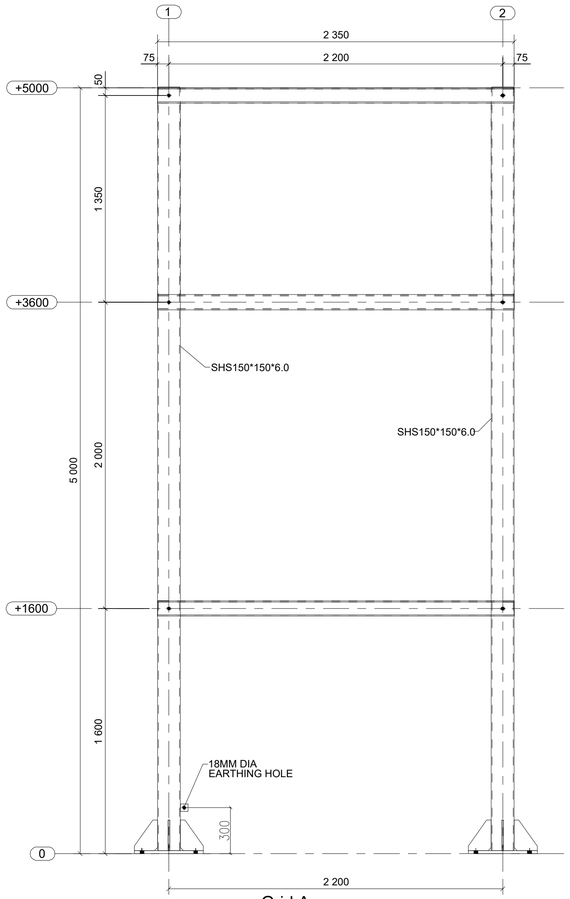
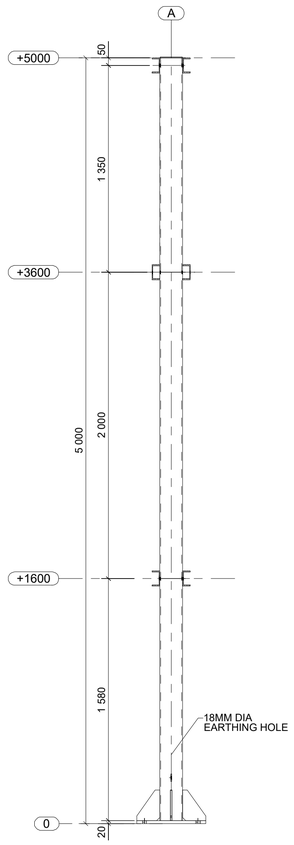
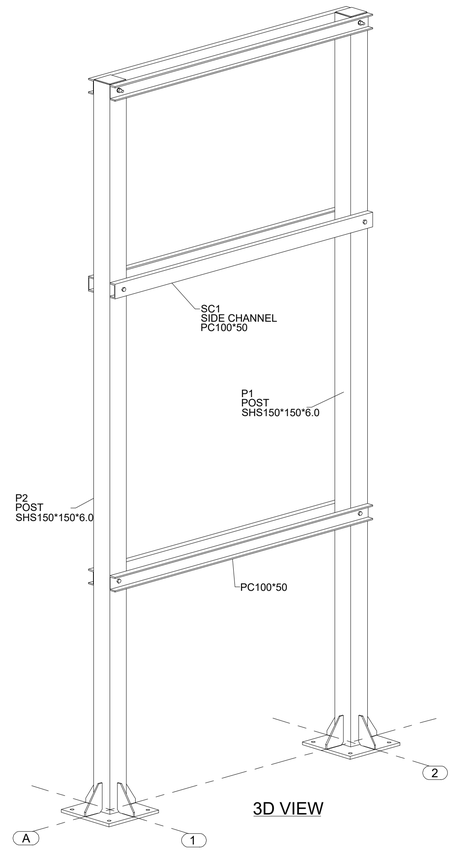


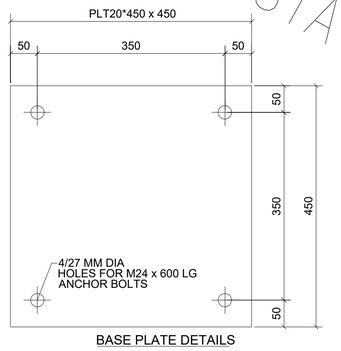
Grid A



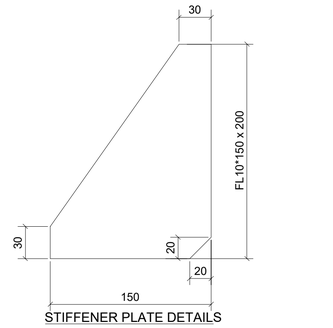
Grid 1



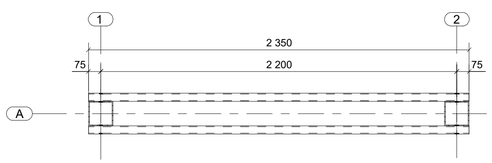
3D VIEW



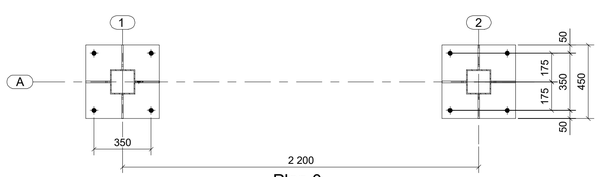
BASE PLATE DETAILS



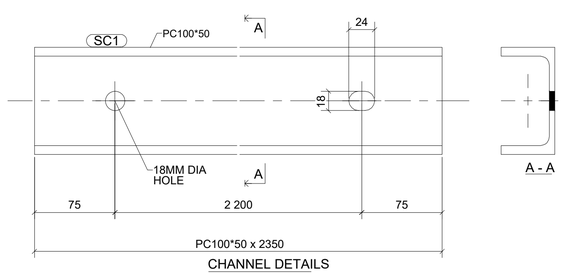
STIFFENER PLATE DETAILS



Plan +1600, +3600 & +5000



Plan 0



CHANNEL DETAILS

NOTES

1. All dimensions are in millimeters, unless otherwise stated.

2. This drawing must not be scaled ,only figured dimensions should be used.

3.This drawing must be read in conjunction with relevant Architectural drawings.

