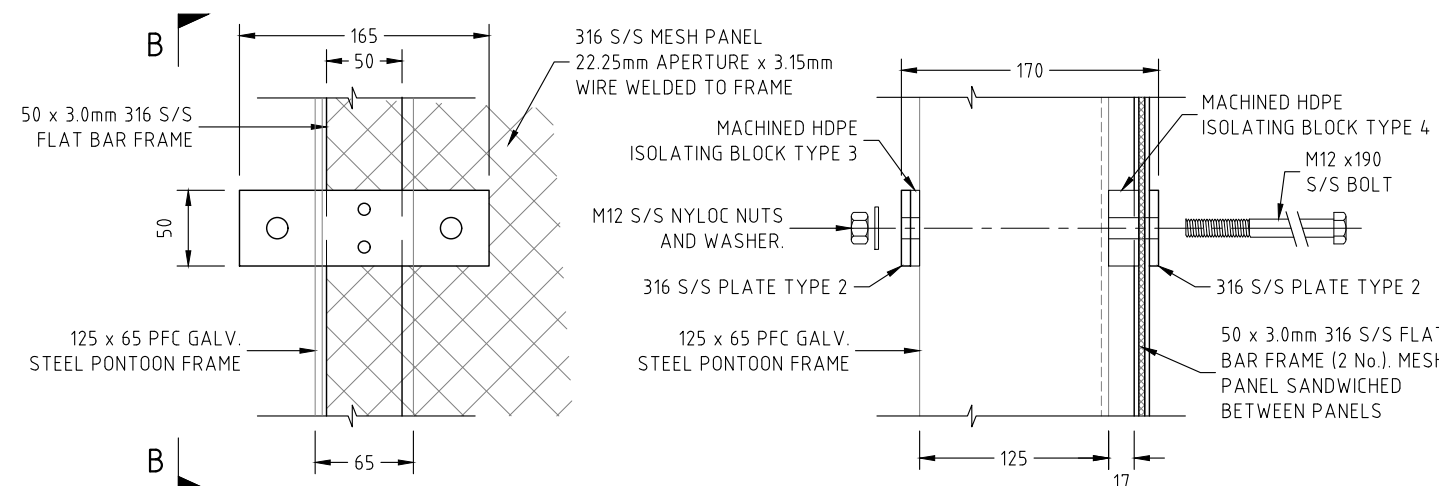


S/S PLATE TYPE 2 SCALE 1 : 3
32 ONLY REQUIRED



DETAIL 1 SCALE 1 : 5

SECTION A-A SCALE 1 : 5



DETAIL 2 SCALE 1 : 5

SECTION B-B SCALE 1 : 5

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A	31/05/2023	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.

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REVISION NO: A

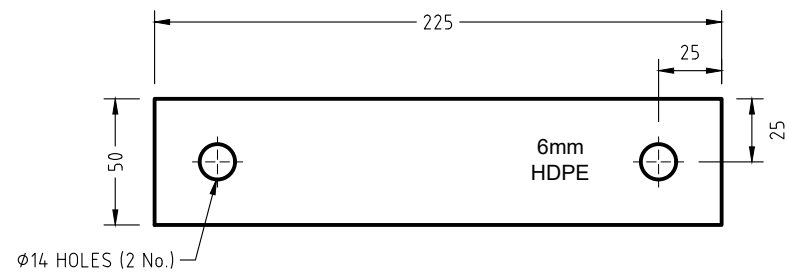
PROJECT: PROPOSED PONTOON AND WALKWAY
DRG. TITLE: PONTOON FRAME MESH PANEL DETAILS

CLIENT: QAL
ADDRESS: QAL WALKWAY GLADSTONE

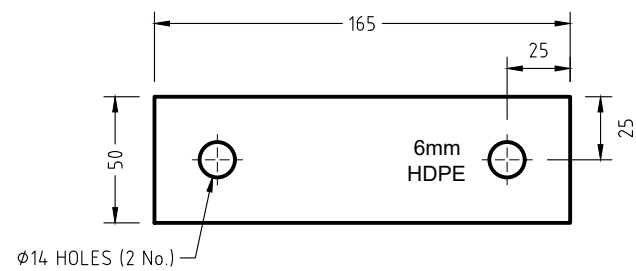
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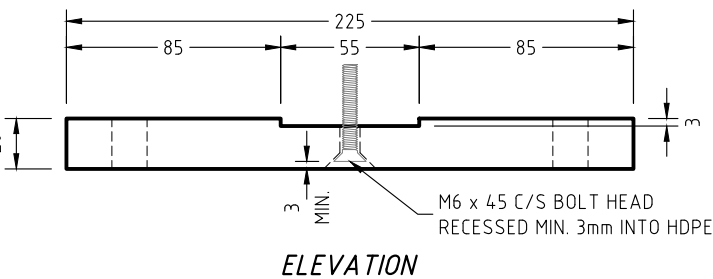
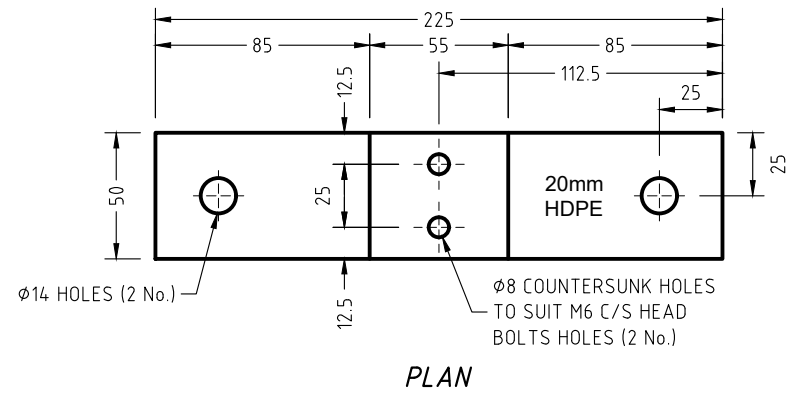
RPEQ: 16451



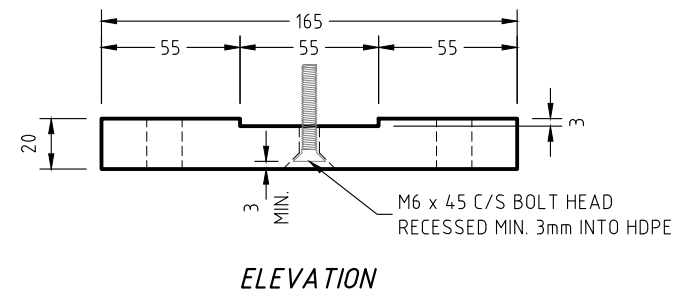
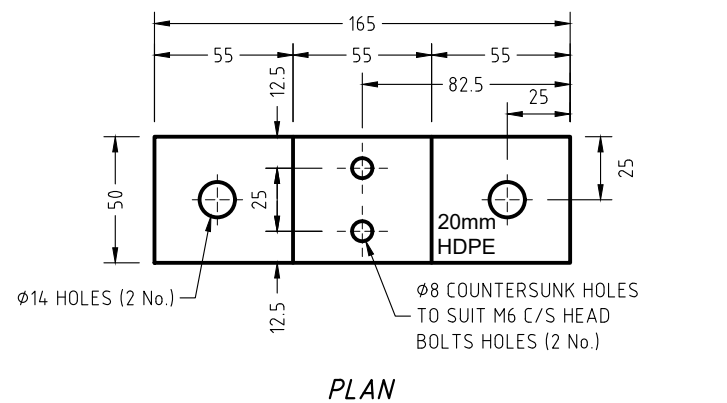
HDPE ISOLATING BLOCK TYPE 1
SCALE 1 : 3
20 ONLY REQUIRED



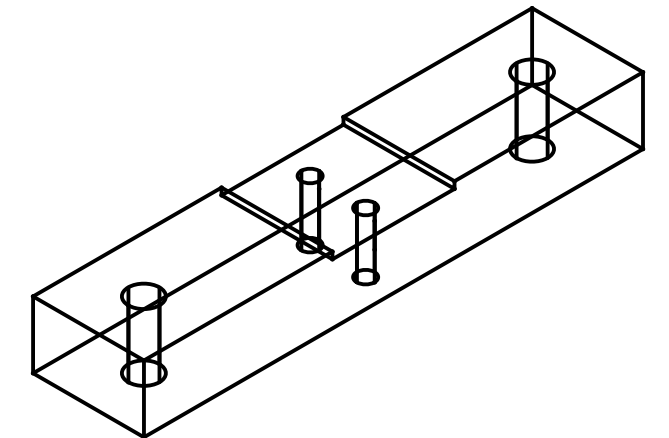
HDPE ISOLATING BLOCK TYPE 3
SCALE 1 : 3
16 ONLY REQUIRED



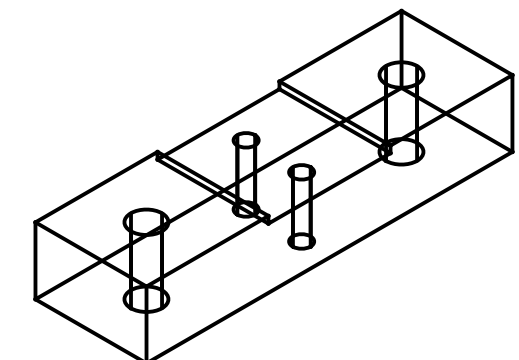
HDPE ISOLATING BLOCK TYPE 2
SCALE 1 : 3
20 ONLY REQUIRED



HDPE ISOLATING BLOCK TYPE 4
SCALE 1 : 3
16 ONLY REQUIRED



HDPE ISOLATING BLOCK TYPE 2
ISOMETRIC VIEW
N.T.S



HDPE ISOLATING BLOCK TYPE 4
ISOMETRIC VIEW
N.T.S

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DATE: 11/04/2023

DRAWING NO: 19441-D03.5

REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY

DRG. TITLE: PONTOON FRAME HDPE ISOLATING BLOCK DETAILS

CLIENT: QAL

ADDRESS: QAL WALKWAY GLADSTONE

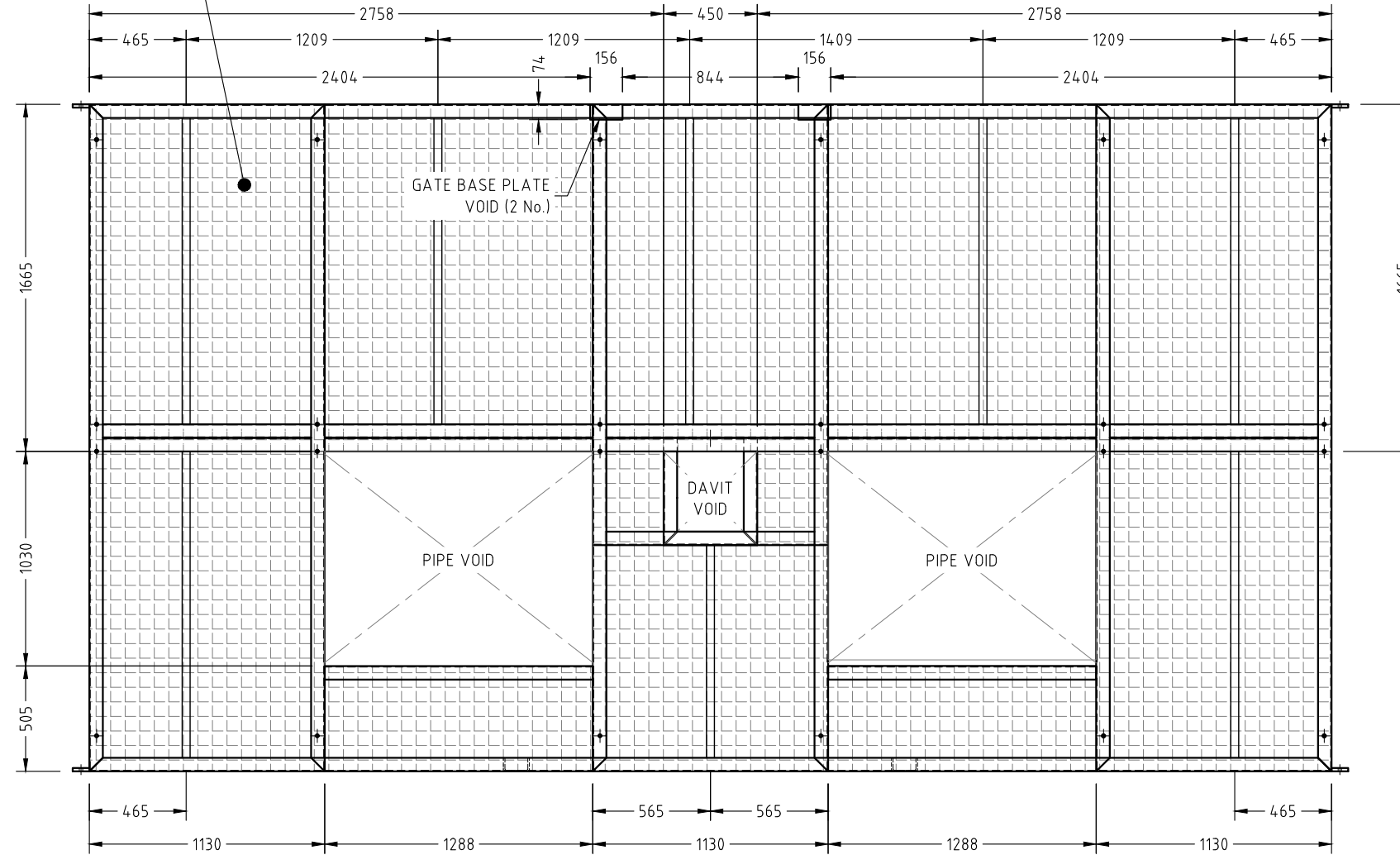
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Praveen Moragaspiya

RPEQ: 16451

38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH



PLAN SCALE 1 : 30

NOTE :
 1. FRP DECKING SYSTEM OF THE PUMP PONTOON IS 38x38 STANDARD INDUSTRIAL ENVIROGRATE WITH 25mm DEPTH AND 12.9 kg/SQM MASS

No:	DATE	REVISION	DRAWN BY
A	04/04/2023	FRP STIFFENERS ADDED TO FRAME	S.D.
B	31/05/2023	RPEQ ENGINEER COMMENTS INCORPORATED	S.D.


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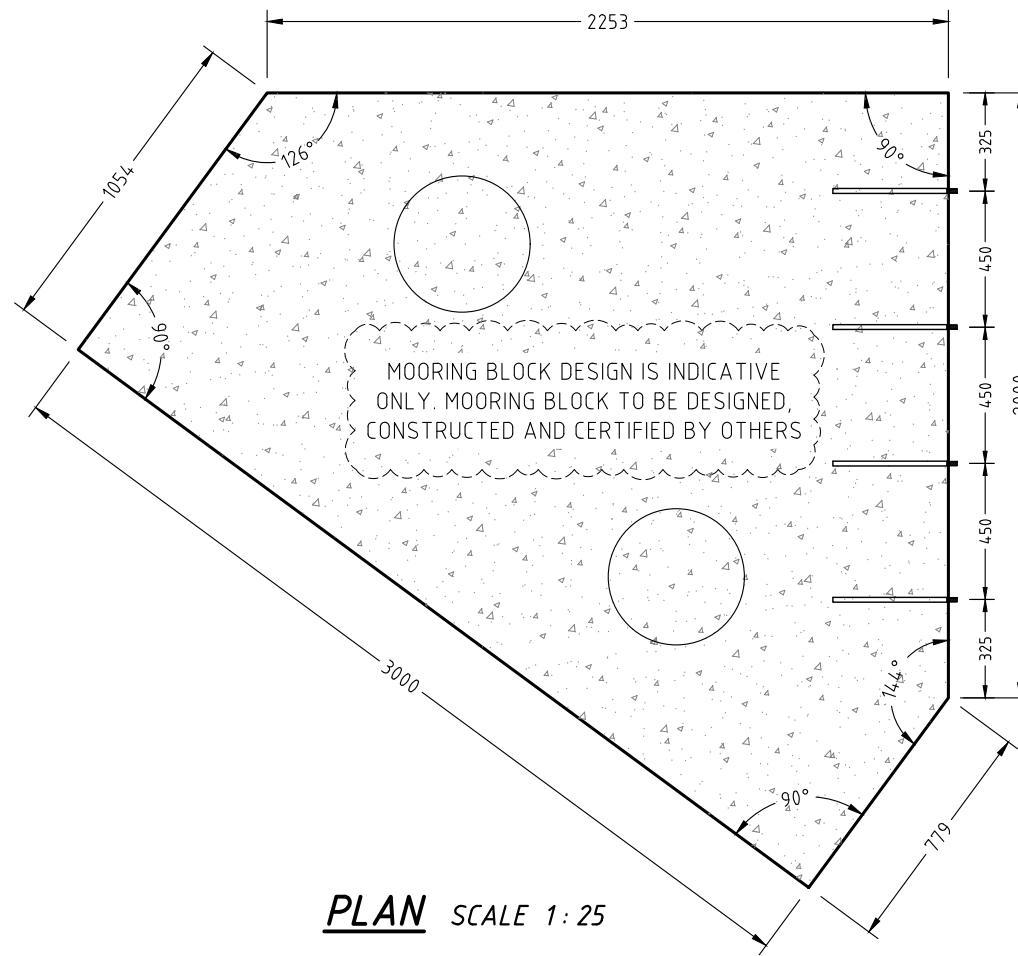

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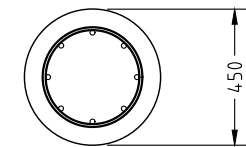
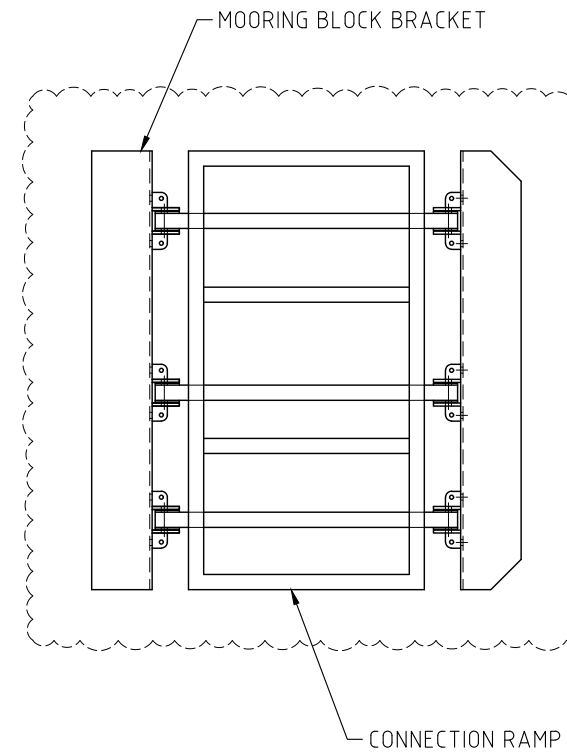
PROJECT: PROPOSED PONTOON AND WALKWAY
DRG. TITLE: PONTOON DECKING PLAN
CLIENT: QAL
ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

