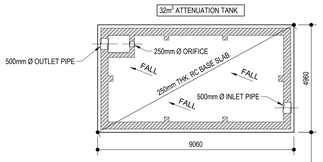
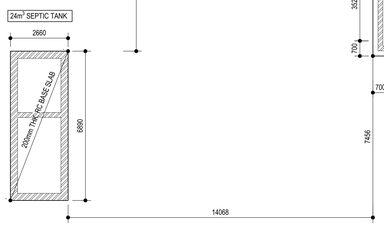
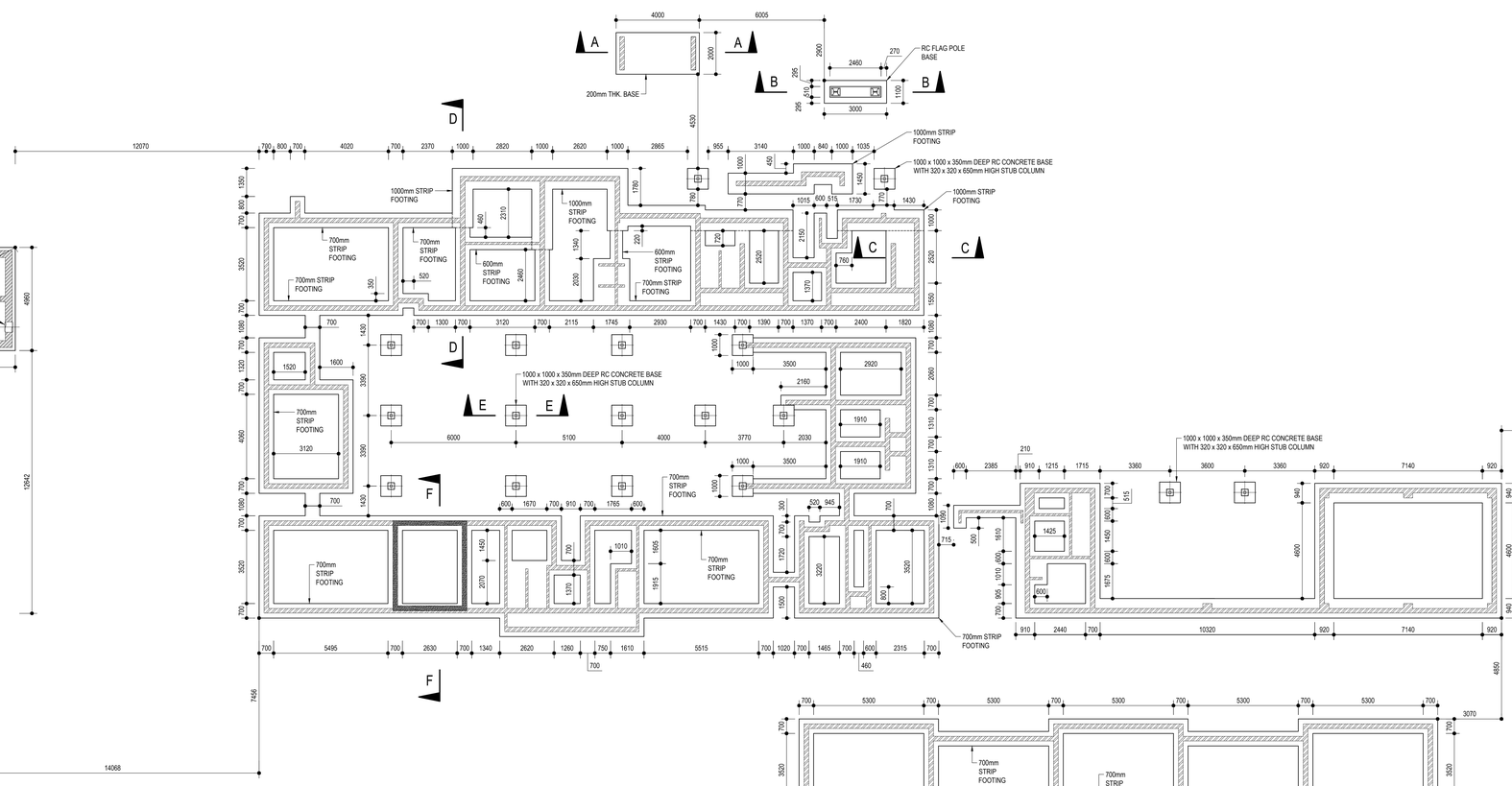
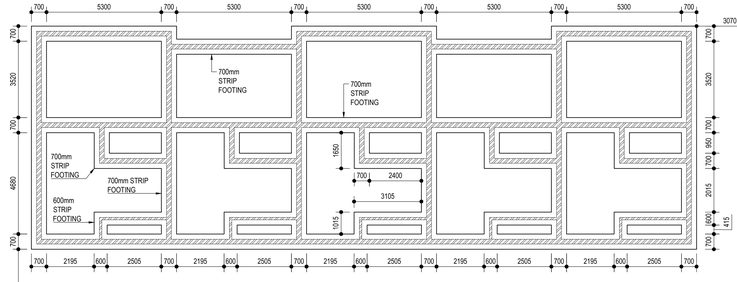
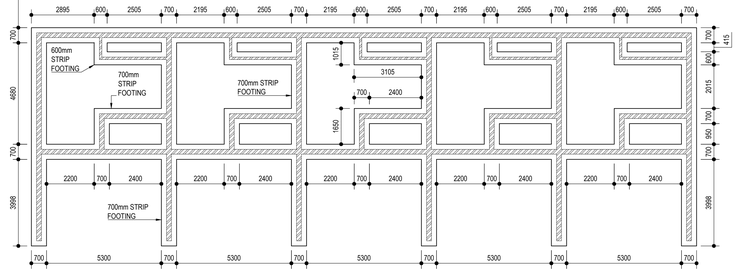
STRUCTURAL DRAWINGS



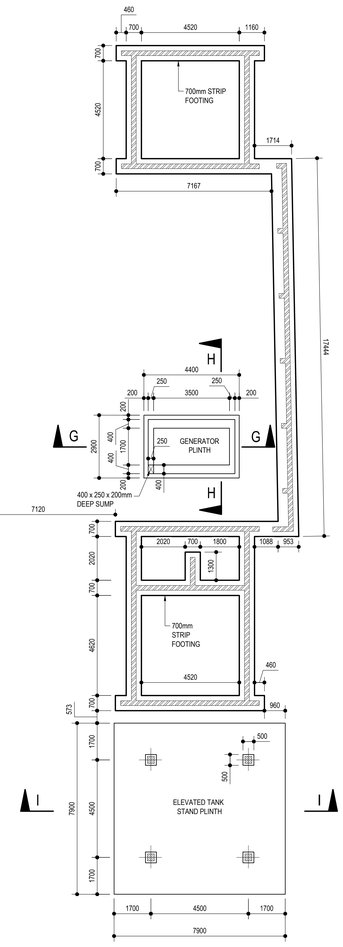








FOUNDATION LAYOUT
1 : 100



REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-002 AND D848-6000-003 FOR SECTIONS AND TYPICAL DETAILS.
20. ABBREVIATIONS:
    Ø - DIAMETER
    THK - THICK
    RC - REINFORCED CONCRETE

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :
NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :
SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :
NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

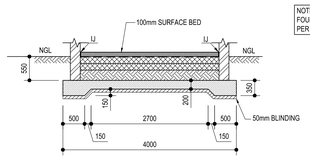
Drawing Title :
FOUNDATION LAYOUT - SHEET 1

Drawing Number :
D848-6000-001

Rev No.
C

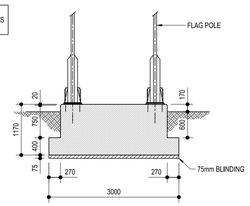
Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER

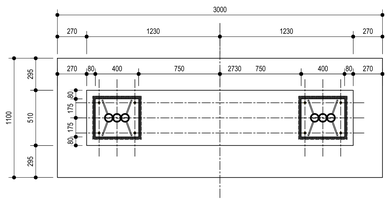


NOTE:
FOUNDING LAYERWORKS AS PER STRIP FOOTINGS

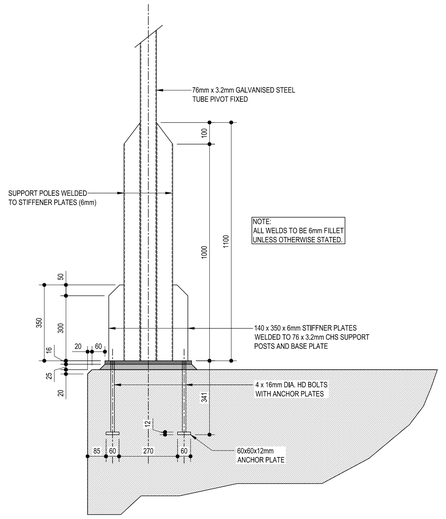
SECTION A - A
1 : 50



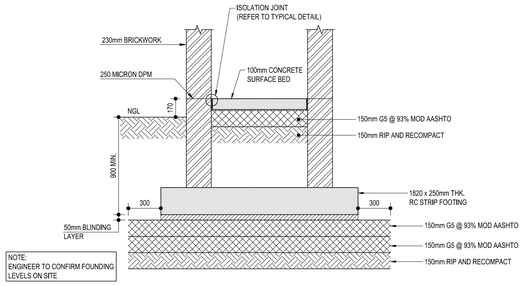
SECTION B - B
1 : 50



PLAN - FLAG POLE BASE
1 : 20

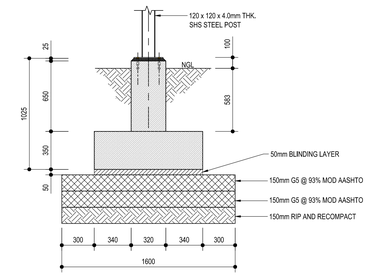


TYPICAL SECTION - HD BOLTS
1 : 10

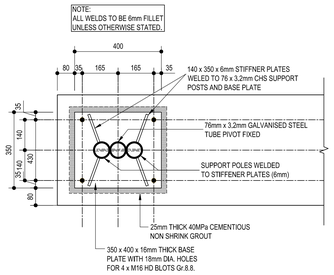


NOTE:
ENGINEER TO CONFIRM FOUNDING LEVELS ON SITE

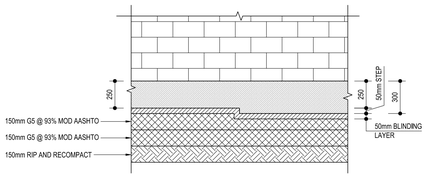
SECTION C-C
FOUNDATION DETAIL
1 : 20



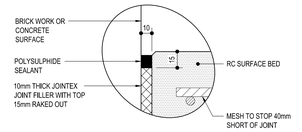
SECTION E - E
TYPICAL STEEL COLUMN BASE
1 : 20



PLAN - HD BOLTS
1 : 10



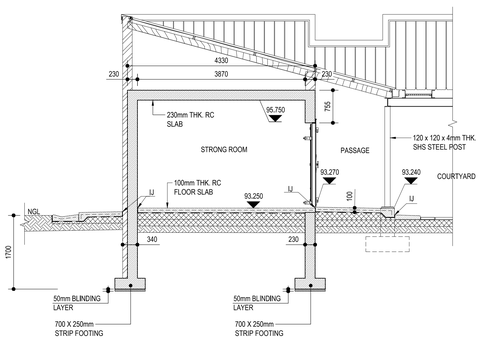
SECTION D-D
FOUNDATION DETAIL
1 : 20



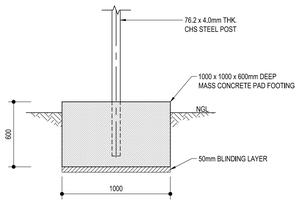
TYPICAL ISOLATION JOINT DETAIL
1 : 2

NOTE:
FOUNDING LAYERWORKS AS PER STRIP FOOTINGS

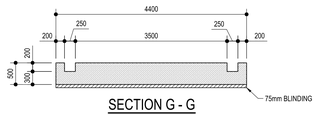
SECTION I - I
1 : 50



SECTION F-F
FOUNDATION DETAIL
1 : 50

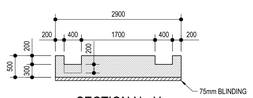


ELEVATION - INTERNAL FENCE PAD FOOTING
1 : 20

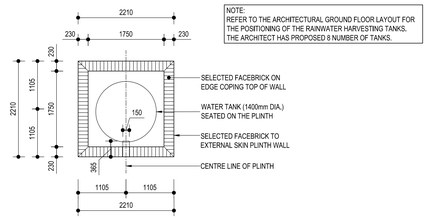


SECTION G - G
1 : 50

NOTE:
FOUNDING LAYERWORKS AS PER STRIP FOOTINGS

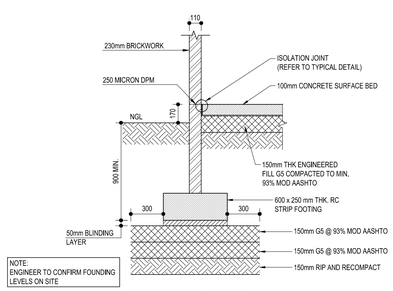


SECTION H - H
1 : 50



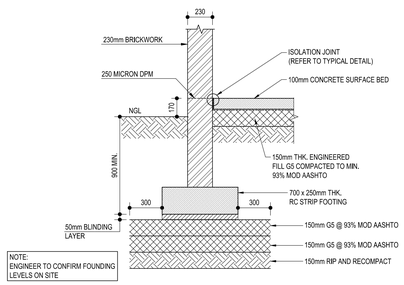
NOTE:
REFER TO THE ARCHITECTURAL GROUND FLOOR LAYOUT FOR THE POSITIONING OF THE RAINWATER HARVESTING TANKS. THE ARCHITECT HAS PROPOSED 8 NUMBER OF TANKS.

PLAN - SINGLE TANK BASE STAND
1 : 50



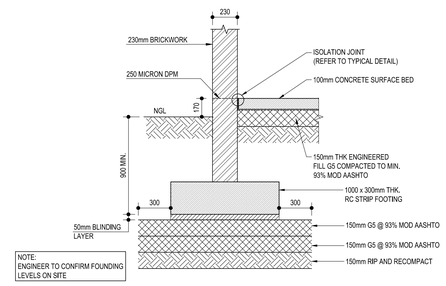
NOTE:
ENGINEER TO CONFIRM FOUNDING LEVELS ON SITE

FOUNDATION DETAIL -
600mm STRIP FOOTING
1 : 20



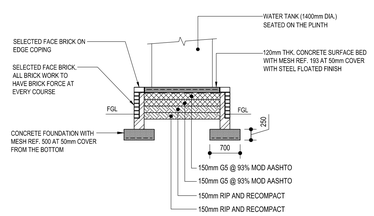
NOTE:
ENGINEER TO CONFIRM FOUNDING LEVELS ON SITE

FOUNDATION DETAIL -
700mm STRIP FOOTING
1 : 20



NOTE:
ENGINEER TO CONFIRM FOUNDING LEVELS ON SITE

FOUNDATION DETAIL -
1000mm STRIP FOOTING
1 : 20



SINGLE TANK BASE STAND
DETAIL
1 : 50

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:

CHS	-	CIRCULAR HOLLOW SECTION
DIA	-	DIAMETER
DPM	-	DAMP PROOF MEMBRANE
FGL	-	FINISHED GROUND LEVEL
HD	-	HEAVY DUTY
IJ	-	ISOLATION JOINT
NGL	-	NATURAL GROUND LEVEL
RC	-	REINFORCED CONCRETE
SHS	-	SQUARE HOLLOW SECTION
THK	-	THICK

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

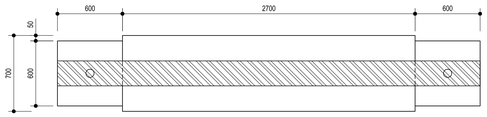
Drawing Title :
FOUNDATION LAYOUT - SHEET 2

Drawing Number :
D848-6000-002

Rev No.
C

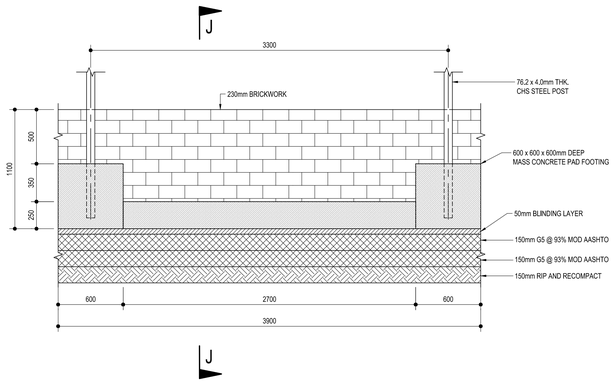
Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER



PLAN - BOUNDARY FENCE STRIP FOOTING

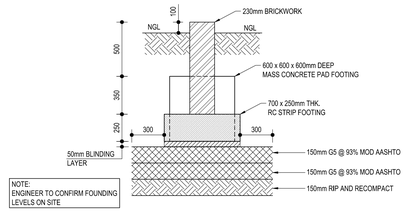
1 : 20



ELEVATION - BOUNDARY FENCE STRIP FOOTING

(119 No. OFF)

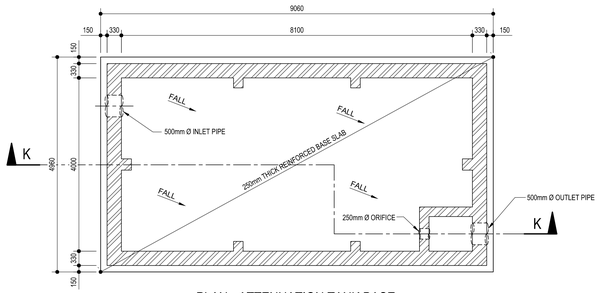
1 : 20



NOTE:
ENGINEER TO CONFIRM FOUNDING LEVELS ON SITE

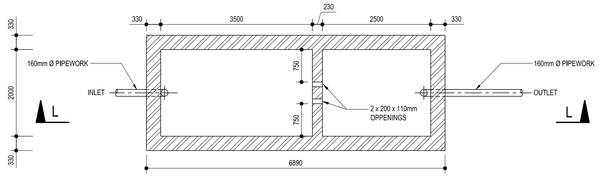
SECTION J - J
700mm STRIP FOOTING

1 : 20



PLAN - ATTENUATION TANK BASE

1 : 50

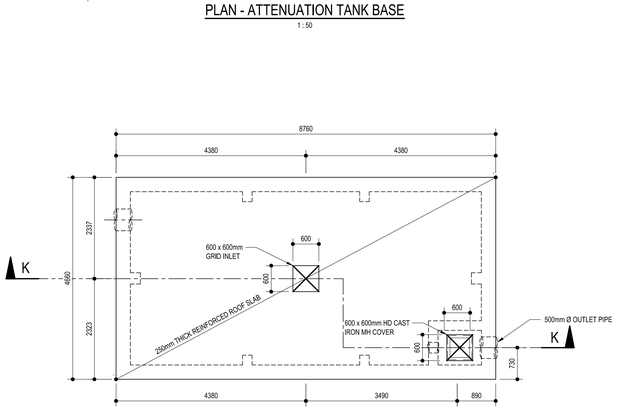


PLAN - SEPTIC TANK

1 : 50

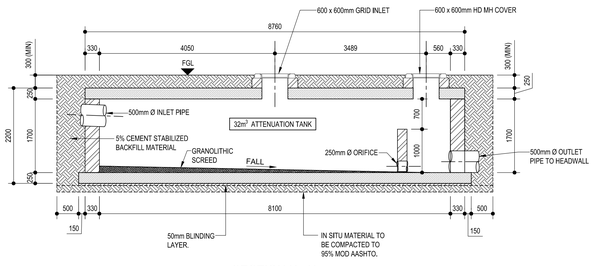
SEPTIC TANK SEALING NOTES

1. PLASTER ALL INTERNAL AND EXTERNAL SEPTIC TANK WALLS.
2. ALL WALLS TO HAVE WATERPROOF PLASTER ON BOTH FACES.
3. APPLY A 100mm WIDE STRIP OF ABE ECOFELT MEMBRANE TO ALL CORNERS OF THE SEPTIC TANK, THIS INCLUDES HORIZONTAL AND VERTICAL CORNERS.
4. APPLY ABE DURAFLEX ONTO THE PLASTER AND MEMBRANE AT 4kg/m2.
5. APPLY ONE COAT OF ABE COTE SF 356 THEREAFTER ON ALL SURFACES.
6. APPLY A 100mm WIDE STRIP OF ABE ECOFELT MEMBRANE TO ALL CORNERS OF THE SEPTIC TANK AGAIN AND APPLY A SECOND COAT OF ABE COTE 356 ON ALL SURFACES THEREAFTER.
7. APPLY A THIRD COAT OF ABE COTE SF 356 THEREAFTER ON ALL SURFACES.