4.Reinforced concrete for all structural elements to be grade C20/25 to BS EN 206-1:2002, except for the ground floor slab (grade C16/20), and roof slab (C25/30).

5. Cover to main reinforcement to be as follows:
(a) Foundation = 50mm
(b) Columns = 40mm
(c) Beams = 30mm
(d) Slabs = 25mm

6."H" Denotes ribbed high yield bars to BS 4461 with a yield strength of 500N/mm2 to BS 4449-2005.

7. Reinforcement in walls and columns must be inspected by the Engineer before being enclosed in formwork.

8. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses. The hoop iron must be extended through the column sections.

9. To ensure enhanced bonding between the masonry and the R.C. columns, the masonry walling must be raised first before the columns are cast.

10. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.

11. A minimum of 7.0N/mm2 average compressive strength of masonry in accordance with BS EN 771 and BS 5268 should be used for all wall sections.

12. Mass concrete to be grade 12/15 to BS EN 206-1:2002.

13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

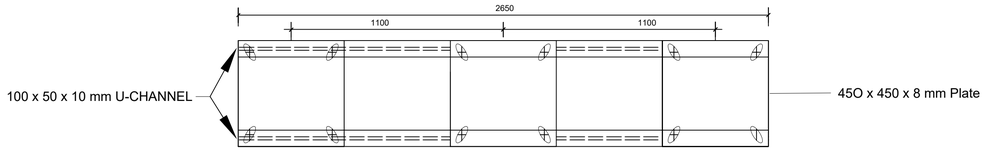
CONSTRUCTION DRAWINGS

33KV POST INSULATOR/

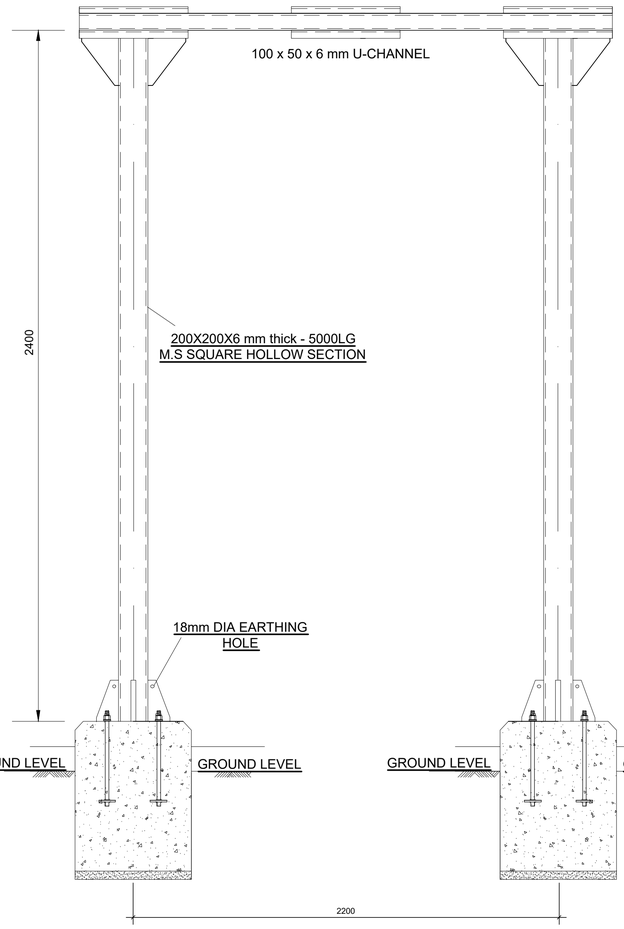
33KV A/B SWITCH

EPZ-STRUCTURE 001

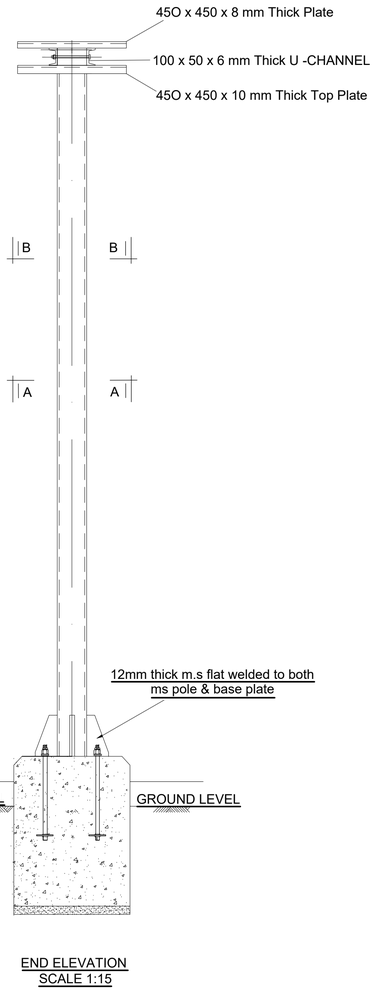
Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			



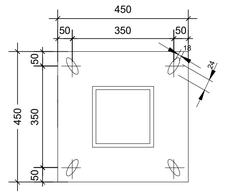
PLAN VIEW
SCALE 1:10



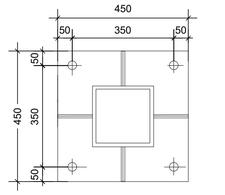
FRONT ELEVATION
SCALE 1:15



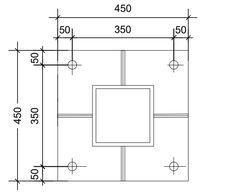
END ELEVATION
SCALE 1:15



DETAILS OF 8 mm THICK PLATE
SCALE 1:10



DETAILS OF 10 mm THICK TOP PLATE
SECTION B-B
SCALE 1:10



DETAILS OF 20mm THICK BASE PLATE
SECTION A-A
SCALE 1:10

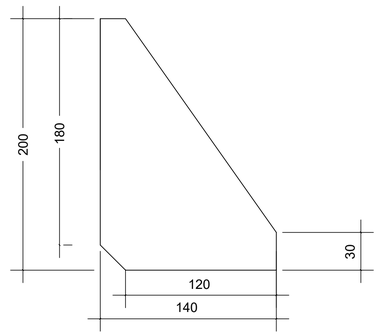


PLATE STIFFENER (20mm Thick)
8NO.
SCALE 1:3

NOTES

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(d) Slabs = 25mm

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7. Reinforcement in walls and columns must be inspected by the Engineer before being enclosed in formwork.

8. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses. The hoop iron must be extended through the column sections.

9. To ensure enhanced bonding between the masonry and the R.C. columns, the masonry walling must be raised first before the columns are cast.

10. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.

11. A minimum of 7.0N/mm2 average compressive strength of masonry in accordance with BS EN 771 and BS 5268 should be used for all wall sections.

12. Mass concrete to be grade 12/15 to BS EN 206-1:2002.

13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

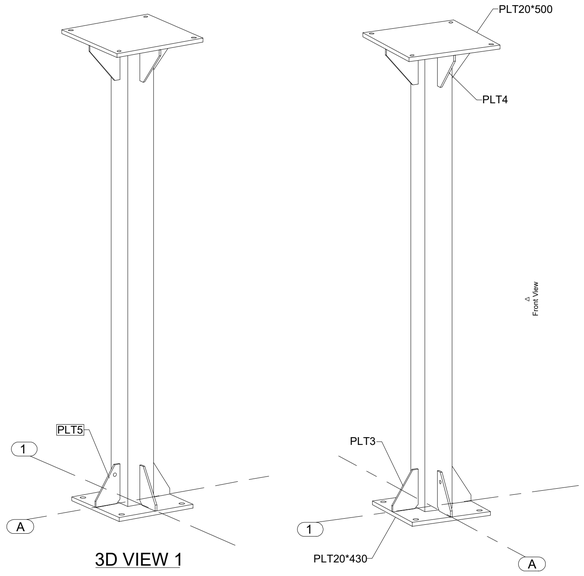
PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

CONSTRUCTION DRAWINGS

33KV CIRTCUIT TRANSFORMER

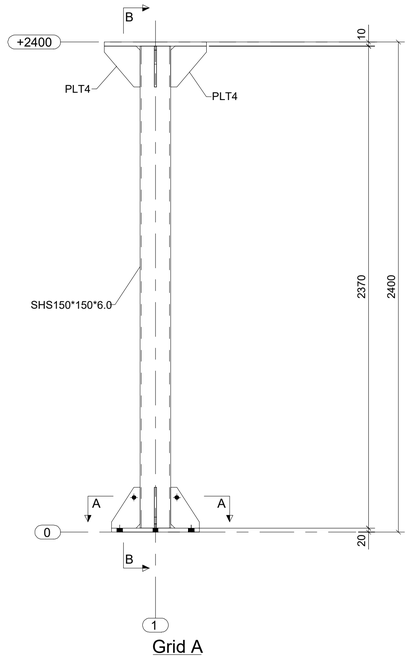
EPZ-STRUCTURE 002

Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			

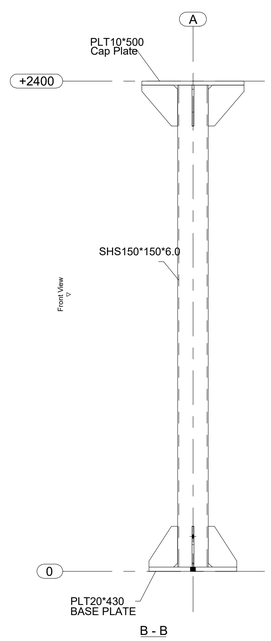


3D VIEW 1

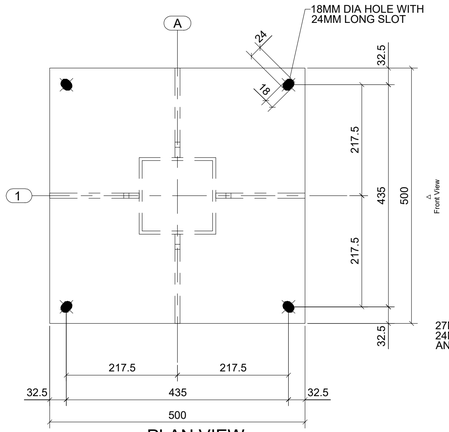
3D VIEW 2



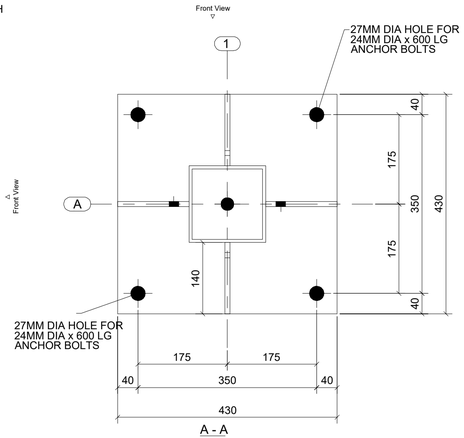
Grid A



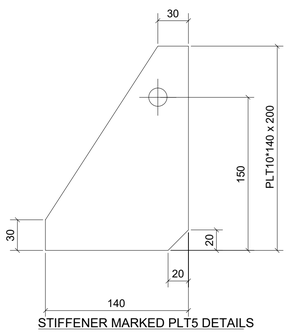
B - B



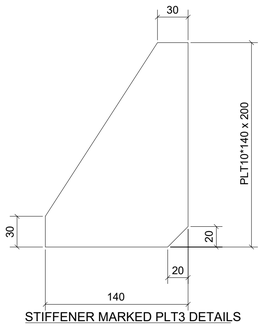
PLAN VIEW



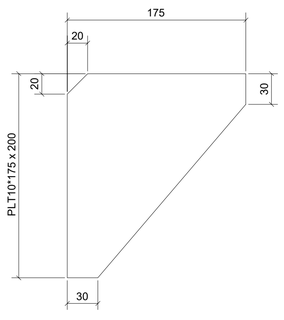
A - A



STIFFENER MARKED PLT5 DETAILS



STIFFENER MARKED PLT3 DETAILS



TOP STIFFENER DETAILS

NOTES

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(d) Slabs = 25mm

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13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

