PROPOSED LIGHT TOWER
for
MAKOGAI ISLAND

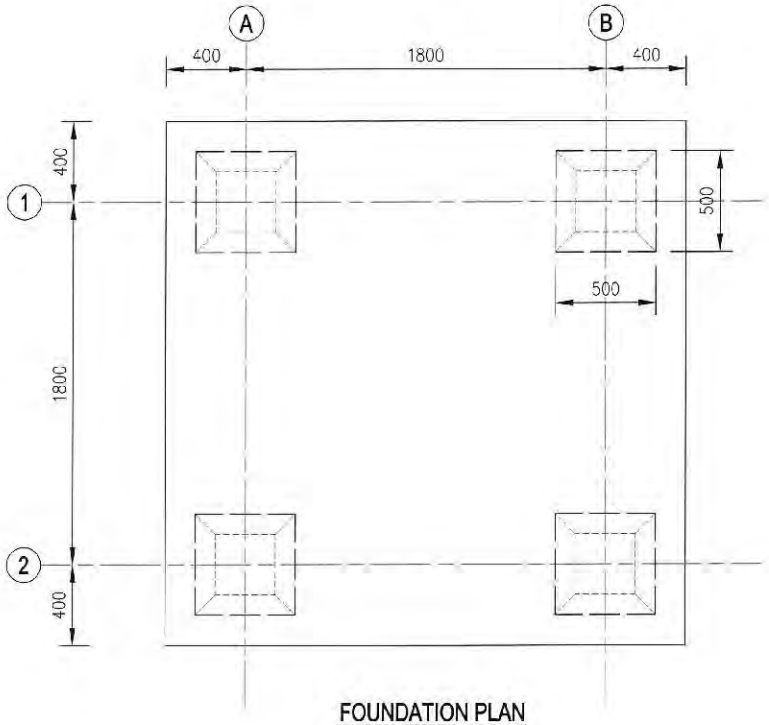
drawing schedule

STRUCTURAL DRAWINGS :

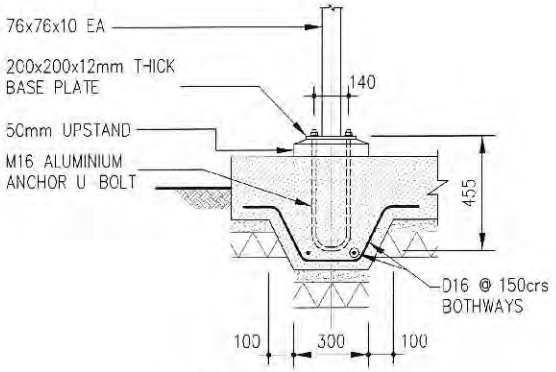
01 - FOUNDATION PLAN
02 - FLOOR PLAN
03 - ELEVATION
04 - FRAMING ELEVATION
05 - LIGHT STAND DETAIL
06 - LADDER DETAIL
07 - DOOR DETAIL & PLATE DETAILS

structures section

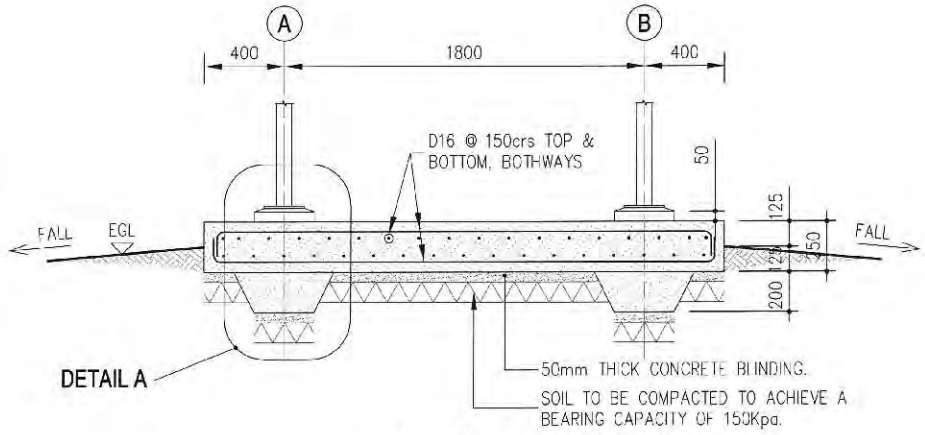
MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES
NASILIVATA HOUSE LEVEL - 2 , 87 RATU MARA ROAD
SAMABULA. SUVA, FIJI ISLANDS



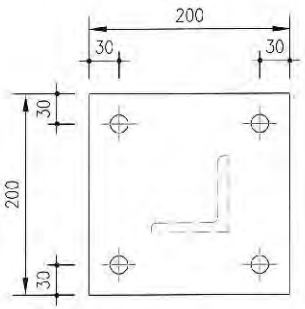
FOUNDATION PLAN
SCALE 1:25



DETAIL A
SCALE 1:20



CROSS SECTION
SCALE 1:25



(ø'2mm THICK ALUMINIUM PLATE DRILLED WITH 4No. ø18mm HOLES TO SUITE 16mm HOLDING DOWN BOLTS)

BASE PLATE
SCALE 1:5

Ministry of Public Works, Meteorological Services & Transport
Structures Section
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Signi..... Date 05/03/25

