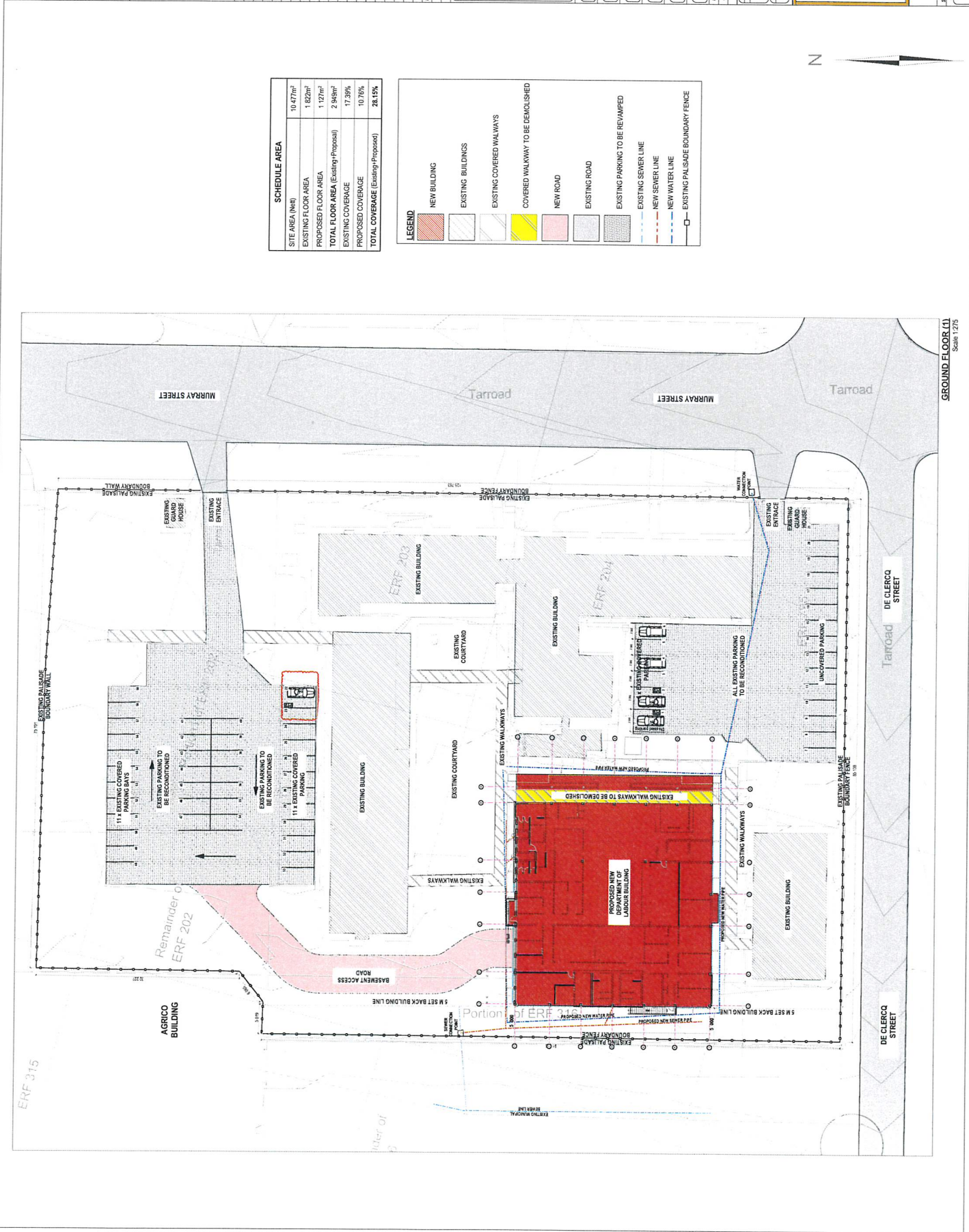
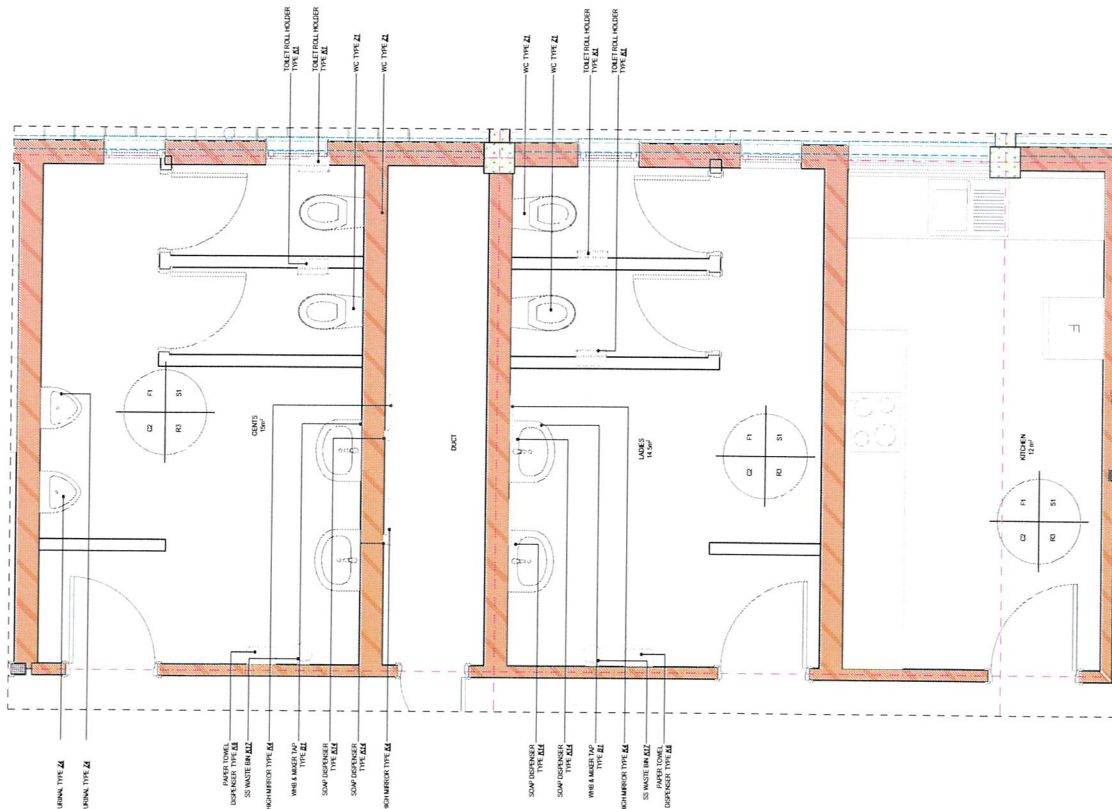