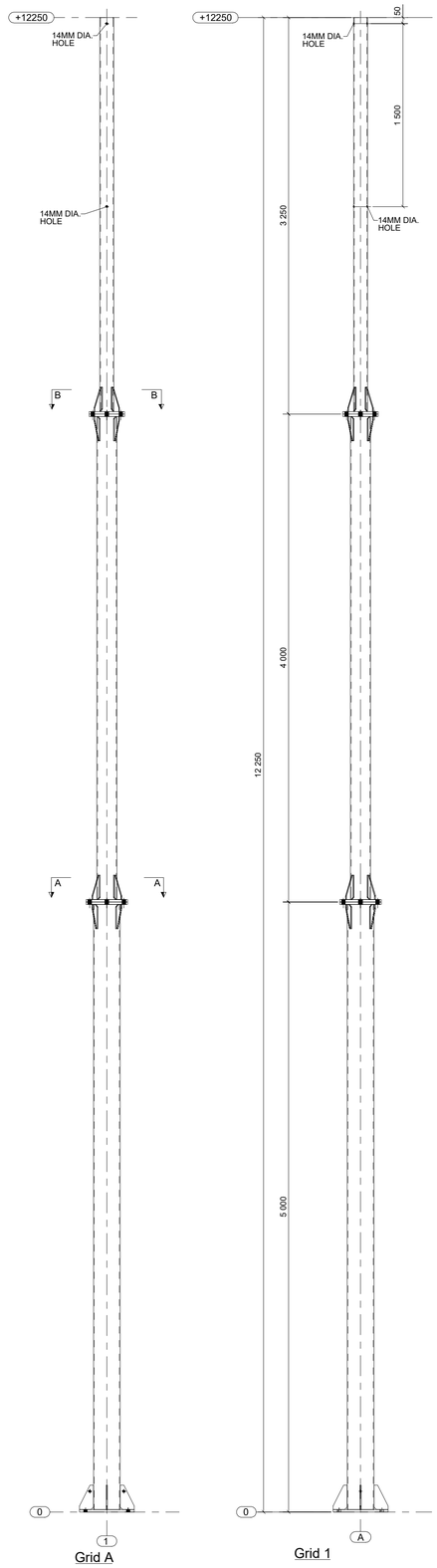
PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

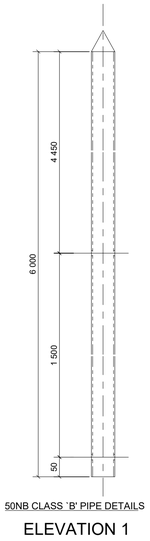
CONSTRUCTION DRAWINGS

NEUTRAL CT

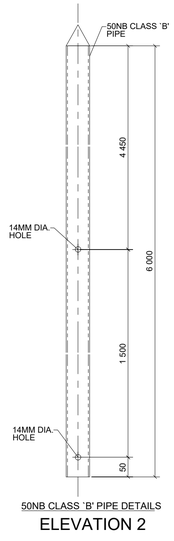
EPZ-STRUCTURE 003

Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			

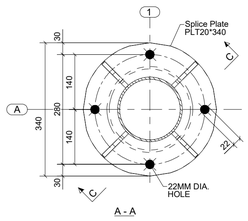


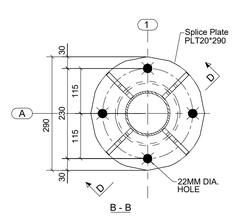


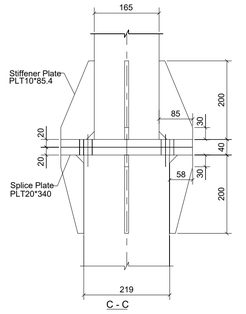
ELEVATION 1

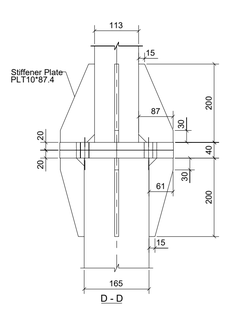


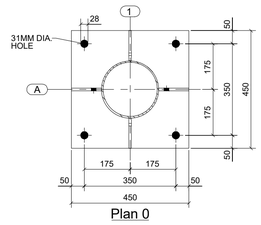
ELEVATION 2

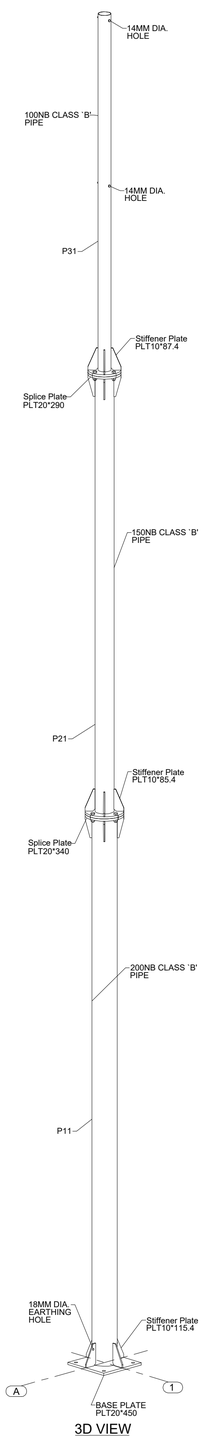












NOTES

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3.This drawing must be read in conjunction with relevant Architectural drawings.

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11. A minimum of 7.0N/mm2 average compressive strength of masonry in accordance with BS EN 771 and BS 5268 should be used for all wall sections.