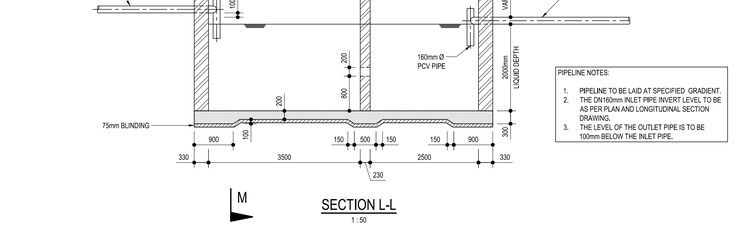
PLAN - COVER SLAB

1 : 50



SECTION K - K

1 : 50

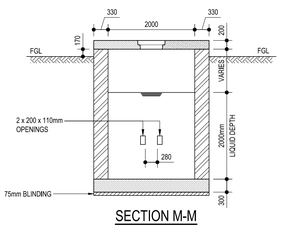


SECTION L-L

1 : 50

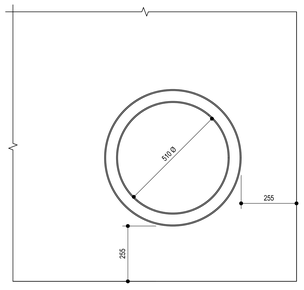
PIPELINE NOTES:

1. PIPELINE TO BE LAID AT SPECIFIED GRADIENT.
2. THE DN160mm INLET PIPE INVERT LEVEL TO BE AS PER PLAN AND LONGITUDINAL SECTION DRAWING.
3. THE LEVEL OF THE OUTLET PIPE IS TO BE 100mm BELOW THE INLET PIPE.

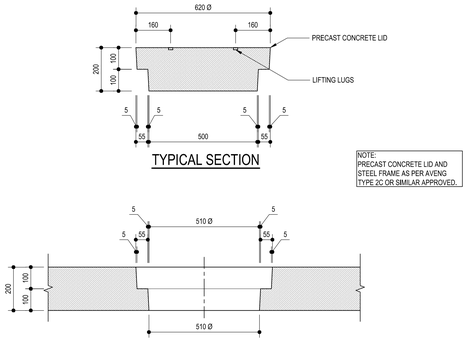


SECTION M-M

1 : 50



PLAN



NOTE:
PRECAST CONCRETE LID AND STEEL FRAME AS PER AVENG TYPE 2C OR SIMILAR APPROVED.

DETAILS OF CIRCULAR FRAME AND COVER

1 : 10

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:

Ø	-	DIAMETER
FGL	-	FINISHED GROUND LEVEL
HD	-	HEAVY DUTY
MH	-	MANHOLE
MIN	-	MINIMUM

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION LAYOUT - SHEET 3

Drawing Number :

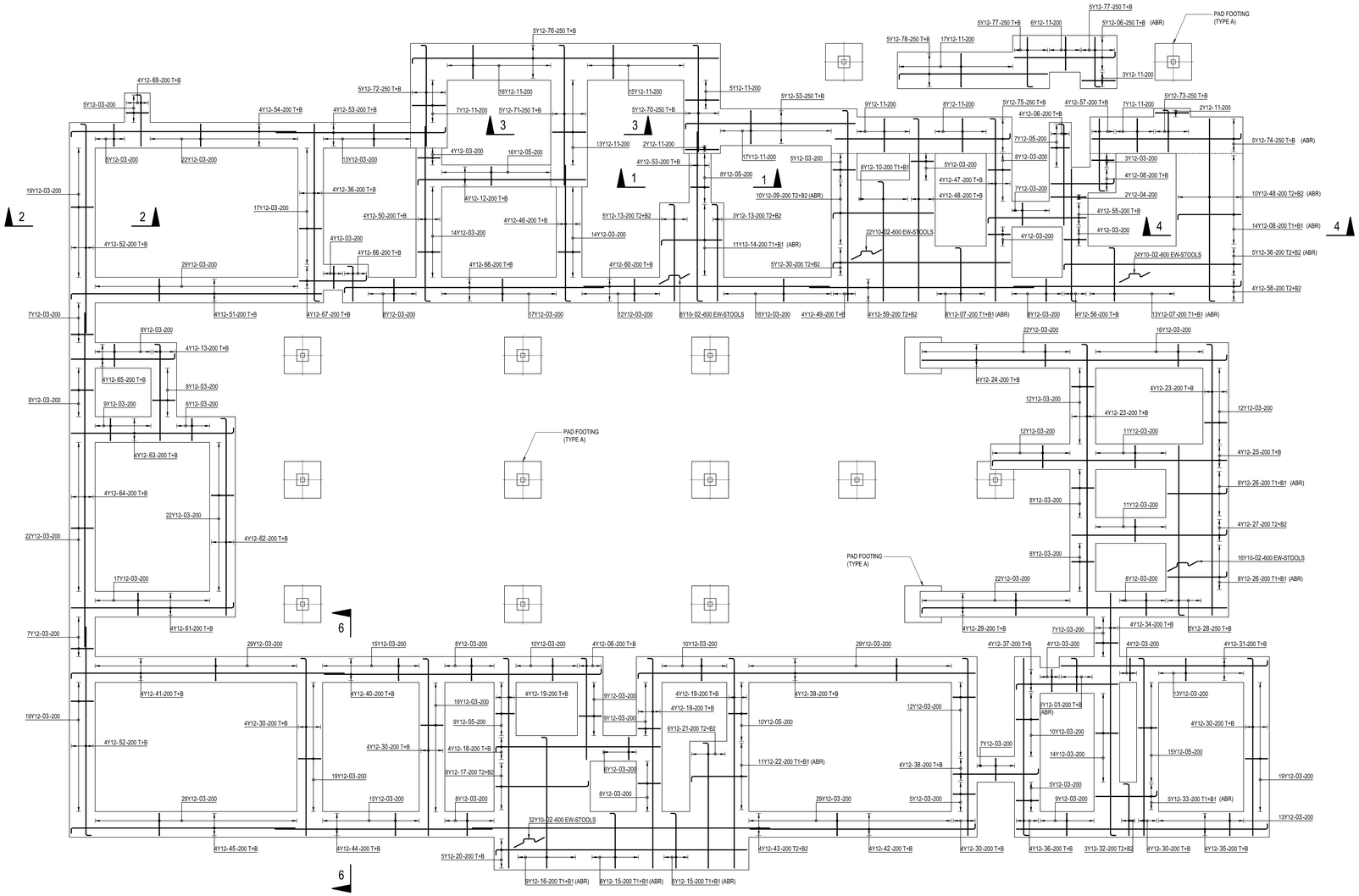
D848-6000-003

Rev No.

C

Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

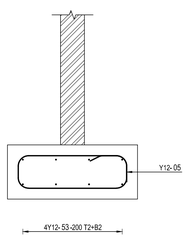
FOR TENDER



NOTE:
REFER TO DRAWING D848-6000-005
FOR SECTION 6-6 (STARTER BAR DETAILS)

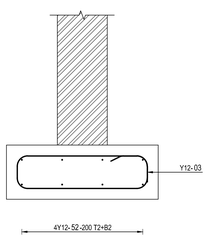
COMMUNITY SERVICE CENTRE FOUNDATION REINFORCEMENT LAYOUT

1 : 50



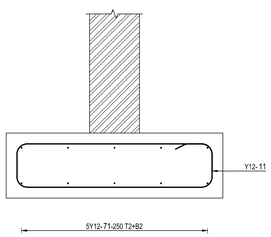
TYPICAL SECTION 1 - 1
600mm STRIP FOOTING

1 : 10



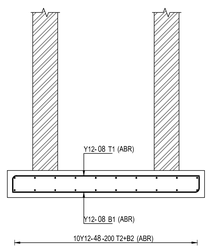
TYPICAL SECTION 2 - 2
700mm STRIP FOOTING

1 : 10



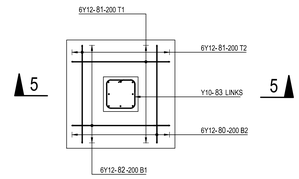
TYPICAL SECTION 3 - 3
1000mm STRIP FOOTING

1 : 10



TYPICAL SECTION 4-4

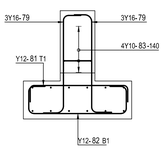
1 : 20



PLAN - PAD FOOTING (TYPE A)

(1000 x 1000 x 350mm DEEP BASE
WITH 320 x 320 x 650mm HIGH STUB COLUMN)
(17 No. OFF)

1 : 20



TYPICAL SECTION 5-5

1 : 20

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:

ABR	-	ALTERNATE BARS REVERSED
B	-	BOTTOM
EW	-	EACH WAY
T	-	TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION REINFORCEMENT DETAILS - SHEET 1

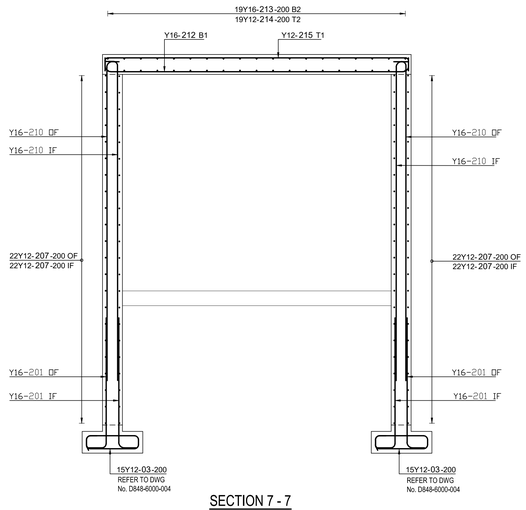
Drawing Number :

D848-6000-004

Rev No. C

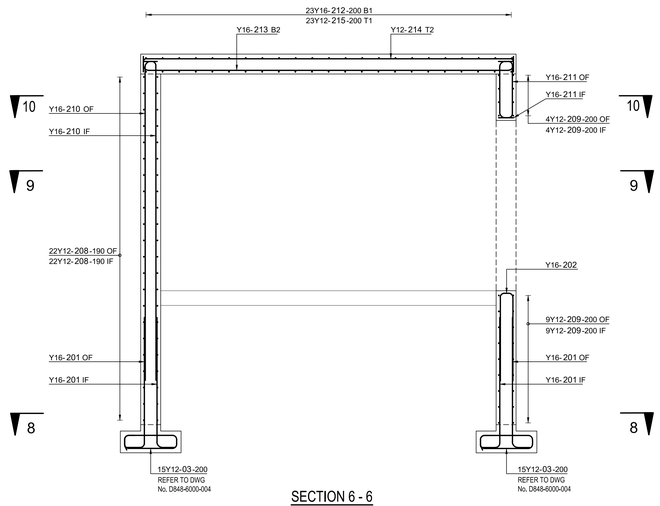
Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER



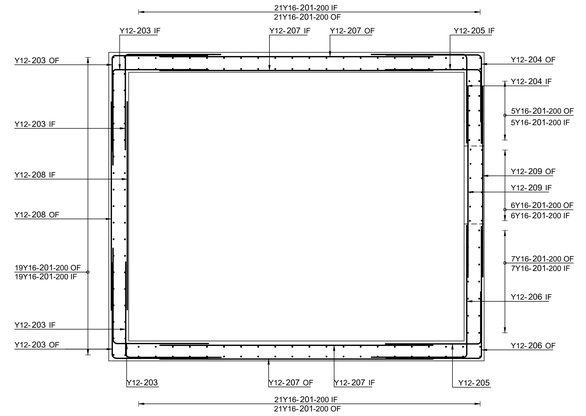
SECTION 7 - 7

1 : 25



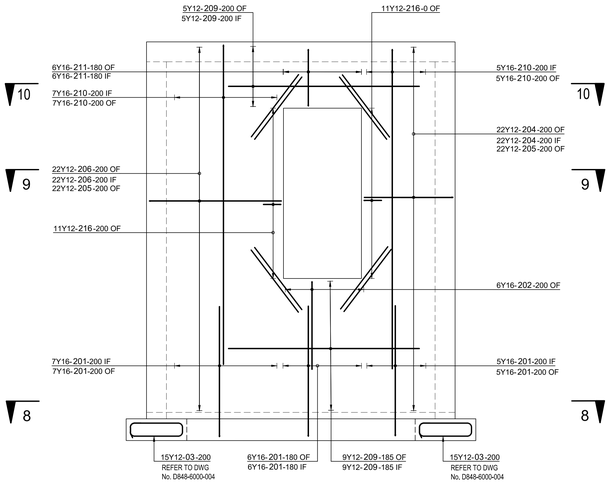
SECTION 6 - 6

1 : 25



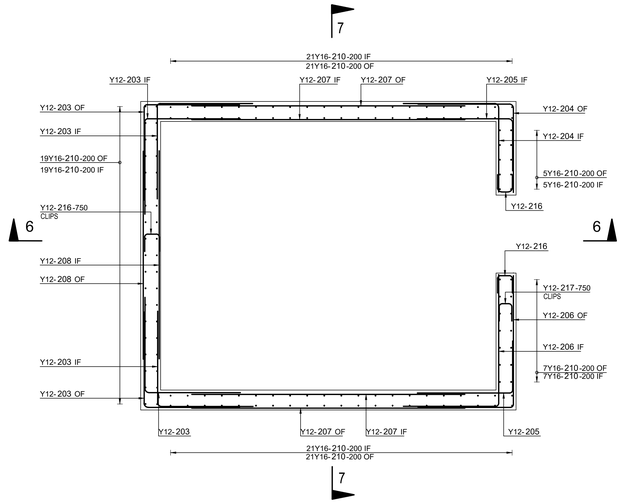
SECTION 8 - 8

1 : 25



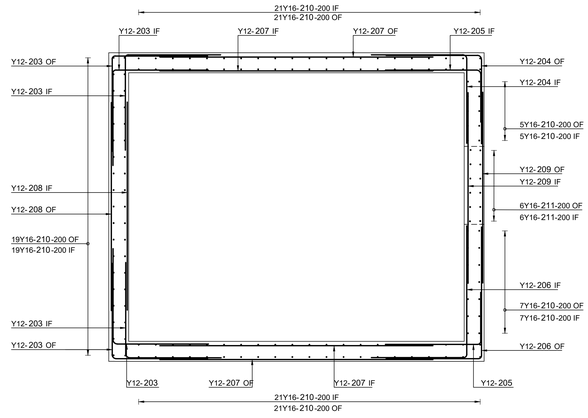
FRONT SECTIONAL ELEVATION

1 : 25



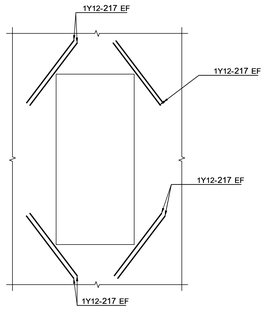
SECTIONAL PLAN 9 - 9

1 : 25



SECTION 10 - 10

1 : 25



ADDITIONAL REINFORCEMENT

1 : 25

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    B - BOTTOM
    EF - EACH FACE
    IF - INSIDE FACE
    OF - OUTSIDE FACE
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION REINFORCEMENT DETAILS - SHEET 2

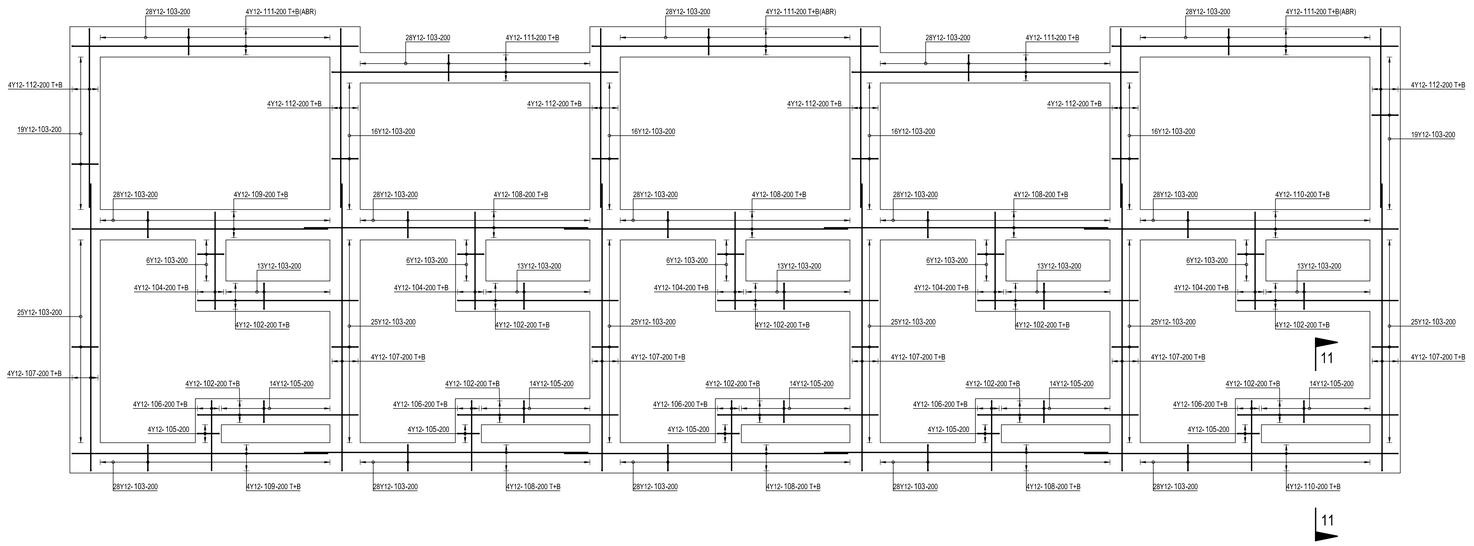
Drawing Number :