Notes

1. SITE LOCATION
   LAT 17° 26.97'S
   LONG 178°57.73'E

2. ALL DIMENSION ARE IN MM OR ELSE OTHERWISE STATED.

3. DENOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSION.

4. ALL CONCRETE ELEMENTS TO HAVE A MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH (f'c) OF 30MPa @ 28 DAYS.

5. CONCRETE BLINDING COMPRESSIVE TO BE MINIMUM 18MPa.

6. SOIL UNDER COLUMN PADS TO BE COMPACTED TO ACHIEVE A BEARING CAPACITY OF 150KPa.

no.	date	details

amendments

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approval

approval

client
MARITIME SAFETY AUTHORITY of FIJI
LEVEL 4, KADAVU HOUSE

P. Baleilevuka	A.Pene
K. M. Zahidul	MA
surveyed:	designed: MA
checked:	date: Sept 23
drawn: MA	amend:
hsec. authorised:	plot date: 05/03/2025

MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

subcontract proj.

drawing title
FOUNDATION PLAN

scale: As Indicated

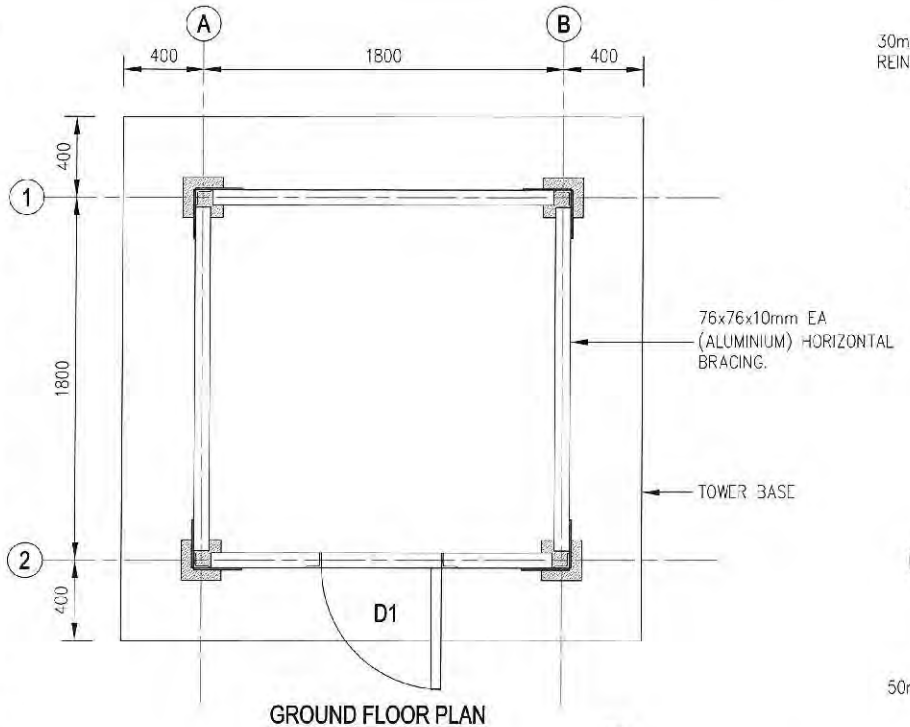
connected drawings

location no. | building no. | file no.