12. Mass concrete to be grade 12/15 to BS EN 206-1:2002.

13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

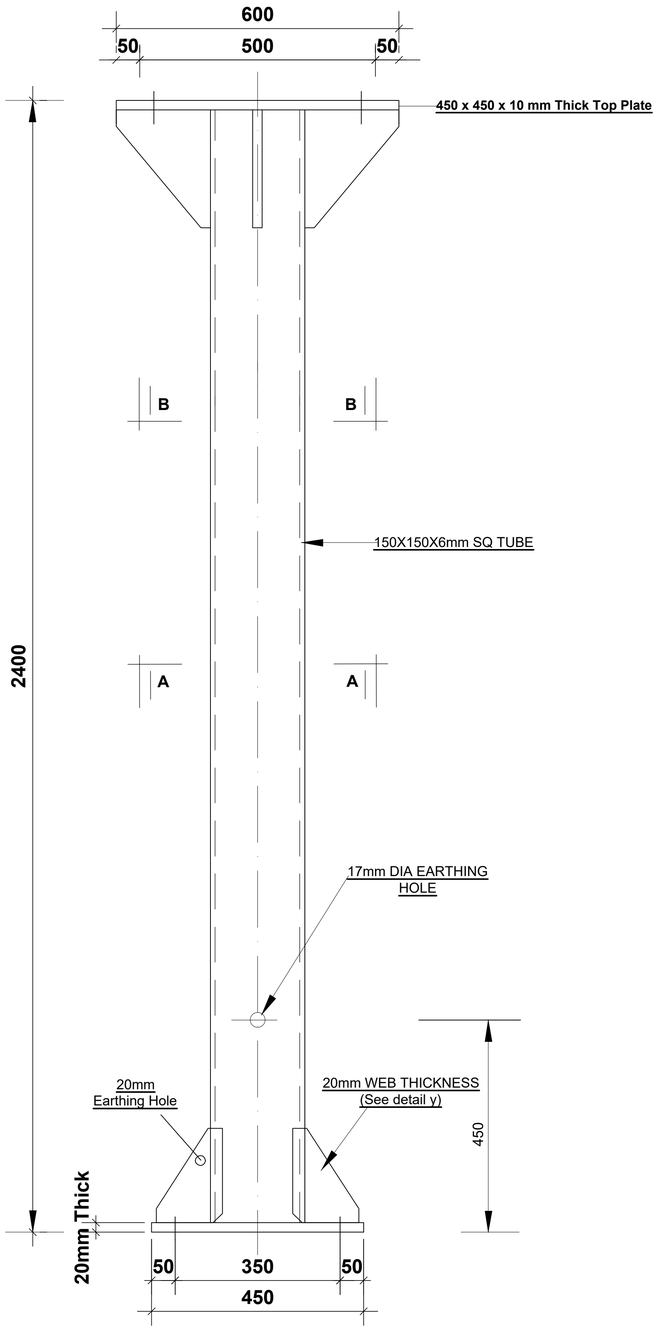
PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

CONSTRUCTION DRAWINGS

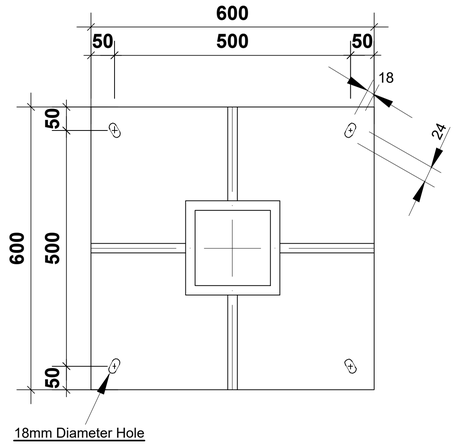
LIGHTENING MAST

EPZ-STRUCTURE 004

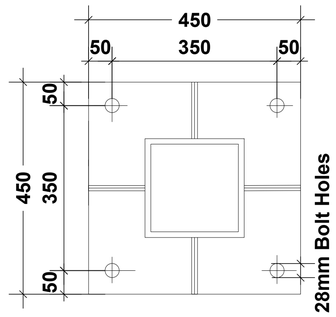
Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			



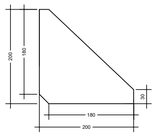
CTs ELEVATION
SCALE 1:10



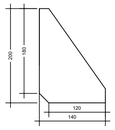
DETAILS OF 10mm THICK TOP PLATE
SECTION B-B
SCALE 1:10



DETAILS OF 20mm THICK BASE PLATE
SECTION A-A
SCALE 1:10



TOP PLATE STIFFENER (10mm Thick)
4NO.
SCALE 1:3



BOTTOM PLATE STIFFENER (20mm Thick)
4NO.
SCALE 1:3

NOTES

1. All dimensions are in millimeters, unless otherwise stated.

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REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

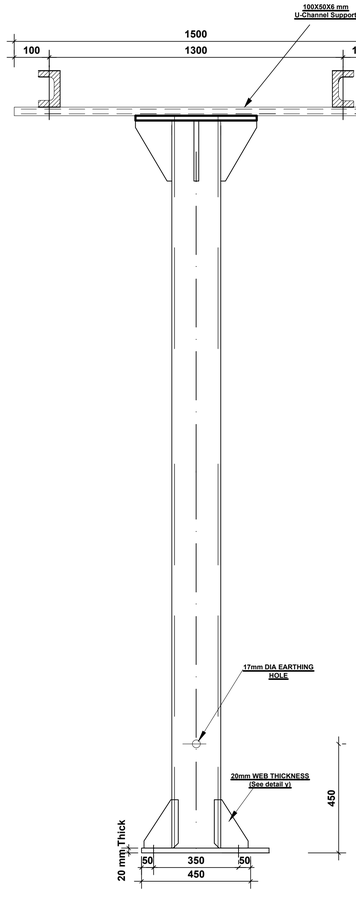
PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