D848-6000-005

Rev No. C

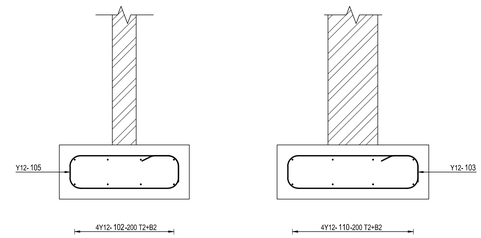
Scale : **AS SHOWN**
Drawing Size : **A0**
Design : **R. KHOZA**
Drawn : **R. KHOZA**
Date : **15-08-2024**
Checked : **M. GOVENDER**

FOR TENDER



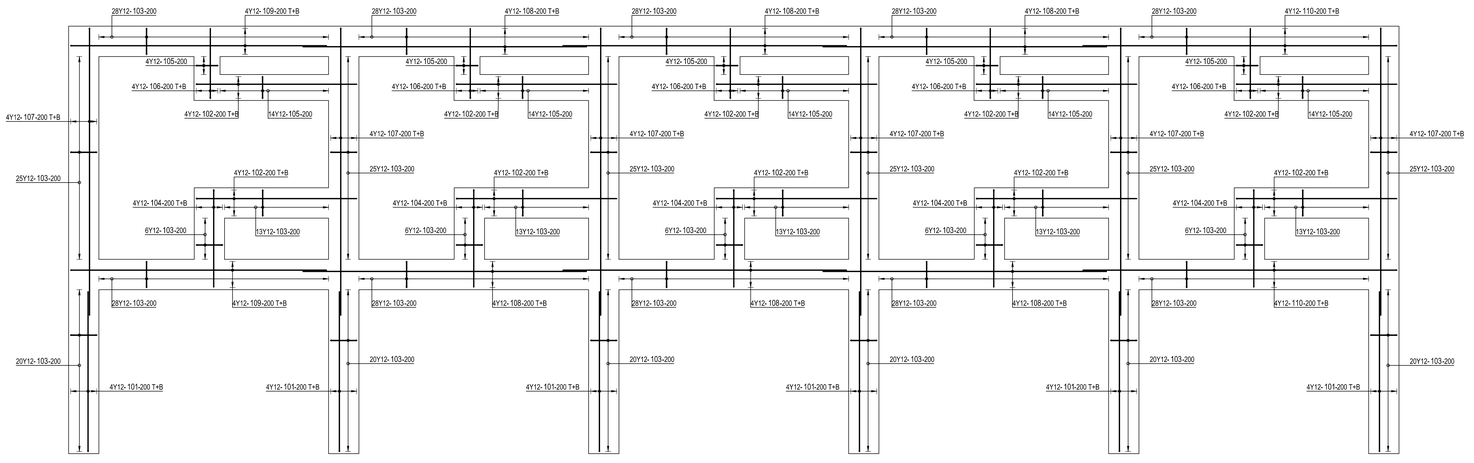
BARRACKS (BLOCK D1) FOUNDATION
REINFORCEMENT LAYOUT

1 : 50



TYPICAL SECTION 11 - 11
600 & 700mm STRIP FOOTING

1 : 10



BARRACKS (BLOCK D2) FOUNDATION
REINFORCEMENT LAYOUT

1 : 50

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    ABR - ALTERNATE BARS REVERSED
    B - BOTTOM
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

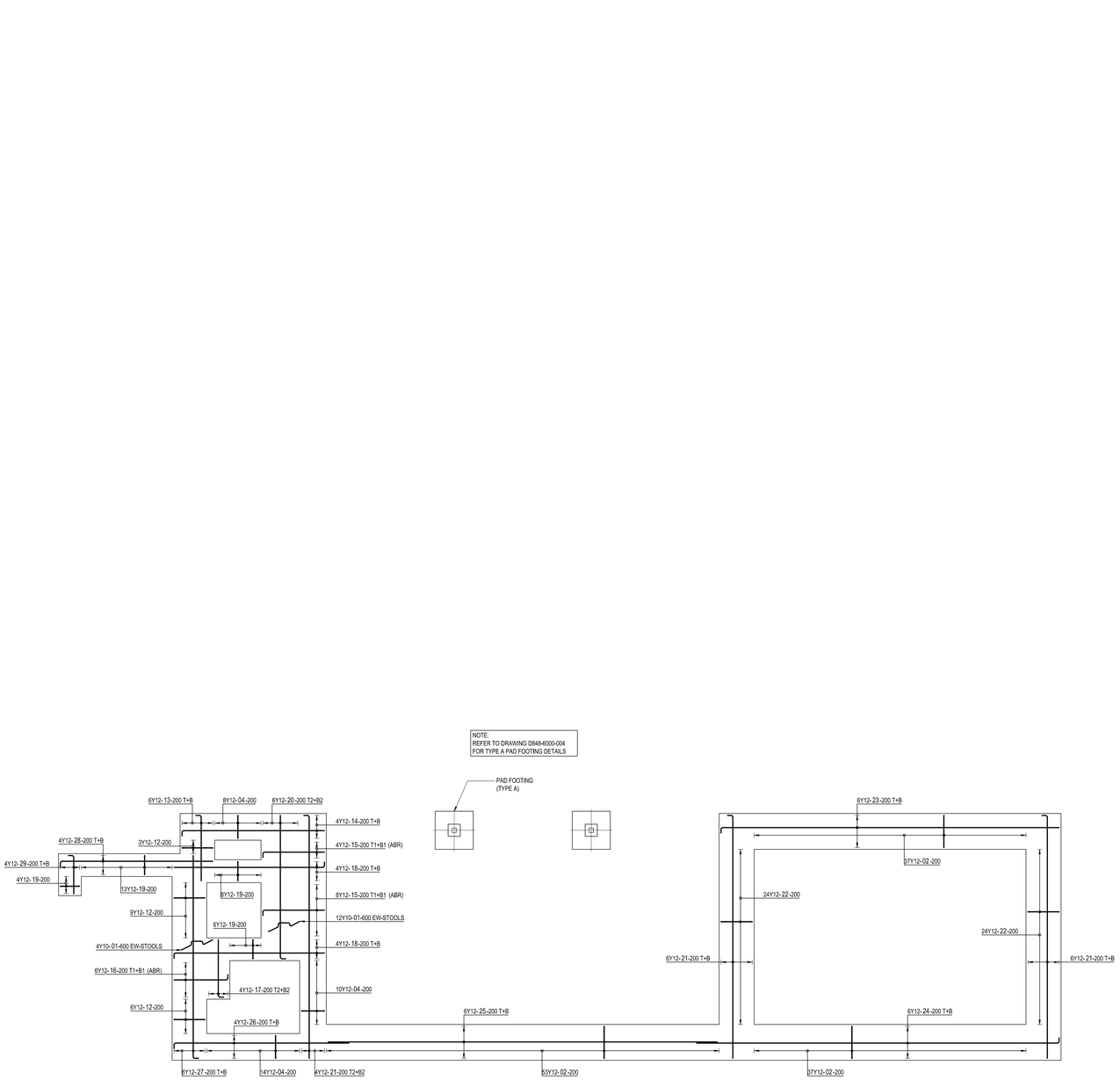
Drawing Title :
FOUNDATION REINFORCEMENT DETAILS - SHEET 3

Drawing Number :
D848-6000-006

Rev No.
C

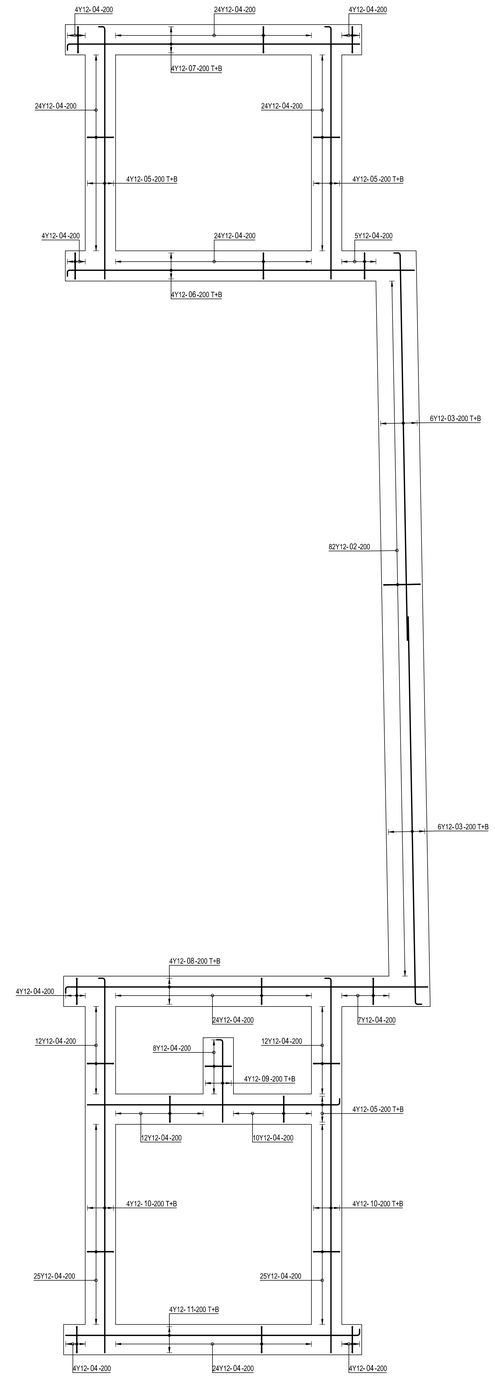
Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER



BLOCK B, C & E FOUNDATION REINFORCEMENT LAYOUT

1 : 50



TYPICAL SECTION
600mm STRIP FOOTING

1 : 10

TYPICAL SECTION
700mm STRIP FOOTING

1 : 10

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:

ABR	-	ALTERNATE BARS REVERSED
B	-	BOTTOM
EW	-	EACH WAY
T	-	TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION REINFORCEMENT DETAILS - SHEET 4

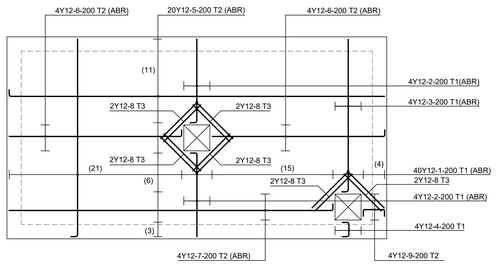
Drawing Number :

D848-6000-007

Rev No. C

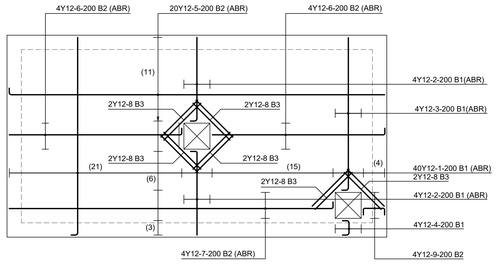
Scale: **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date: **15-08-2024**	Checked : **M. GOVENDER**

FOR TENDER



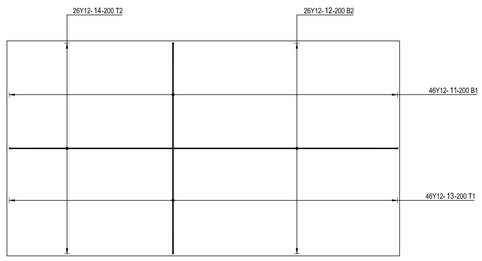
TOP SLAB PLAN - ATTENUATION TANK TOP STEEL

1 : 50



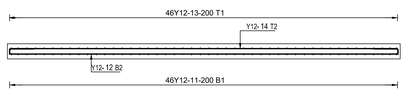
TOP SLAB PLAN - ATTENUATION TANK BOTTOM STEEL

1 : 50



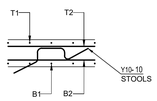
PLAN - ATTENUATION TANK BASE SLAB STEEL

1 : 50



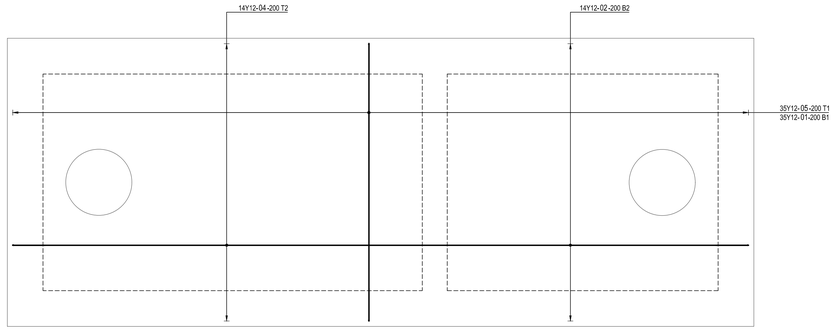
TYPICAL BASE SECTION

1 : 50



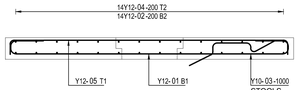
TYPICAL SECTION

1 : 20



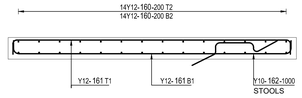
PLAN - SEPTIC TANK COVER SLAB STEEL

1 : 20



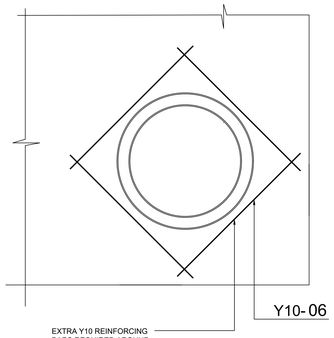
TYPICAL CROSS SECTION
SEPTIC TANK COVER SLAB

1 : 20



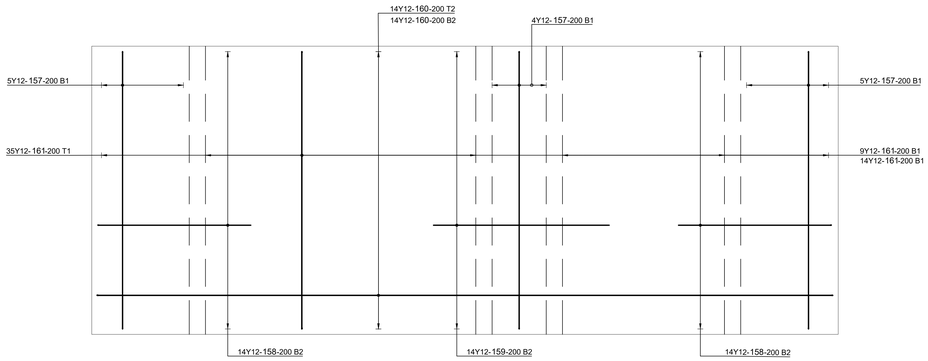
TYPICAL CROSS SECTION
SEPTIC TANK BASE SLAB

1 : 20



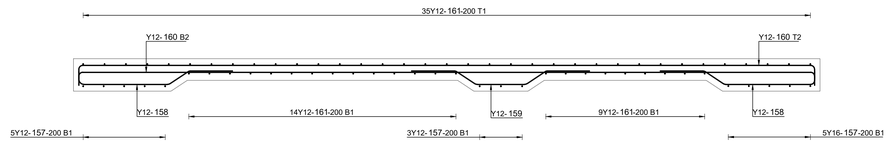
PLAN - SEPTIC TANK CIRCULAR FRAME

1 : 10



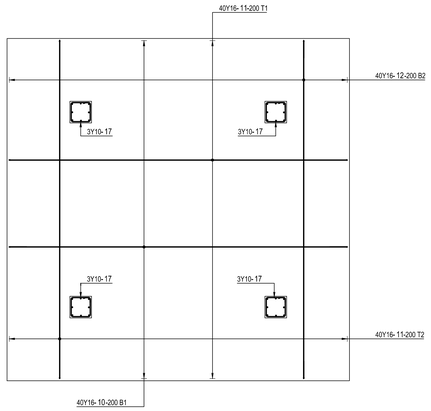
PLAN - SEPTIC TANK BASE SLAB STEEL

1 : 20



TYPICAL LONGITUDINAL SECTION
SEPTIC TANK BASE SLAB

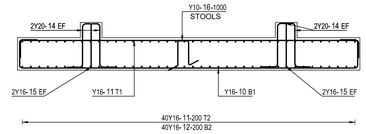
1 : 20



PLAN - ELEVATED TANK STAND BASE

(7 900 x 7 900 x 750mm DP WITH 4 x 500 x 500 x 350mm DP STUBS)

1 : 50



TYPICAL SECTION - ELEVATED TANK STAND BASE

(7 900 x 7 900 x 750mm DP WITH 4 x 500 x 500 x 350mm DP STUBS)

1 : 50

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:

ABR	-	ALTERNATE BARS REVERSED
B	-	BOTTOM
DP	-	DEEP
EF	-	EACH FACE
T	-	TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

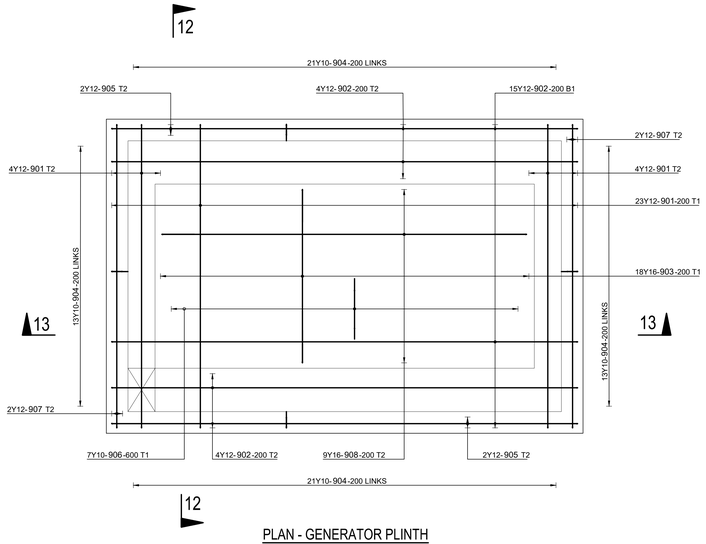
FOUNDATION REINFORCEMENT DETAILS - SHEET 5