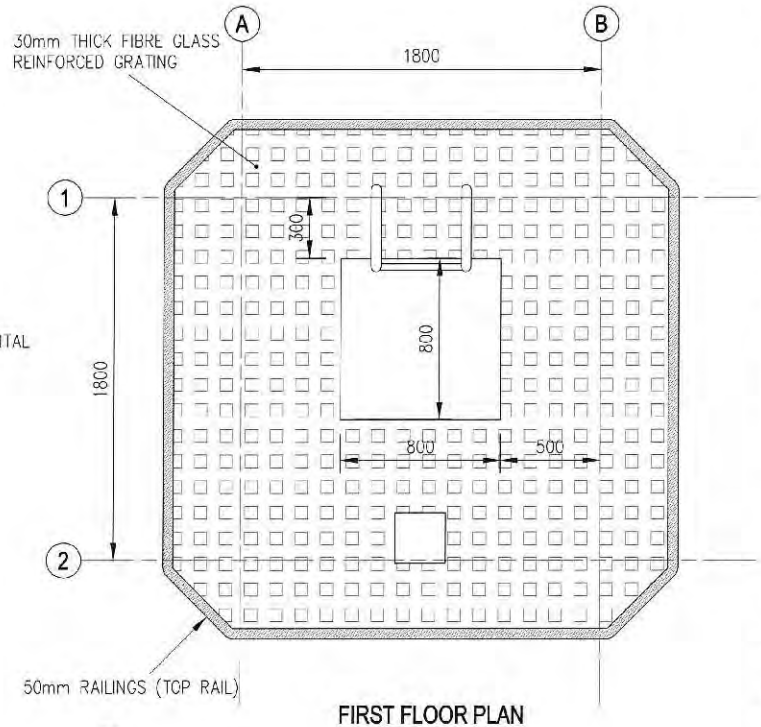
project no.	sheet no.	amend
STR 1429	01	

A3 ORIGINAL PAPER SIZE

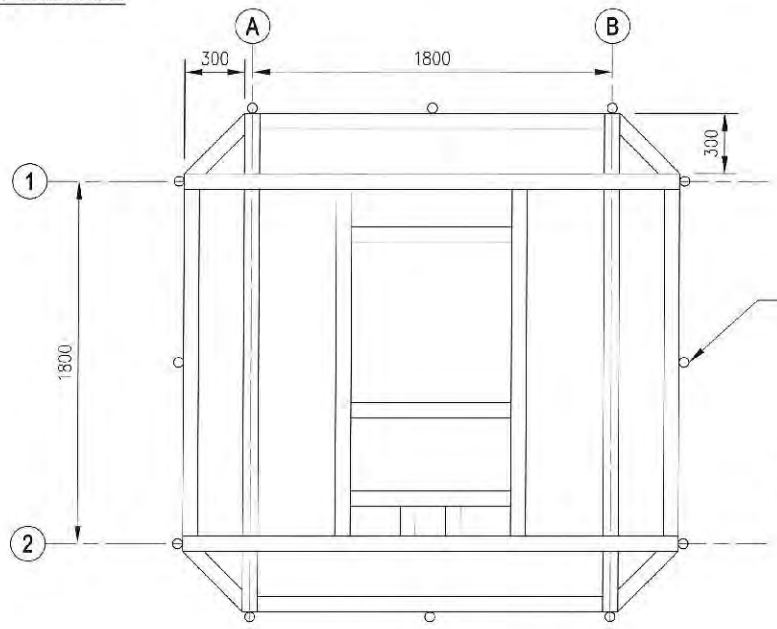
PLOT DATE 05/03/2025



GROUND FLOOR PLAN
SCALE 1:25



FIRST FLOOR PLAN
SCALE 1:25



ALL FRAMING MEMBERS TO BE
76x76x10mm EA (ALUMINUM)

FIRST FLOOR FRAMING PLAN
SCALE 1:25

Ministry of Public Works,
Meteorological Services & Transport
Structures Section
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Signature Date 05/03/25

Notes

7. HARDCORE FILL TO BE WELL COMPACTED USING A 'WACKER PACKER' IN LAYERS OF 150MM TO ACHIEVE AN ALLOWABLE CAPACITY OF 150KPa.

8. DAMP PROOF MEMBRANE PLACED UNDER ALL CONCRETE AGAINST GROUND AND SIDES WITH MINIMUM LAP OF 150MM.

9. SOIL UNDER COLUMN PADS TO BE COMPACTED TO ACHIEVE A BEARING CAPACITY OF 200KPa.

10. RIVER GRAVEL NOT TO BE USED IN CONCRETE AGGREGATES. USE CRUSH METAL 15–20mm SIZE.

11. ALL ALUMINUM MEMBERS TO BE STRUCTURAL GRADE

no.	date	details

amendments

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approval	

client
MARITIME SAFETY AUTHORITY of FIJI
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perm. sec. for PWMST	section head
P. Baleilevuka	A.Pene
principle arch/eng	project arch/eng
K. M. Zahidul	MA
surveyed / designed	drawn / amend
MA	MA
checked / date	head subhead / plot date
Sept 23	05/03/2025

MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

block/sub proj.

drawing title
FLOOR PLAN

scale As Indicated

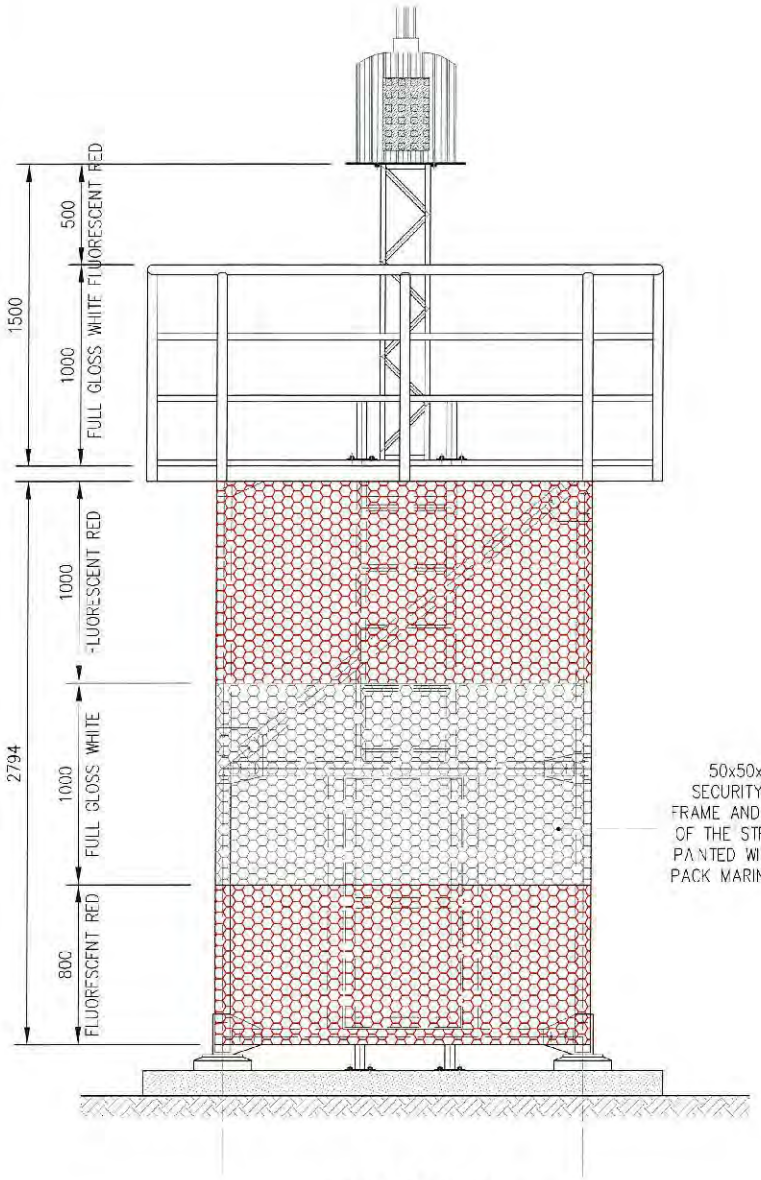
connected drawings

location no. / building no. / file no.