CONSTRUCTION DRAWINGS

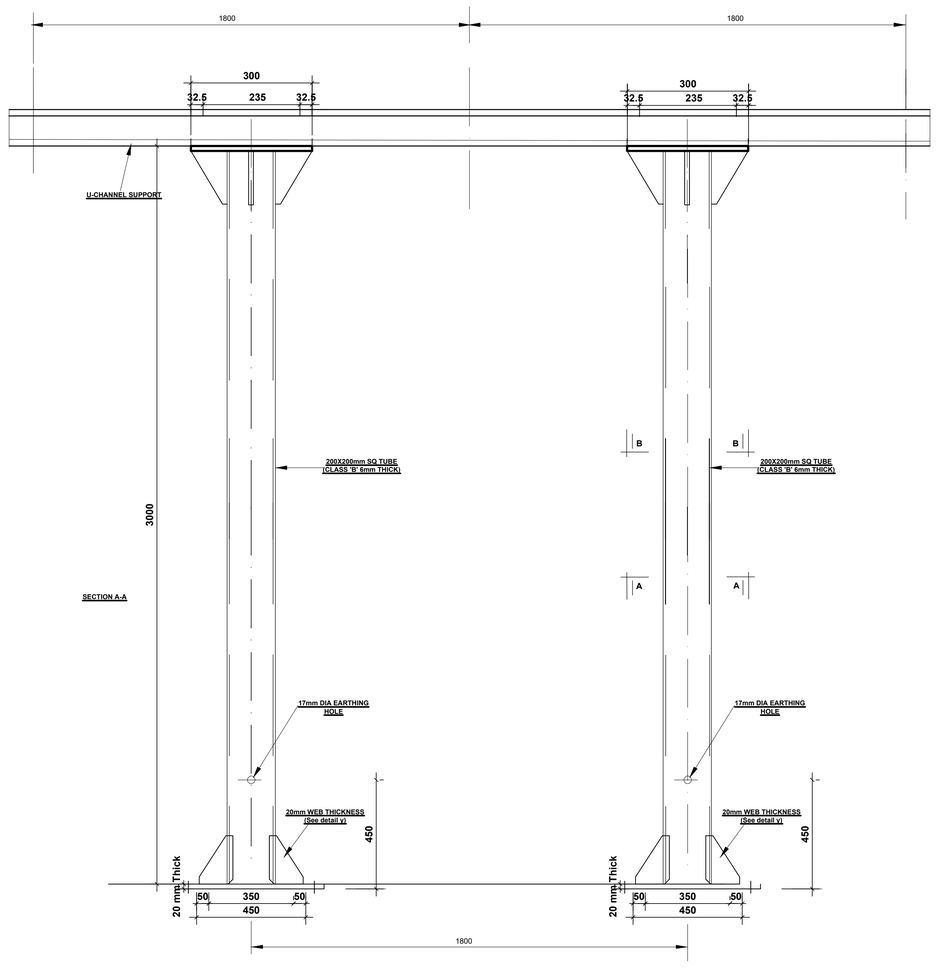
66KV CTs/ VTs/ SURGE DIVERTER

EPZ-STRUCTURE 005

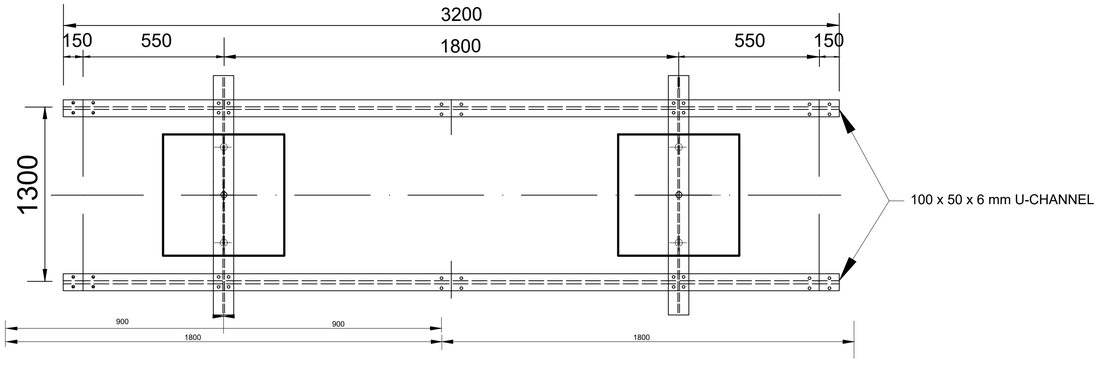
Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			



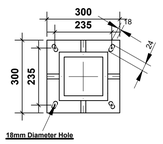
ISOLATOR STRUCTURE
SIDE ELEVATION
SCALE 1:15



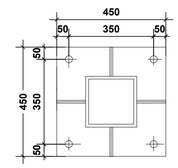
ISOLATOR STRUCTURE
FRONT ELEVATION
SCALE 1:15



ISOLATOR STRUCTURE
PLAN VIEW
SCALE 1:15

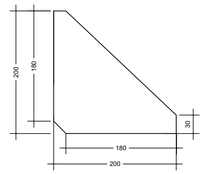


DETAILS OF 10mm THICK TOP PLATE
SECTION B-B
SCALE 1:15

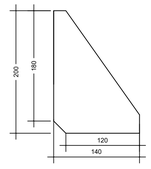


DETAILS OF 20mm THICK BASE PLATE
SECTION A-A
SCALE 1:15

ALL BASE PLATE HOLES TO BE 28 MM DIAMETER



TOP PLATE STIFFENER (10mm Thick)
4NO.
SCALE 1:5



BOTTOM PLATE STIFFENER (20mm Thick)
4NO.
SCALE 1:4

NOTES

1. All dimensions are in millimeters, unless otherwise stated.

2. This drawing must not be scaled ,only figured dimensions should be used.

3.This drawing must be read in conjunction with relevant Architectural drawings.

4.Reinforced concrete for all structural elements to be grade C20/25 to BS EN 206-1:2002, except for the ground floor slab (grade C16/20), and roof slab (C25/30).

5. Cover to main reinforcement to be as follows:
(a) Foundation = 50mm
(b) Columns = 40mm
(c) Beams = 30mm
(d) Slabs = 25mm

6."H" Denotes ribbed high yield bars to BS 4461 with a yield strength of 500N/mm2 to BS 4449-2005.

7. Reinforcement in walls and columns must be inspected by the Engineer before being enclosed in formwork.

8. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses. The hoop iron must be extended through the column sections.

9. To ensure enhanced bonding between the masonry and the R.C. columns, the masonry walling must be raised first before the columns are cast.

10. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.

11. A minimum of 7.0N/mm2 average compressive strength of masonry in accordance with BS EN 771 and BS 5268 should be used for all wall sections.

12. Mass concrete to be grade 12/15 to BS EN 206-1:2002.

13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

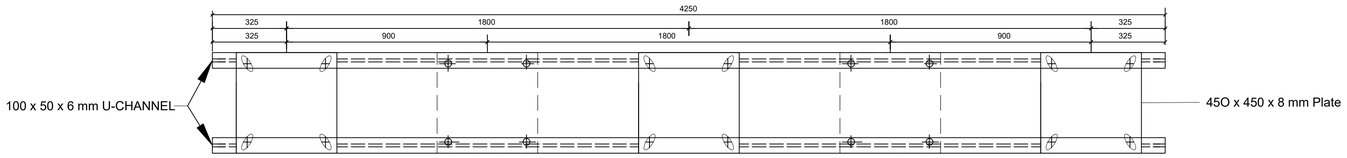
PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