ARCHITECTURAL DRAWINGS



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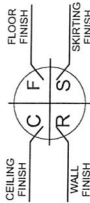
STAFF ABLUTION DETAILS SECTIONAL ELEVATION
Scale 1:25

Scale 1:25

NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
- DIMENSIONS TO BE READ ; NOT TO BE SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

LEGEND TO FINISHES



REVISIONS		
REVISION No	DATE :	DESCRIPTION:



public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

DEVELOPMENT

PROPOSED NEW OFFICE BUILDING

STUDY DESIGN

STAGE A: TENDER DOCUMENTS

ENDER DOG

ARCHITECTURE

WORK DESCRIPTION - SUB DIV

UNSELLING & SELLING

FILE No.	TEMA	ITEM No.
DESIGN	TECNOLOGIA INTERNACIONAL	DRAGAN
SCALE	INDICATED	E. SANCHEZ T. BAYASADA
		E. SANCHEZ T. BAYASADA
DATE	RESPONSIBLE PARTICIPANT	CHECKED
	NAME	PR NUMBER
APRIL 2019	THOMAS BAYASADA	PACCA CREDIT
APRIL 2019	EDUARDO SILVEIRA	PACCA



... - INTERNATIONAL

[illegible]

CONTRACTOR:

CAD	FILE
NAME	NAME
SIZE	REV
DRAWING NUMBER	
A1	WCS:054120-A500-02

STAFF ABLUTION DETAILS LAYOUT
Scale 1/25

Scale

[illegible]

[illegible]

LOOR:

1. INTERIOR PORCELAIN TILES (Published)

600x300x9mm thick multi porcelain tile to cover
covered pattern by an approved specialist

approved adhesives and grout on Zornik screeds in strict compliance with manufacturers' instructions and SABS specification. Fillings to include ribbed angle lites where there is change of level. Colour and pattern to architects approval.

100% PPX staple fibre carpet tiles, heavy cut
and out on watermarked vinyl backing and to

Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles conform to BS 4790 on fire rating, and DIN 54324 on wet test and ISO 24343 on static electricity. Colour and texture to architect's approval.

Standard specifications.

5. GRANOLITHIC FINISH
2 mm thick unstratified Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5 mm mesh sieve, laid by specialist in panels not exceeding 10m² divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SNI 10400 approved standards. Colour, pattern and aggregate size to architects approval.

1: INTERIOR PORCELAIN TILE

must be recommended to ensure that the purchaser can comply with the relevant standards. The new BS 1449 laid with approved adhesives and grout on 20mm thick concrete in strict compliance to manufacturers' instructions and SANS 10400 specification, with core base and straight ties. Complete with reinforcement and top bars. Fittings to include, robust angle ties where there is a change of level. Colour and pattern to architects approval.

ABS 1449 laid with approved adhesives

threads in strict compliance to manufacturers instructions and SANS 0400 specification, with cone base and straight taps. Complete with corner and top trim. Fittings to include, ribbed angle ties where there is change of level. Colour and pattern to architects approval.

699, fixed to walls in long lengths with spacers.

No. coats of egg shell clear varnish to comply with SANS 10400.

PA's approval. All to be manufactured and

6. GRANULOLITHIC FINISH
A 20 mm high x 20 mm thick hardened Granolithic finish composed of one part fine sand, one part fast sand, two parts coarse sand and one part cement, once packed and tamped, would pass through a 5-mm mesh sieve; laid by specialist workmen that would pass through a 10mm mesh sieve; divided with approved brass dividing strips. All materials not manufactured and installed in strict accordance to the latest SANS approved standards. Colour, pattern and aggregate size to architects' specification.

1000000

no. coats of PVA multi finish emulsion paint to SABS 1586 applied on isolated surface primed and with 1 no. coat undercoat to SABS 10400, in accordance to manufacturer's instructions.

ABS 72 or Latest revision, laid on 15 min

to be manufactured and installed in strict compliance SANS 10400 Standard.

brick plaster prepared to receive wall tiles from

to go in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND division part to specification "R1" above applied from top of window level ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SANS approved standards. (Pattern to Architects approval)

X-face brick in common running bond to common end of the structural wall.

FINISHES:
PROVED
 PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND

10 X 600mm 6.4mm thick perforated gypsum
10 SANS 10400 or later revision) installed

arm configurations with 'Wire Screen Tape' fixed over all joints and fastened with 6 mm thick light weight hemi-hydrate gypsum painted, finished and finished with 3 No. coats of super PVA external quality paint, as per P A's approval.

fit strictly in accordance with specialists' instructions and painted 15mm thick smooth cement

ENAMEL PAINT ON EXPOSED STEELWORK
 enamel paint finish complying with SABS 723 or later version for primer,
 SABS 10400 or later version for undercoat and SABS 630 or later version
 2 for Finish coat. Colour to Architect's approval.