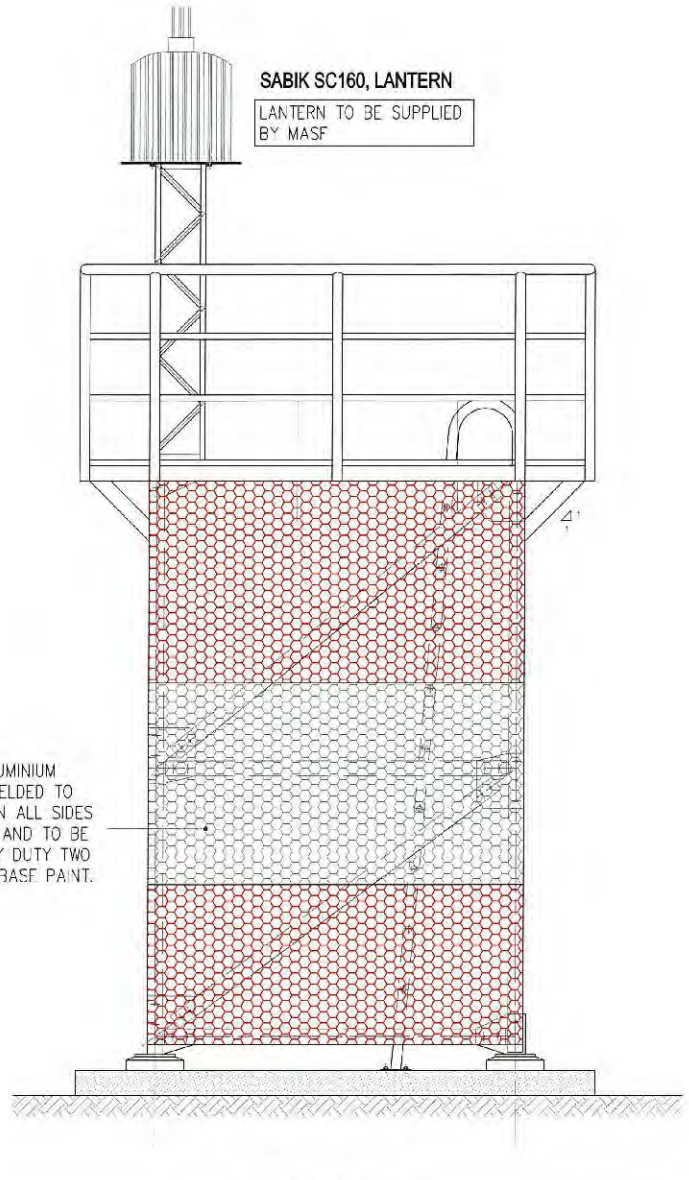
project no.	sheet no.	amend
STR 1429	02	

A3 ORIGINAL PAPER SIZE

PLOT DATE 05/03/2025



FRONT ELEVATION



SIDE ELEVATION

50x50x9mm ALUMINIUM SECURITY MESH WELDED TO FRAME AND FIXED ON ALL SIDES OF THE STRUCTURE AND TO BE PAINTED WITH HEAVY DUTY TWO PACK MARINE, ZINC BASE PAINT.

PAINT COLOUR OF THE STRUCTURE

Notes

12. STEEL REINFORCEMENT TO BE OF GRADE 300 MILD STEEL DEFORMED BARS UNLESS STATED OTHERWISE.

13. SPLICE LOCATIONS OF RE-BARS ARE AS INDICATED. LAP LENGTH WHERE NOT INDICATED TO MINIMUM OF 40 x DIAMETER.

14. PROVIDED SUFFICIENT COVER SUPPORT UNDER RE-BARS TO ENSURE THEY ARE SUPPORTED WELL IN THERE POSITIONS DURING CONCRETE POURING.

15. ALL FASTENING BOLTS TO BE ALUMINUM OR STAINLESS STEEL.

no. | date | details

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principle engineer: K. M. Zahidul	project engineer: MA
surveyed	designed: MA
drawn: MA	amend
checked	date: Sept 23
hoec subhead	plot date: 05/03/2025

MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

block/sub proj.

drawing title
FRONT ELEVATION
SIDE ELEVATION

scale: As indicated

connected drawings

location no. | building no. | file no.