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 Himenshu Nalindrajith
 Praveen Moragaspiya
 RPEQ: 16451

GPC Gladstone Ports Corporation
APPROVED
 Name: Trudi Smith
 Date: 2:50pm 28/08/2023



PLAN SCALE 1:25

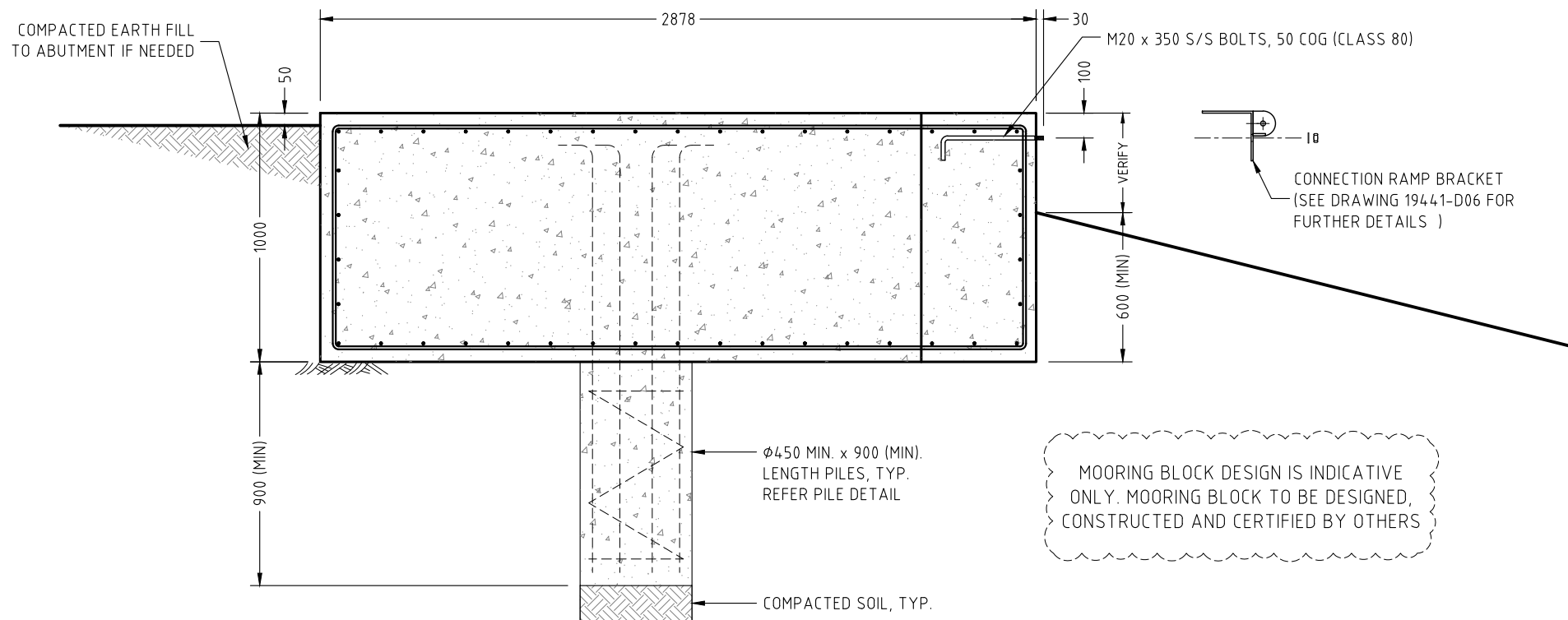


6N12 VERTICAL BARS (LAP LENGTH 600 U.N.O.) WITH R10 HELICAL TIE AT 225 PITCH, TYP. SPIRAL OVERLAP IN PILES - 12N12 VERTICAL BARS IN PILES

CONCRETE TO BE N50 U.N.O.

CONCRETE COVER TO BE 65 U.N.O.

TYPICAL PILE DETAIL SCALE 1:25



SECTION SCALE 1:25

NOTES:

- UNDERSIDE OF FOOTINGS TO BE POURED ON 200mm COMPACTED SOIL LAYER WITH A MINIMUM BEARING CAPACITY OF 100kPa, TYP. (WHICH IS DETERMINED BY RELEVANT PROFESSIONALS)
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SYSTEMS BASED ON RELEVANT PROFESSIONAL RECOMMENDATIONS TO PROTECT THE FOUNDATION SYSTEMS FROM SOIL EROSION AND SETTLEMENT.
- THE MAXIMUM SETTLEMENT OF THE FOUNDATION S AT ANY TIME IS 5mm U.N.O.
- ALL THE ALUMINIUM MUST BE 6005-T5 AND BOLTS MUST BE 316 MARINE GRADE WITH CLASS 80.
- ALL DISSIMILAR MATERIALS REQUIRED TO BE SEPARATED.

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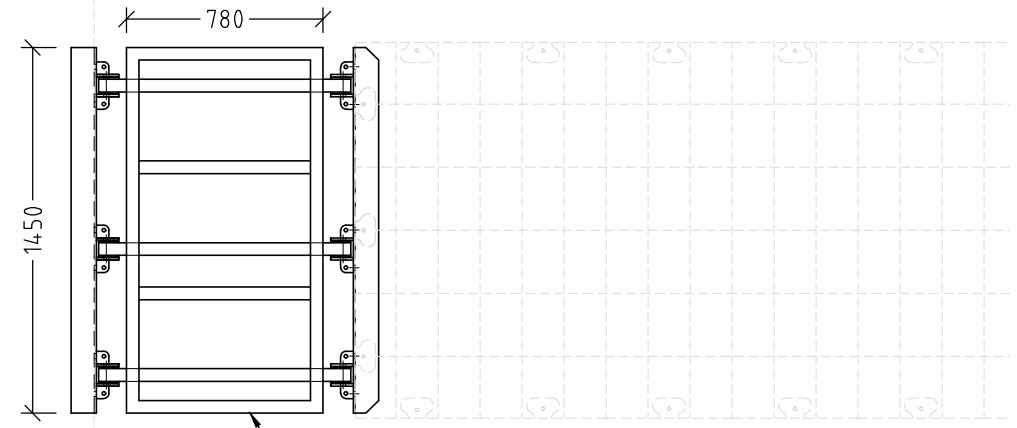
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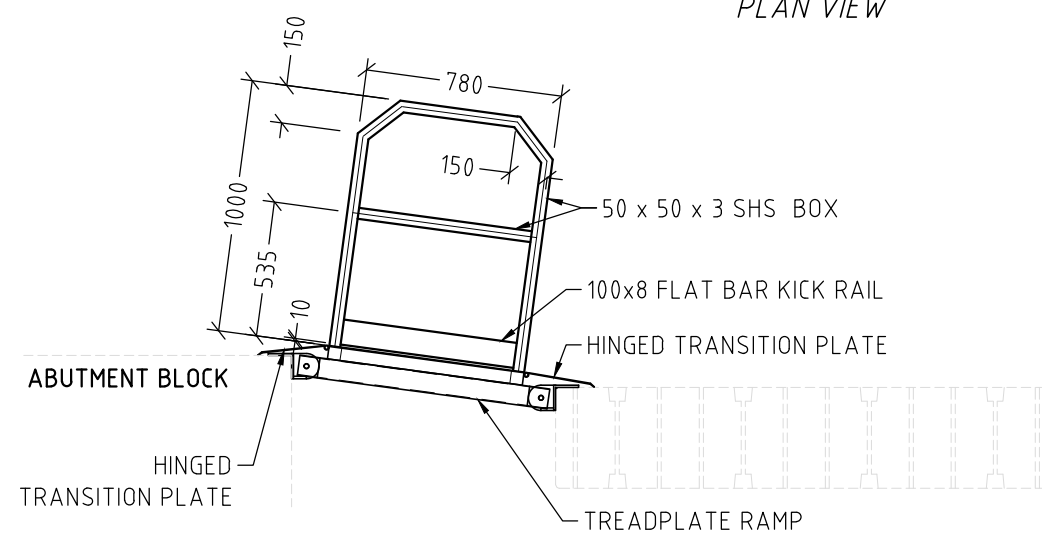
PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: MOORING BLOCK DETAILS
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

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 RPEQ: 16451



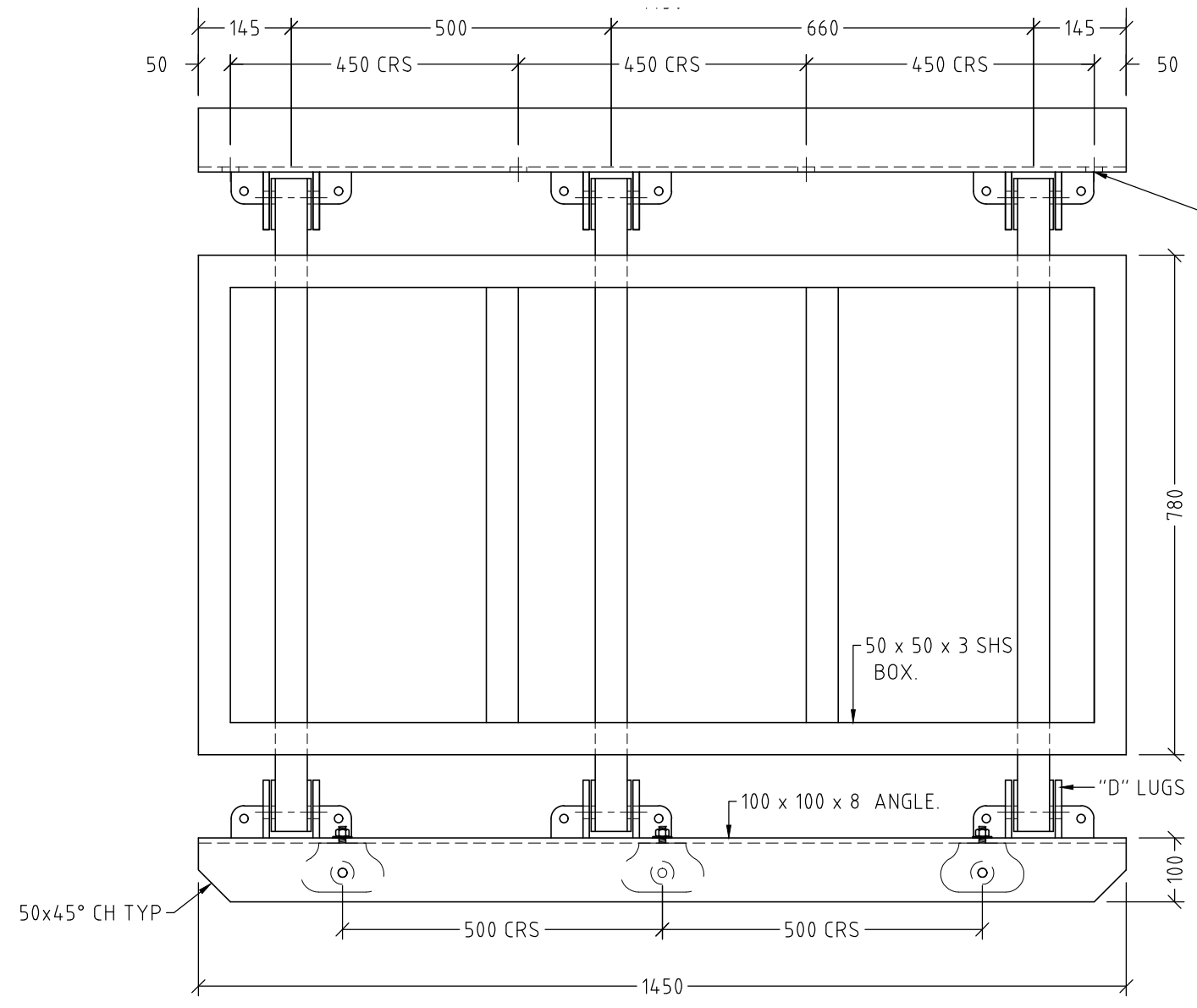
SUBFRAME TREAD PLATES
 NOT SHOWN FOR CLARITY

PLAN VIEW



SIDE ELEVATION

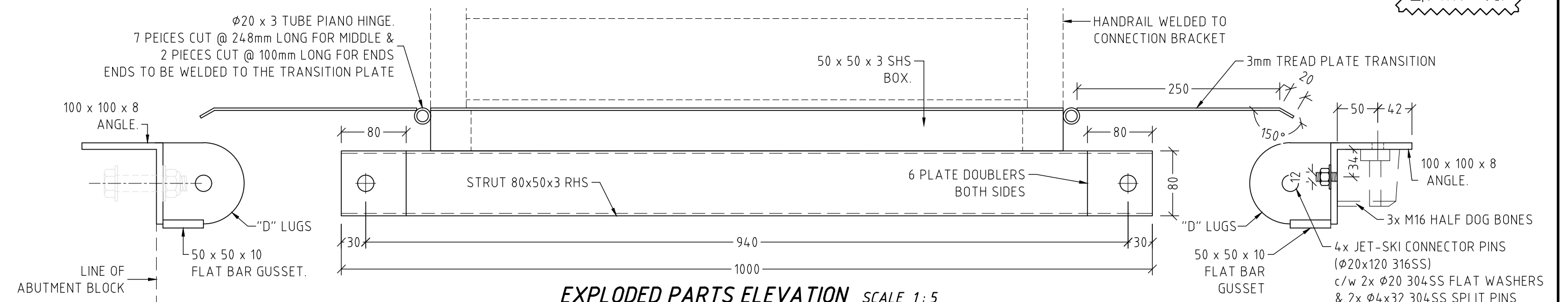
ELEVATION SCALE 1:30



PLAN VIEW SCALE 1:10

4x Ø20 HOLES
 50mm DOWN FROM
 TOP OF ANGLE

NOTE:
 1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
 2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
 3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)
 4. ALL WELDS TO BE 4mm CFW U.N.O
 5. HANDRAIL TO BE WELDED TO CONNECTION BRACKETS