Drawing Number : **D848-6000-008**

Rev No. C

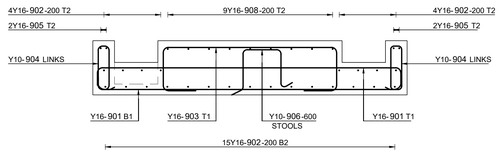
Scale : **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

FOR TENDER



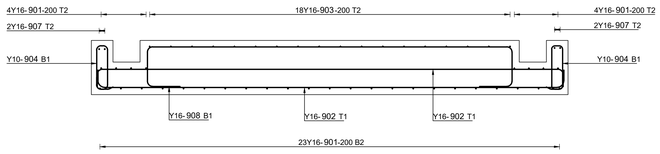
PLAN - GENERATOR PLINTH

1 : 20



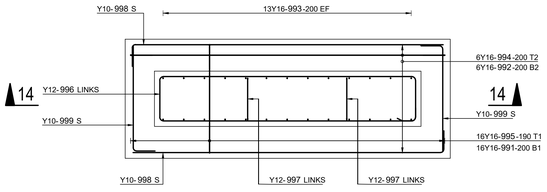
SECTION 12 - 12

1 : 20



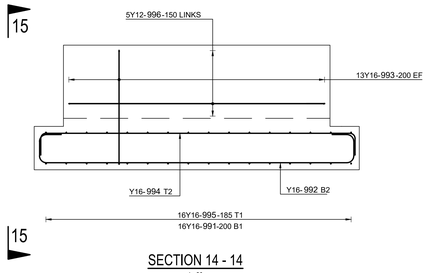
SECTION 13 - 13

1 : 20



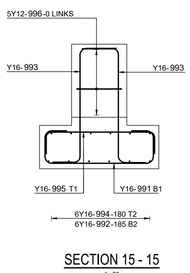
PLAN - FLAG POLE BASE

1 : 20



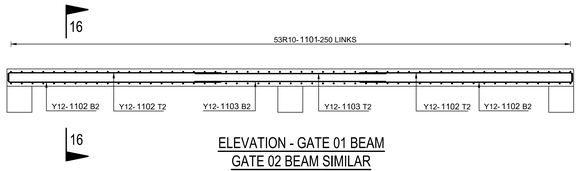
SECTION 14 - 14

1 : 20



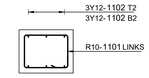
SECTION 15 - 15

1 : 20



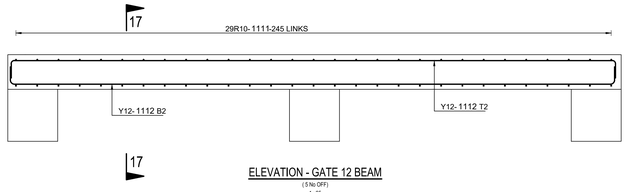
ELEVATION - GATE 01 BEAM
GATE 02 BEAM SIMILAR

1 : 50



SECTION 16 - 16

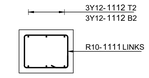
1 : 20



ELEVATION - GATE 12 BEAM

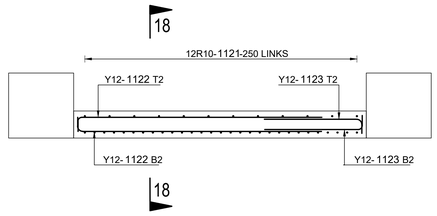
[5 No OFF]

1 : 25



SECTION 17 - 17

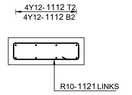
1 : 20



ELEVATION - BOUNDARY FENCE STRIP FOOTING

(119 No. OFF)

1 : 20



SECTION 18 - 18

1 : 20

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    B - BOTTOM
    EF - EACH FACE
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING

1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION REINFORCEMENT DETAILS - SHEET 6

Drawing Number :

D848-6000-009

Rev No.

C

Scale :
AS SHOWN

Design :
R. KHOZA

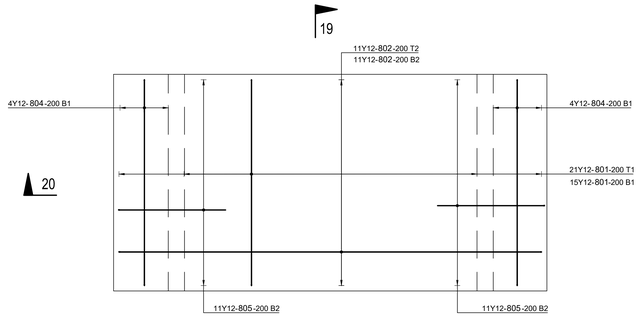
Drawing Size :
A0

Drawn :
R. KHOZA

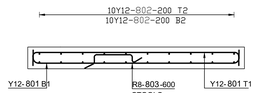
Date :
15-08-2024

Checked :
M. GOVENDER

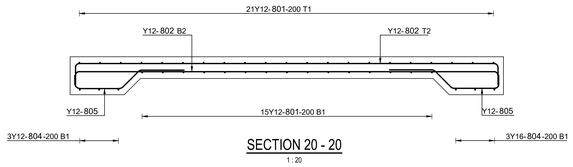
FOR TENDER



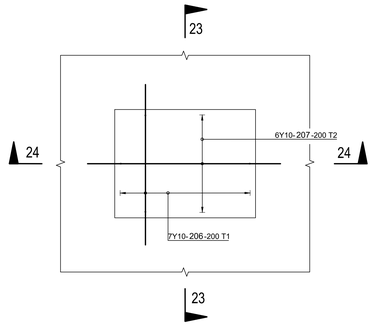
PLAN - PEDESTRIAN GATE BASE SLAB
1 : 20



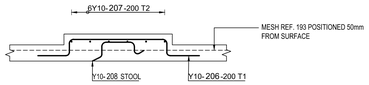
SECTION 19 - 19
1 : 20



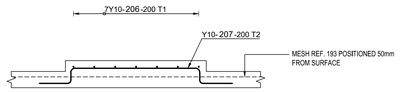
SECTION 20 - 20
1 : 20



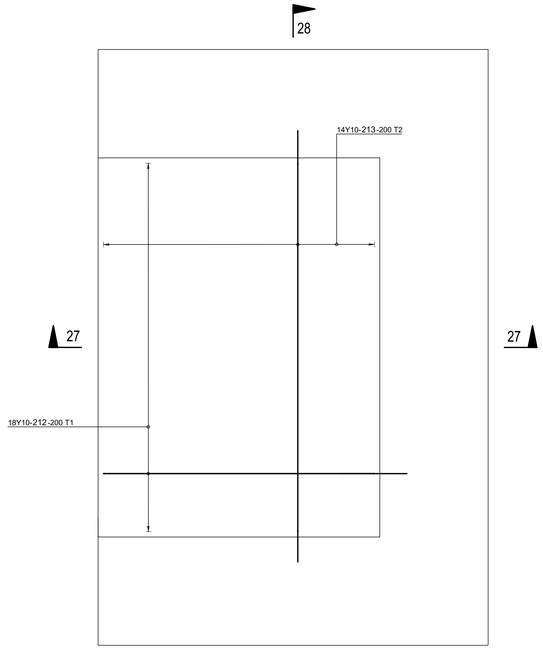
PLAN - FIRE HOSEREEL PUMP PLINTH
1 : 20



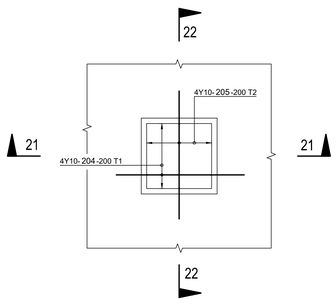
SECTION 23 - 23
1 : 20



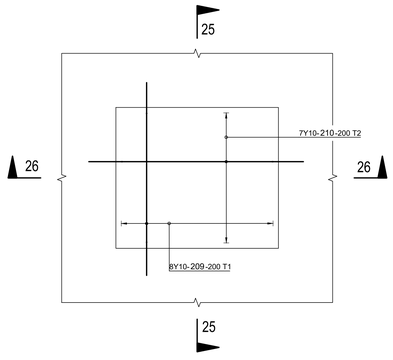
SECTION 24 - 24
1 : 20



PLAN - HOT WATER TANK AND HEAT PUMP PLINTH
(2 No. OFF)
1 : 20

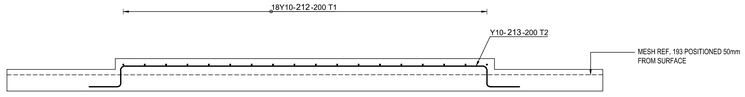


PLAN - PORTABLE WATER PUMP PLINTH
1 : 20

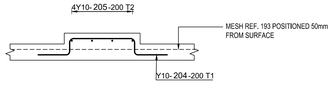


PLAN - FIRE HYDRANT PUMP PLINTH
1 : 20

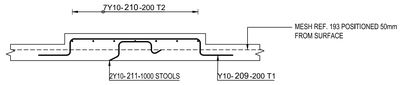
SECTION 27 - 27
(2 No. OFF)
1 : 20



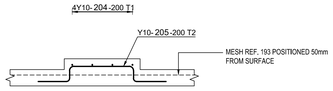
SECTION 28 - 28
(2 No. OFF)
1 : 20



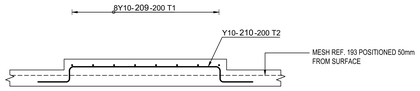
SECTION 21 - 21
1 : 20



SECTION 25 - 25
1 : 20



SECTION 22 - 22
1 : 20



SECTION 26 - 26
1 : 20

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    B - BOTTOM
    EF - EACH FACE
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

FOUNDATION REINFORCEMENT DETAILS - SHEET 7

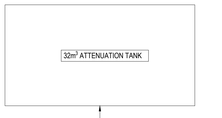
Drawing Number :

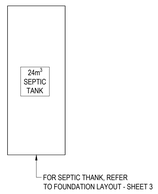
D848-6000-010

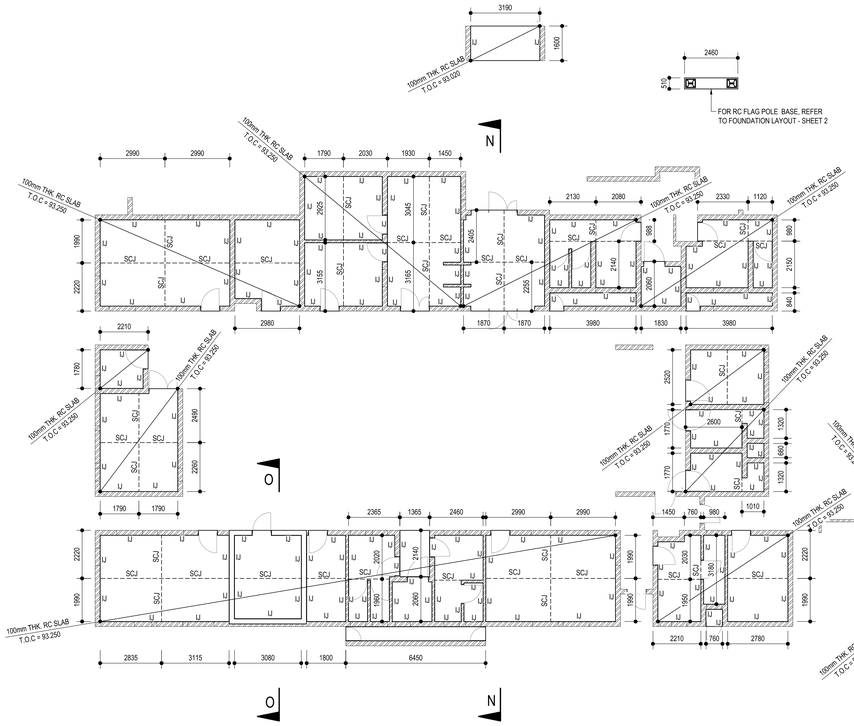
Rev No. C

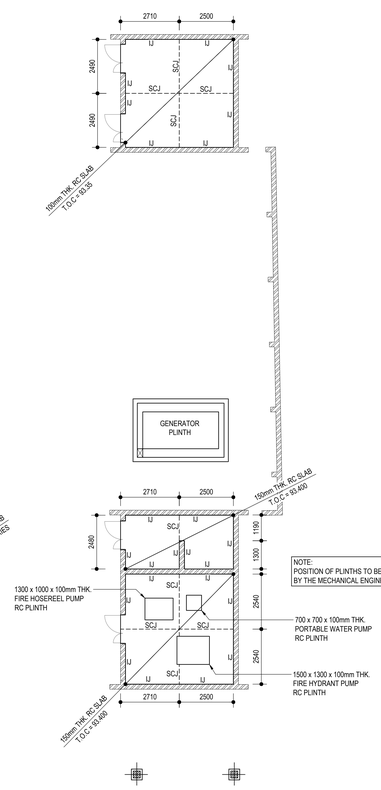
Scale : **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

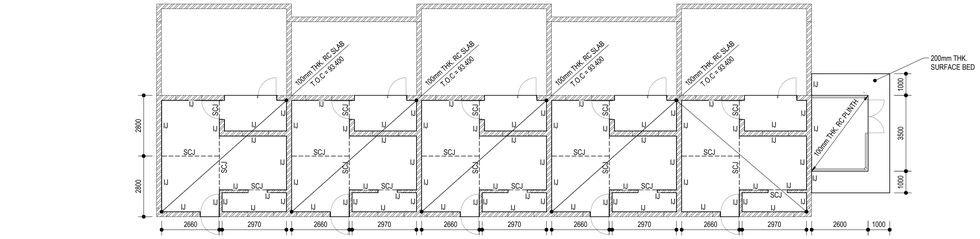
FOR TENDER

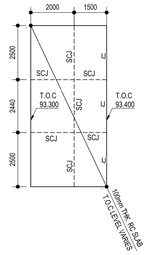


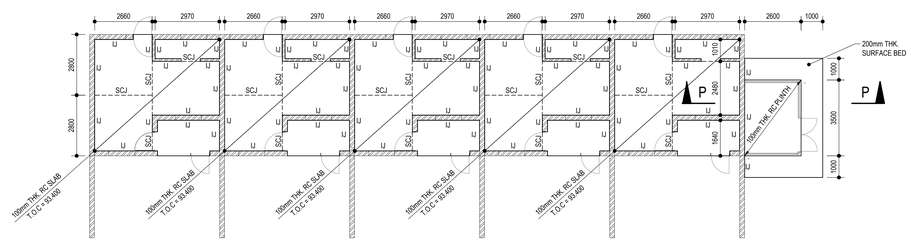












SURFACE BED LAYOUT

1 : 100

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:
    IJ - ISOLATION JOINT
    RC - REINFORCED CONCRETE
    SCJ - SAW CUT JOINT
    THK - THICK
    T.O.C - TOP OF CONCRETE

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

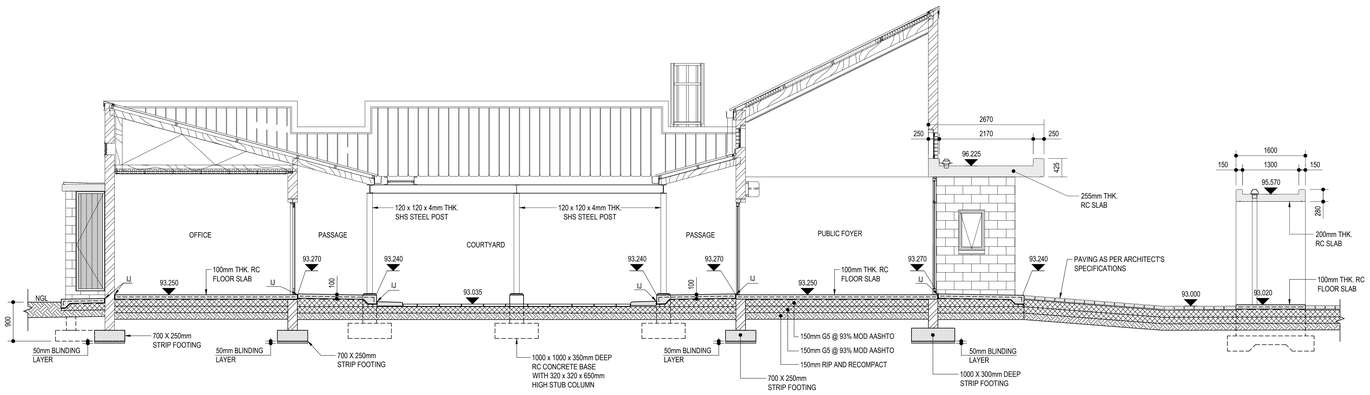
SURFACE BED LAYOUT - SHEET 1

Drawing Number : **D848-6000-011**

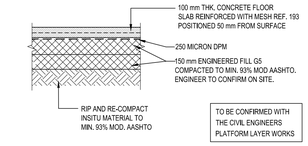
Rev No. C

Scale: **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

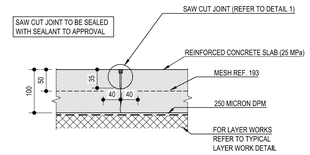
FOR TENDER



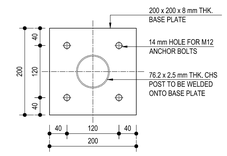
SECTION N - N
1 : 50



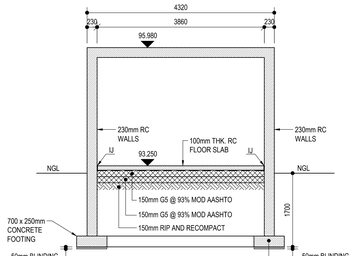
TYPICAL LAYER WORKS DETAIL
1 : 20



SAW CUT DETAIL
1 : 5



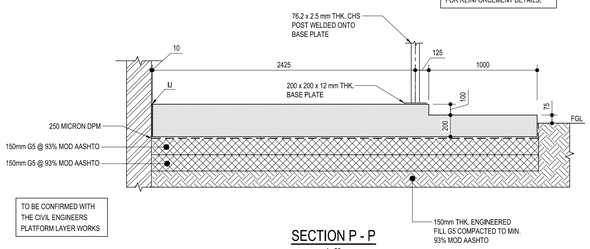
TYPICAL BASE PLATE PLAN
1 : 5



SECTION O - O
1 : 50

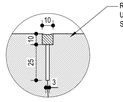
NOTE:
REFER TO DRAWING D848-6000-003
FOR TYPICAL LAYER WORKS DETAIL

NOTE:
REFER TO DRAWING D848-6000-010
FOR REINFORCEMENT DETAILS.