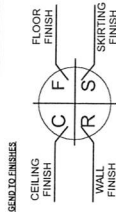
STAIRCASE HANDRAIL DETAIL
Scale 1:5

RAMP BALUSTRAID DETAIL
Scale 1:25

STAIRCASE SECTION

STAIR CASE RISER AND TREAD DETAIL

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ : NOT TO BE SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

[illegible]Department:
Public Works
REPUBLIC OF SOUTH AFRICA

INSTITUTION		DANIEL LAMON CHURCH	
SERVICE			
PROPOSED NEW OFFICE BUILDING			
CONTRACT SECTION			
STAGE 4: TENDER DOCUMENTS			
DISCIPLINE		ARCHITECTURE	
PROJECT ID / NAME		4	
STAIR DETAIL - RAMP DETAIL			
STAIRING DETAIL SECTION			
ITEM No.	ITEM NAME	ITEM No.	ITEM NAME
SECTION INTERNATIONAL	E. Shaw-C. Rampado	SECTION INTERNATIONAL	SHAWN
INCHES	SECTION	INCHES	SECTION
RESPONSIBLE PROFESSIONAL	ISLAHIRE	RESPONSIBLE PROFESSIONAL	PAUL
DATE	NAME	DATE	NAME
2016/01/10	THOMAS BAYARDA	2016/01/10	PAUL
STAIRING DETAIL SECTION		STAIRING DETAIL SECTION	
EDUARDO SILVEIRA		EDUARDO SILVEIRA	



RA - INTERNATIONAL:

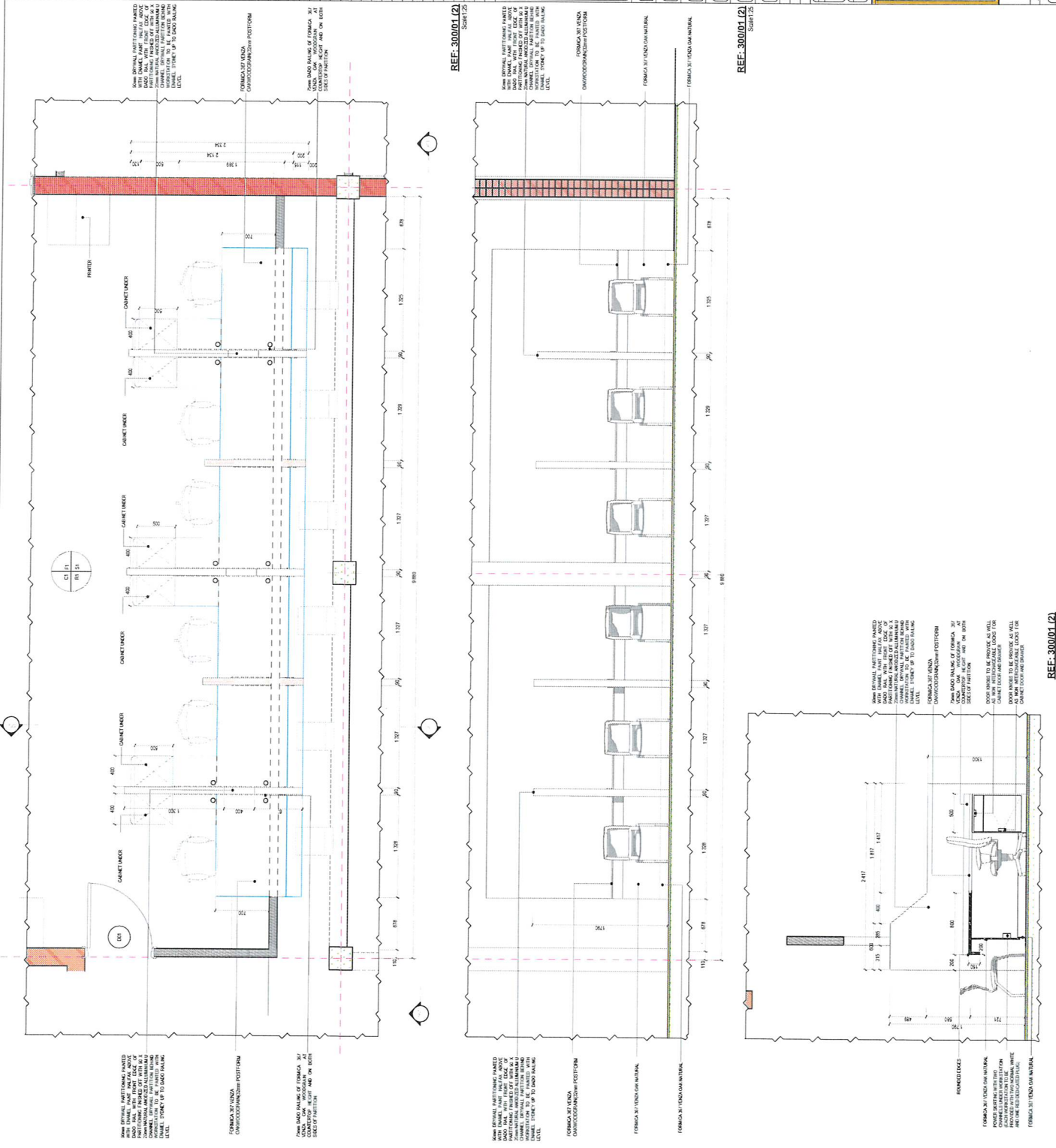
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CONTRACTOR:

A1	WCS-054120-A800-01	0
DRAWING NUMBER		
FILE NAME	REV	

FINISHES LEGEND

- 1.1. INTERIOR PORCELAIN TILES (SANS 1449)**
 1.1.1. INTERIOR PORCELAIN TILES (SANS 1449) shall be used for all internal wall and floor finishes. Tiles shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Tiles shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish.
- 1.2. EXTERIOR PORCELAIN TILES (SANS 1449)**
 1.2.1. EXTERIOR PORCELAIN TILES (SANS 1449) shall be used for all external wall and floor finishes. Tiles shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Tiles shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish.
- 1.3. INTERIOR CERAMIC TILES (SANS 1449)**
 1.3.1. INTERIOR CERAMIC TILES (SANS 1449) shall be used for all internal wall and floor finishes. Tiles shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Tiles shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish.
- 1.4. EXTERIOR CERAMIC TILES (SANS 1449)**
 1.4.1. EXTERIOR CERAMIC TILES (SANS 1449) shall be used for all external wall and floor finishes. Tiles shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Tiles shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish. Tiles shall be laid in a manner that ensures a smooth, even finish.
- 1.5. GRANULITE FINISH**
 1.5.1. GRANULITE FINISH shall be used for all internal wall and floor finishes. Granulite shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Granulite shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Granulite shall be laid in a manner that ensures a smooth, even finish. Granulite shall be laid in a manner that ensures a smooth, even finish. Granulite shall be laid in a manner that ensures a smooth, even finish.
- 1.6. STONE FINISH**
 1.6.1. STONE FINISH shall be used for all internal wall and floor finishes. Stone shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Stone shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Stone shall be laid in a manner that ensures a smooth, even finish. Stone shall be laid in a manner that ensures a smooth, even finish. Stone shall be laid in a manner that ensures a smooth, even finish.
- 1.7. PLASTER FINISH**
 1.7.1. PLASTER FINISH shall be used for all internal wall and floor finishes. Plaster shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Plaster shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Plaster shall be laid in a manner that ensures a smooth, even finish. Plaster shall be laid in a manner that ensures a smooth, even finish. Plaster shall be laid in a manner that ensures a smooth, even finish.
- 1.8. PAINT FINISH**
 1.8.1. PAINT FINISH shall be used for all internal wall and floor finishes. Paint shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Paint shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Paint shall be laid in a manner that ensures a smooth, even finish. Paint shall be laid in a manner that ensures a smooth, even finish. Paint shall be laid in a manner that ensures a smooth, even finish.
- 1.9. GLASS FINISH**
 1.9.1. GLASS FINISH shall be used for all internal wall and floor finishes. Glass shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Glass shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Glass shall be laid in a manner that ensures a smooth, even finish. Glass shall be laid in a manner that ensures a smooth, even finish. Glass shall be laid in a manner that ensures a smooth, even finish.
- 1.10. METAL FINISH**
 1.10.1. METAL FINISH shall be used for all internal wall and floor finishes. Metal shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Metal shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Metal shall be laid in a manner that ensures a smooth, even finish. Metal shall be laid in a manner that ensures a smooth, even finish. Metal shall be laid in a manner that ensures a smooth, even finish.
- 1.11. WOOD FINISH**
 1.11.1. WOOD FINISH shall be used for all internal wall and floor finishes. Wood shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Wood shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Wood shall be laid in a manner that ensures a smooth, even finish. Wood shall be laid in a manner that ensures a smooth, even finish. Wood shall be laid in a manner that ensures a smooth, even finish.
- 1.12. OTHER FINISHES**
 1.12.1. OTHER FINISHES shall be used for all internal wall and floor finishes. Other finishes shall be laid on a prepared substrate and grout on 20mm thick beds in strict compliance with SANS 1449. Other finishes shall be laid in a staggered pattern and grout joints shall be filled with a matching grout. Other finishes shall be laid in a manner that ensures a smooth, even finish. Other finishes shall be laid in a manner that ensures a smooth, even finish. Other finishes shall be laid in a manner that ensures a smooth, even finish.



NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
- DIMENSIONS TO BE READ: NOT TO BE SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

LEGEND TO FINISHES

FLOOR FINISH

CEILING FINISH

WALL FINISH

SKIRTING FINISH

public works

Department of Public Works

REPUBLIC OF SOUTH AFRICA

STAGE 4: TENDER DOCUMENTS

PROJECT TYPE

ARCHITECTURE

WORK DESCRIPTION: TENDER DOCUMENTS

PROJECT DESCRIPTION

DATE: 2024-01-01

PROJECT NUMBER: 123456

PROJECT NAME: TENDER DOCUMENTS

PROJECT LOCATION: TENDER DOCUMENTS

PROJECT STATUS: TENDER DOCUMENTS

PROJECT CONTACT: TENDER DOCUMENTS

PROJECT PHONE: TENDER DOCUMENTS

PROJECT EMAIL: TENDER DOCUMENTS

PROJECT WEBSITE: TENDER DOCUMENTS

PROJECT ADDRESS: TENDER DOCUMENTS

PROJECT COUNTRY: TENDER DOCUMENTS

PROJECT CITY: TENDER DOCUMENTS

PROJECT STATE: TENDER DOCUMENTS

PROJECT ZIP: TENDER DOCUMENTS

PROJECT COUNTRY CODE: TENDER DOCUMENTS

PROJECT CITY CODE: TENDER DOCUMENTS

PROJECT STATE CODE: TENDER DOCUMENTS

PROJECT ZIP CODE: TENDER DOCUMENTS

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PROJECT STATE CODE: TENDER DOCUMENTS

PROJECT ZIP CODE: TENDER DOCUMENTS

CIVIL DRAWINGS

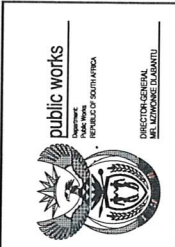
NO.	DATE	REVISION	BY	CHK
1	11/09/20	1. ALL LEVELS DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE		
2		2. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT DRAWINGS		

NOTES:

1. ALL LEVELS DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE
2. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT DRAWINGS