EXPLODED PARTS ELEVATION SCALE 1:5

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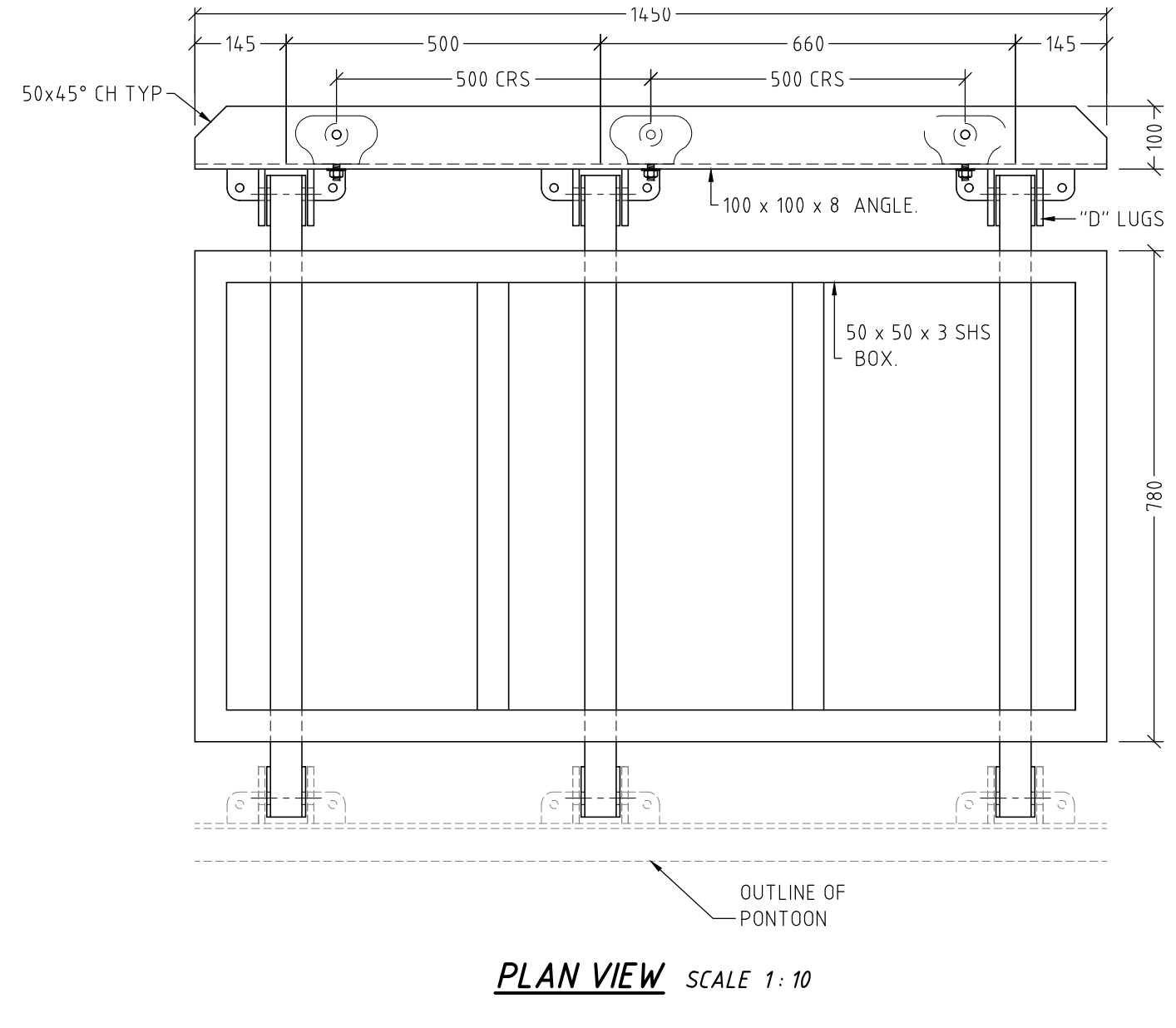
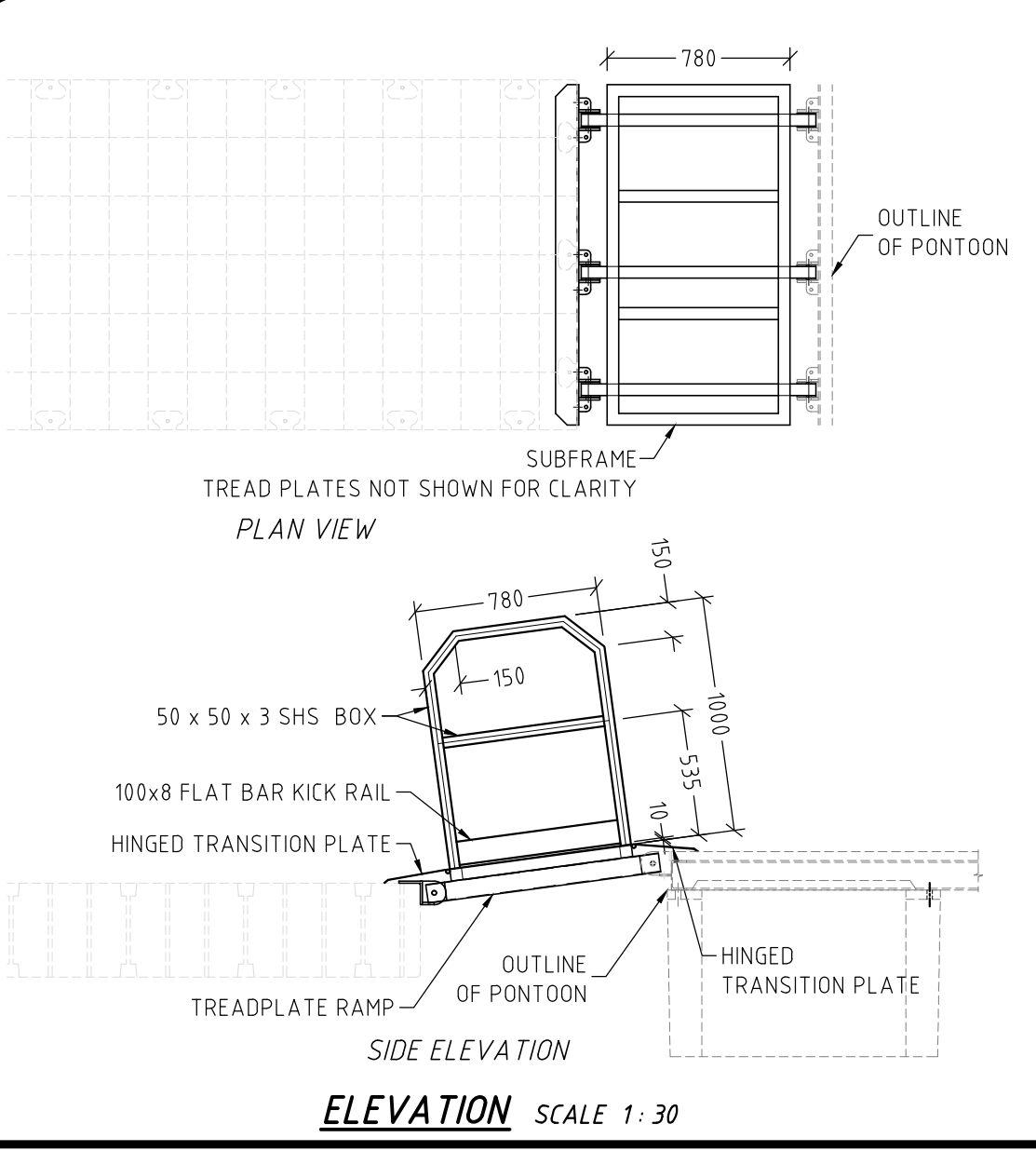
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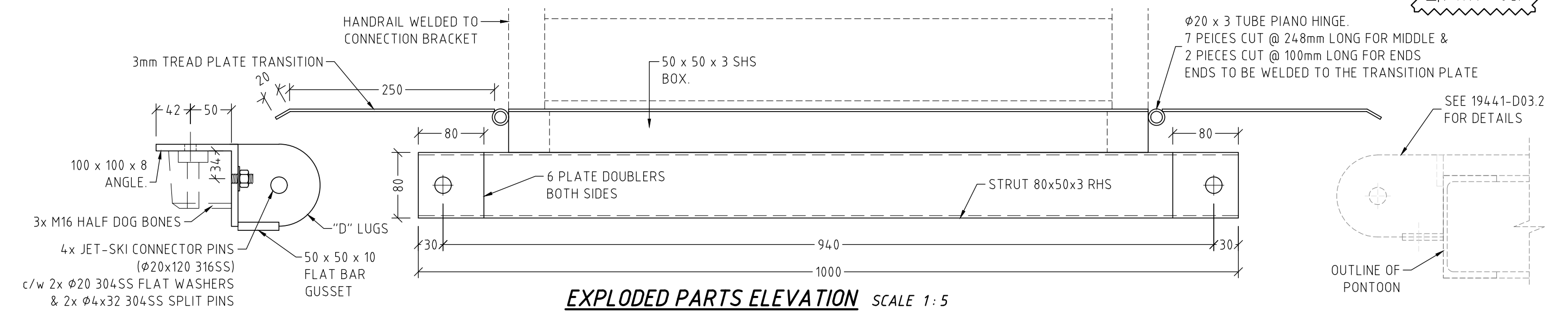
PROJECT: PROPOSED PONTOON AND WALKWAY
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 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

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 RPEQ: 16451



NOTE:

1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)
4. ALL WELDS TO BE 4mm CFW U.N.O
5. HANDRAIL TO BE WELDED TO CONNECTION BRACKETS



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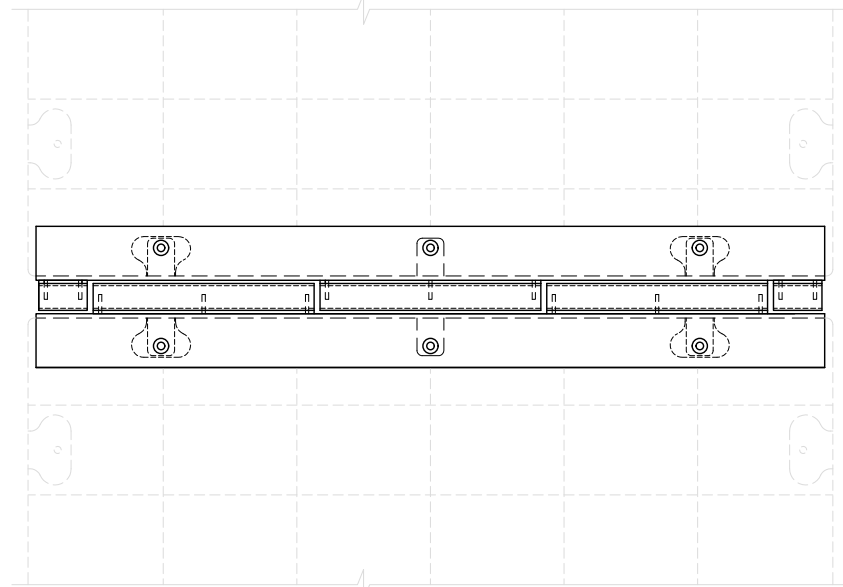
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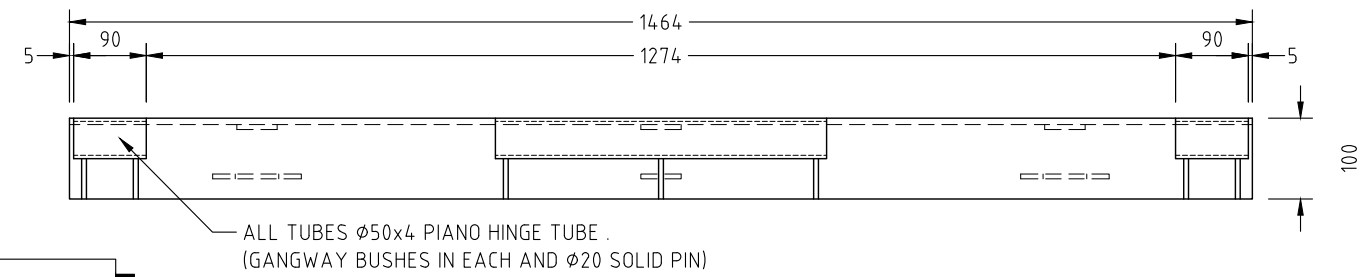
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 DRG. TITLE: CONNECTION RAMP CONSTRUCTION DETAILS - PONTOON END
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
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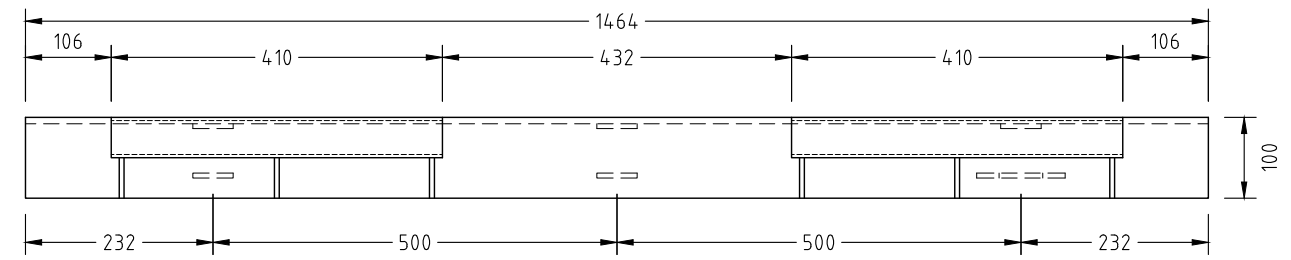


PLAN ASSEMBLED SCALE 1:15

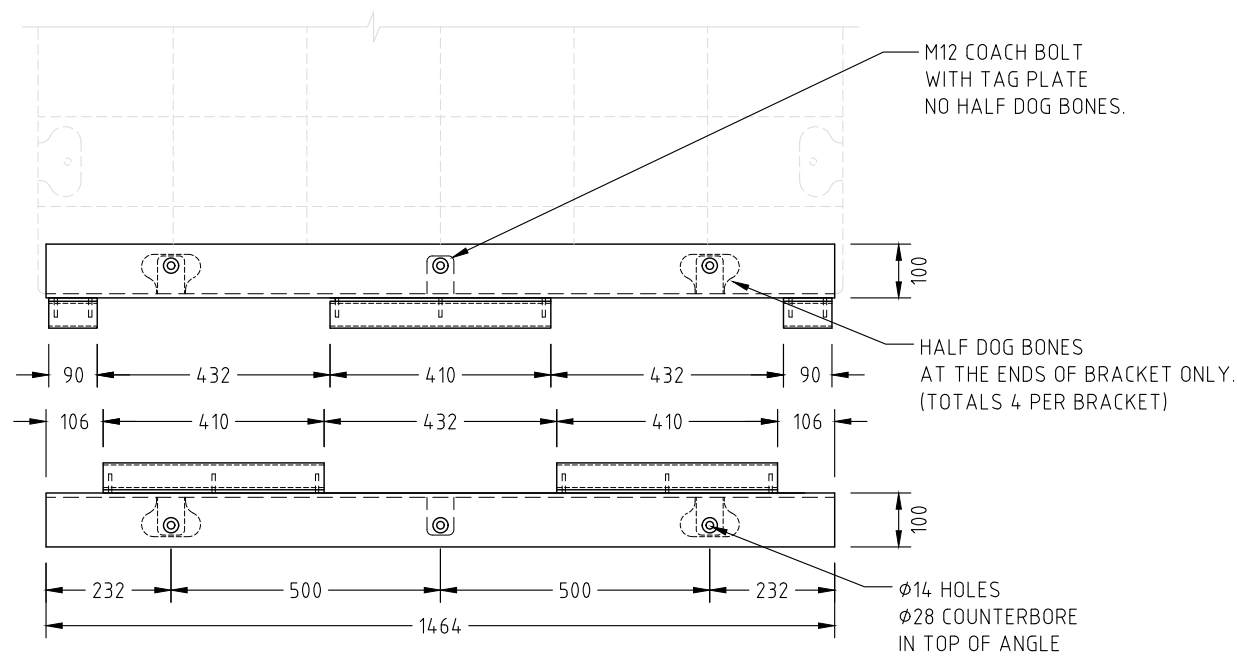
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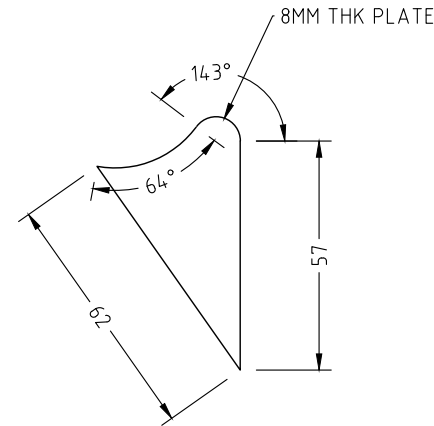
FRONT ELEVATION (1 SIDE) SCALE 1:10



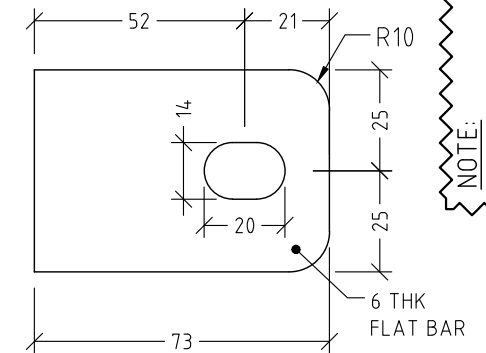
FRONT ELEVATION (OTHER SIDE) SCALE 1:10



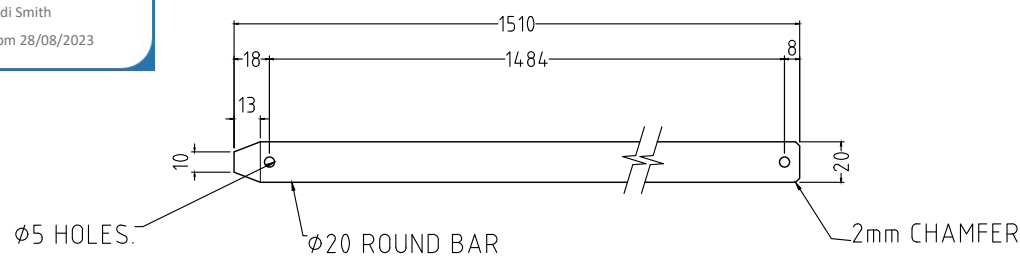
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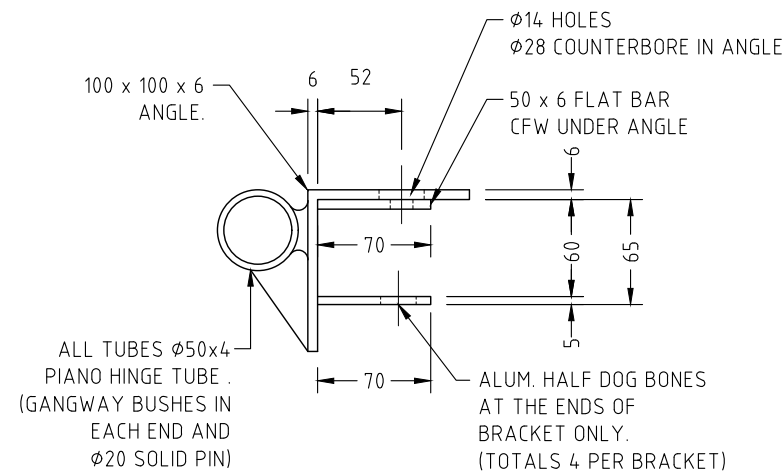
DETAIL 1 - GUSSET SCALE 1:2



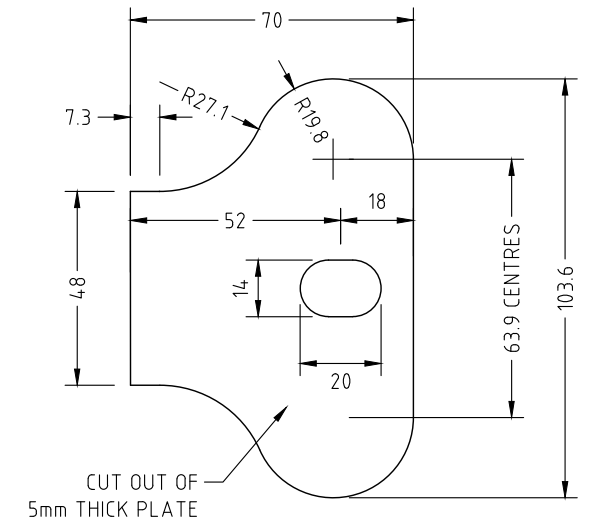
TAG PLATES SCALE 1:2



BAR PIN DETAIL SCALE 1:2



END ELEVATION SCALE 1:5



ALLY HALF DOG BONES SCALE 1:2

NOTE:
 1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. UNO.
 2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
 3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)
 4. ALL MEMBERS TO BE WELDED WITH CONTINUOUS FILLET, TYP. UNO.