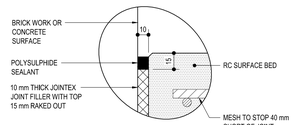


TO BE CONFIRMED WITH THE CIVIL ENGINEERS PLATFORM LAYER WORKS

SECTION P - P
1 : 20

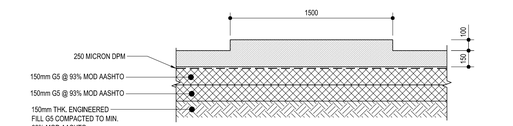


DETAIL 1
1 : 2



ISOLATION JOINT DETAIL (IJ)
1 : 2

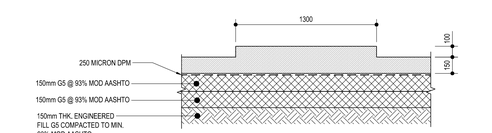
NOTE:
REFER TO DRAWING D848-6000-010
FOR REINFORCEMENT DETAILS.



TO BE CONFIRMED WITH THE CIVIL ENGINEERS PLATFORM LAYER WORKS

FIRE HYDRANT PUMP RC PLINTH DETAIL
1 : 20

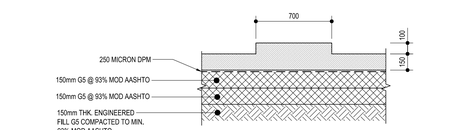
NOTE:
REFER TO DRAWING D848-6000-010
FOR REINFORCEMENT DETAILS.



TO BE CONFIRMED WITH THE CIVIL ENGINEERS PLATFORM LAYER WORKS

FIRE HOSEREEL PUMP RC PLINTH DETAIL
1 : 20

NOTE:
REFER TO DRAWING D845-6000-010
FOR REINFORCEMENT DETAILS.



TO BE CONFIRMED WITH THE CIVIL ENGINEERS PLATFORM LAYER WORKS

PORTABLE WATER PUMP RC PLINTH DETAIL
1 : 20

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:

CHS	-	CIRCULAR HOLLOW SECTION
DPM	-	DAMP PROOF MEMBRANE
IJ	-	ISOLATION JOINT
MIN.	-	MINIMUM
NGL	-	NATURAL GROUND LEVEL
RC	-	REINFORCED CONCRETE
THK	-	THICK

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :
NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :
SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :
NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

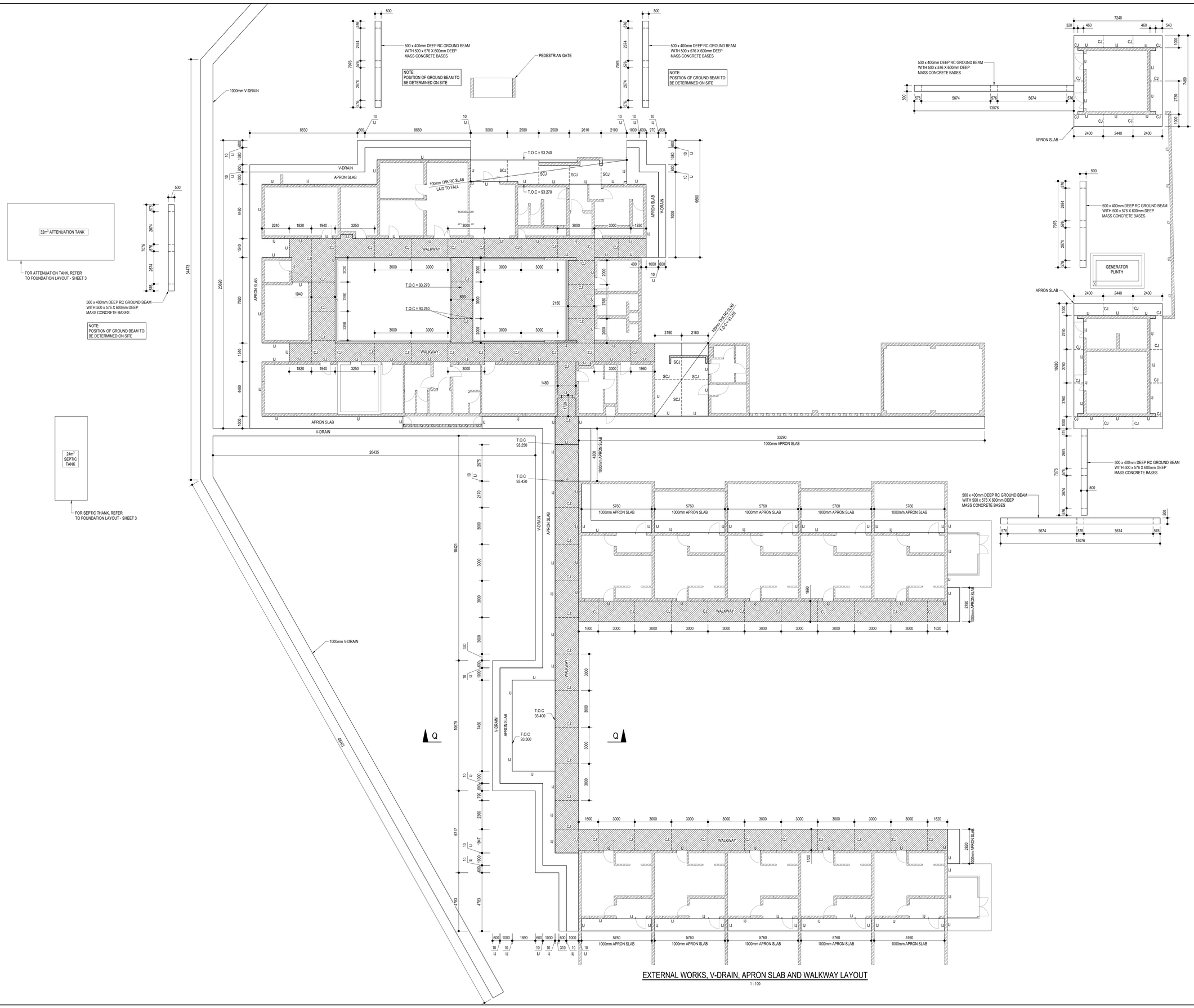
Drawing Title :
SURFACE BED LAYOUT - SHEET 2

Drawing Number :
D848-6000-012

Rev No.
C

Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER



REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:
    CJ - CONSTRUCTION JOINT
    IJ - ISOLATION JOINT
    RC - REINFORCED CONCRETE
    SCJ - SAW CUT JOINT
    T.O.C - TOP OF CONCRETE
    THK - THICK

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :
NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :
SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :
NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

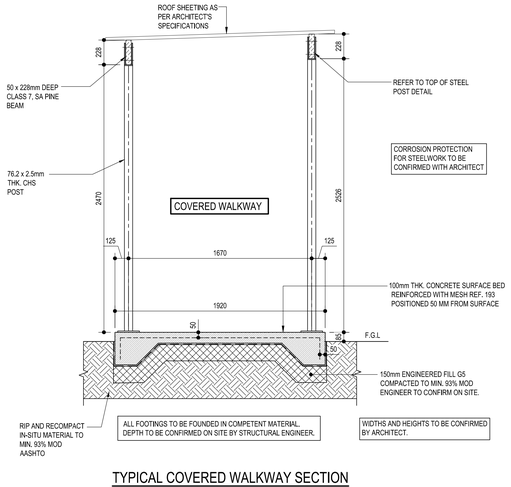
Drawing Title :
EXTERNAL WORKS, V-DRAIN, APRON SLAB AND WALKWAY LAYOUT - SHEET 1

Drawing Number :
D848-6000-013

Rev No.
C

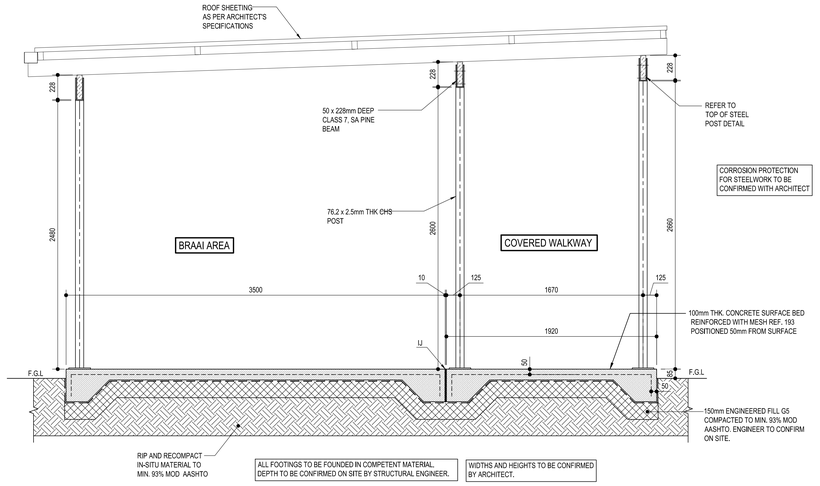
Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

FOR TENDER



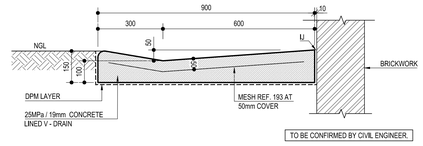
TYPICAL COVERED WALKWAY SECTION

1 : 20



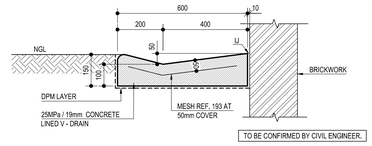
SECTION Q - Q

1 : 20



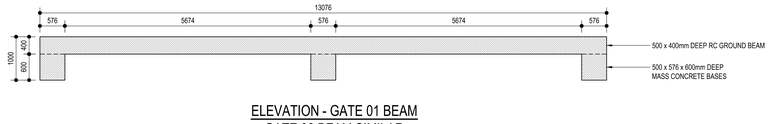
TYPICAL 900mm V-DRAIN DETAIL

1 : 10



TYPICAL 600mm V-DRAIN DETAIL

1 : 10



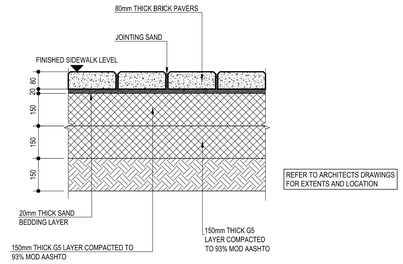
ELEVATION - GATE 01 BEAM
GATE 02 BEAM SIMILAR

1 : 50

ELEVATION - GATE 12 BEAM

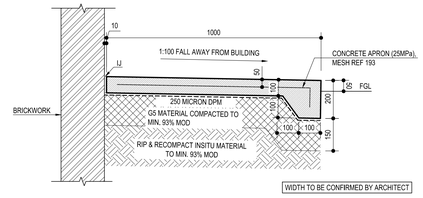
(5 No OFF)

1 : 50



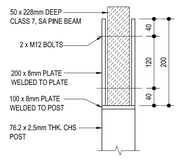
TYPICAL BRICK PAVER DETAIL

SCALE 1 : 10



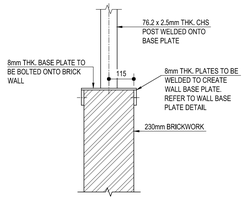
TYPICAL CONCRETE APRON DETAIL

1 : 10



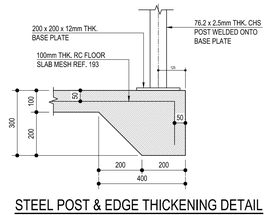
TOP OF STEEL POST DETAIL

1 : 5



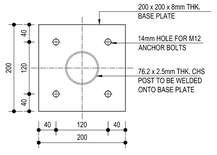
STEEL POST ONTO WALL DETAIL

1 : 10



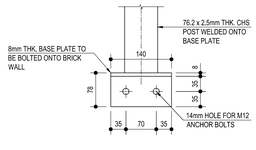
STEEL POST & EDGE THICKENING DETAIL

1 : 10



TYPICAL BASE PLATE PLAN

1 : 5



WALL BASE PLATE DETAIL

1 : 5

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:
   - BLINDING : 15 MPa
   - MASS CONCRETE : 15 MPa
   - RC FOUNDATIONS : 25 MPa
   - STRUCTURAL SCREEDS : 25 MPa
   - SURFACE BEDS : 25 MPa
   - BEAMS : 30 MPa
   - COLUMNS : 30 MPa
   - SUSPENDED SLABS : 30 MPa
9. COVER TO STEEL REINFORCING:
   - FOOTINGS : 50 mm
   - COLUMNS : 30 mm
   - WALLS : 30 mm
   - SURFACE BEDS : 30 mm
   - ROOF SLABS : 30 mm
   - BEAMS : 30 mm
10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:
    - CHS - CIRCULAR HOLLOW SECTION
    - DPM - DAMP PROOF MEMBRANE
    - FGL - FINISHED GROUND LEVEL
    - IJ - ISOLATION JOINT
    - NGL - NATURAL GROUND LEVEL
    - RC - REINFORCED CONCRETE
    - THK - THICK

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

EXTERNAL WORKS, V-DRAIN, APRON SLAB AND WALKWAY LAYOUT - SHEET 2

Drawing Number :

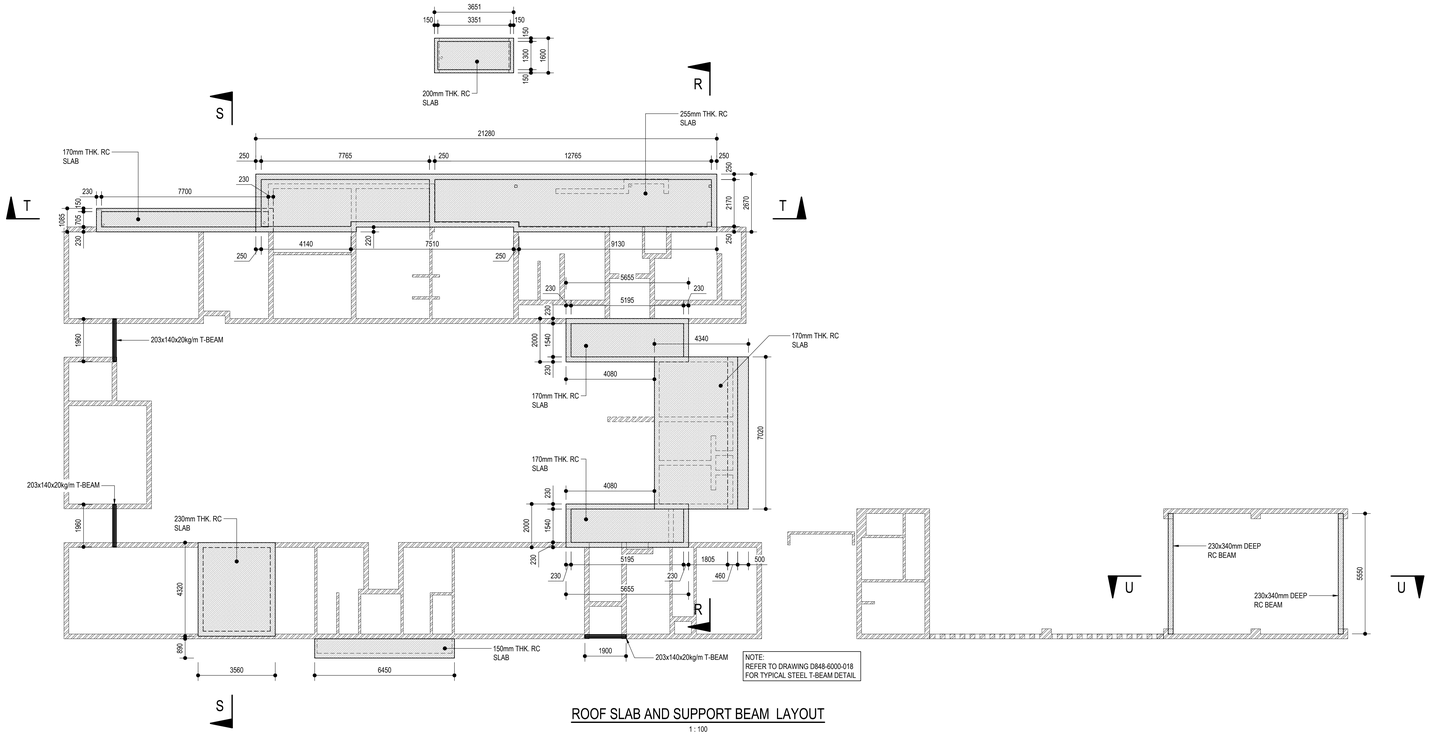
D848-6000-014

Rev No.