project no.: STR 1429

sheet no.: 03

issued

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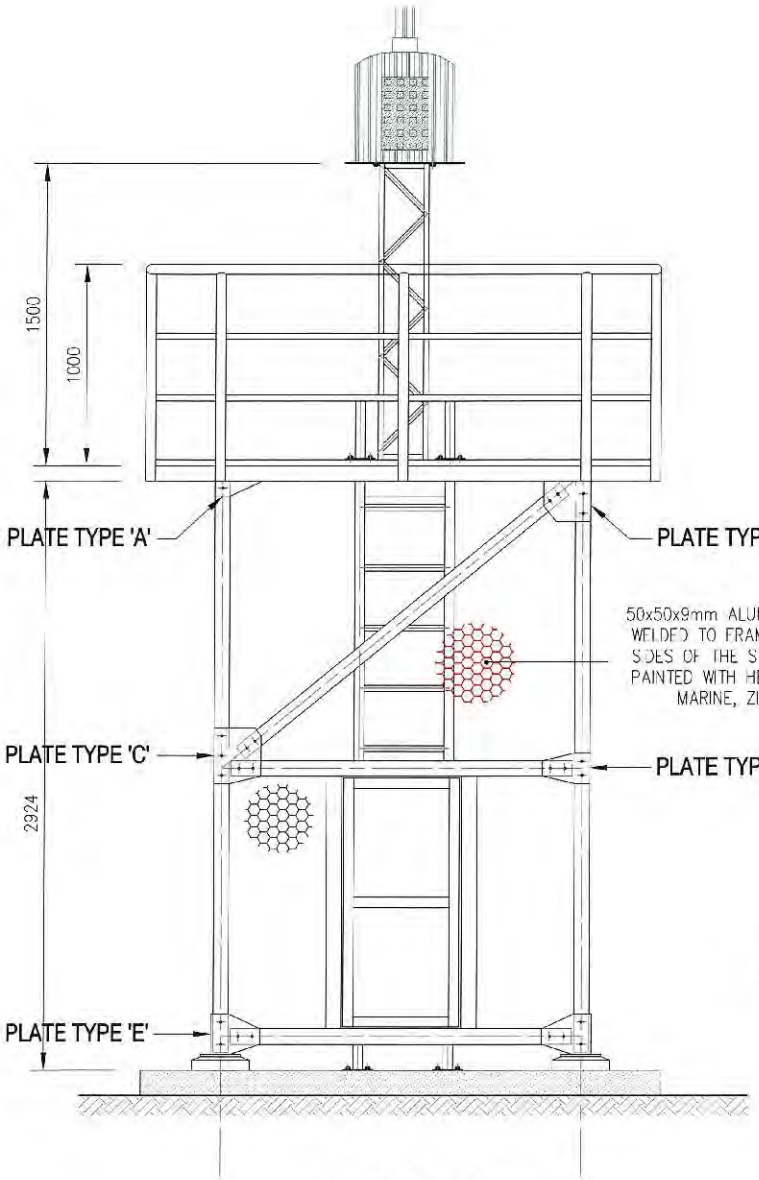
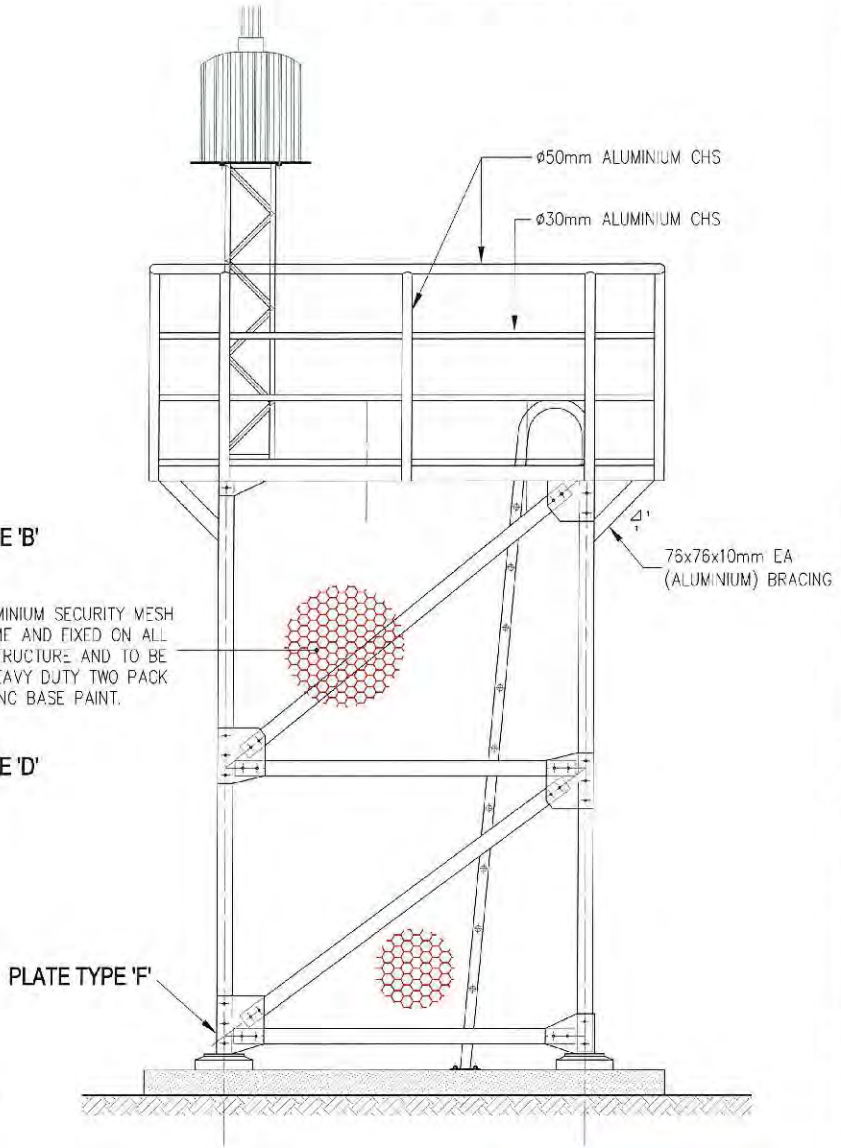
PLOT DATE 05/03/2025