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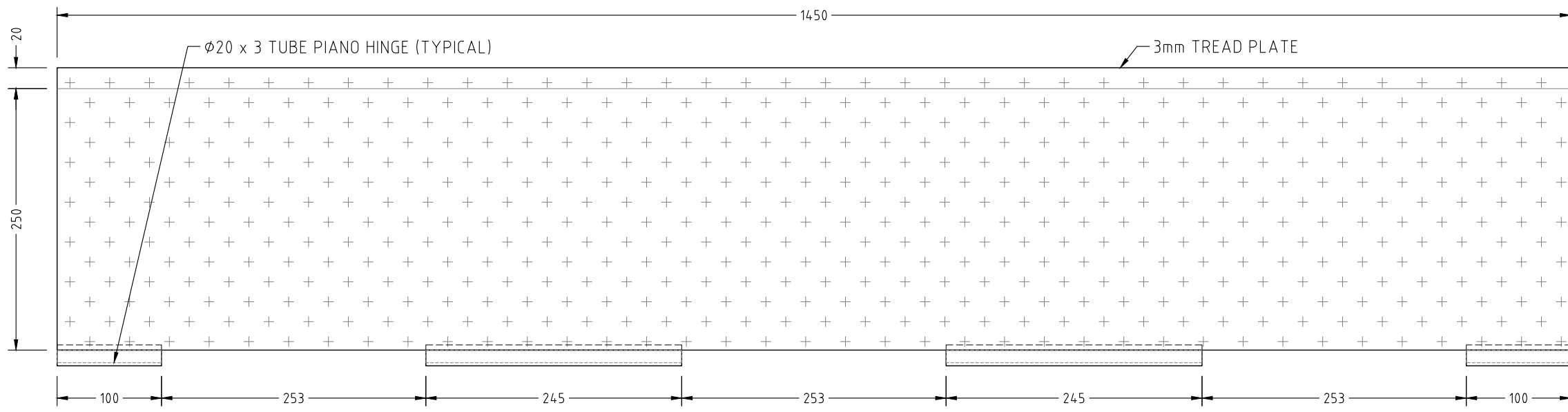
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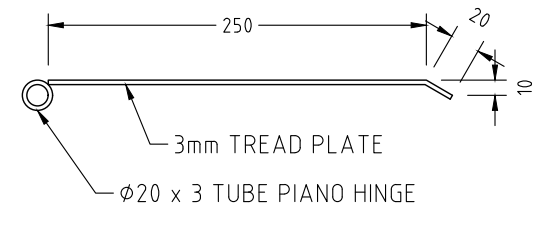
PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: UMD PIANO HINGE BRACKET CONSTRUCTION DETAILS
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

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 Praveen Moragaspiya
 RPEQ: 16451

NOTE:
 1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
 2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
 3. ALL MEMBERS TO BE WELDED WITH CONTINUOUS FILLET, TYP. U.N.O.



PLAN



ELEVATION

TRANSITION PLATE DETAIL
 SCALE 1:5

GPC Gladstone Ports Corporation
APPROVED
 Name: Trudi Smith
 Date: 2:51pm 28/08/2023

4 ONLY REQUIRED

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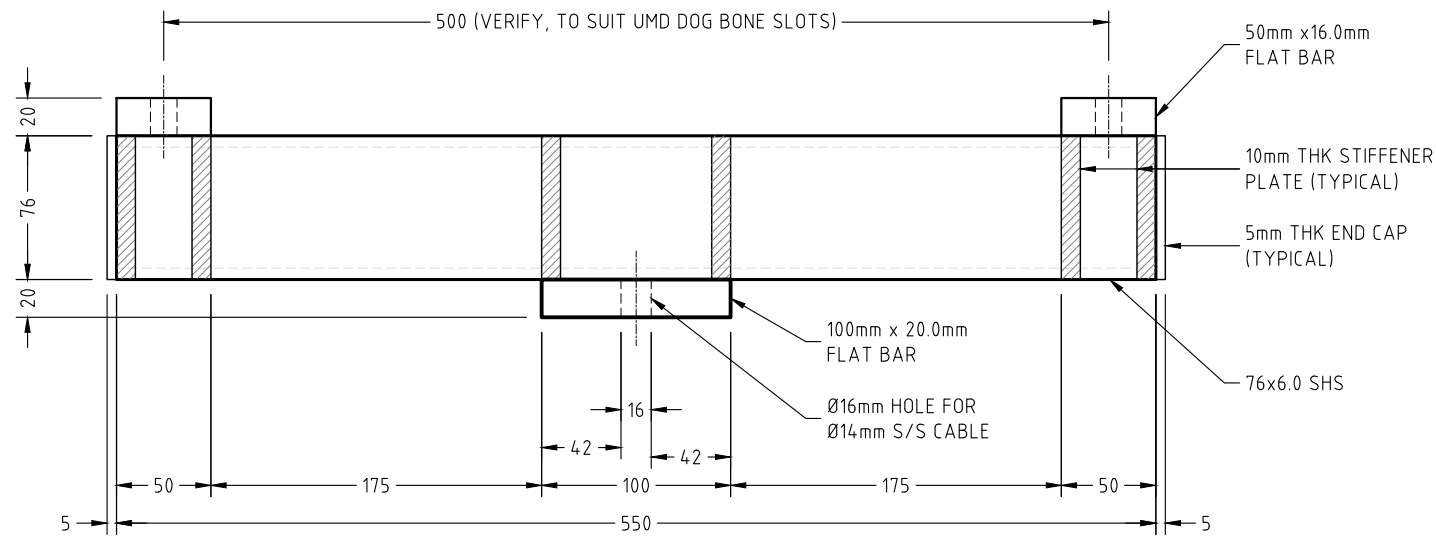
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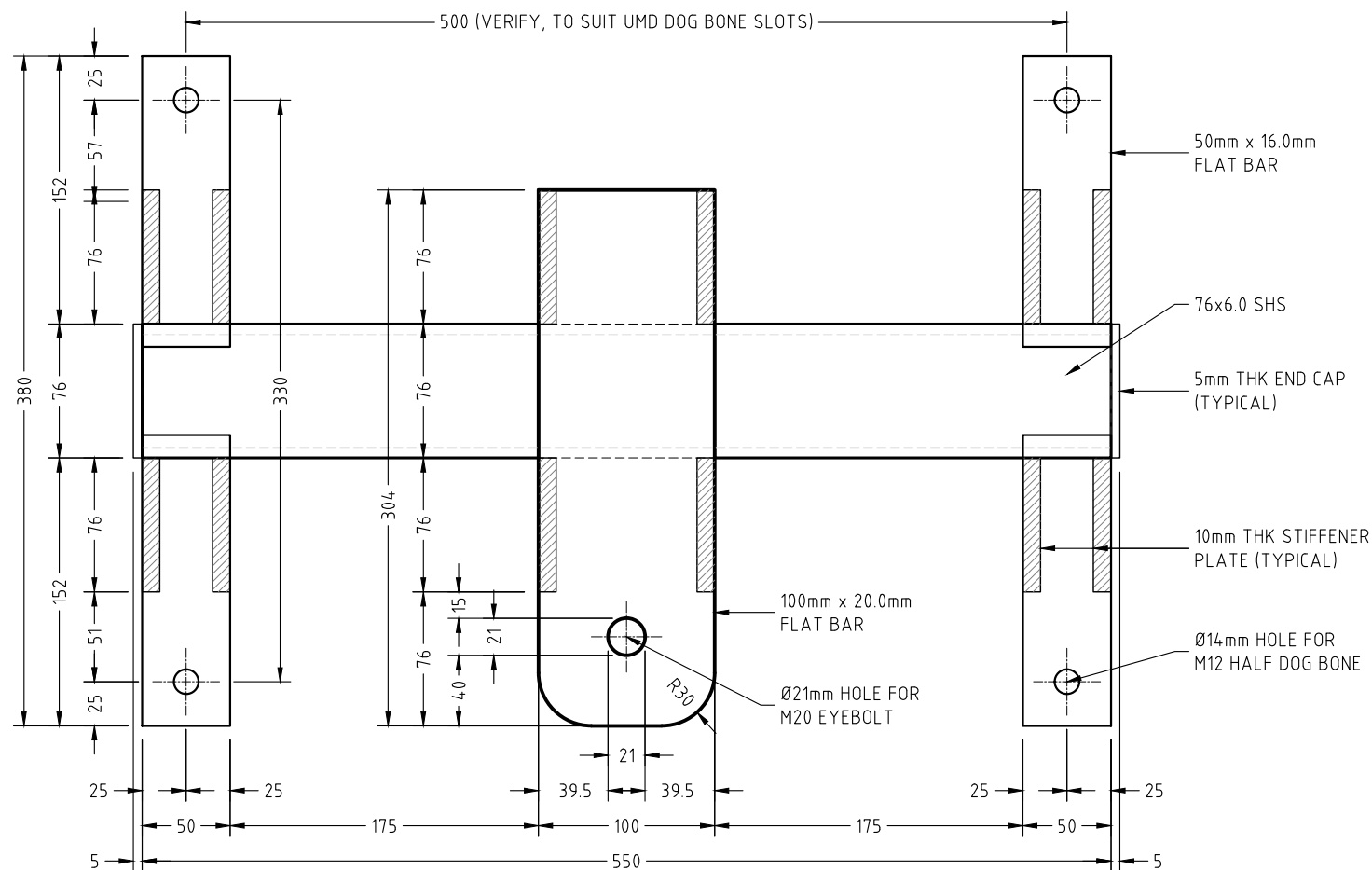
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 DRAWING NO: 19441-D08
 REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: TRANSITION PLATE COSNTRUCTION DETAILS
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 ADDRESS: QAL WALKWAY GLADSTONE
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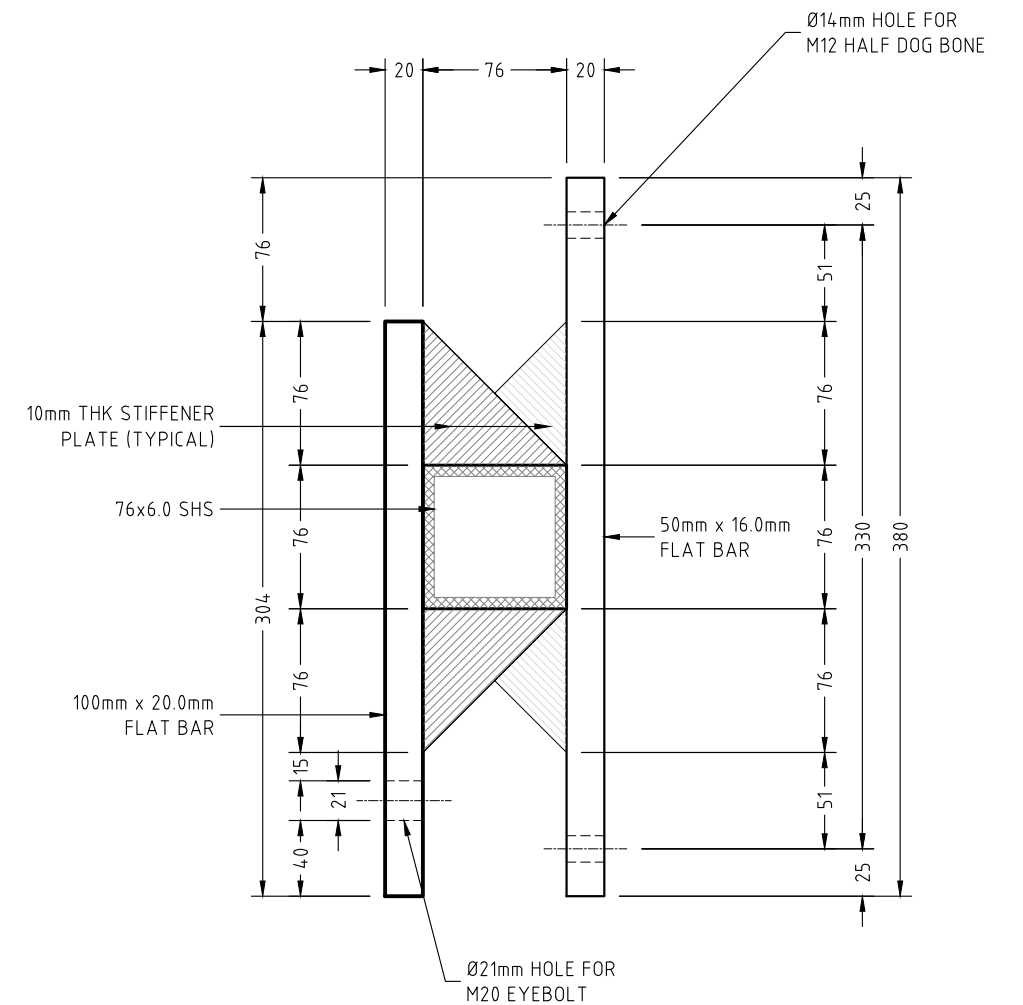


PLAN SCALE 1:4



FRONT VIEW SCALE 1:4

8 ONLY REQUIRED



END VIEW SCALE 1:4



NOTE:

1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)
4. ALL WELDS SHALL BE TYPE 5356

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Web: www.knkengineers.com.au

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Ph: (07) 5594 8200
Email: info@superiorjetties.com

DATE: 06/06/2022

DRAWING NO: 19441-D09

REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY

DRG. TITLE: UMD CABLE ANCHOR BRACKET DETAILS

CLIENT: QAL

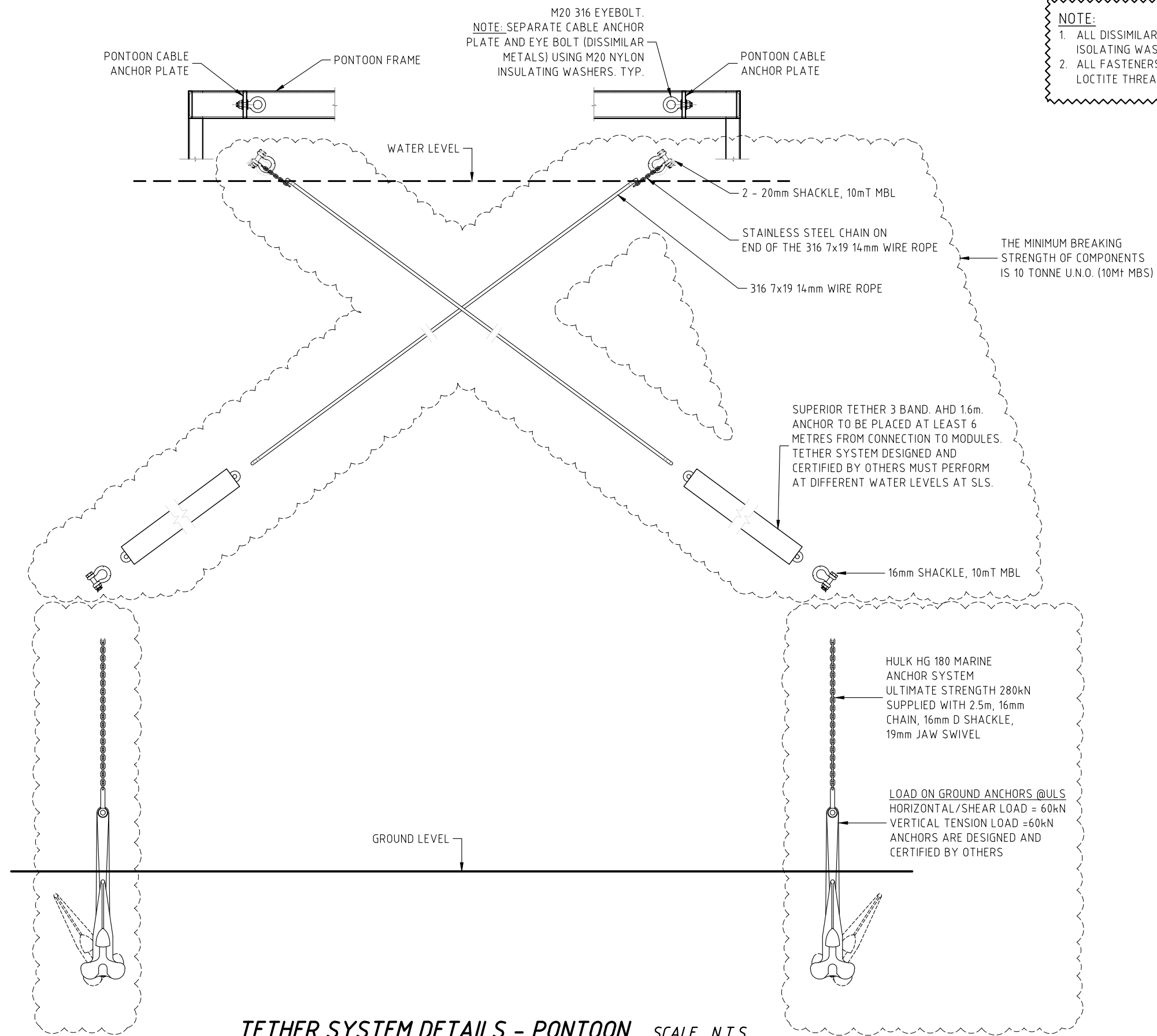
ADDRESS: QAL WALKWAY GLADSTONE

DRAWN BY: S.D.	DESIGNED: M.W.	CHECKED BY:	PAPER SIZE: A3	SCALE: AS NOTED
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CERTIFIED

Himenshu Nalindrajith
Praveen Moragaspiya

RPEQ: 16451



NOTE:
1. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
2. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)

TETHER SYSTEM DETAILS - PONTOON SCALE N.T.S.