C

Scale : AS SHOWN	Design : R. KHOZA
Drawing Size : A0	Drawn : R. KHOZA
Date : 15-08-2024	Checked : M. GOVENDER

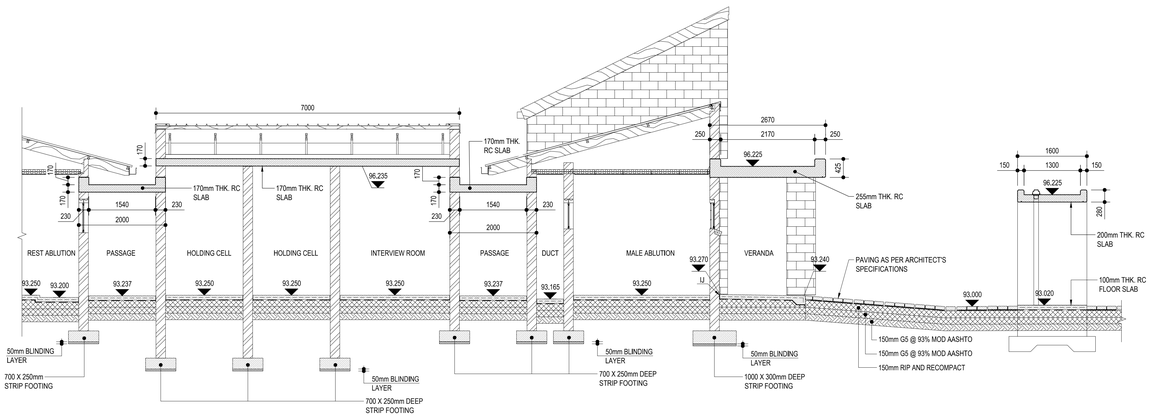
FOR TENDER



NOTE:
REFER TO DRAWING D848-6000-018 FOR TYPICAL STEEL T-BEAM DETAIL

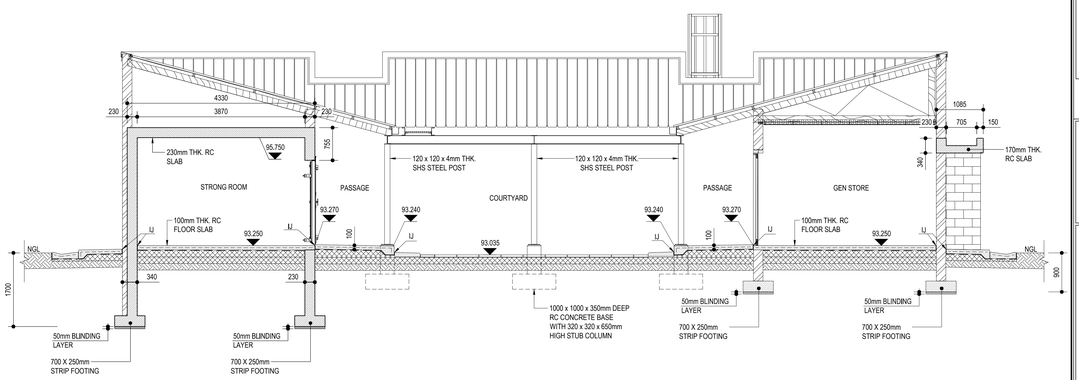
ROOF SLAB AND SUPPORT BEAM LAYOUT

1 : 100



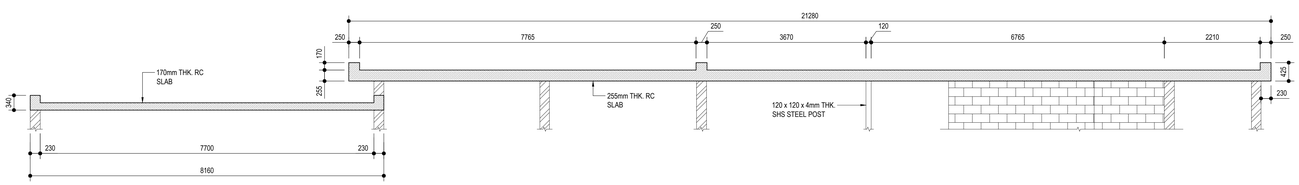
SECTION R - R

1 : 50



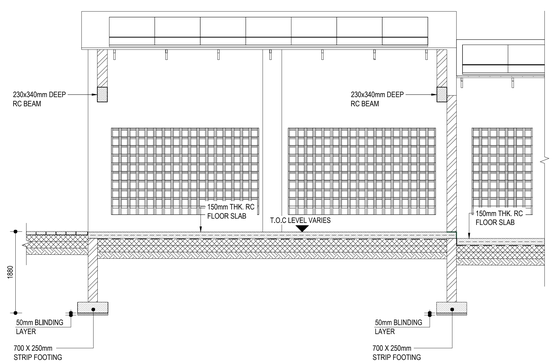
SECTION S - S

1 : 50



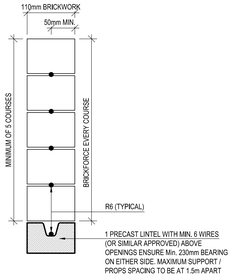
SECTION T - T

1 : 50



SECTION U - U

1 : 50

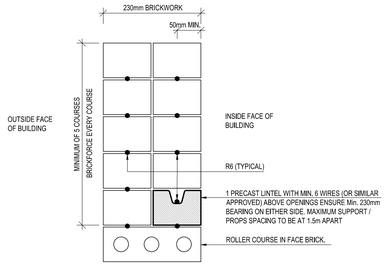


TYPICAL DETAIL:

110 BRICKWORK LINTEL ABOVE OPENING

MAX 3m OPENINGS

1 : 5

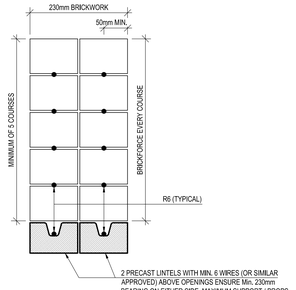


TYPICAL DETAIL:

EXTERNAL 230 BRICKWORK LINTEL ABOVE OPENING

MAX 3m OPENINGS

1 : 5

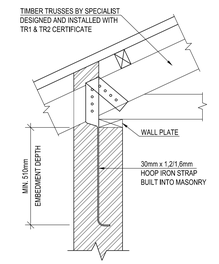


TYPICAL DETAIL:

230 BRICKWORK LINTEL ABOVE OPENING

MAX 3.5m OPENINGS

1 : 5



TYPICAL DETAIL:

TRUSS ANCHORAGE

1:10

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:

IJ	-	ISOLATION JOINT
MAX	-	MAXIMUM
MIN	-	MINIMUM
NGL	-	NATURAL GROUND LEVEL
RC	-	REINFORCED CONCRETE
SHS	-	SQUARE HOLLOW SECTION
THK	-	THICK
T.O.C	-	TOP OF CONCRETE

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

ROOF SLAB LAYOUT DETAILS

Drawing Number :

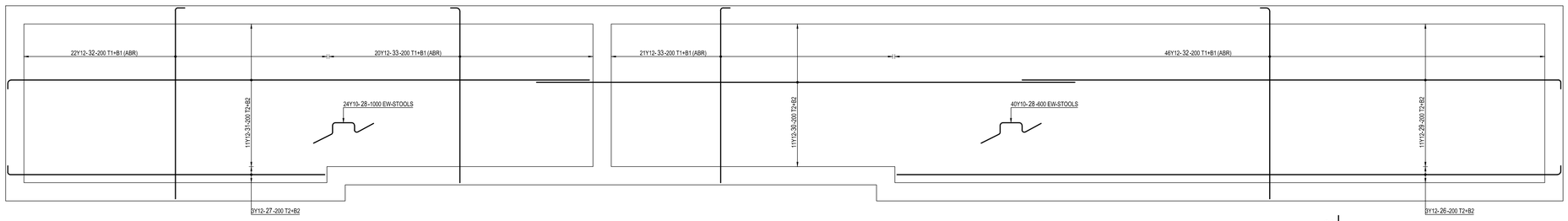
D848-6000-015

Rev No.

C

Scale : **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

FOR TENDER

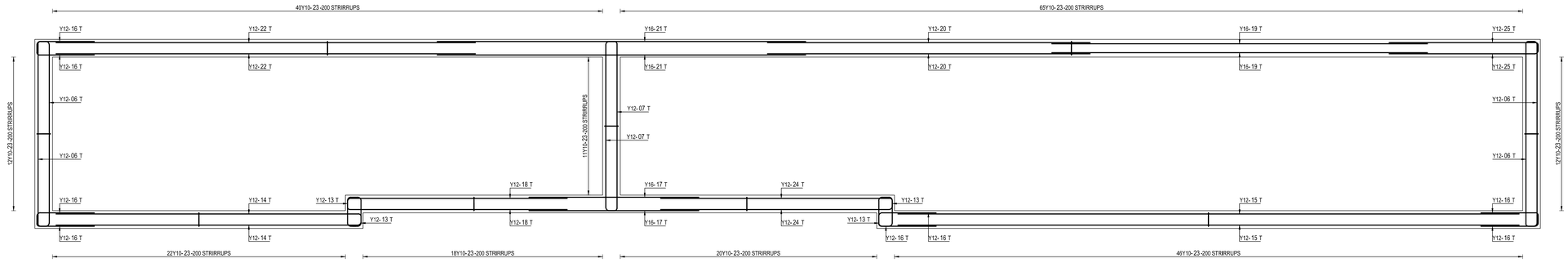


29

PLAN: VERANDA ARRIVALS SUSPENDED SLAB STEEL REINFORCEMENT

1 : 25

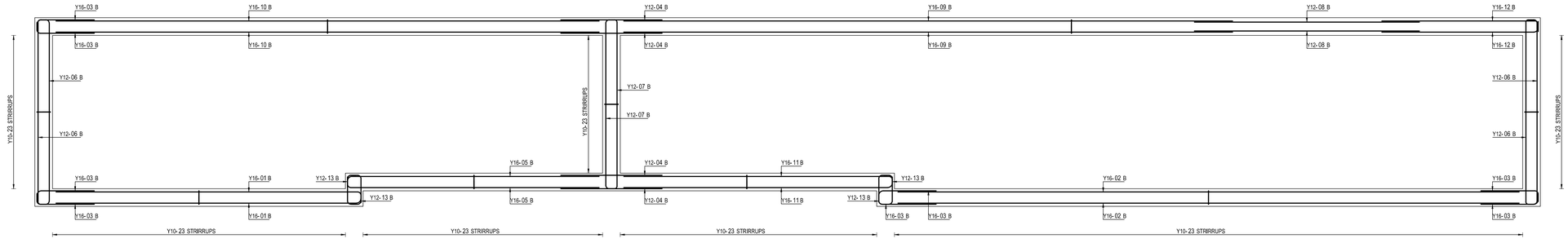
29



PLAN: VERANDA ARRIVALS SUSPENDED SLAB UPSTAND BEAM TOP STEEL REINFORCEMENT

1 : 25

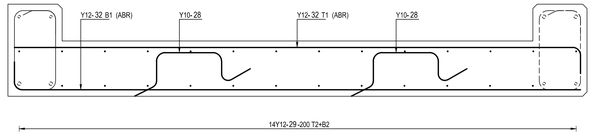
30



PLAN: VERANDA ARRIVALS SUSPENDED SLAB UPSTAND BEAM BOTTOM STEEL REINFORCEMENT

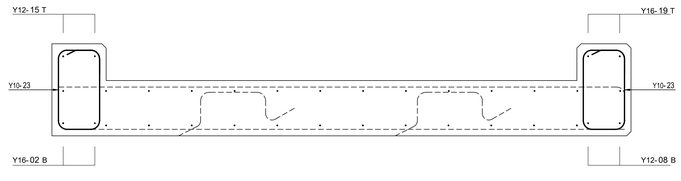
1 : 25

30



TYPICAL SECTION 29 - 29 255mm THICK SUSPENDED SLAB

1 : 10



TYPICAL SECTION 30 - 30 250 x 425mm DEEP UPSTAND BEAM

1 : 10

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    ABR - ALTERNATE BARS REVERSED
    B - BOTTOM
    EF - EACH FACE
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

ROOF SLAB REINFORCEMENT DETAILS - SHEET 1

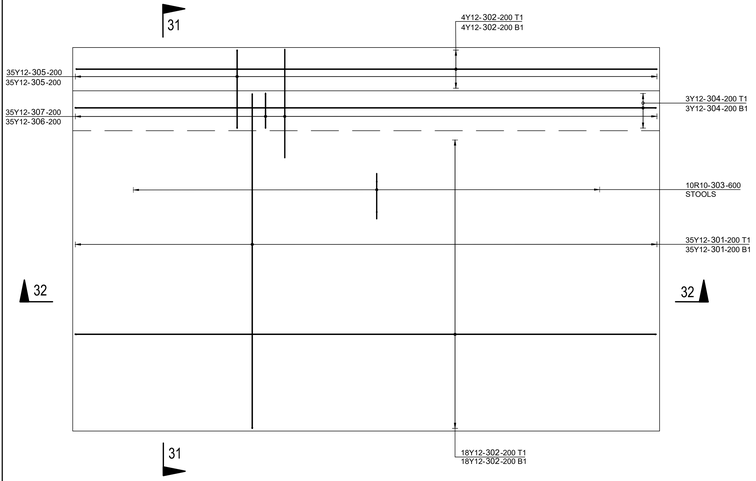
Drawing Number :

D848-6000-016

Rev No. C

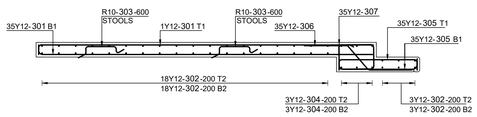
Scale : **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

FOR TENDER



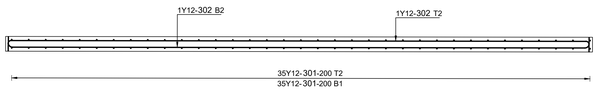
PLAN - HOLDING CELL TOP SLAB

1 : 25



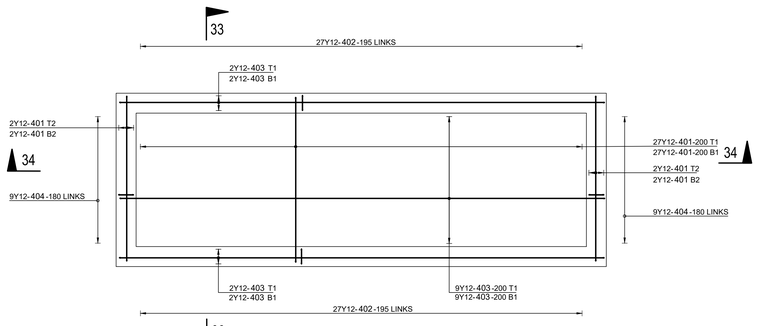
SECTION 31 - 31

1 : 25



SECTION 32 - 32

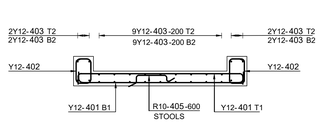
1 : 25



PLAN - BOX GUTTER SLAB

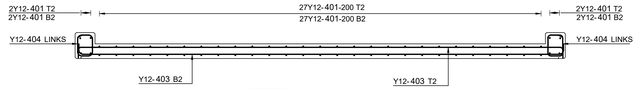
(2 No. OFF)

1 : 25



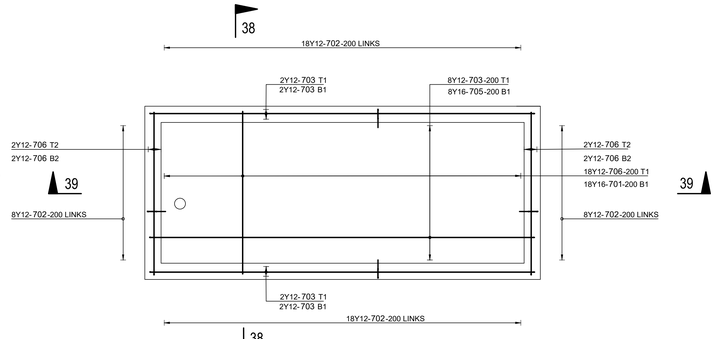
SECTION 33 - 33

1 : 25



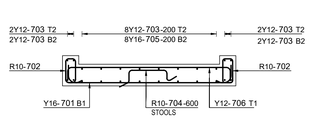
SECTION 34 - 34

1 : 25



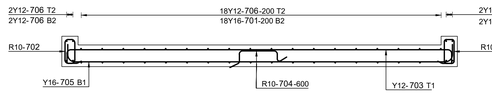
PLAN - PEDESTRIAN GATE SLAB

1 : 20



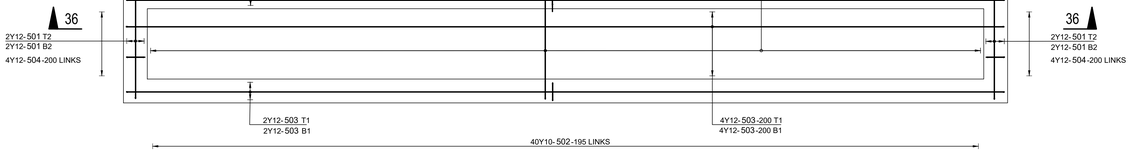
SECTION 38- 38

1 : 20



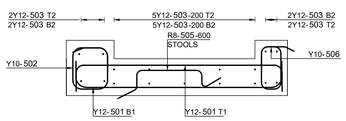
SECTION 39 - 39

1 : 20



PLAN - OFFICE 7 CONCRETE AWNING

1 : 20

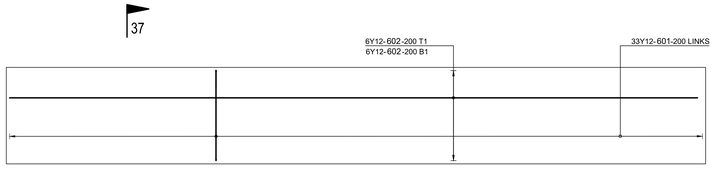


SECTION 35 - 35

1 : 10

SECTION 36 - 36

1 : 20

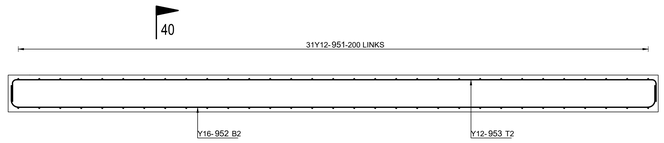


PLAN - DUCT COVER RC SLAB

1 : 20

SECTION 37 - 37

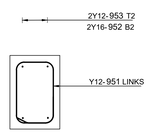
1 : 10



ELEVATION - WASHBAY BEAM

(2 No. OFF)

1 : 20



SECTION 40 - 40

1 : 10

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. REFER TO DRAWING D848-6000-019 FOR BENDING SCHEDULES.
20. ABBREVIATIONS:
    B - BOTTOM
    T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

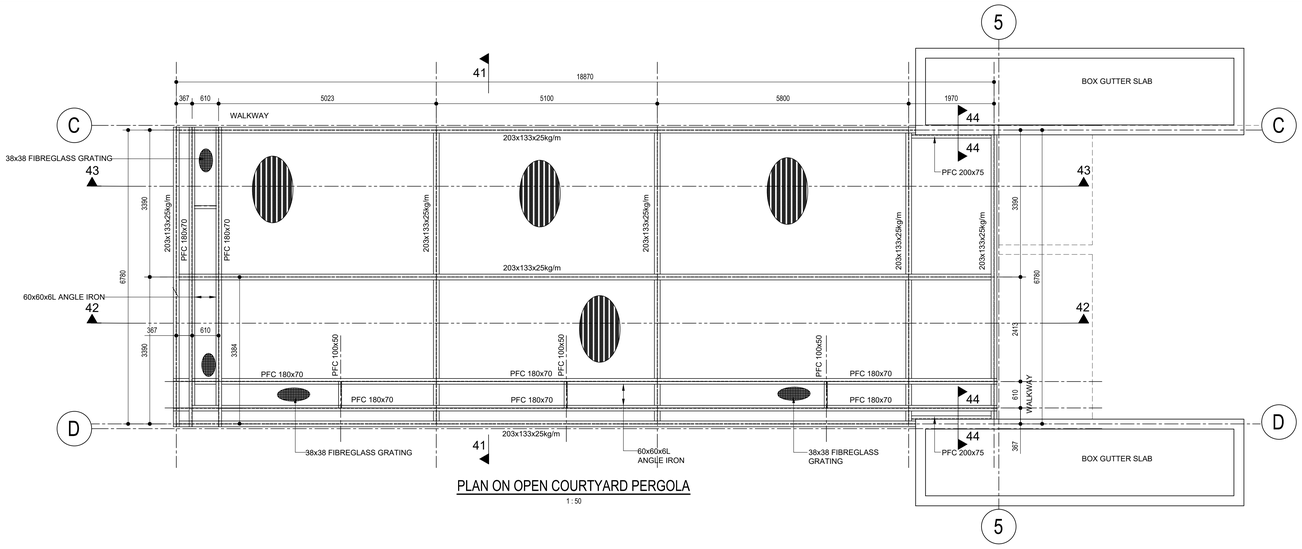
ROOF SLAB REINFORCEMENT DETAILS - SHEET 2