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Sheet: A1

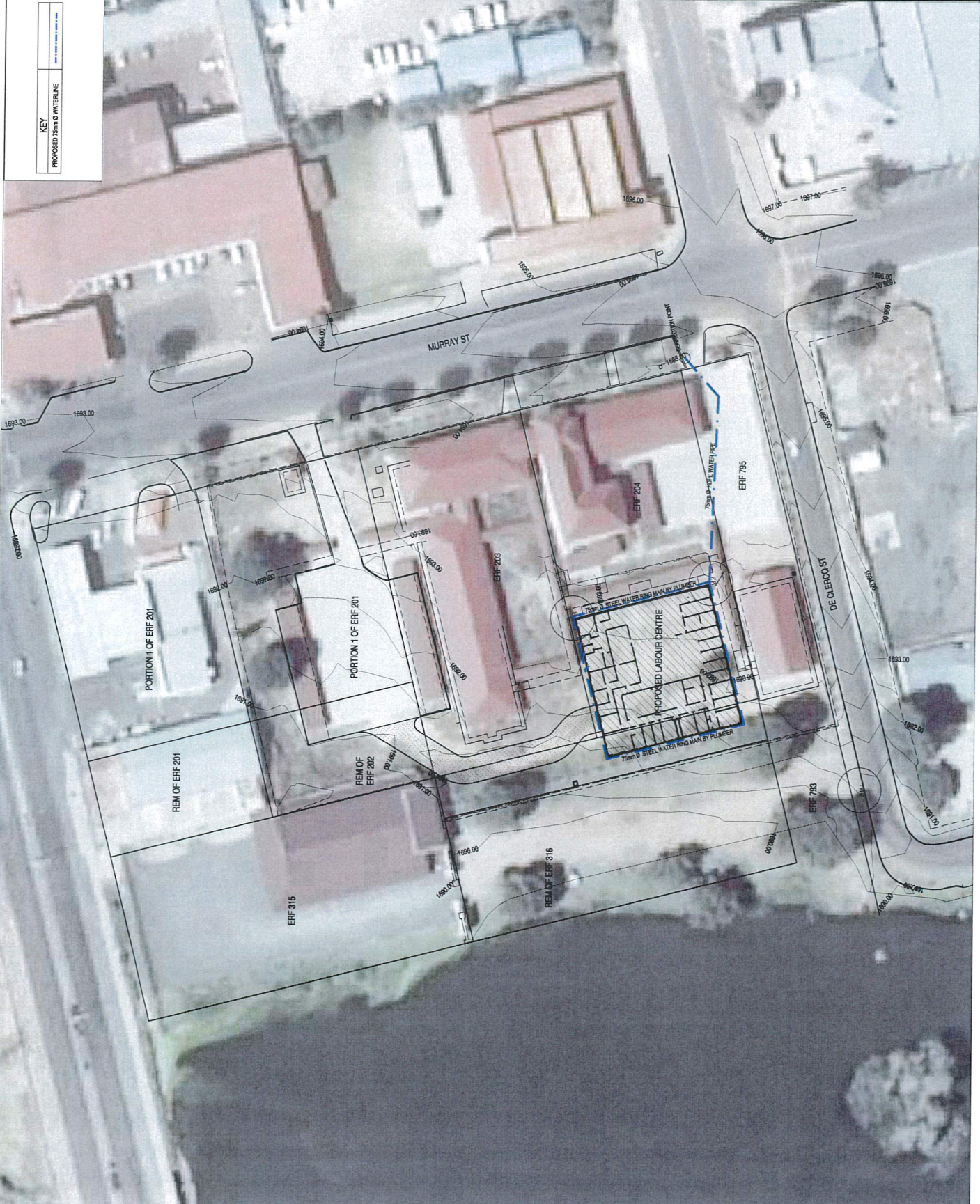


TMS
TMS CONSULTING
P.O. Box 602, Nelspruit 1200
Nelspruit 1201
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Web: www.tmsconsulting.com
E-mail: info@tmsconsulting.co.za

CIVIL
EMERLO : DEPARTMENT OF LABOUR
CONSTRUCTION OF LABOUR CENTRE:

Project No.	054120
Project Name	WATER LAYOUT
Client	EMERLO
Design Engineer	T.C.
Check Engineer	E.M.
Drawn By	000018
Checked By	C.T.P.
Drawing Number	C054120/021

KEY
PROPOSED 75mm Ø WATERLINE



NO.	DATE	REVISION	BY
1	11/08/20	SUBSOIL LAYOUT REVISED, NOTES ADDED	E.M.

NOTES

1. ALL LEVELS & DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE.
2. ALL WORK TO BE IN ACCORDANCE WITH THE SANS 10400 & 10401 STANDARDS.
3. ALL WORK TO BE IN ACCORDANCE WITH THE SANS 10400 & 10401 STANDARDS.

KEY

PROPOSED 100mm Ø SUBSOIL DRAINAGE PIPE
WITH JUNCTION BOX & CLEANING EYE



NO.	DATE	REVISION	BY
1	11/08/20	SUBSOIL LAYOUT REVISED, NOTES ADDED	E.M.