GPC Gladstone Ports Corporation
APPROVED
Name: Trudi Smith
Date: 2:52pm 28/08/2023

No:	DATE	REVISION	DRAWN BY

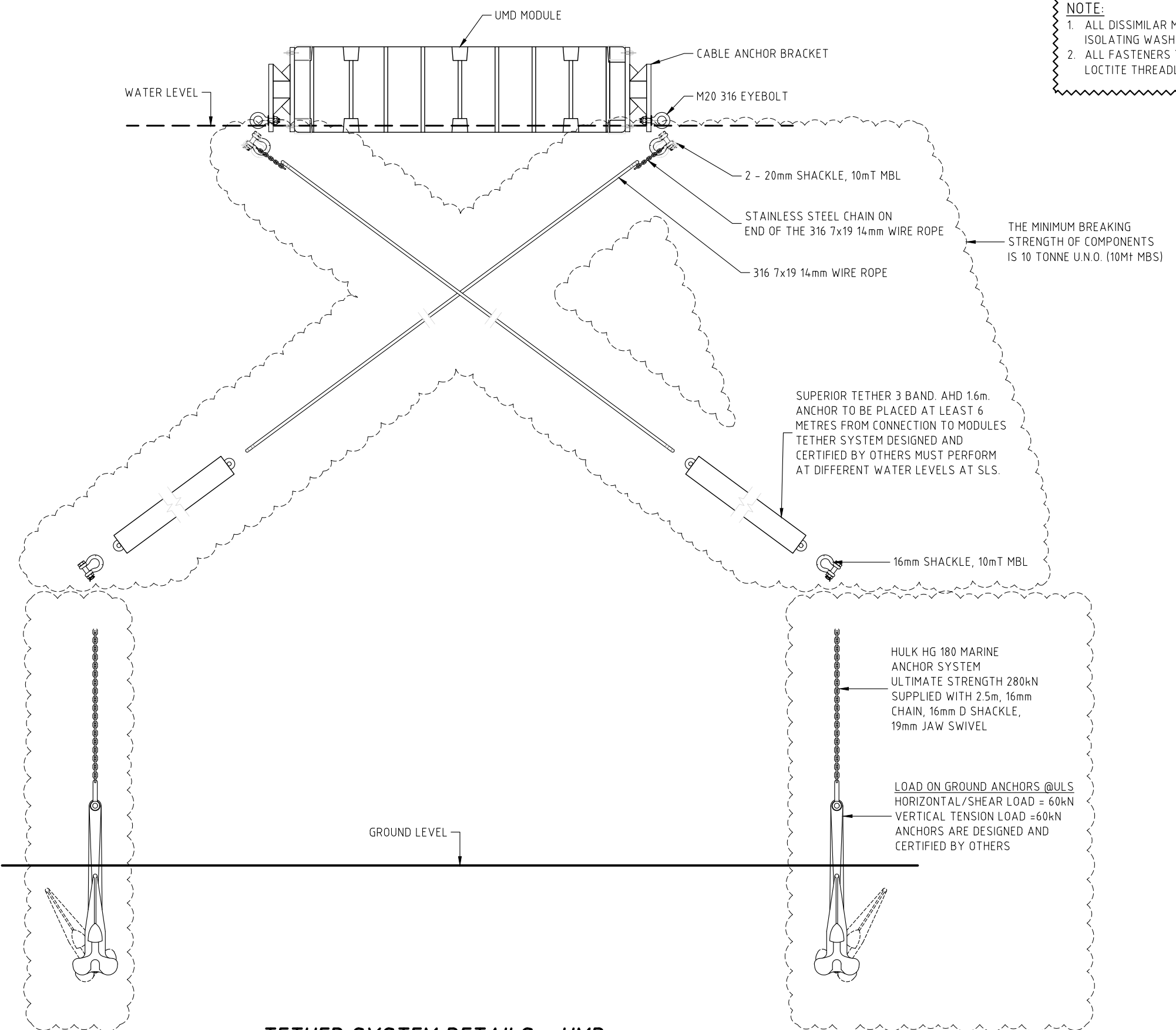
KK BEST COST-EFFECTIVE SOLUTIONS FOR BUILDINGS, BRIDGES AND MARINAS
K and K Consulting Engineers Pty Ltd
BTP (Brisbane Technology Park)
1 Clunies Ross Ct.
Eight Mile Plains, QLD 4113
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Ph: (07) 5594 8200
Email: info@superiorjetties.com

DATE 06/06/2022
DRAWING NO: 19441-D10.1
REVISION NO:

PROJECT **PROPOSED PONTOON AND WALKWAY**
DRG. TITLE **TETHER SYSTEM DETAILS - PONTOON**
CLIENT **QAL**
ADDRESS **QAL WALKWAY GLADSTONE**
DRAWN BY S.D. DESIGNED M.W. CHECKED BY PAPER SIZE A3 SCALE AS NOTED

CERTIFIED
Himenshu Nalindrajith
Praveen Moragaspiya
RPEQ: 16451



NOTE:
 1. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
 2. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)

TETHER SYSTEM DETAILS - UMD SCALE N.T.S.

Gladstone Ports Corporation

APPROVED

Name: Trudi Smith
Date: 2:52pm 28/08/2023

No:	DATE	REVISION	DRAWN BY

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Ph: (07) 5594 8200
Email: info@superiorjetties.com

DATE
06/06/2022

DRAWING NO:
19441-D10.2

REVISION NO:

PROJECT
PROPOSED PONTOON AND WALKWAY

DRG. TITLE
TETHER SYSTEM DETAILS - UMD

CLIENT
QAL

ADDRESS
**QAL WALKWAY
GLADSTONE**

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Praveen Moragaspiya

RPEQ: 16451

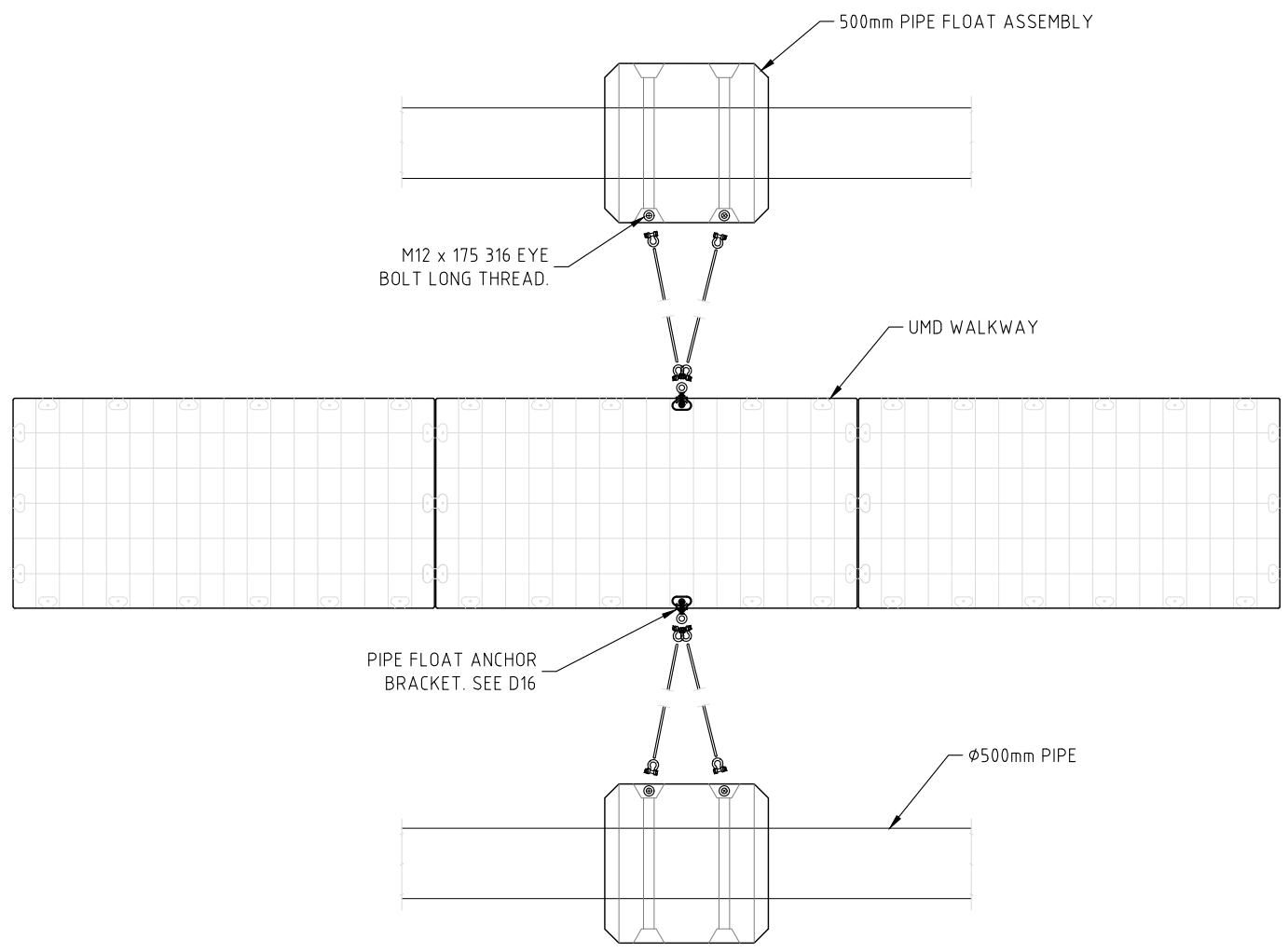
GPC Gladstone Ports Corporation

APPROVED

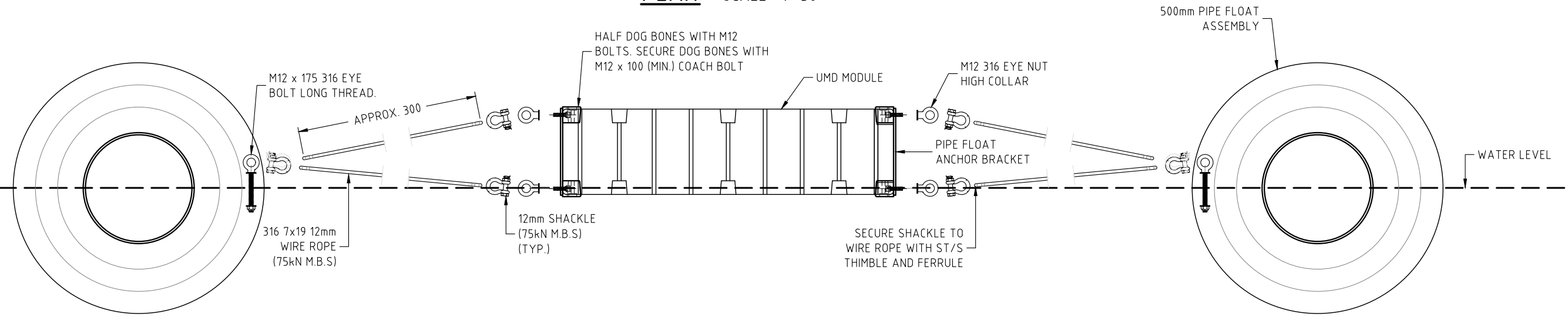
Name: Trudi Smith
Date: 2:52pm 28/08/2023

NOTE:

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2. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)



PLAN SCALE 1:50



ELEVATION SCALE 1:20

TYPICAL TETHER SYSTEM DETAILS (EXPLODED VIEW) - PIPE FLOAT

No:	DATE	REVISION	DRAWN BY

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Ph: (07) 5594 8200
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DATE: 06/06/2022

DRAWING NO: 19441-D10.3

REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY

DRG. TITLE: TETHER SYSTEM DETAILS - PIPE FLOAT

CLIENT: QAL

ADDRESS: QAL WALKWAY GLADSTONE

DRAWN BY: S.D.	DESIGNED: M.W.	CHECKED BY:	PAPER SIZE: A3	SCALE: AS NOTED
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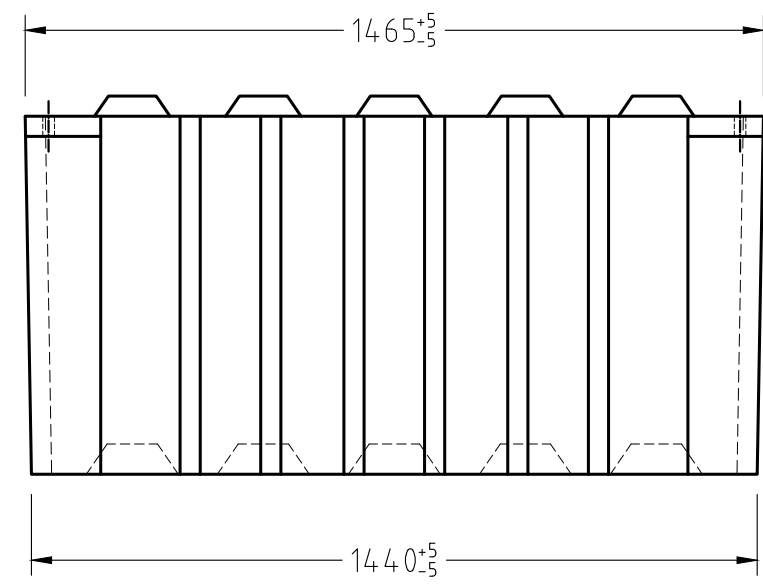
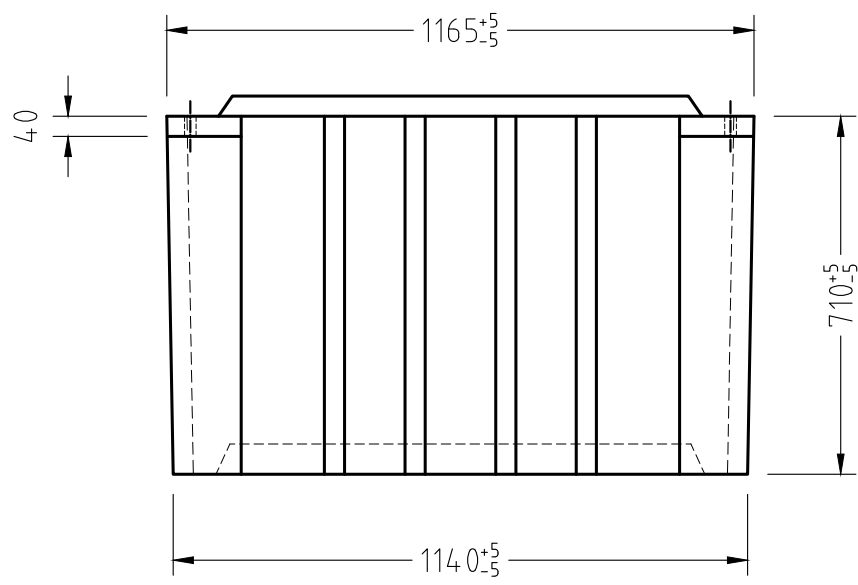
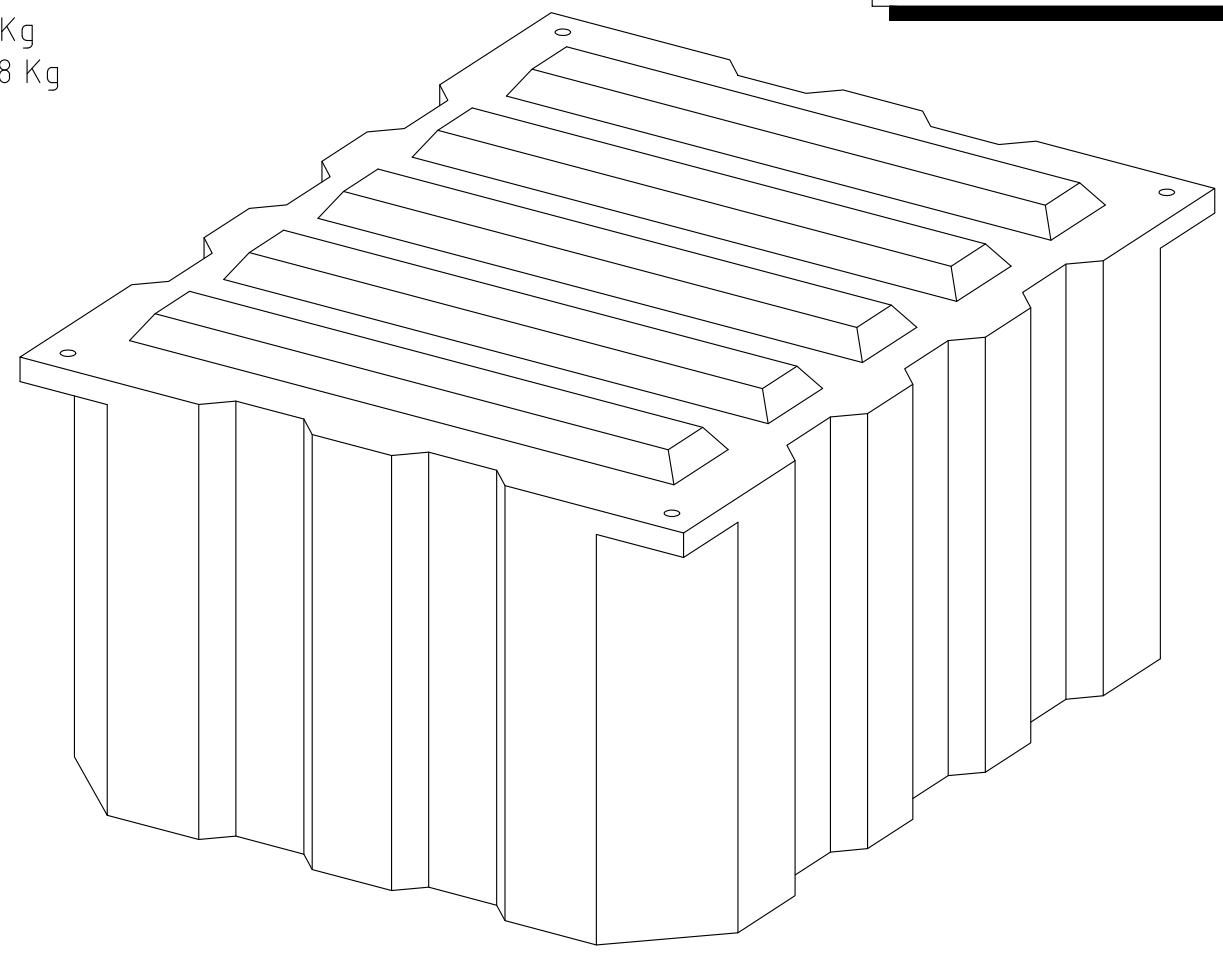
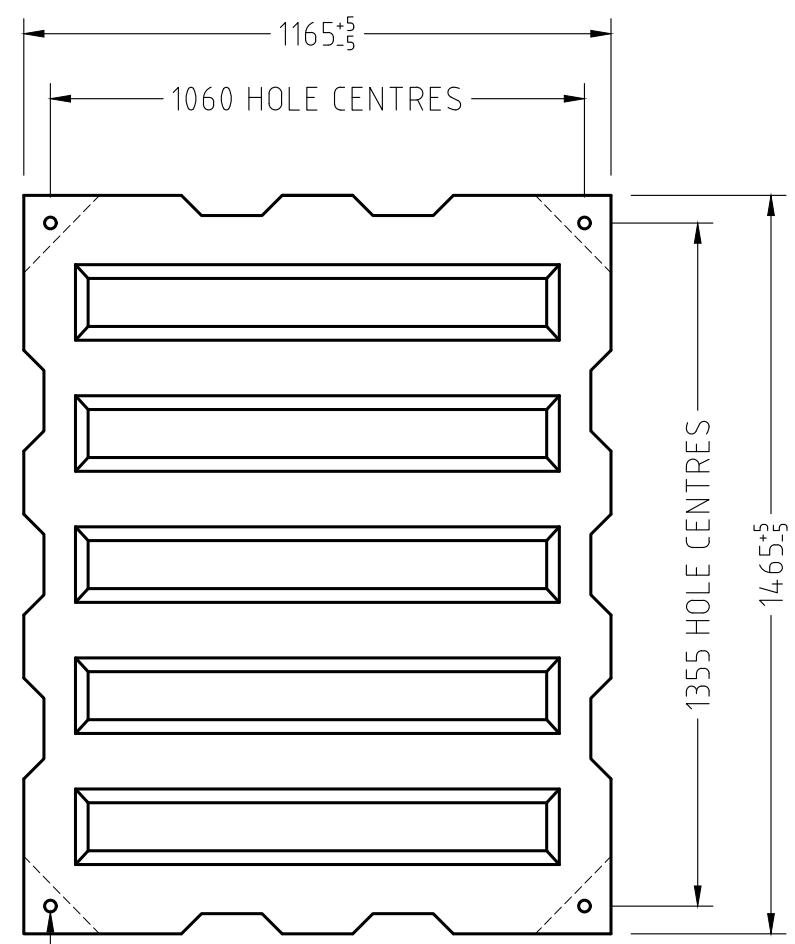
CERTIFIED