Drawing Number : **D848-6000-017**

Rev No. C

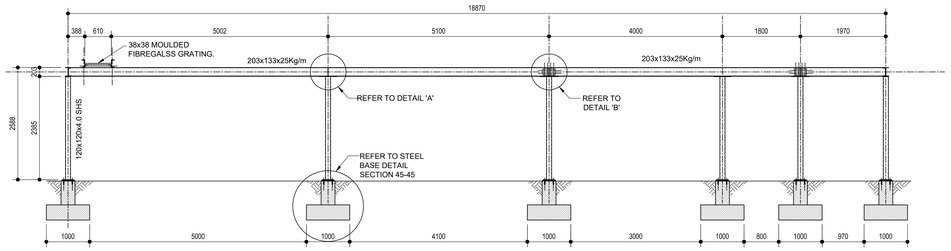
Scale: **AS SHOWN**	Design : **R. KHOZA**
Drawing Size : **A0**	Drawn : **R. KHOZA**
Date : **15-08-2024**	Checked : **M. GOVENDER**

FOR TENDER



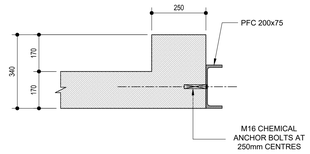
PLAN ON OPEN COURTYARD PERGOLA

1 : 50



SECTION 42-42

1 : 50

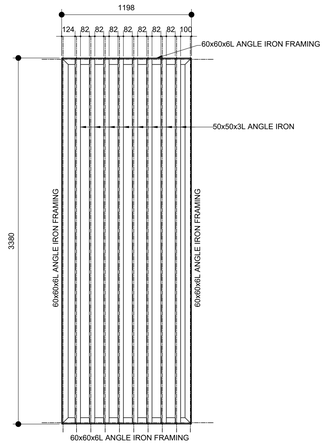


SECTION 44-44

1 : 10

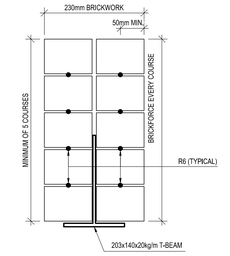
STRUCTURAL STEELWORK

1. STRUCTURAL STEELWORK SHALL COMPLY WITH THE REQUIREMENTS OF SABS 1200H AND PROJECT SPECIFICATIONS.
2. STRUCTURAL STEELWORK SHOP DETAILS DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR RECORD AND COMMENT 5 DAYS BEFORE FABRICATION COMMENCES
3. STRUCTURAL STEELWORK TRUSSES SHALL BE FABRICATED IN EASILY TRANSPORTABLE LENGTHS. THEY SHALL BE SHOP WELDED AND SITE BOLTED
4. NO FLAME CUTTING OR SITE WELDING SHALL BE CARRIED OUT WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
5. WELDS SHALL CONFORM TO SABS 0167-1984 AND 044 SPECIFICATIONS. ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS UNLESS OTHERWISE SHOWN.
6. WHERE TEMPORARY BRACING OR PROPPING IS NECESSARY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, ERECTION, MAINTENANCE AND REMOVAL (WHERE NECESSARY) OF SUCH SUPPORTS. IF SPLICES IN TRUSSES ARE REQUIRED BECAUSE OF TRANSPORT, PROPOSAL OF THIS SHALL BE SUBMITTED TO THE ENGINEER AT AN EARLY STAGE FOR WRITTEN APPROVAL.
7. ALL CONNECTION BOLTS SHALL BE GRADE 8.8, UNLESS OTHERWISE SHOWN
8. ALL STEELWORK AND BOLTS, INCLUDING ANY HOLDING DOWN BOLTS, SHALL BE HOT DIP GALVANISED TO SABS ISO 1461:2000



OPEN COURTYARD PERGOLA PANEL DETAILS

1 : 20

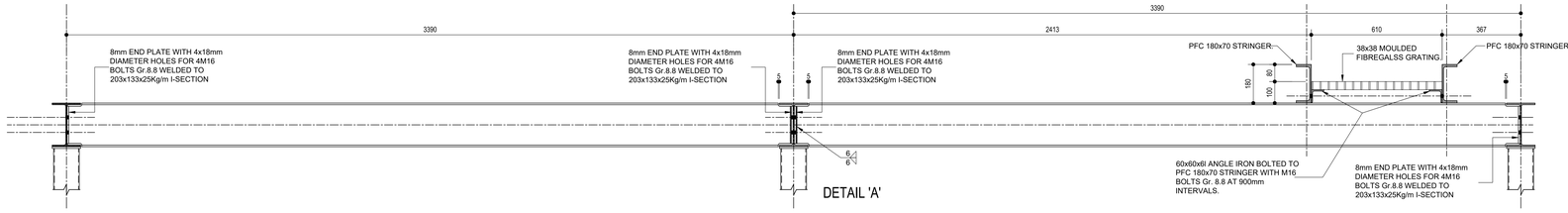


TYPICAL DETAIL:

230 BRICKWORK STEEL T-BEAM ABOVE OPENING

MAX 3m OPENINGS

1 : 5

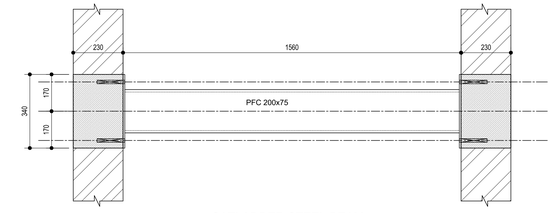


DETAIL 'A'

SECTION 41-41

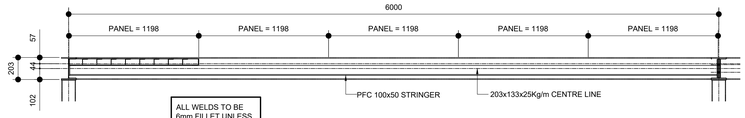
1 : 10

ALL WELDS TO BE
6mm FILLET UNLESS
OTHERWISE STATED.



CATLADDER STEEL BEAM SUPPORT

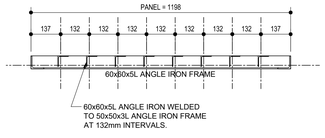
1 : 10



ALL WELDS TO BE
6mm FILLET UNLESS
OTHERWISE STATED.

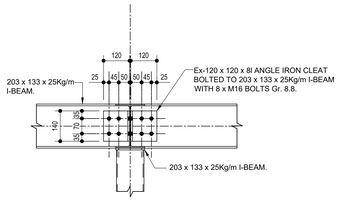
OPEN COURTYARD PERGOLA: PANEL ASSEMBLE DETAILS

1 : 20



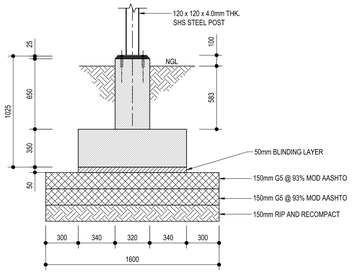
OPEN COURTYARD PERGOLA TYPICAL PANEL SECTION

1 : 10



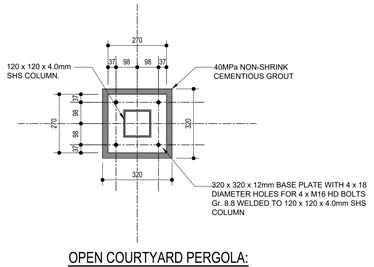
DETAIL 'B'

1 : 10



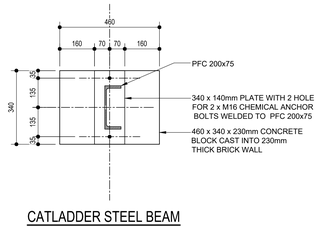
SECTION 45 - 45 TYPICAL STEEL COLUMN BASE

1 : 20



OPEN COURTYARD PERGOLA: DETAIL 'C' BASE PLATE

1 : 10



CATLADDER STEEL BEAM SUPPORT: TYPICAL FIXING DETAIL

1 : 10

REVISIONS

NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:

BLINDING	:	15 MPa
MASS CONCRETE	:	15 MPa
RC FOUNDATIONS	:	25 MPa
STRUCTURAL SCREEDS	:	25 MPa
SURFACE BEDS	:	25 MPa
BEAMS	:	30 MPa
COLUMNS	:	30 MPa
SUSPENDED SLABS	:	30 MPa

9. COVER TO STEEL REINFORCING:

FOOTINGS	:	50 mm
COLUMNS	:	30 mm
WALLS	:	30 mm
SURFACE BEDS	:	30 mm
ROOF SLABS	:	30 mm
BEAMS	:	30 mm

10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:

MAX	-	MAXIMUM
MIN	-	MINIMUM
NGL	-	NATURAL GROUND LEVEL
PFC	-	PARALLEL FLANGE CHANNEL
SHS	-	SQUARE HOLLOW SECTION
THK	-	THICK

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :
NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE DATE

Client :
SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

Drawing Title :
OPEN COURTYARD PERGOLA LAYOUT AND DETAILS

Drawing Number :
D848-6000-018

Rev No.
C

Scale : **AS SHOWN**	Design : **M. NDLOVU**
	Drawn : **M. NDLOVU**
Date : **15-08-2024**	Checked : **M. GOVENDER**

FOR INFORMATION

NAIDU CONSULTING

NTSHONGWE POLICE STATION
COMMUNITY SERVICE CENTRE — PAGE: 01

REFERENCE DRAWING Nos. - D848-6000-004 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
COMMUNITY SERVICE CENTRE	01	Y12	12	1	12	1000	37	900	[140]				11
	02	Y10	102	1	102	1000	83	300	100	300	[300]		63
	03	Y12	893	1	893	1600	60	600	150				1269
	04	Y12	2	1	2	2300	60	950	150				4
	05	Y12	66	1	66	1400	60	500	150				81
	06	Y12	26	1	26	2650	37	2740	[140]				66
	07	Y12	42	1	42	1550	37	1450	[140]				58
	08	Y12	36	1	36	1850	37	1710	[140]				59
	09	Y12	20	1	20	2850	37	2720	[140]				51
	10	Y12	16	1	16	3350	37	3240	[140]				48
	11	Y12	127	1	127	2300	60	900	200				259
	12	Y12	8	1	8	4700	37	4570	[140]				33
	13	Y12	24	1	24	2750	37	2620	[140]				59
	14	Y12	22	1	22	1750	37	1640	[140]				34
	15	Y12	26	1	26	1600	37	1480	[140]				37
	16	Y12	18	1	18	3700	37	3560	[140]				59
	17	Y12	16	1	16	2650	37	2520	[140]				38
	18	Y12	8	1	8	4600	37	4470	[140]				33
	19	Y12	24	1	24	5800	37	5700	[140]				124
	20	Y12	10	1	10	6950	37	6830	[140]				62
	21	Y12	12	1	12	3500	37	3400	[140]				37
	22	Y12	22	1	22	1650	37	1510	[140]				32
	23	Y12	16	1	16	7500	37	7380	[140]				107
	24	Y12	8	1	8	8400	37	8300	[140]				60
	25	Y12	8	1	8	6500	37	6370	[140]				46
	26	Y12	32	1	32	1750	37	1610	[140]				50
	27	Y12	8	1	8	4350	37	4220	[140]				31
	28	Y12	10	1	10	4750	37	4620	[140]				42
	29	Y12	8	1	8	8400	37	8290	[140]				60
	30	Y12	50	1	50	4950	37	4810	[140]				220
	31	Y12	8	1	8	5750	37	5620	[140]				41
	32	Y12	6	1	6	1500	37	1390	[140]				8
	33	Y12	10	1	10	1800	37	1660	[140]				16
	34	Y12	8	1	8	8700	37	8600	[140]				48
	35	Y12	8	1	8	6950	37	6840	[140]				49
	36	Y12	26	1	26	4950	37	4820	[140]				114
	37	Y12	8	1	8	2900	37	2780	[140]				21
	38	Y12	8	1	8	2450	37	2320	[140]				17
	39	Y12	8	1	8	9300	37	9170	[140]				66
	40	Y12	8	1	8	7650	37	7540	[140]				54
	41	Y12	8	1	8	7550	37	7430	[140]				54
	42	Y12	8	1	8	6250	37	6130	[140]				44

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			63	3599						3661
TOTAL			63	3599						3661

NAIDU CONSULTING

NTSHONGWE POLICE STATION
COMMUNITY SERVICE CENTRE — PAGE: 02

REFERENCE DRAWING Nos. - D848-6000-004 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
COMMUNITY SERVICE CENTRE	43	Y12	8	1	8	8100	20	[8100]					58
	44	Y12	8	1	8	5900	20	[5910]					42
	45	Y12	8	1	8	6200	37	6090	[140]				44
	46	Y12	8	1	8	3800	37	3700	[140]				27
	47	Y12	8	1	8	5100	37	4960	[140]				36
	48	Y12	28	1	28	5100	37	4970	[140]				127
	49	Y12	8	1	8	5300	37	5190	[140]				38
	50	Y12	8	1	8	4900	37	4760	[140]				35
	51	Y12	8	1	8	6950	37	6810	[140]				49
	52	Y12	16	1	16	5800	37	5680	[140]				82
	53	Y12	26	1	26	4750	37	4610	[140]				110
	54	Y12	8	1	8	6250	37	6110	[140]				44
	55	Y12	8	1	8	2800	37	2660	[140]				20
	56	Y12	8	1	8	3700	37	3600	[140]				26
	57	Y12	8	1	8	2100	37	1960	[140]				15
	58	Y12	8	1	8	6300	37	6190	[140]				45
	59	Y12	8	1	8	6100	20	[6100]					43
	60	Y12	8	1	8	6700	20	[6690]					48
	61	Y12	8	1	8	4550	37	4410	[140]				32
	62	Y12	8	1	8	5500	37	5360	[140]				39
	63	Y12	8	1	8	4550	37	4420	[140]				32
	64	Y12	8	1	8	9100	20	[9090]					65
	65	Y12	8	1	8	2950	37	2810	[140]				21
	66	Y12	8	1	8	1050	37	950	[140]				7
	67	Y12	8	1	8	1950	37	1810	[140]				14
	68	Y12	8	1	8	7150	37	7050	[140]				51
	69	Y12	8	1	8	1500	37	1400	[140]				11
	70	Y12	10	1	10	3000	37	2890	[140]				27
	71	Y12	10	1	10	3900	37	3800	[140]				35
	72	Y12	10	1	10	2850	37	2750	[140]				25
	73	Y12	10	1	10	1250	37	1130	[140]				11
	74	Y12	10	1	10	4150	37	4050	[140]				37
	75	Y12	10	1	10	4850	37	4750	[140]				43
	76	Y12	10	1	10	8450	37	8330	[140]				75
	77	Y12	20	1	20	1450	37	1330	[140]				26
	78	Y12	10	1	10	4150	37	4040	[140]				37

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y				1476						1476
TOTAL				1476						1476

NAIDU CONSULTING

NTSHONGWE POLICE STATION
PAD FOOTING (TYPE A) — PAGE: 03

REFERENCE DRAWING Nos. - D848-6000-004 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
PAD FOOTING (TYPE A)	79	Y16	8	17	136	1200	54	150	900	[200]			258
	80	Y12	6	17	102	1550	55	150	220	900	220	[150] 140	
	81	Y12	12	17	204	1150	38	150	900	[150]			208
	82	Y12	6	17	102	1600	55	150	250	900	250	[150] 145	
	83	Y10	4	17	68	1200	60	200	260	4			50

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			50	494	258					801
TOTAL			50	494	258					801

NAIDU CONSULTING

NTSHONGWE POLICE STATION
STRONGROOM — PAGE: 04

REFERENCE DRAWING Nos. - D848-6000-005 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
STRONGROOM	201	Y16	158	1	158	1700	37	1500	[200]				424
	202	Y16	5	1	5	2100	38	1010	140	[1010]			17
	203	Y12	132	1	132	2200	37	1100	[1100]				258
	204	Y12	44	1	44	2100	37	1020	[1100]				82
	205	Y12	44	1	44	1700	37	600	[1100]				66
	206	Y12	44	1	44	2600	37	1520	[1100]				102
	207	Y12	88	1	88	3150	20	3150					246
	208	Y12	44	1	44	2400	20	2400					94
	209	Y12	26	1	26	2200	20	2200					51
	210	Y16	146	1	146	3800	37	140	[3680]				876
	211	Y16	12	1	12	850	38	140	650	[140]			16
	212	Y16	23	1	23	3750	38	150	3500	[150]			138
	213	Y16	19	1	19	4500	38	150	4270	[150]			135
	214	Y12	19	1	19	4550	38	150	4270	[150]			77
	215	Y12	23	1	23	3750	38	150	3500	[150]			77
	216	Y12	95	1	95	550	38	200	170	[200]			46
	217	Y12	16	1	16	900	20	900					13

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y				1111	1603					2714
TOTAL				1111	1603					2714

NAIDU CONSULTING

NTSHONGWE POLICE STATION
BARRACKS — PAGE: 05

REFERENCE DRAWING Nos. - D848-6000-006 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
BARRACKS	101	Y12	48	1	48	3800	37	120	[3680]				162
	102	Y12	160	1	160	3800	37	120	[3700]				540
	103	Y12	1412	1	1412	1600	60	600	150				2006
	104	Y12	80	1	80	2360	37	120	[2240]				167
	105	Y12	180	1	180	1400	60	500	150				224
	106	Y12	80	1	80	1700	37	120	[1610]				121
	107	Y12	96	1	96	6750	37	120	[6620]				575
	108	Y12	96	1	96	6550	20	6540					558
	109	Y12	32	1	32	6000	37	5900	[120]				170
	110	Y12	32	1	32	7350	37	7240	[120]				209
	111	Y12	40	1	40	6700	37	120	[6600]				238
	112	Y12	48	1	48	4250	37	120	[4120]				181

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y				5151						5151
TOTAL				5151						5151

NAIDU CONSULTING

NTSHONGWE POLICE STATION
BLOCK B, C & E — PAGE: 06

REFERENCE DRAWING Nos. - D848-6000-007 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
BLOCK B, C & E	01	Y10	16	1	16	1000	83	300	100	300	[300]		10
	02	Y12	209	1	209	2100	60	840	150				390
	03	Y12	24	1	24	9050	37	8940	[140]				193
	04	Y12	316	1	316	1600	60	600	150				449
	05	Y12	24	1	24	5950	37	5820	[140]				127
	06	Y12	8	1	8	8100	37	8000	[140]				58
	07	Y12	8	1	8	6850	37	6730	[140]				49
	08	Y12	8	1	8	8450	37	8350	[140]				60
	09	Y12	8	1	8	2000	37	1900	[200]				14
	10	Y12	16	1	16	8750	37	8640	[140]				124
	11	Y12	8	1	8	6900	37	6780	[140]				49
	12	Y12	18	1	18	2050	60	810	150				33
	13	Y12	12	1	12	1850	37	1710	[140]				20
	14	Y12	8	1	8	3850	37	3740	[140]				27
	15	Y12	24	1	24	1750	37	1610	[140]				37
	16	Y12	12	1	12	1550	37	1410	[140]				17
	17	Y12	8	1	8	1650	37	1510	[140]				12
	18	Y12	16	1	16	4050	37	3950	[140]				58
	19	Y12	31	1	31	1400	60	500	150				39
	20	Y12	12	1	12	3900	37	3760	[140]				42
	21	Y12	32	1	32	6500	37	6380	[140]				185
	22	Y12	48	1	48	2050	60	820	150				87
	23	Y12	12	1	12	9000	37	8870	[140]				96
	24	Y12	12	1	12	9650	37	9520	[140]				103
	25	Y12	12	1	12	10200	20	[10210]					109
	26	Y12	8	1	8	4700	37	4580	[140]				33
	27	Y12	12	1	12	5450	37	5320	[140]				58
	28	Y12	8	1	8	4100	37	4000	[140]				29
	29	Y12	8	1	8	1100	37	990	[140]				8