Scale: 1:100
Drawing No: A1

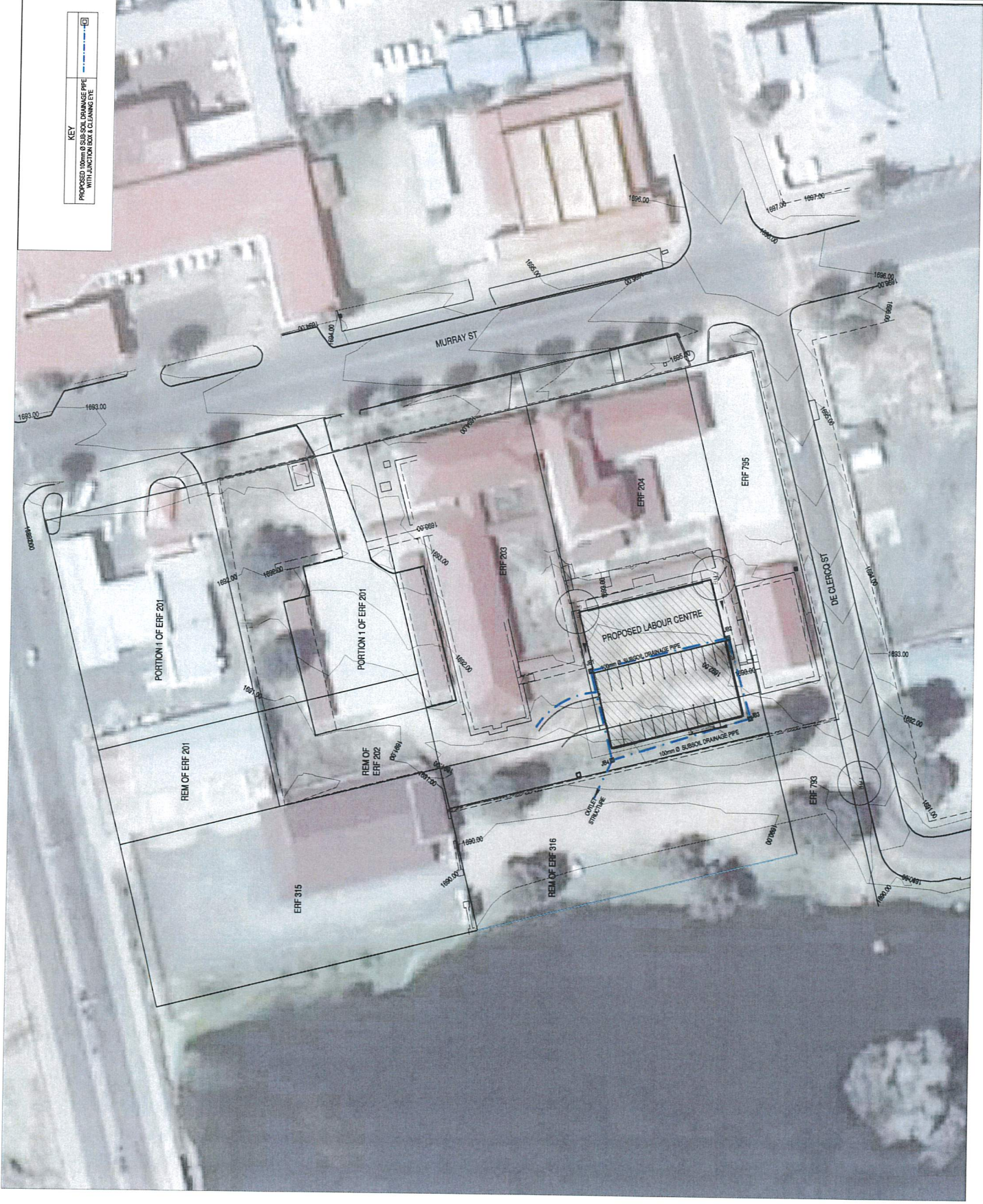


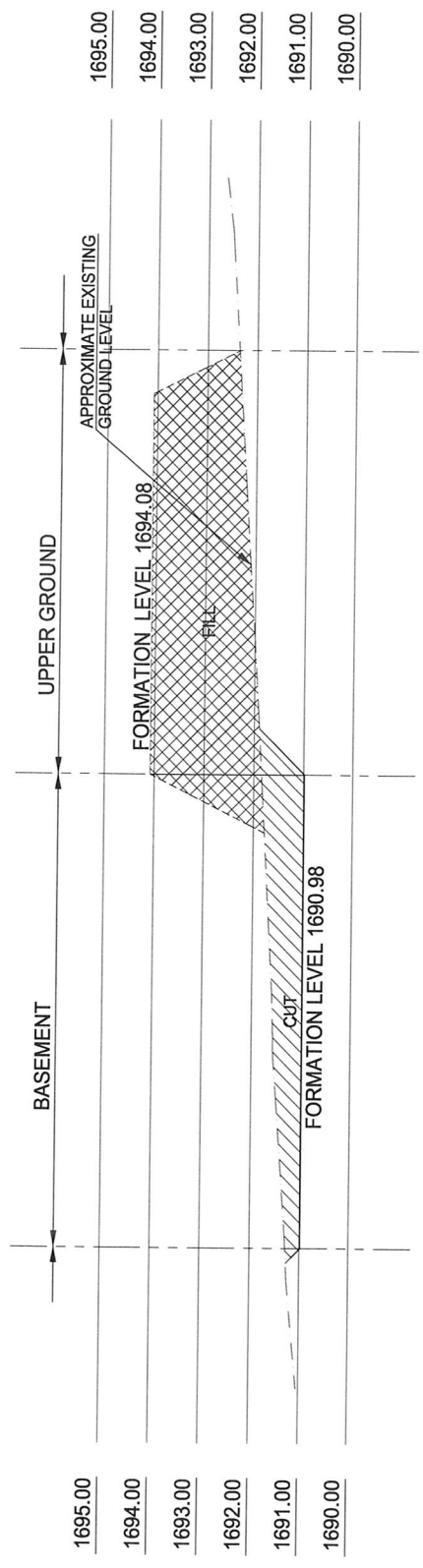
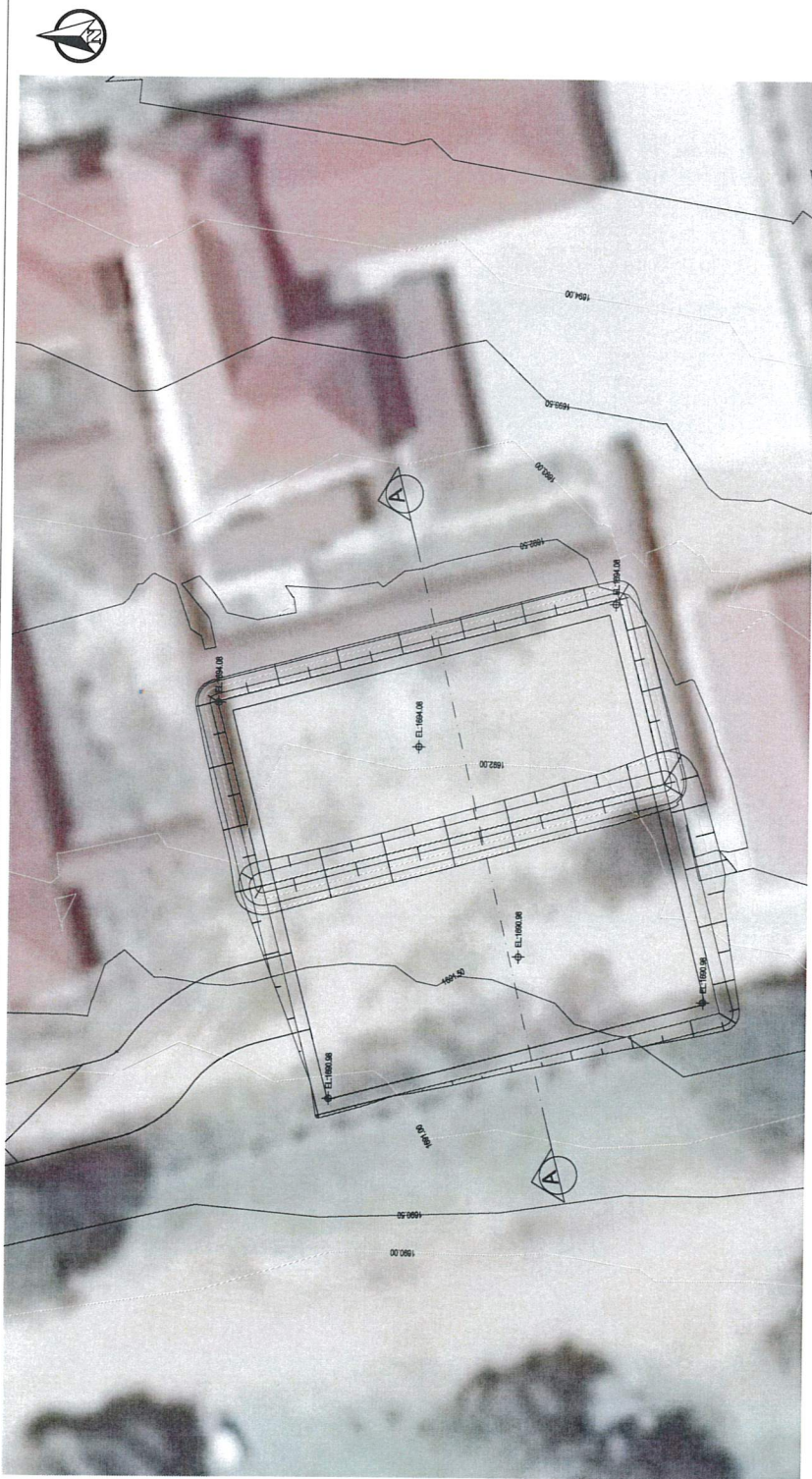
public works
SOUTH AFRICAN GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
101 MARSHALL STREET
JOHANNESBURG 2001
Tel: 011 312 2478
Fax: 011 312 2479
Email: info@publicworks.gov.za