Himenshu Nalindrajith
Praveen Moragaspiya

RPEQ: 16451

6 ONLY REQUIRED

FLOATATION AREA = 1.531 m²
 FLOAT MASS STANDARD= 65 Kg
 FLOAT MASS FOAM FILLED= 98 Kg



PLEASE NOTE:
 DUE TO THE NATURE OF MOLDED PRODUCTS THERE
 MAY BE A SLIGHT CONCAVE IN TOP OF FLOAT OF +/- 10mm

No:	DATE	REVISION	DRAWN BY

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DATE: 06/06/2022
 DRAWING NO: 19441-D11
 REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: TYPICAL PONTOON FLOAT DETAILS
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

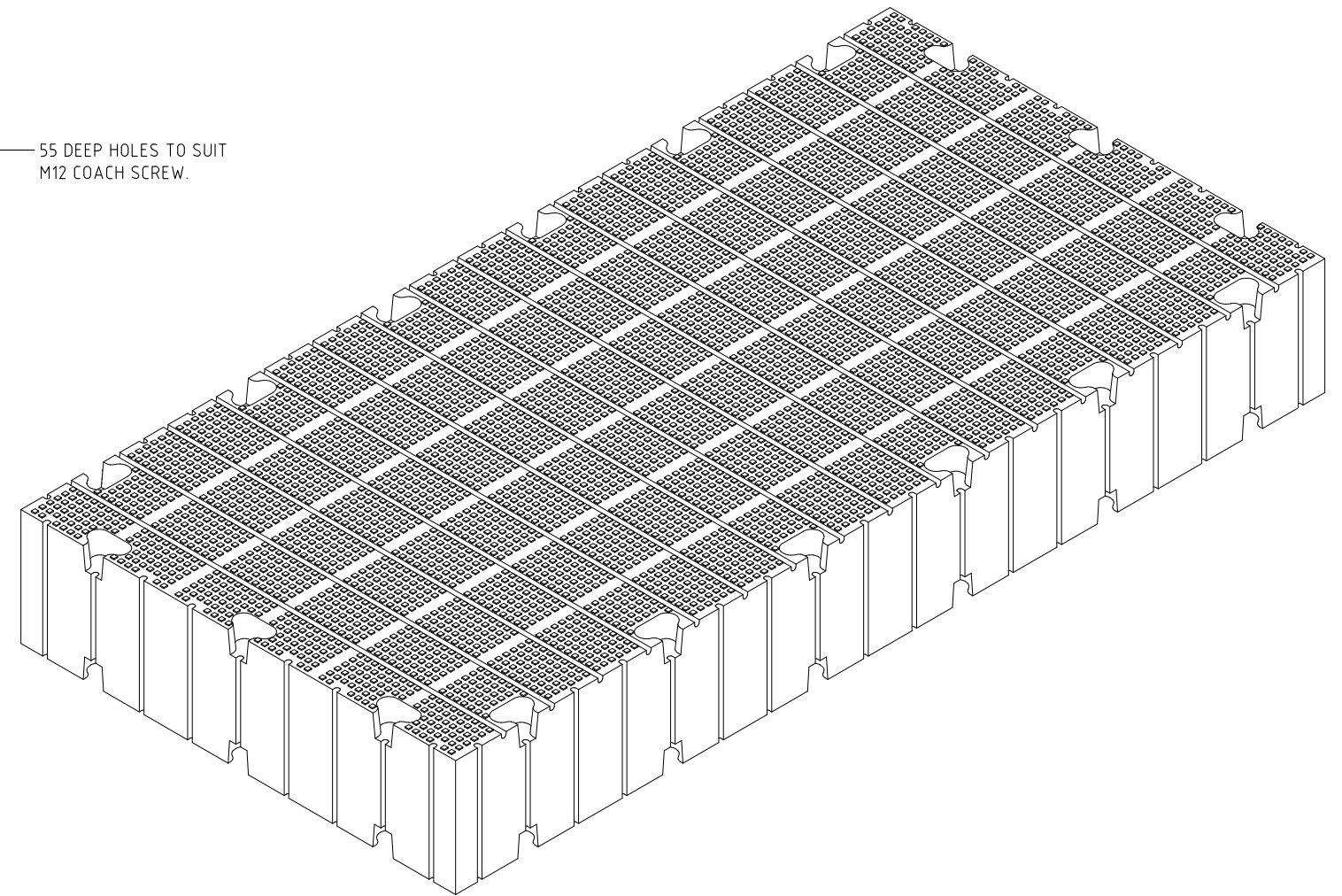
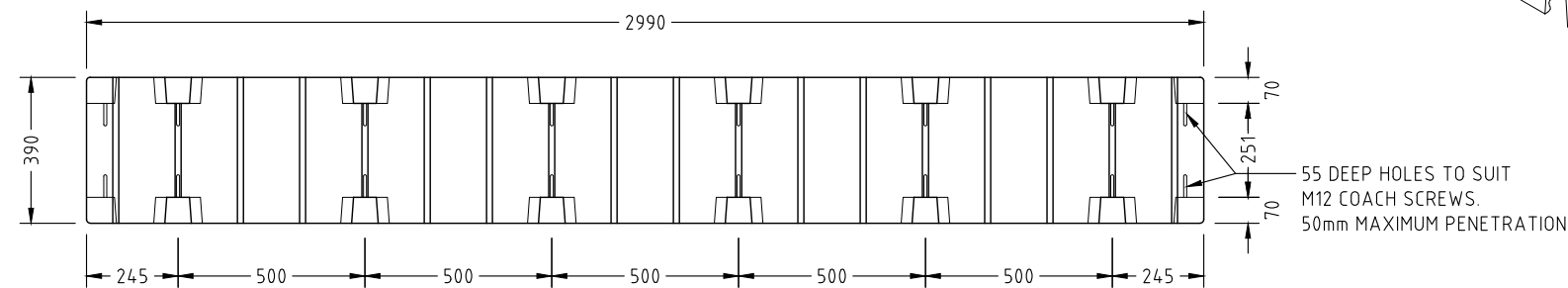
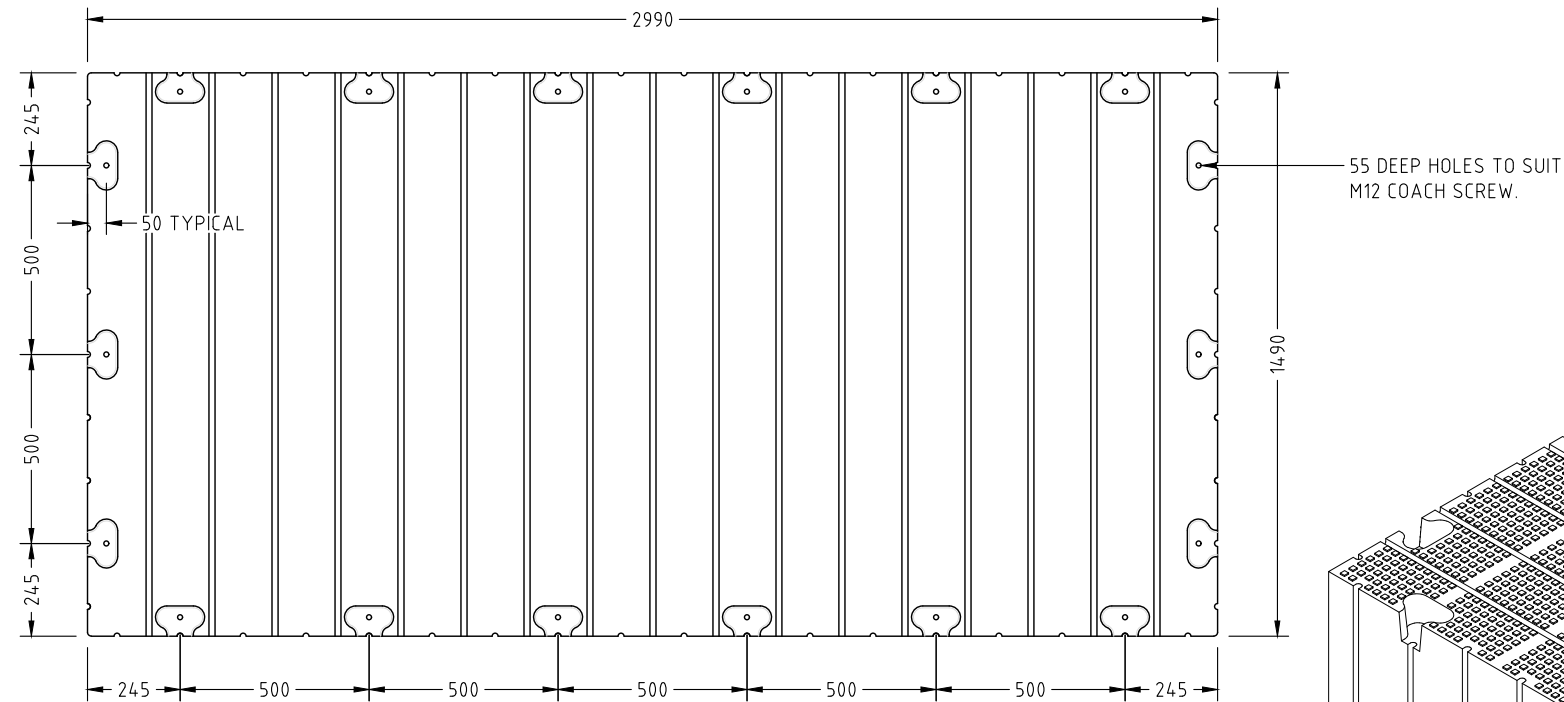
CERTIFIED
 Himenshu Nalindrajith
 Praveen Moragaspiya
 RPEQ: 16451

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS.
DIMENSIONS MAY VARY FROM THOSE INDICATED ON THIS DRAWING DUE TO VARYING TEMPERATURES DURING THE ROTO-MOLDING PROCESS
- FLOAT SPECIFICATIONS

FLOAT NAME:	3.0m x 1.5m UMD MODULE
TOP DECK SLIP RESISTANCE	COMPLIES WITH AS-NZS 4586-2004 (CSIRO CERTIFIED)
MASS (DEAD LOAD)	175 kg
APPROX DRAFT (DEAD LOAD)	40mm
MAX. LIVE LOAD (EVENLY DISTRIBUTED)	2.5 kPa (55mm RESERVE BUOYANCY)
APPROX DRAFT (DEAD & LIVE LOAD)	340mm

16 ONLY REQUIRED



ALL INTERNAL & EXTERNAL CORNERS AND EDGES HAVE A RADIUS OF VARYING DIMENSIONS AND ARE NOT SHOWN ON THIS DRAWING

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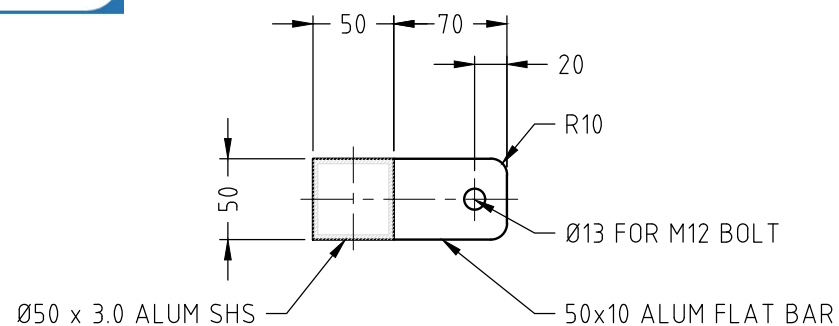
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 DRAWING NO: 19441-D12
 REVISION NO:

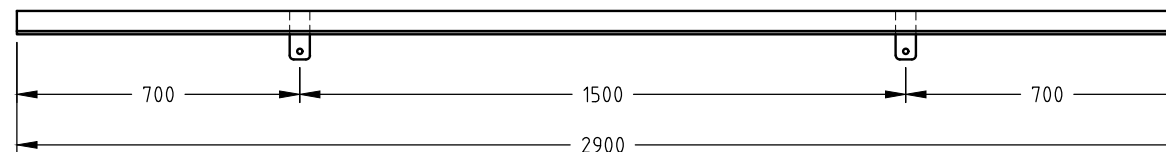
PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: UMD MODULE DETAILS
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE

DRAWN BY: S.D.	DESIGNED: M.W.	CHECKED BY:	PAPER SIZE: A3	SCALE: AS NOTED
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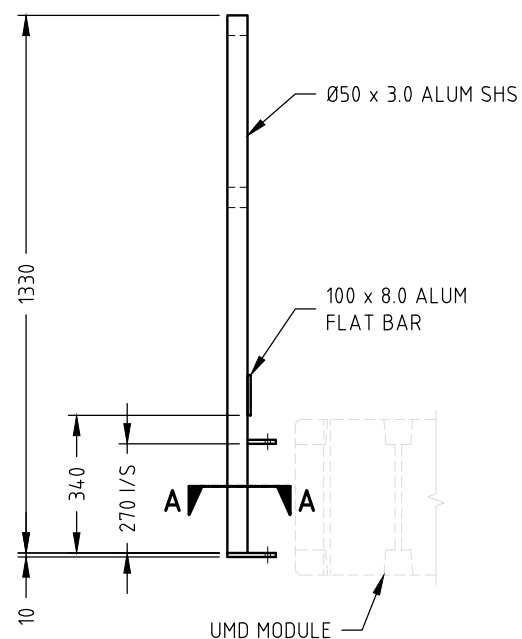
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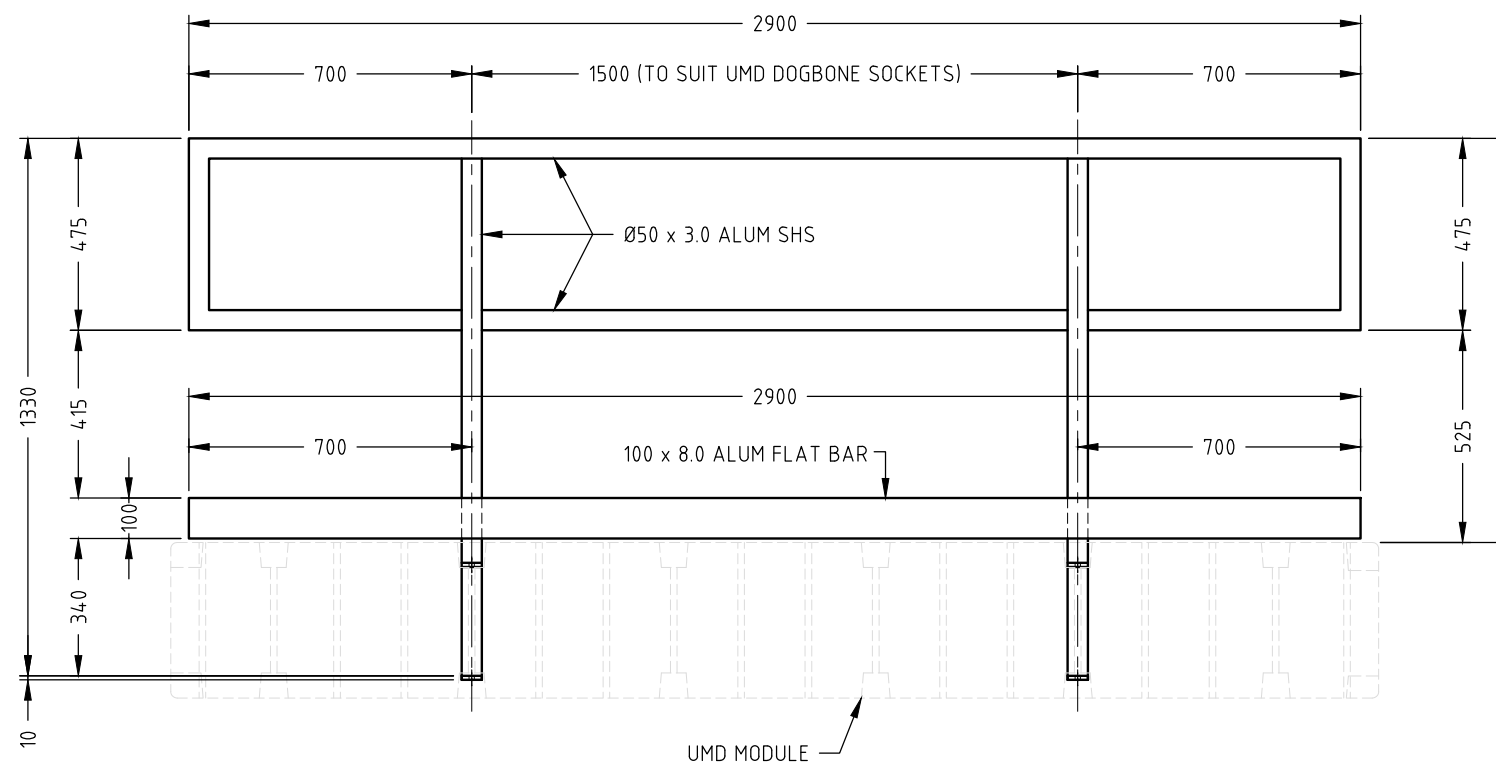
SECTION A-A SCALE 1:20



PLAN VIEW SCALE 1:20



SIDE VIEW SCALE 1:20



FRONT VIEW SCALE 1:20

NOTE:

1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
2. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
3. ALL FASTENERS TO BE 316 ST/S AND SECURED WITH LOCTITE THREADLOCKING ADHESIVE (OR SIMILAR)
4. ALL WELDS TO BE 4mm CFW U.N.O.
5. HANDRAIL TO BE WELDED TO CONNECTION BRACKETS