ALL FRAMING MEMBERS TO BE OF STRUCTURAL GRADE ALUMINIUM



FRONT ELEVATION
SCALE 1:25



SIDE ELEVATION
SCALE 1:25

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Notes

16. ALL WELDS TO BE FULL WELDS AND WELDED ALL AROUND.

17. ALL WELDING WORKS TO ACHIEVE STRUCTURAL PURPOSE QUALITY WELDS. WELDING ELECTRODES USED TO "STRUCTURAL PURPOSE (SP) WELD QUALITY.

18. BOLTS USED TO BE HIGH TENSILE (AJAX OR SIMILAR) AND ALL BOLTS TO BE FIXED WITH WASHERS & NUTS.

19. ALL FACES TO BE BOLTED SHALL BE FREE OF PAINT, OIL, RUST, BURR ALL SURFACES TO BE ABRASIVE CLEANED AND COATED WITH ZINC SILICATE.

20. FOR STEEL CONNECTION, HOLE SIZE TO BE MAXIMUM 2mm LARGER THAN BOLT DIA.

no.	date	details

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P. Baleilevuka	A.Pene
principle architect	project architect
K. M. Zahidul	MA
surveyed / designed / drawn / amend	
MA / MA	
checked / date / head multihead / plot date	
Sept 23	05/03/2025

MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

block/sub proj.

drawing title
FRAMING ELEVATION

scale: As Indicated

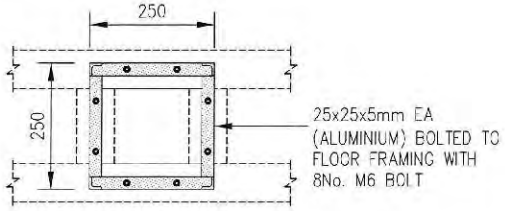
connected drawings

location no. / building no. / file no.