EMERLO - DEPARTMENT OF LABOUR
CONSTRUCTION OF LABOUR CENTRE:

NO.	DATE	REVISION	BY
1	11/08/20	SUBSOIL LAYOUT REVISED, NOTES ADDED	E.M.

C054120/03/1





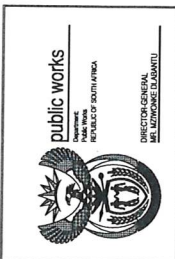
SECTION A
SCALE 1:200 H 1:100 V

NO.	DATE	REVISION	DESCRIPTION
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9			
10			

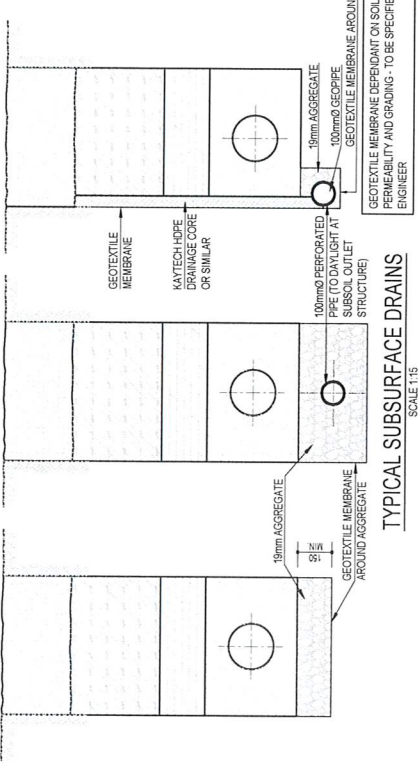
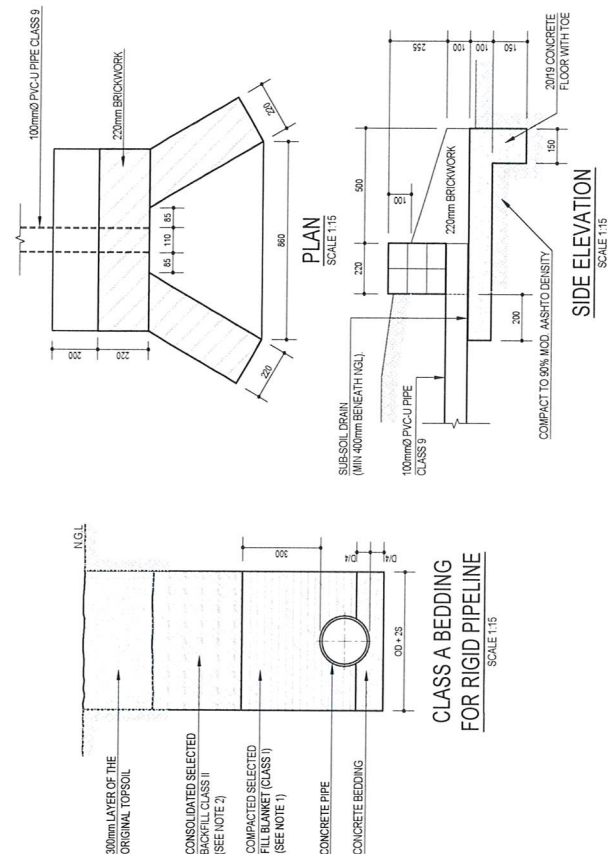
1. THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE RELEVANT CON. DOCUMENTS.
ALL WORK MATERIAL AND CONSTRUCTION TO BE ACCORDING TO THE RELEVANT SECTIONS OF SANS 1000.
2. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.
3. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.
4. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.
5. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.
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9. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.
10. EXISTING GROUND LEVELS AND CONTOURS TO BE OBTAINED BY SURVEYING.