No.	DATE	REVISION	DRAWN BY

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DATE
06/06/2022

DRAWING NO:
19441-D13

REVISION NO:

PROJECT
PROPOSED PONTOON AND WALKWAY

DRG. TITLE
UMD HANDRAIL CONSTRUCTION DETAILS

CLIENT
QAL

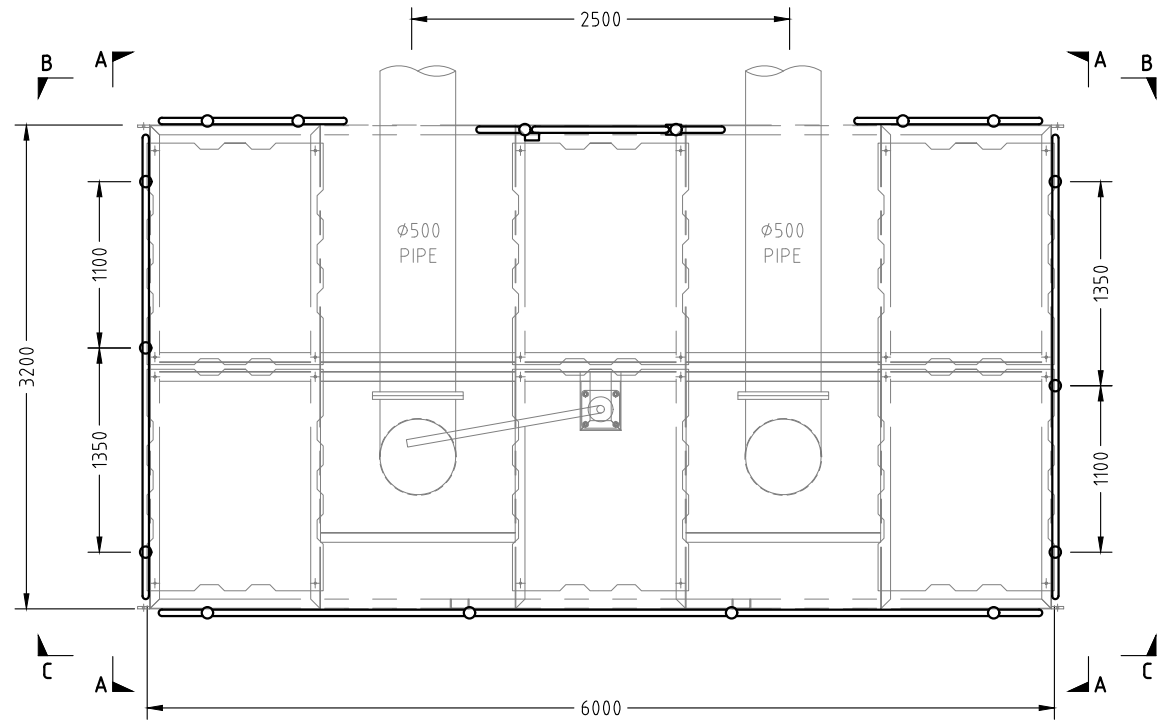
ADDRESS
**QAL WALKWAY
GLADSTONE**

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CERTIFIED

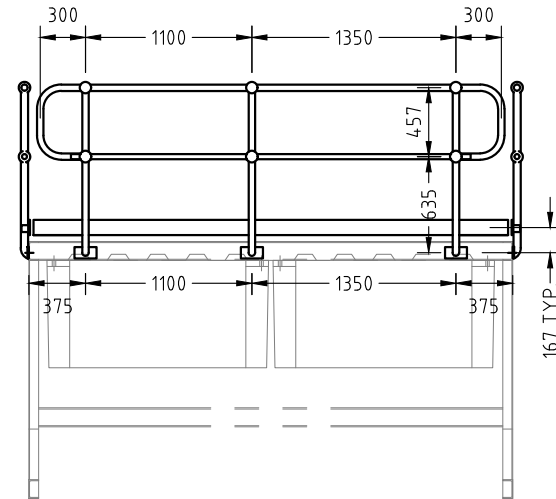
Himenshu Nalindrajith
Praveen Moragaspiya

RPEQ: 16451

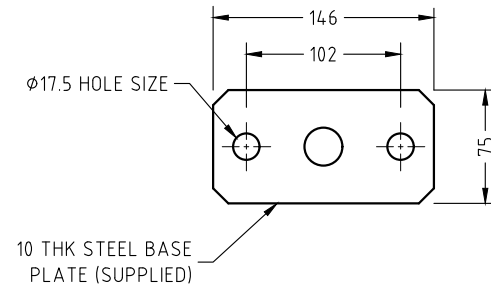


PLAN SCALE 1 : 50

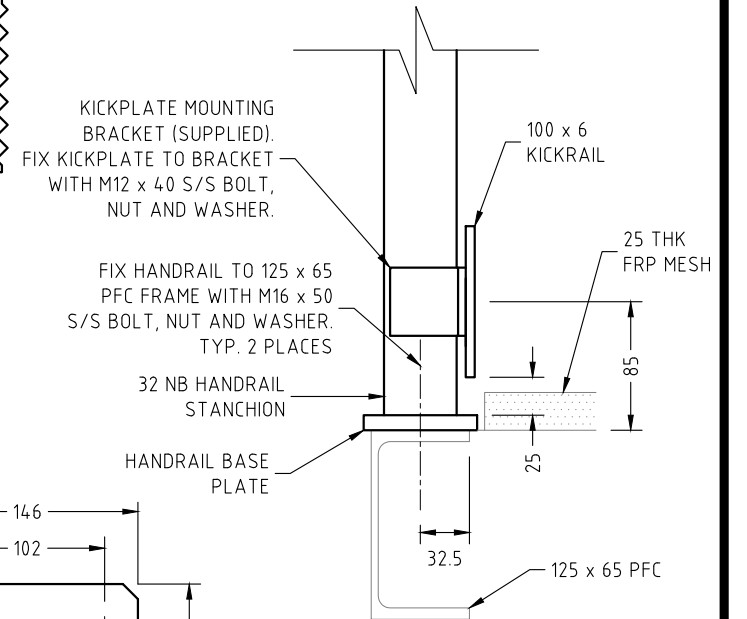
NOTE:
 1. ALL DISSIMILAR METALS MUST BE SEPARATED USING ISOLATING WASHERS OR SLEEVES.
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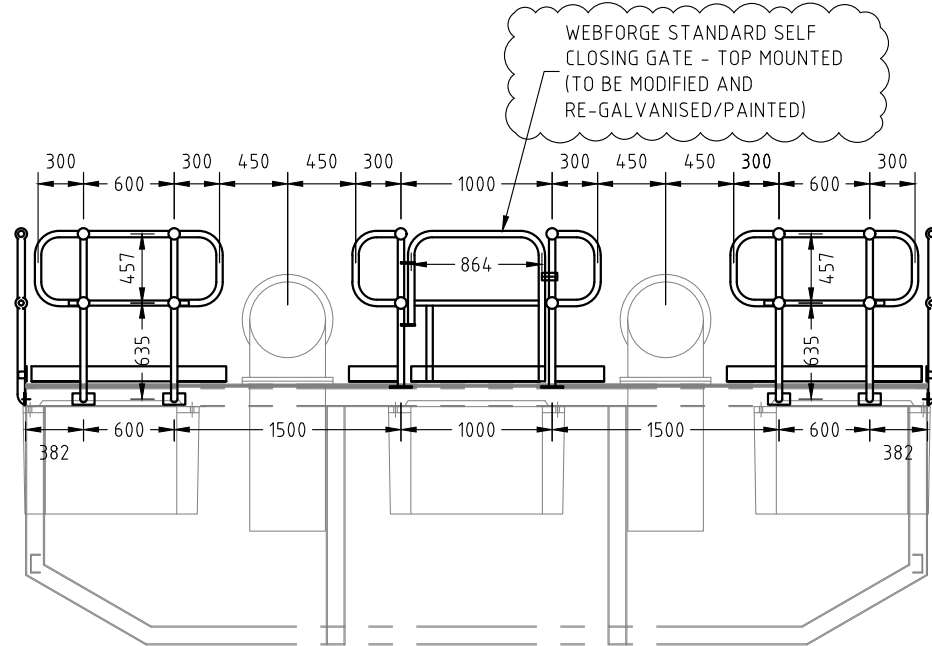
SECTION A-A SCALE 1 : 50



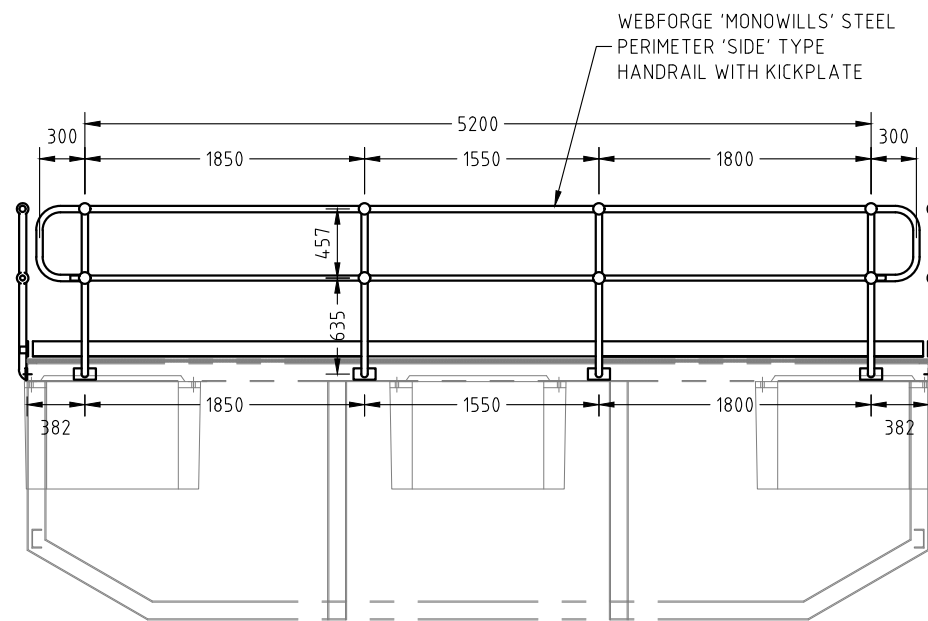
BASE PLATE DETAIL



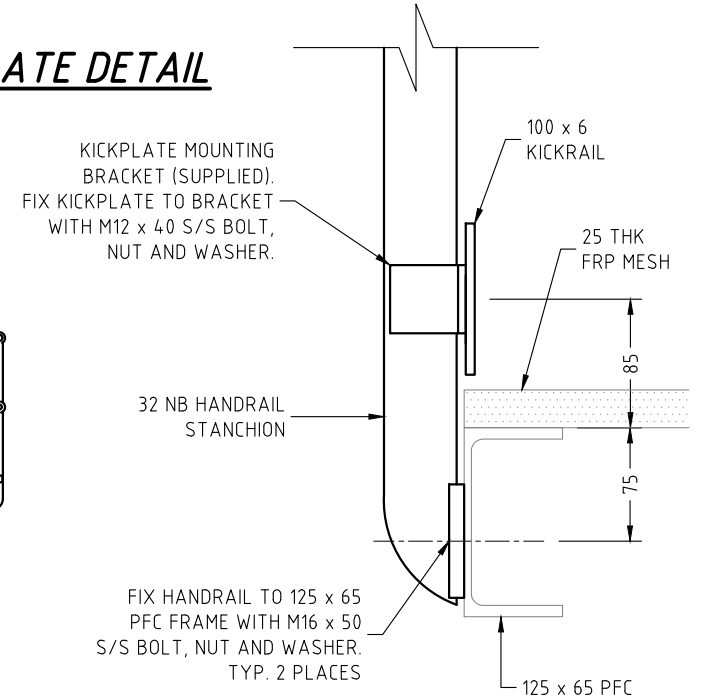
ELEVATION ON SELF CLOSING GATE



SECTION B-B SCALE 1 : 50



SECTION C-C SCALE 1 : 50



ELEVATION ON TYP. HANDRAIL

TYPICAL FIXING DETAILS
SCALE 1 : 5



No.	DATE	REVISION	DRAWN BY
A	27.10.2022	GATE TOP MOUNTED & POST POSITIONS CONFIRMED	S.D.

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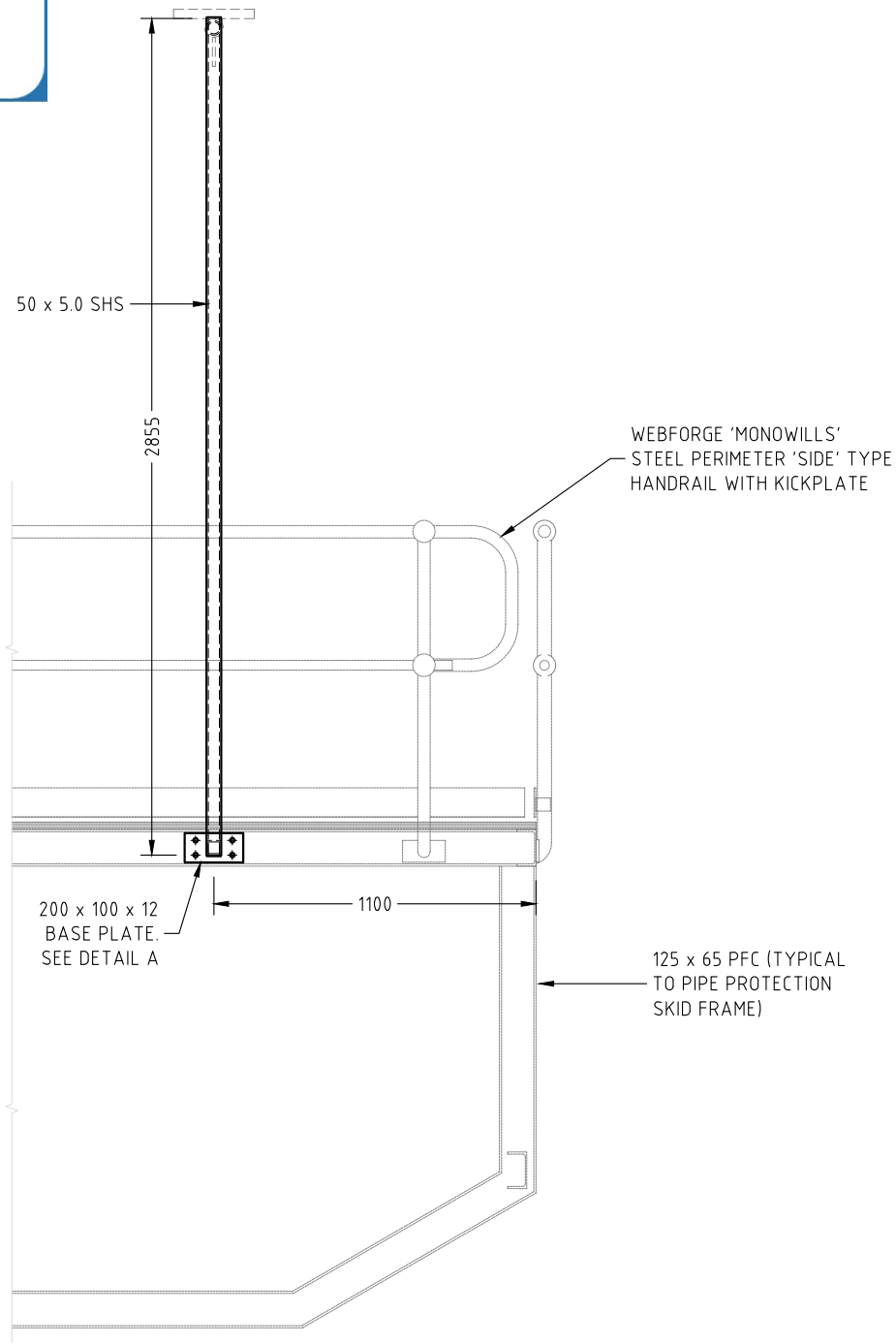
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DATE: 06/06/2022
 DRAWING NO: 19441-D14
 REVISION NO: A

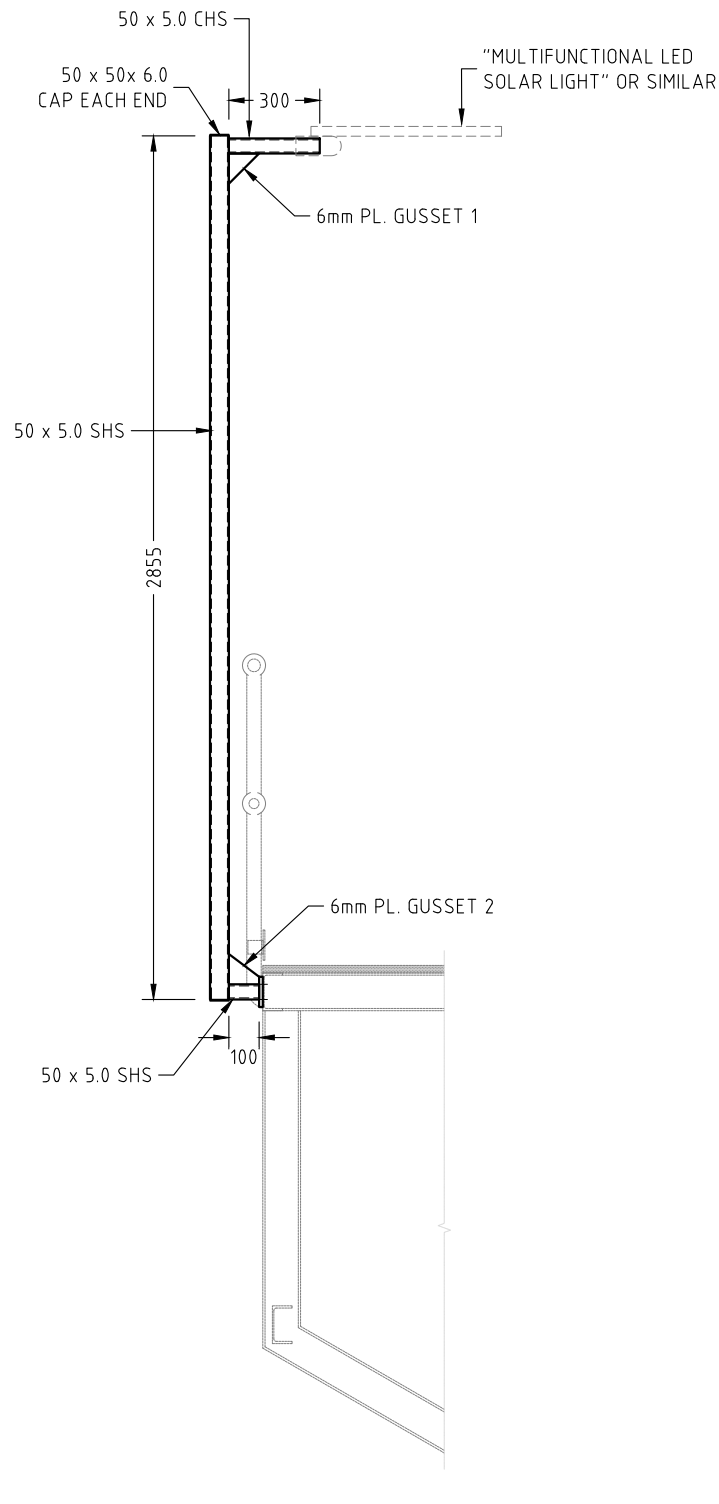
PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: PONTOON GENERAL ARRANGEMENT
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