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			10	2503						2512
TOTAL			10	2503						2512

NAIDU CONSULTING

NTSHONGWE POLICE STATION
ATTENUATION TANK — PAGE: 07

REFERENCE DRAWING Nos. - D848-6000-008 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
COVER SLAB	01	Y12	80	1	80	4700	37	150	[4560]				334
	02	Y12	16	1	16	2050	37	150	[1930]				29
	03	Y12	8	1	8	3650	37	150	[3520]				26
	04	Y12	8	1	8	600	38	150	330	[150]			4
	05	Y12	40	1	40	8800	37	150	[8660]				313
	06	Y12	16	1	16	4100	37	150	[3980]				58
	07	Y12	8	1	8	7600	37	150	[7470]				54
	08	Y12	24	1	24	1200	20	150	1200				26
	09	Y12	8	1	8	750	38	150	490	[150]			5
	10	Y10	10	1	10	900	83	250	120	250	[250]		6
BASE SLAB	11	Y12	46	1	46	6150	55	550	150	4860	150	[550]	251
	12	Y12	26	1	26	10200	55	550	120	8960	120	[550]	235
	13	Y12	46	1	46	5100	38	150	4860	[150]			208
	14	Y12	26	1	26	9200	38	130	8960	[130]			212
	15	Y10	12	1	12	900	83	250	120	250	[250]		7

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			13	1755						1768
TOTAL			13	1755						1768

NAIDU CONSULTING

NTSHONGWE POLICE STATION
SEPTIC TANK — PAGE: 08

REFERENCE DRAWING Nos. - D848-6000-008 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
COVER SLAB	01	Y12	35	1	35	3300	55	300	120	2560	120	[300]	103
	02	Y12	14	1	14	7500	55	300	100	6790	100	[300]	93
	03	Y10	12	1	12	950	83	350	100	250	[250]		7
	04	Y12	14	1	14	7000	38	120	6790	[120]			87
	05	Y12	35	1	35	2750	38	130	2560	[130]			85
	06	Y10	4	1	4	800	20	[800]					2
BASE SLAB	157	Y12	14	1	14	3450	55	300	200	2560	200	[300]	43
	158	Y12	28	1	28	1550	42	400	210	830	120		39
	159	Y12	14	1	14	1750	43	400	230	460	130	[400]	22
	160	Y12	28	1	28	7000	38	120	6790	[120]			174
	161	Y12	58	1	58	2750	38	120	2560	[120]			142
	162	Y10	12	1	12	950	83	350	100	250	[250]		7

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			16	787						803
TOTAL			16	787						803

NAIDU CONSULTING

NTSHONGWE POLICE STATION
ELEVATED TANK STAND BASE — PAGE: 09

REFERENCE DRAWING Nos. - D848-6000-008 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
ELEV TANK BASE	10	Y16	40	1	40	9750	55	400	650	7800	650	[400]	616
	11	Y16	80	1	80	8550	38	400	7800	[400]			1080
	12	Y16	40	1	40	9700	55	400	610	7800	610	[400]	612
	14	Y20	16	1	16	1500	54	350	1000	[250]			59
	15	Y16	16	1	16	1450	54	200	1000	[250]			37
	16	Y10	45	1	45	3250	83	320	1190	120	[320]		90
	17	Y10	12	1	12	1900	60	440	440				14

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			104		2344	59				2508
TOTAL			104		2344	59				2508

NAIDU CONSULTING

NTSHONGWE POLICE STATION
FOUNDATION ITEMS — PAGE: 10

REFERENCE DRAWING Nos. - D848-6000-009 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
GENERATOR PLINTH	901	Y12	31	1	31	3050	38	150	2800	[150]			84
	902	Y12	23	1	23	4550	38	150	4300	[150]			93
	903	Y16	18	1	18	2850	55	300	400	1600	400	[300]	81
	904	Y10	68	1	68	1150	60	400	100				48
	905	Y12	4	1	4	4950	38	350	4300	[350]			18
	906	Y10	7	2	14	1200	83	350	360	120	[120]		10
	907	Y16	4	1	4	3450	38	350	2800	[350]			22
	908	Y16	9	1	9	4550	55	300	360	3360	360	[300]	65
FLAG POLE BASE	991	Y16	16	1	16	1850	55	200	300	1000	300	[200]	47
	992	Y16	6	1	6	3650	55	200	260	2900	260	[200]	35
	993	Y16	54	1	54	1600	54	250	1050	[350]			136
	994	Y16	6	1	6	3250	38	200	2900	[200]			31
	995	Y16	16	1	16	1350	38	200	1000	[200]			34
	996	Y12	5	1	5	5650	60	410	2360				25
	997	Y12	2	1	2	750	38	200	380	[200]			1
	998	Y10	2	1	2	3050	37	200	[2860]				4
	999	Y10	2	1	2	1150	37	200	[960]				1
BOUNDARY FENCE SRTIP FOOTING	1121	R10	25	119	2975	1650	60	150	600				3026
	1122	Y12	6	119	714	2350	37	130	[2250]				1490
	1123	Y12	6	119	714	1000	37	130	[900]				634
GATE 01&02 GROUND BEAM	1101	R10	53	2	106	1550	60	300	400				101
	1102	Y12	12	2	24	5100	37	200	[4900]				109
	1103	Y12	6	2	12	4400	20	[4400]					47
GATE 12 GROUND BEAM	1111	R10	29	5	145	1550	60	300	400				139
	1112	Y12	6	5	30	7300	38	200	6970	[200]			194

	6	8	10	12	16	20	25	32	40	TOTAL
R			3266							3266
Y			64	2694	450					3208
TOTAL			3330	2694	450					6474

REVISIONS			
NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:
   - BLINDING : 15 MPa
   - MASS CONCRETE : 15 MPa
   - RC FOUNDATIONS : 25 MPa
   - STRUCTURAL SCREEDS : 25 MPa
   - SURFACE BEDS : 25 MPa
   - BEAMS : 30 MPa
   - COLUMNS : 30 MPa
   - SUSPENDED SLABS : 30 MPa
9. COVER TO STEEL REINFORCING:
   - FOOTINGS : 50 mm
   - COLUMNS : 30 mm
   - WALLS : 30 mm
   - SURFACE BEDS : 30 mm
   - ROOF SLABS : 30 mm
   - BEAMS : 30 mm
10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS ; 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:
    - ABR - ALTERNATE BARS REVERSED
    - B - BOTTOM
    - EF - EACH FACE
    - T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :

NAIDU CONSULTING

1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban

Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE — DATE

Client :

SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :

NORTH COAST REGION

NTSHONGWE POLICE STATION

Discipline :

STRUCTURAL

Drawing Title :

BENDING SCHEDULES - SHEET 1

Drawing Number :

D848-6000-019

Rev No. C

Scale : **AS SHOWN**
Drawing Size : **A0**
Date : **15-08-2024**

Design : **R. KHOZA**
Drawn : **R. KHOZA**
Checked : **M. GOVENDER**

FOR TENDER

NAIDU CONSULTING

NTSHONGWE POLICE STATION
FOUNDATION ITEMS — PAGE: 11

REFERENCE DRAWING Nos. - D848-6000-010 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
01_PEDESTRIAN GATE BASE SLAB	801	Y12	36	1	36	2100	38	120	1900	[120]			67
	802	Y12	22	1	22	4100	38	120	3900	[120]			80
	803	R8	9	1	9	650	83	350	80	100	[100]		2
	804	Y12	8	1	8	2900	55	300	250	1900	250	[300]	21
	805	Y12	22	1	22	1150	42	400	230	420	170		22
02_PORTABLE WATER PUMP PLINTH	204	Y10	4	1	4	1400	53	300	150	600	150	[300]	3
	205	Y10	4	1	4	1400	53	300	140	600	140	[300]	3
03_FIRE HOSEREEL PUMP PLINTH	206	Y10	7	1	7	1700	53	300	150	900	150	[300]	7
	207	Y10	6	1	6	2000	53	300	140	1200	140	[300]	7
	208	Y10	1	1	1	650	83	300	130	100	[100]		
04_FIRE HYDRANT PUMP PLINTH	209	Y10	8	1	8	2000	53	300	150	1200	150	[300]	10
	210	Y10	7	1	7	2200	53	300	140	1400	140	[300]	9
	211	Y10	2	1	2	650	83	300	130	100	[100]		1
05_HOT WATER TANK PLINTH	212	Y10	18	2	36	5900	55	2800	200	2500	190	[300]	131
	213	Y10	14	2	28	4300	53	300	190	3390	190	[300]	74
	214	Y10	8	2	16	750	83	300	170	100	[100]		7

	6	8	10	12	16	20	25	32	40	TOTAL
R		2								2
Y			255	190						445
TOTAL		2	255	190						447

NAIDU CONSULTING

NTSHONGWE POLICE STATION
VERANDA ARRIVALS SUSPENDED SLAB — PAGE: 12

REFERENCE DRAWING Nos. - D848-6000-016 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
Veranda Arrivals Suspended Slab	01	Y16	2	1	2	4400	37	4300	[150]				14
	02	Y16	2	1	2	8800	20	[8770]					28
	03	Y16	8	1	8	950	37	810	[150]				12
	04	Y12	4	1	4	1450	20	[1430]					5
	05	Y16	2	1	2	3050	37	3000	[150]				12
	06	Y12	8	1	8	2800	38	120	2600	[120]			20
	07	Y12	4	1	4	2600	38	120	2390	[120]			9
	08	Y12	2	1	2	3200	20	[3180]					6
	09	Y16	2	1	2	8600	20	[8600]					27
	10	Y16	2	1	2	7700	20	[7670]					24
	11	Y16	2	1	2	3900	37	3790	[150]				12
	12	Y16	2	1	2	2300	37	2200	[150]				7
	13	Y12	8	1	8	600	38	120	400	[120]			4
	14	Y12	2	1	2	4400	37	4300	[720]				8
	15	Y12	2	1	2	8800	20	[8770]					16
	16	Y12	8	1	8	900	37	810	[120]				6
	17	Y16	2	1	2	2400	20	[2400]					8
	18	Y12	2	1	2	3200	37	3100	[120]				6
	19	Y16	2	1	2	5300	20	[5300]					17
	20	Y12	2	1	2	4550	20	[4560]					8
	21	Y16	2	1	2	5200	20	[5200]					16
	22	Y12	2	1	2	5950	20	[5920]					11
	23	Y10	246	1	246	1250	60	190	360				190
	24	Y12	2	1	2	3350	37	3270	[120]				6
	25	Y12	2	1	2	2200	37	2100	[120]				4
	26	Y12	6	1	6	9150	37	9060	[120]				49
	27	Y12	6	1	6	4400	37	4320	[120]				23
	28	Y10	64	1	64	1100	83	300	150	300	[300]		43
	29	Y12	22	1	22	7450	37	7360	[120]				146
	30	Y12	22	1	22	7350	20	[7350]					144
	31	Y12	22	1	22	8050	37	7940	[120]				157
	32	Y12	136	1	136	2700	37	2600	[120]				326
	33	Y12	82	1	82	2500	37	2380	[120]				152

	6	8	10	12	16	20	25	32	40	TOTAL
R										
Y			233	1135	177					1545
TOTAL			233	1135	177					1545

NAIDU CONSULTING

NTSHONGWE POLICE STATION
RC ROOF SLABS — PAGE: 13

REFERENCE DRAWING Nos. - D848-6000-017 — REV: C — DATE: 15-08-2024

Members	Bar Mark	Type & Size	No. of Bars	No. of Mbrs	Total Bars	Cutting Length	Shape Code	DIMENSIONS A	B	C	D	E/R	kg
1_HC SLAB	301	Y12	70	1	70	3950	37	110	[3880]				245
	302	Y12	36	1	36	6900	38	120	6700	[120]			221
	303	R10	50	1	50	650	83	350	80	100	[100]		20
	304	Y12	6	1	6	7150	38	250	6700	[250]			38
	305	Y12	70	1	70	1100	38	120	900	[120]			68
	306	Y12	35	1	35	1350	41	500	360	[600]	270		42
	307	Y12	35	1	35	1500	60	280	400				47
2_BG SLAB & 230 RC BMS	401	Y12	62	2	124	2100	38	120	1900	[120]			231
	402	Y12	54	2	108	1000	60	280	170				96
	403	Y12	26	2	52	5800	38	120	5590	[120]			268
	404	Y12	18	2	36	950	60	240	170				30
	405	R10	9	2	18	650	83	350	80	100	[100]		7
3_O T O RC SLAB	501	Y12	88	1	88	1150	38	120	950	[120]			90
	502	Y10	40	1	40	850	60	190	160				21
	503	Y12	16	1	16	8300	38	120	8100	[120]			118
	504	Y12	8	1	8	900	60	240	160				6
	505	R8	12	1	12	600	83	300	80	100	[100]		3
	506	R10	40	1	40	700	60	190	90				17
4_150 THK RC DCS	601	Y12	33	1	33	1950	60	90	830				57
	602	Y12	12	1	12	6350	20	[6350]					68
5_200 THK RC SLAB P GATE	701	Y16	18	1	18	1750	38	160	1500	[160]			50
	702	Y12	52	1	52	750	60	220	90				35
	703	Y12	16	1	16	3750	38	120	3550	[120]			53
	704	R10	18	1	18	700	83	350	110	100	[100]		8
	705	Y16	8	1	8	3800	38	160	3550	[160]			48
	706	Y12	26	1	26	1700	38	120	1500	[120]			39
6_GH BASE SLAB	801	Y12	36	1	36	2100	38	120	1900	[120]			67
	802	Y12	22	1	22	4100	38	120	3900	[120]			80
	803	R8	9	1	9	650	83	350	80	100	[100]		2
	804	Y12	8	1	8	2900	55	300	250	1900	250	[300]	21
	805	Y12	22	1	22	1150	42	400	230	420	170		22
8_1_WASHBAY	951	Y12	31	1	31	1000	60	280	170				28
	952	Y16	2	1	2	6250	38	200	5940	[200]			20
	953	Y12	2	1	2	6300	38	200	5940	[200]			11

	6	8	10	12	16	20	25	32	40	TOTAL
R		5	52							57
Y			21	1981	117					2120
TOTAL		5	73	1981	117					2177

REVISIONS

NO.	DATE	DESCJRIPTION	BY
A	19-04-2024	1. ISSUED FOR INFORMATION	R.K
B	15-07-2024	2. ISSUED FOR TENDER	R.K
C	15-08-2024	3. ISSUED FOR TENDER	R.K

GENERAL NOTES:

1. ALL WORK IN ACCORDANCE WITH THE RELEVANT SECTIONS OF SANS 1200.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS DRAWINGS.
3. DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. FOUNDATION EXCAVATIONS TO BE APPROVED BY THE ENGINEER.
5. REINFORCING TO BE CHECKED BY THE ENGINEER.
6. ALL DUCTS OR RECESSES TO BE APPROVED BY THE ENGINEER.
7. POSITION OF CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER.
8. CONCRETE STRENGTHS @ 28 DAYS:
   - BLINDING : 15 MPa
   - MASS CONCRETE : 15 MPa
   - RC FOUNDATIONS : 25 MPa
   - STRUCTURAL SCREEDS : 25 MPa
   - SURFACE BEDS : 25 MPa
   - BEAMS : 30 MPa
   - COLUMNS : 30 MPa
   - SUSPENDED SLABS : 30 MPa
9. COVER TO STEEL REINFORCING:
   - FOOTINGS : 50 mm
   - COLUMNS : 30 mm
   - WALLS : 30 mm
   - SURFACE BEDS : 30 mm
   - ROOF SLABS : 30 mm
   - BEAMS : 30 mm
10. REINFORCEMENT SHALL BE HOT ROLLED AND SHALL COMPLY WITH THE STANDARD SPECIFICATION FOR STEEL BARS FOR CONCRETE REINFORCEMENT SANS 920 AS FOLLOWS:

i) MILD STEEL - PLAIN ROUND - MINIMUM CHARACTERISTIC STRENGTH 250 MPa

ii) HIGH YIELD STEEL - DEFORMED - MINIMUM CHARACTERISTIC STRENGTH 450 MPa

11. MINIMUM SPLICE LENGTH - 45 x BAR DIA. EXCEPT WHERE OTHERWISE SHOWN.
12. BAR REFERENCE IN ACCORDANCE TO SANS 282:2011
13. STRIPPING OF FORMWORK:
    SLABS : 10 DAYS
    BEAMS : 14 DAYS
    CUBE RESULTS TO BE APPROVED PRIOR TO STRIPPING OF FORMWORK.
14. ALL SHARP EXPOSED EDGES TO BE CHAMFERED 25 x 25 mm.
15. ALL WATERPROOFING AND SCREEDING TO SPECIALISTS REQUIREMENTS.
16. ALL AREAS BENEATH CONCRETE SLABS MUST BE SOIL POISONED TO SABS STANDARDS. CERTIFICATES MUST BE ISSUED TO ENGINEER.
17. ALL FOUNDATION RECOMMENDATIONS SHOWN ARE BASED ON THE CURRENT GEOTECH REPORT.
18. ALL LAYERS WORKS TO BE READ IN CONJUCTION WITH THE CIVIL ENGINEER LAYER WORKS DRAWINGS.
19. ABBREVIATIONS:
    - ABR - ALTERNATE BARS REVERSED
    - B - BOTTOM
    - EF - EACH FACE
    - T - TOP

COPYRIGHT RESERVED BY NAIDU CONSULTING (PTY) LTD

Consultant :
NAIDU CONSULTING
1st Floor
No.5 The Boulevard
West Way Office Park
Westville, Durban
Tel : +27 (0) 31 265 6007
Fax : +27 (0) 31 265 6011
E-mail : info@naiduconsulting.com

SIGNATURE — DATE

Client :
SOUTH AFRICAN POLICE SERVICE
Department of Police

Project :
NORTH COAST REGION
NTSHONGWE POLICE STATION

Discipline :
STRUCTURAL

Drawing Title :
BENDING SCHEDULES - SHEET 2

Drawing Number :
D848-6000-020

Rev No.
C

Scale :
AS SHOWN
Drawing Size :
A0
Date :
15-08-2024
Design :
R. KHOZA
Drawn :
R. KHOZA
Checked :
M. GOVENDER

FOR TENDER