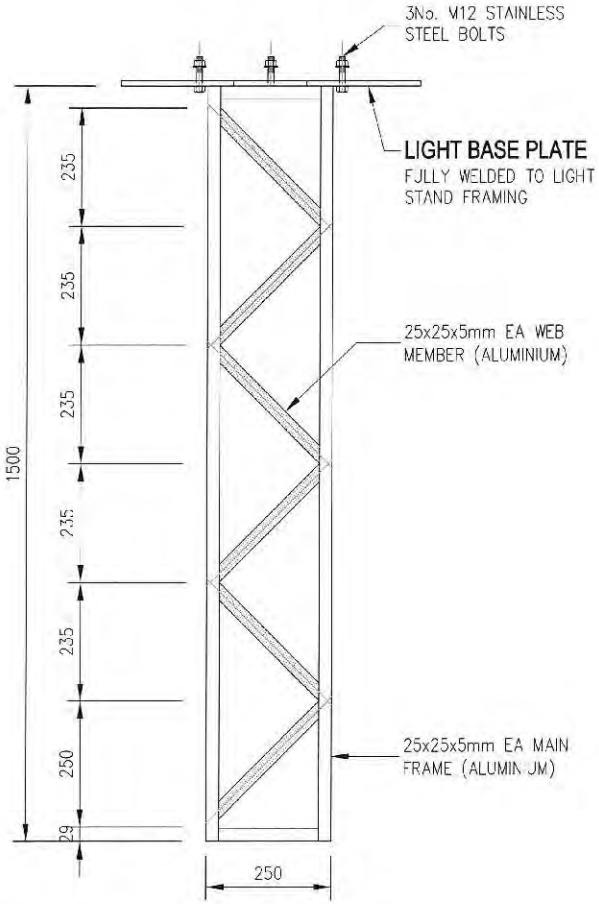
project no.	sheet no.	amend
STR 1429	04	

A3 ORIGINAL PAPER SIZE

PLOT DATE 05/03/2025

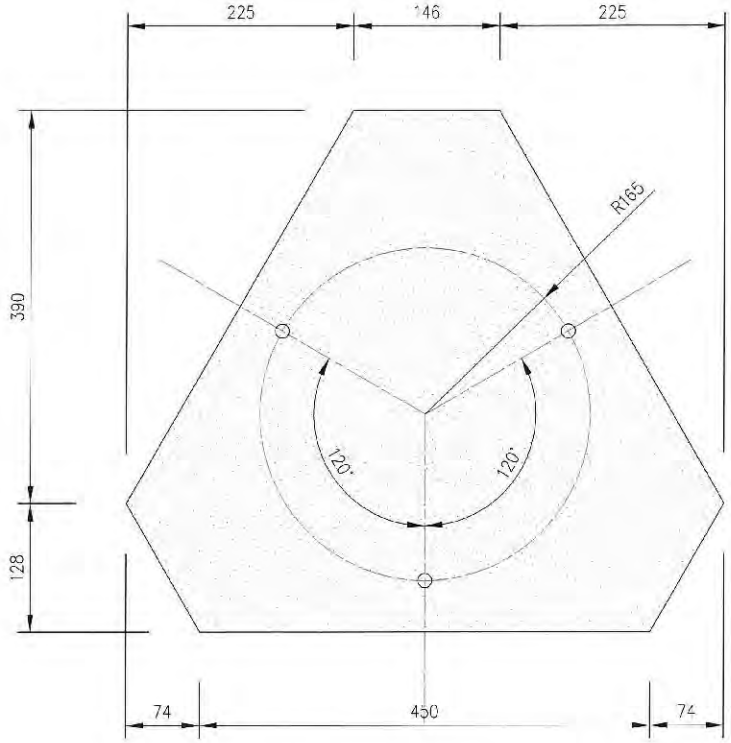


PLAN



ELEVATION

LIGHT STAND DETAIL
SCALE 1:10



(10mm THICK ALUMINIUM PLATE DRILLED WITH 3No.
14mm HOLES TO SUITE 12mm STAINLESS STEEL BOLTS)

LIGHT BASE PLATE
SCALE 1:5

Notes

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perm. sec. for PWMSIT	section head
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K. M. Zahidul	MA

surveyed	designed	drawn	amend
	MA	MA	
checked	date	head subhead	plot date
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MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

structure/sub proj.

drawing title
LIGHT STAND DETAIL

scale As Indicated

connected drawings

location no. | building no. | file no.

project no.	sheet no.	amend
STR 1429	05	

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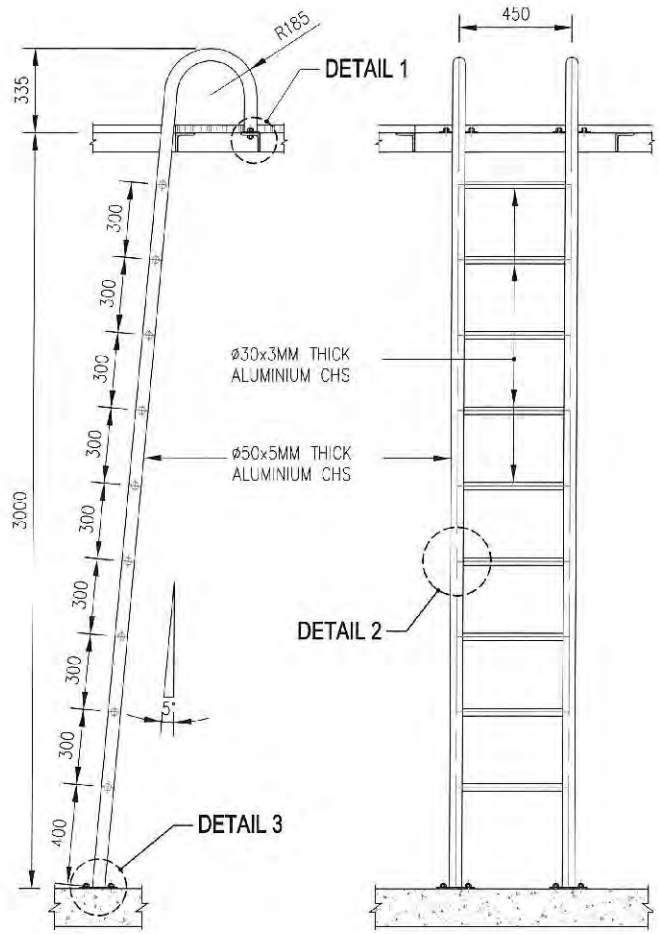
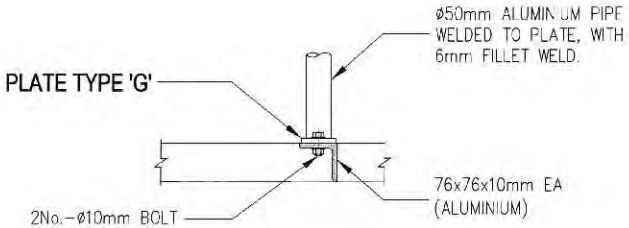
PLOT DATE 05/03/2025

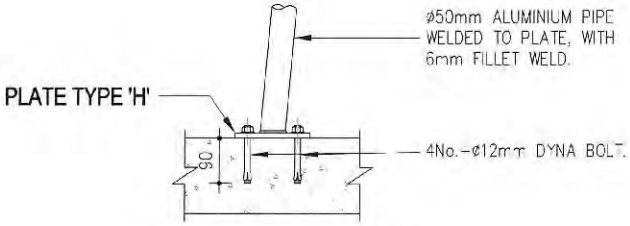


LADDER DETAIL



DETAIL 1.
SCALE 1:10.

DETAIL 2.
SCALE 1:10.



DETAIL 3.
SCALE 1:10.