CONSTRUCTION DRAWINGS

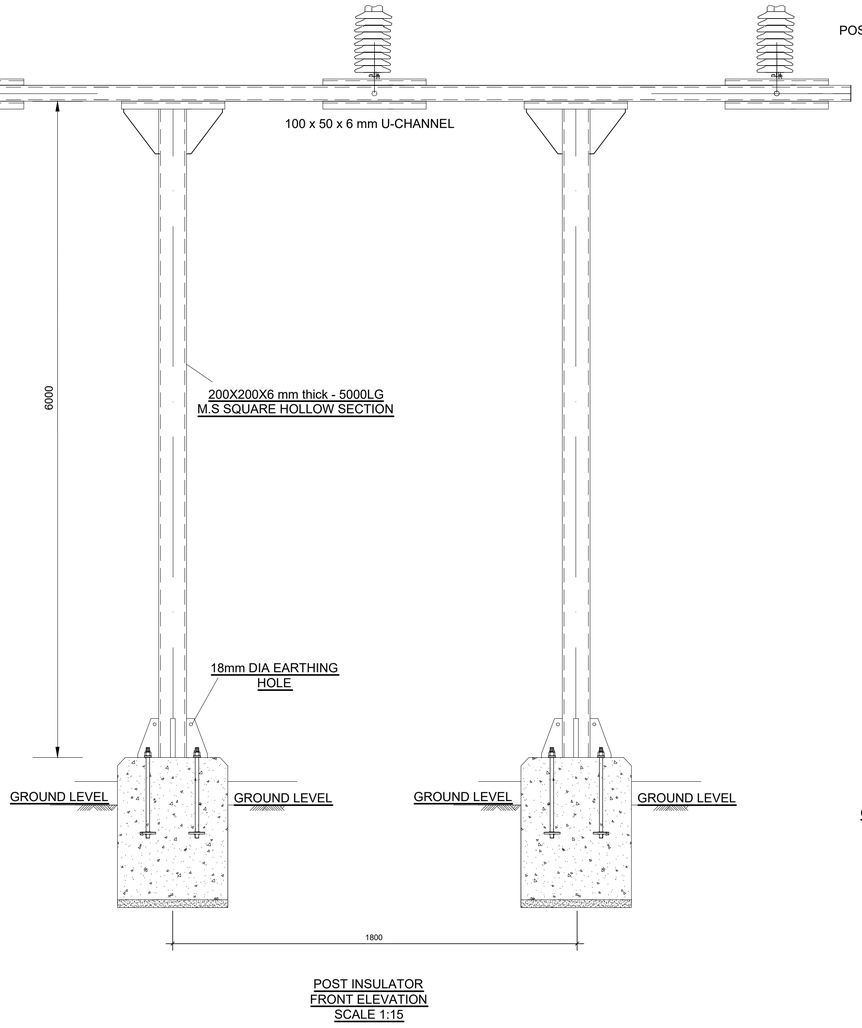
66KV ISOLATOR

EPZ-STRUCTURE 006

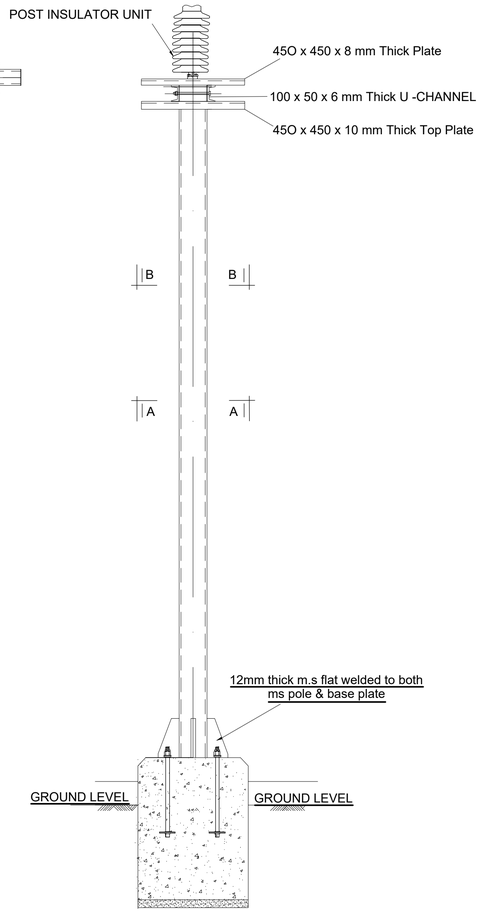
Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			



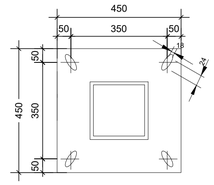
POST INSULATOR STRUCTURE
PLAN VIEW
SCALE 1:10



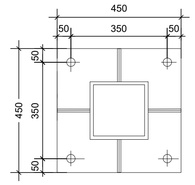
POST INSULATOR
FRONT ELEVATION
SCALE 1:15



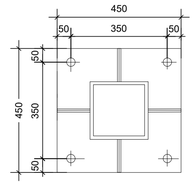
POST INSULATOR
END ELEVATION
SCALE 1:15



DETAILS OF 8 mm THICK PLATE
SCALE 1:10



DETAILS OF 10 mm THICK TOP PLATE
SECTION B-B
SCALE 1:10



DETAILS OF 20mm THICK BASE PLATE
SECTION A-A
SCALE 1:10

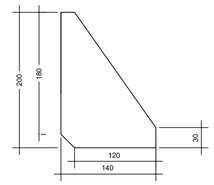


PLATE STIFFENER (20mm Thick)
8NO.
SCALE 1:5

NOTES

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6."H" Denotes ribbed high yield bars to BS 4461 with a yield strength of 500N/mm2 to BS 4449-2005.

7. Reinforcement in walls and columns must be inspected by the Engineer before being enclosed in formwork.

8. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses. The hoop iron must be extended through the column sections.

9. To ensure enhanced bonding between the masonry and the R.C. columns, the masonry walling must be raised first before the columns are cast.

10. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.

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12. Mass concrete to be grade 12/15 to BS EN 206-1:2002.

13. Double masonry walls to be built one at a time. Waterproofing plaster shall be applied to the inside of the first wall to Engineer's approval before the second is built .

REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

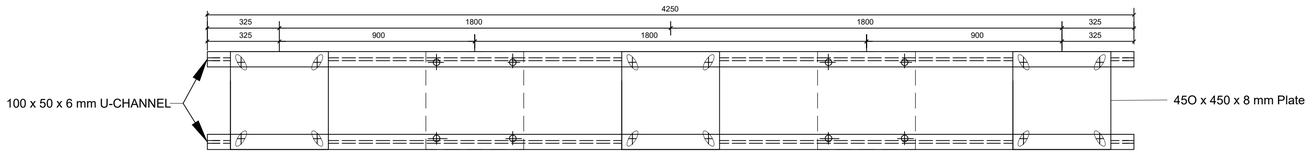
CONSTRUCTION DRAWINGS

66KV POST INSULATOR

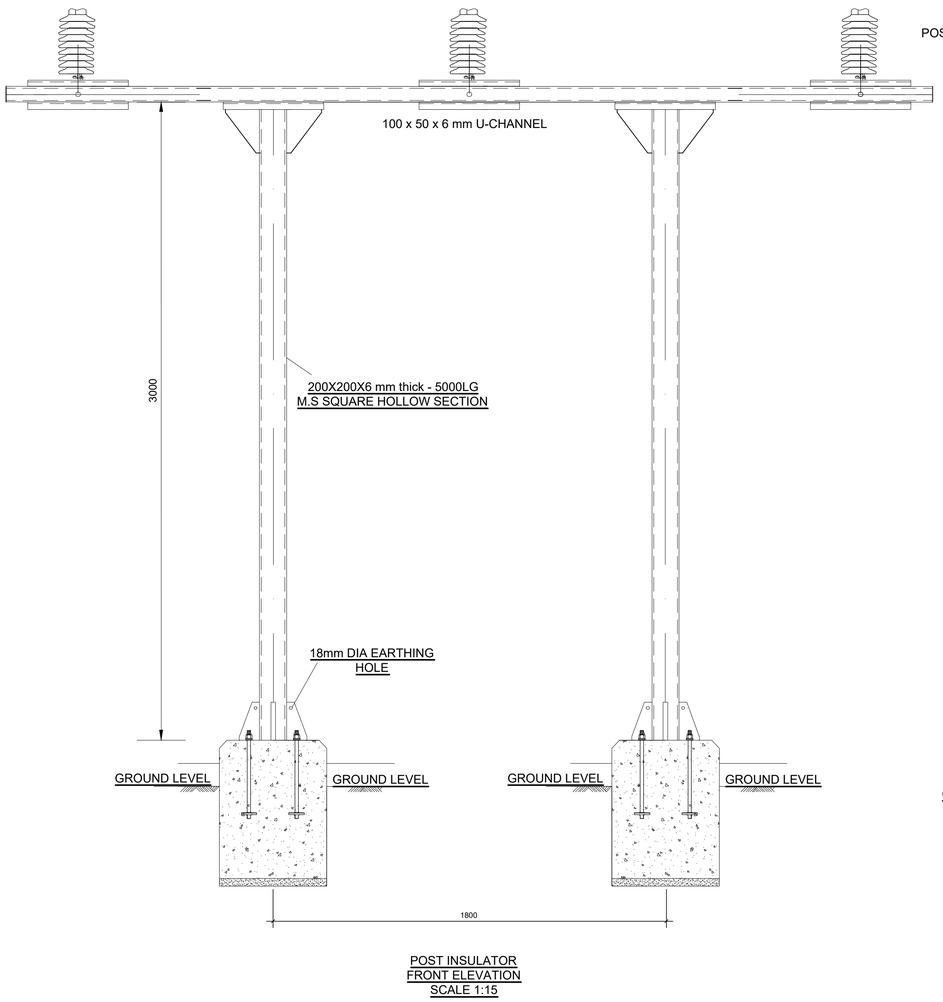
(HIGH LEVEL)

EPZ-STRUCTURE 007 (a)

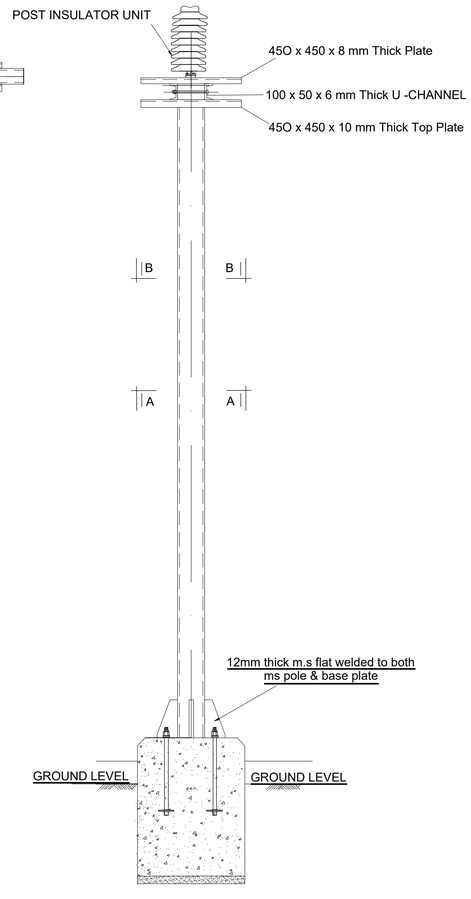
Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			



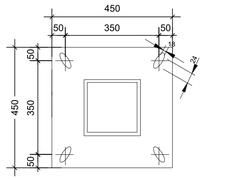
POST INSULATOR STRUCTURE
PLAN VIEW
SCALE 1:10



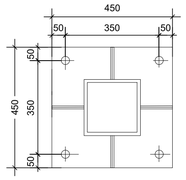
POST INSULATOR
FRONT ELEVATION
SCALE 1:15



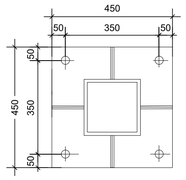
POST INSULATOR
END ELEVATION
SCALE 1:15



DETAILS OF 8 mm THICK PLATE
SCALE 1:10



DETAILS OF 10 mm THICK TOP PLATE
SECTION B-B
SCALE 1:10



DETAILS OF 20mm THICK BASE PLATE
SECTION A-A
SCALE 1:10

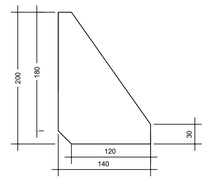


PLATE STIFFENER (20mm Thick)
8NO.
SCALE 1:5

NOTES

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REVISIONS

Date	Suffix	Descriptions	Issue

CLIENT

Kenya Power

PROJECT

PROPOSED CIVIL WORKS & STEEL STRUCTURES FOR 66/33KV EPZ SUB-STATION - ATHI RIVER

CONSTRUCTION DRAWINGS

66KV POST INSULATOR

(LOW LEVEL)

EPZ-STRUCTURE 007 (b)

Drawn	D.WAITHERA	Scale(s)	AS INDICATED
Designed	D.WAITHERA	Date	APRIL, 2025
Checked	ENG. D.M.WAMBUGU	Date	APRIL, 2025
Approved	ENG. D.M.WAMBUGU	Date	APRIL, 2025
ISSUE DATE	APRIL, 2025		
JOB No.			