CERTIFIED
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 Praveen Moragaspiya
 RPEQ: 16451

Gladstone Ports Corporation
APPROVED
 Name: Trudi Smith
 Date: 2:53pm 28/08/2023

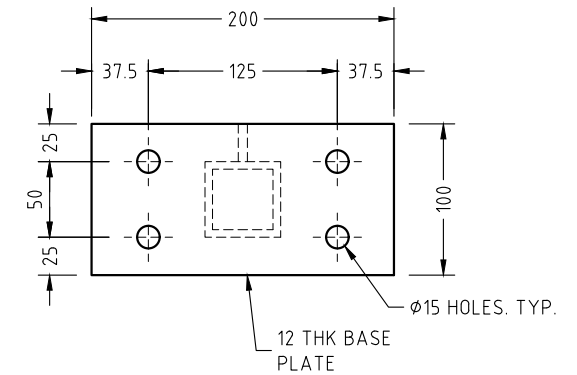


FRONT VIEW SCALE 1:25

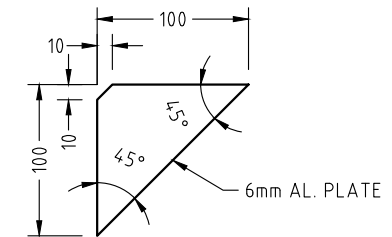


SIDE VIEW SCALE 1:25

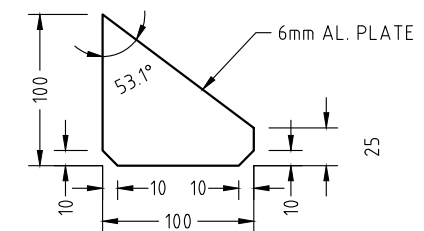
1 ONLY REQUIRED



DETAIL - A SCALE 1:5



6mm PLATE GUSSET 1 SCALE 1:5



6mm PLATE GUSSET 2 SCALE 1:5

NOTE:

1. ALL COMPONENTS TO BE MARINE GRADE ALUMINIUM TYP. U.N.O.
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No:	DATE	REVISION	DRAWN BY

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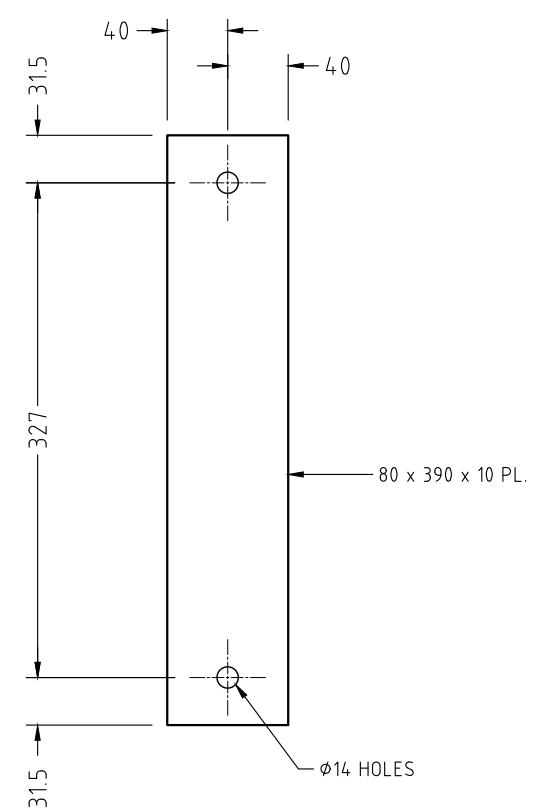
DATE: 06/06/2022
 DRAWING NO.: 19441-D15
 REVISION NO.:

PROJECT: PROPOSED PONTOON AND WALKWAY
 DRG. TITLE: SOLAR LIGHT POST CONSTRUCTION DETAIL
 CLIENT: QAL
 ADDRESS: QAL WALKWAY GLADSTONE
 DRAWN BY: S.D. DESIGNED: M.W. CHECKED BY: PAPER SIZE: A3 SCALE: AS NOTED

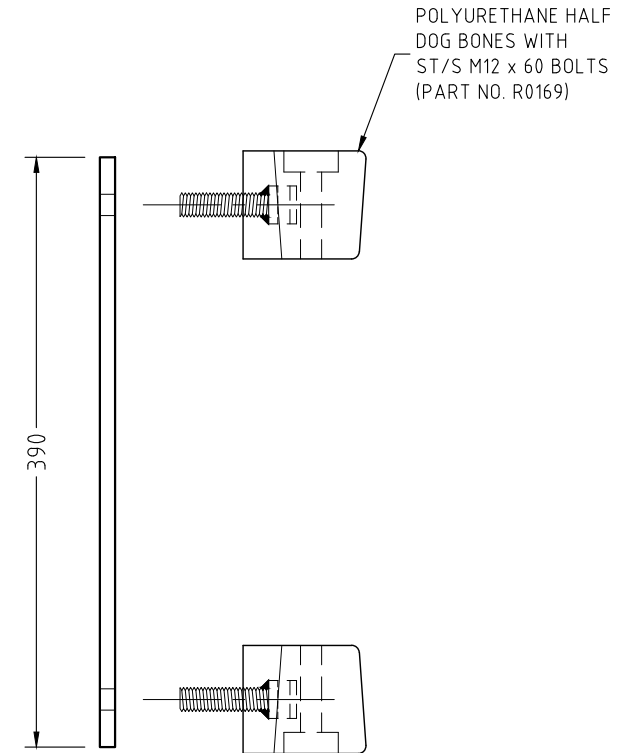
CERTIFIED
 Himenshu Nalindrajith
 Praveen Moragaspiya
 RPEQ: 16451

NOTE:

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FRONT ELEVATION SCALE 1 : 5



SIDE ELEVATION SCALE 1 : 5

8 ONLY REQUIRED

Gladstone Ports Corporation

APPROVED

Name: Trudi Smith
Date: 2:53pm 28/08/2023

No:	DATE	REVISION	DRAWN BY

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DATE: 06/06/2022

DRAWING NO: 19441-D16

REVISION NO:

PROJECT: PROPOSED PONTOON AND WALKWAY
DRG. TITLE: UMD PIPE FLOAT ANCHOR BRACKET DETAILS

CLIENT: QAL
ADDRESS: QAL WALKWAY GLADSTONE

DRAWN BY: S.D.	DESIGNED: M.W.	CHECKED BY:	PAPER SIZE: A3	SCALE: AS NOTED
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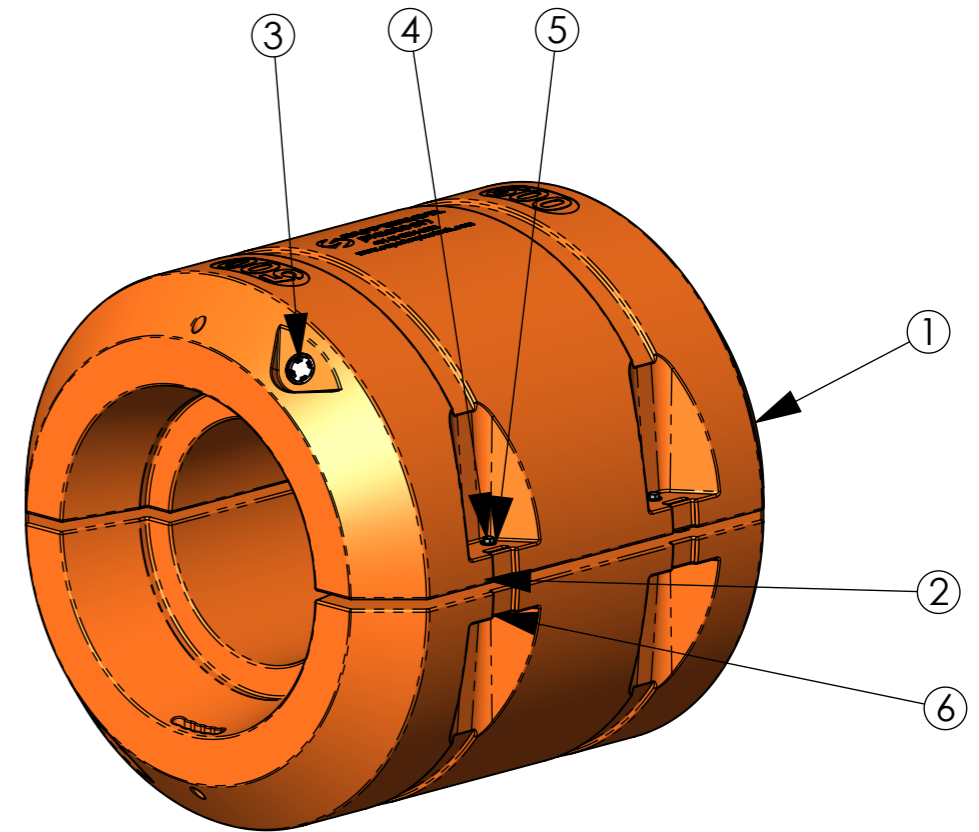
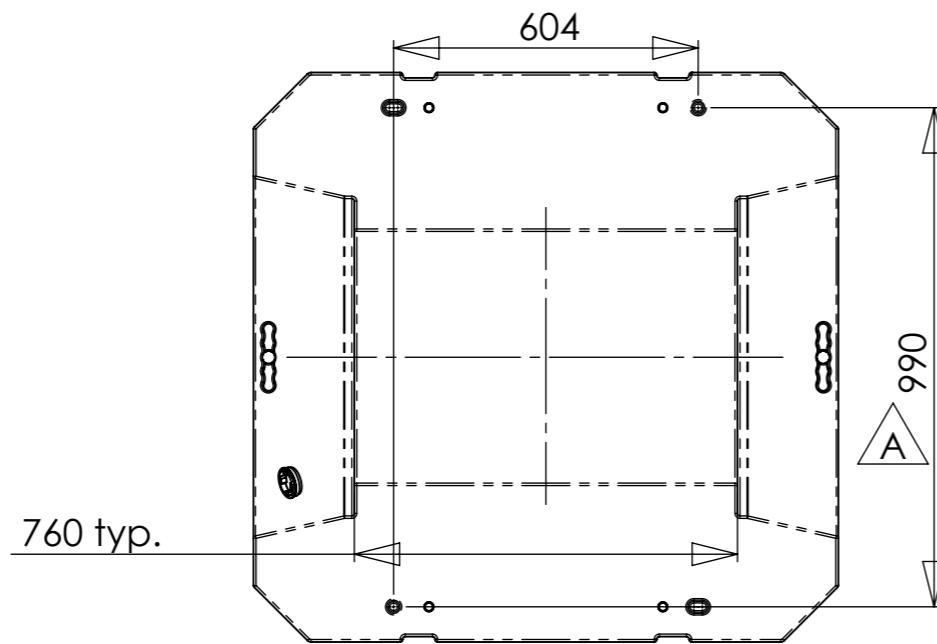
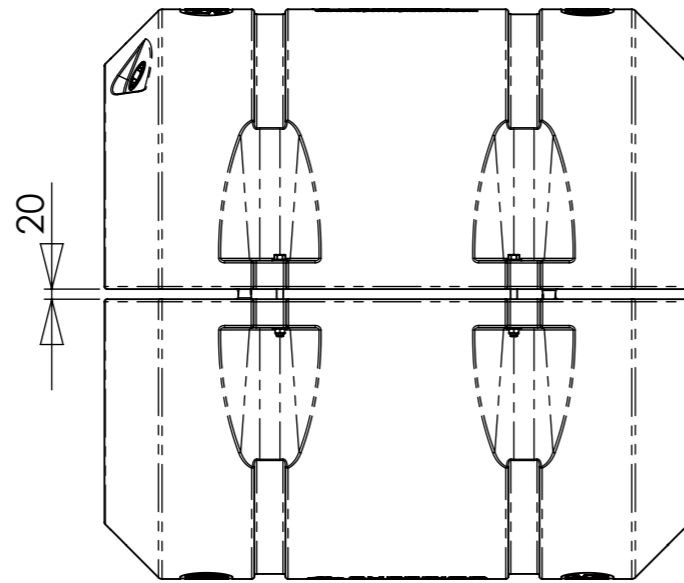
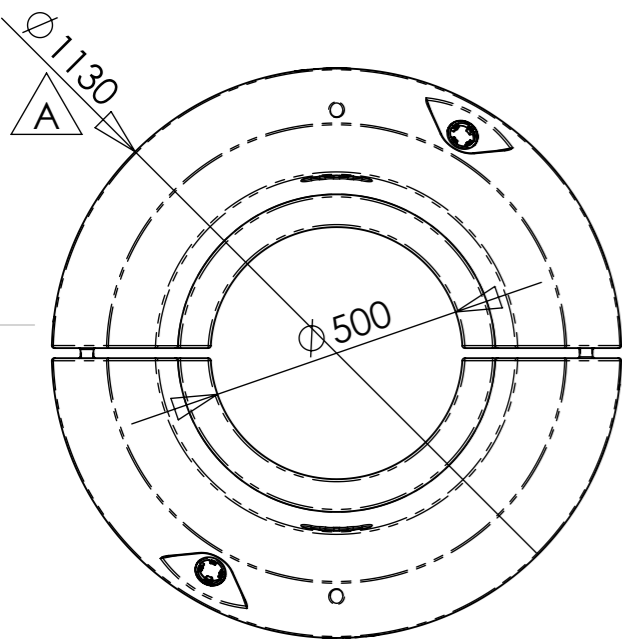
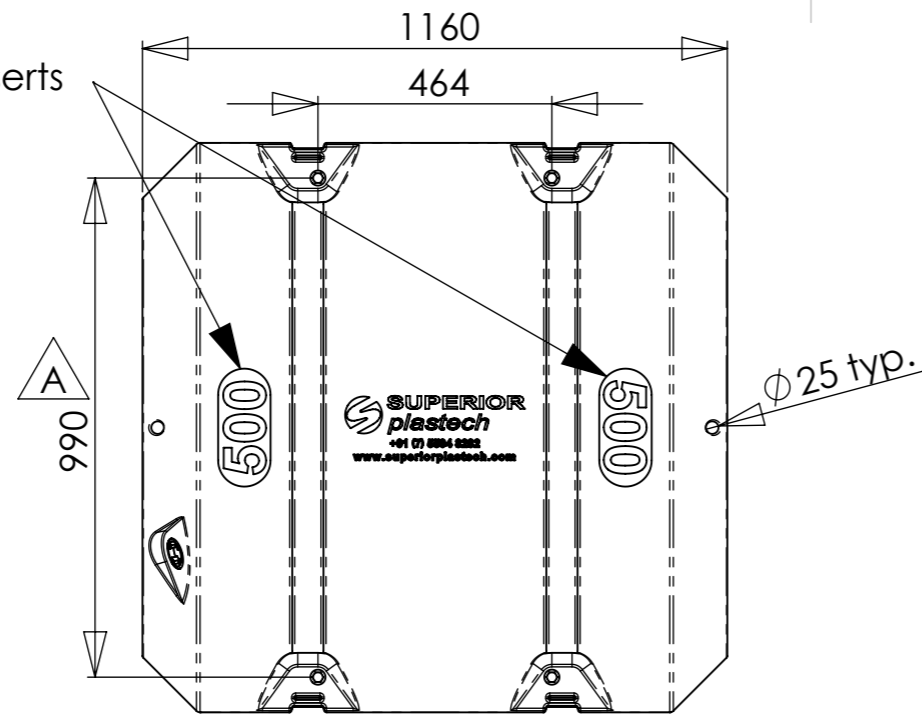
CERTIFIED

Himenshu Nalindrajith
Praveen Moragaspiya

RPEQ: 16451

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	RFQ	RFQ issue	28-2-12	EHS
	A	Reduce OD, bolt holes & boss centers	29-5-12	EHS

Interchangeable "SIZE" inserts



Reserve Buoyancy = 729kg. (9mm wall thickness & total assembly weight of 71kg.)
 Reserve Buoyancy = 720kg. (Total assembly weight of 80kg.)

ITEM NO.	DESCRIPTION	MATERIAL	PartNo	REVISION	QTY.
6	1/2" GALVANIZED NUT	AISI 1020		-	4
5	Washer 1/2" x 30 x 2	AISI 1020		-	8
4	1/2" x 150 GALVANIZED BOLT	AISI 1020		-	4
3	2in. Threaded Bung Assy.				2
2	PF Bolt Tubes	AISI 316 Annealed Stainless Steel Bar (SS)	19.05 x 1.6	draft	8
1	Pipe Float	PE Medium Density	500 mm	A	2

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH: Technical polish
 TOLERANCES:
 LINEAR: ± 0.2 mm
 ANGULAR: ± 0.5°

FINISH:

NO SHARP EDGES OR CORNERS

DO NOT SCALE DRAWING

REVISION **A**

ai engineering pty. ltd.

TITLE:
Pipe Float Assembly

NAME: Manny

SIGNATURE: _____ DATE: _____

COLOUR: _____ MATERIAL: _____

DWG NO. **500 mm**

WEIGHT: 70990.39 gr.

SCALE: 1:15

SHEET 1 OF 1