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K. M. Zahidul	MA
surveyed	designed	drawn	erased
	MA	MA	
checked	date	head subhead	plot date
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PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

tikina/sub proj.

drawing title
LADDER DETAIL

scale As Indicated

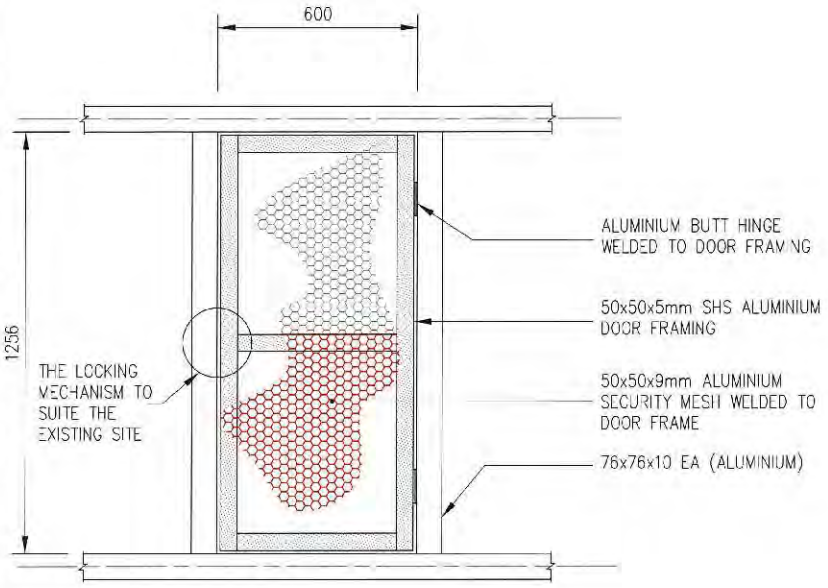
connected drawings

location no. | file no. | building no.

project no.	sheet no.	amend
STR 1429	06	

A3 ORIGINAL PAPER SIZE

PLOT DATE 05/03/2025



DOOR DETAIL
SCALE 1:15

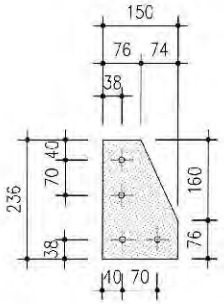


PLATE TYPE 'A'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 4Nc. ø12mm HOLES TO SUIT ø10mm BOLTS

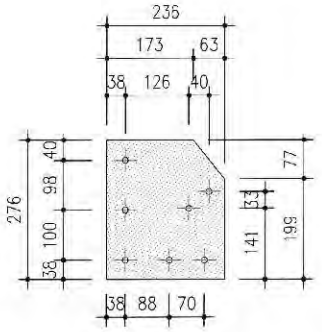


PLATE TYPE 'B'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 7No. ø12mm HOLES TO SUIT ø10mm BOLTS

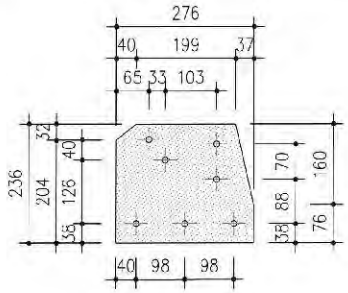


PLATE TYPE 'C'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 7No. ø12mm HOLES TO SUIT ø10mm BOLTS

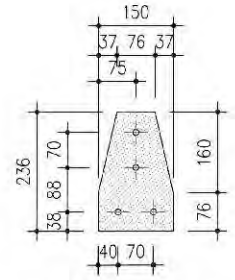


PLATE TYPE 'D'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 4No. ø12mm HOLES TO SUIT ø10mm BOLTS

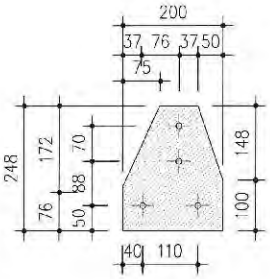


PLATE TYPE 'E'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 4No. ø12mm HOLES TO SUIT ø10mm BOLTS

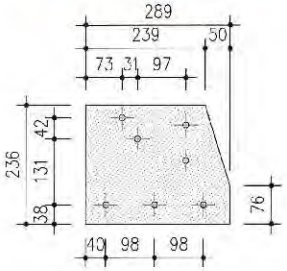


PLATE TYPE 'F'
SCALE 1:10
10mm THICK ALUMINIUM PLATE DRILLED WITH 7No. ø12mm HOLES TO SUIT ø10mm BOLTS

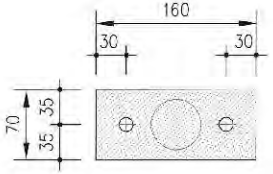


PLATE TYPE 'G'
SCALE 1:5
10mm THICK ALUMINIUM PLATE DRILLED WITH 2No. ø12mm HOLES TO SUIT ø10mm BOLTS

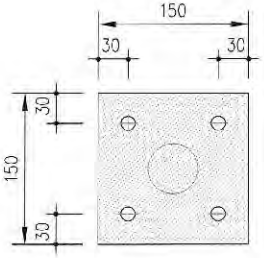


PLATE TYPE 'H'
SCALE 1:5
10mm THICK ALUMINIUM PLATE DRILLED WITH 4No. ø12mm HOLES TO SUIT ø10mm BOLTS

Ministry of Public Works, Meteorological Services & Transport
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Sign.....Date.....05/03/25

Notes

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client
MAITIME SAFETY AUTHORITY of FIJI
LEVEL 4, KADAVU HOUSE

P. Balelievuka	A.Pene
K. M. Zahidul	MA
MA	MA
Sept 23	05/03/2025

MINISTRY OF PUBLIC WORKS TRANSPORT & METEOROLOGICAL SERVICES

project
PROPOSED LIGHT TOWER FOR MAKOGAI ISLAND

drawing title
DOOR DETAIL & PLATE DETAIL

scale As Indicated

project no. STR 1429	sheet no. 07

A3 ORIGINAL PAPER SIZE

PLOT DATE 05/03/2025