NO.	DATE	REVISION	DESCRIPTION
1			
2			
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8			
9			
10			

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CONSULTANT	TMS
30A ENRIKE STREET	P.O. Box 602, NELSPRUIT 1200
NELSPRUIT 1201	TEL: +27 13 752 8479
Web: www.tmsconsulting.com	E-mail: info@tmsconsulting.co.za
DISCIPLINE	CIVIL
SERVICE	EMERLO : DEPARTMENT OF LABOUR CONSTRUCTION OF LABOUR CENTRE:
WORK NUMBER	054120
DATE	05/05/18
DESIGNED	T.C.
DRAWN	E.M.
CHECKED	C.T.P.
DATE	05/05/18
PROJECT	054120/05



GEOTEXTILE MEMBRANE DEPENDANT ON SOIL
PERMEABILITY AND GRADING - TO BE SPECIFIED BY
ENGINEER

TYPICAL SUBSURFACE DRAINS

CLASS "A" BEDDING DETAIL

PIPE ENCASING DETAIL

NOTES:

- 3) SELECTED BACKFILL CLASS 1 - IMPLIES APPROVED SELECTED MATERIAL FROM FRENCH EXCAVATION, FREE FROM STONES AND WITH AN OPTIMUM MOISTURE CONTENT
- 4) CLASS 1* BEDDING (FENCASING CONCRETE BETWEEN JOINTS SHALL BE CARRIED OUT IN ONE CONTINUOUS OPERATION USING CLASS 2* ON 191
- 5) FLEXIBLE JOINTS MUST BE PROVIDED AT EACH PRE JOINT CLASS 1* CONCRETE BEDDING / FENCASING, WITH A 12mm THICK FORTIFORTE PLACED VERTICALLY FOR THE ENTIRE CONCRETE AREA. PRE JOINTS MUST BE SEALED WITH A WET JOINT EXPANDER SLUSH FROM PENETRATING THE JOINT
- 6) EXCEPT FOR THE 300mm BACKFILL ON THE TOP OF THE PIPE, THE BALANCE OF THE BEDDING MAY BE BACKFILLED WHEN THE CLASS 1* BEDDING / FENCASING HAS OBTAINED THE COMPRESSIVE STRENGTH OF 15MPa

[illegible]

No.	DATE	AMENDMENT	BY

NOTES:
 1) ALL LEVELS ARE INDICATED TO THE CLASSED & COMPLETED SURFACE.
 2) ALL DIMENSIONS TO THE EXTERIOR UNLESS OTHERWISE SPECIFIED.
 3) ALL DIMENSIONS TO THE INTERIOR UNLESS OTHERWISE SPECIFIED.

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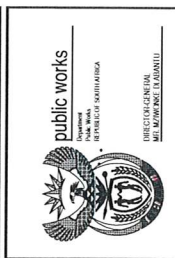
NAME: _____
 DATE: _____
 PROJECT/REGISTRATION NO.: _____
 CABLE NO.: _____

SCALE: A 2

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 394 BAKER STREET
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 Web: www.dpwsouthafrica.gov.za
 Email: info@dpwsouthafrica.gov.za

NAME: _____
 DATE: _____
 PROJECT/REGISTRATION NO.: _____
 CABLE NO.: _____

SCALE: A 2



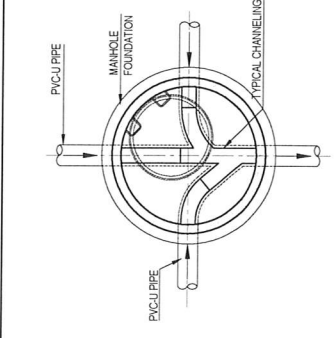
394 BAKER STREET
 NELSPRUIT 1201
 TEL: +27 13 736 4478
 Web: www.dpwsouthafrica.gov.za
 Email: info@dpwsouthafrica.gov.za

NAME: _____
 DATE: _____
 PROJECT/REGISTRATION NO.: _____
 CABLE NO.: _____

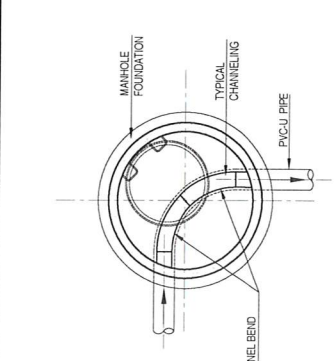
SCALE: A 2

EMERLO : DEPARTMENT OF LABOUR
 CONSTRUCTION OF LABOUR CENTRE

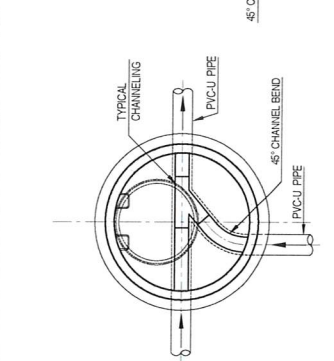
WKS number: 054120
 Drawing title: SEWER MANHOLE DETAILS
 Scale: 1:25
 Date: 11/09/17
 Checked: CJP
 Drawing number: C054120/07



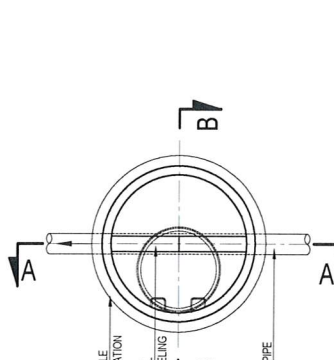
PLAN
 (TYPICAL EXAMPLE OF SIDE CONNECTIONS IN MANHOLE)
 SCALE 1:25



PLAN
 (TYPICAL EXAMPLE OF 90° BEND IN MANHOLE)
 SCALE 1:25

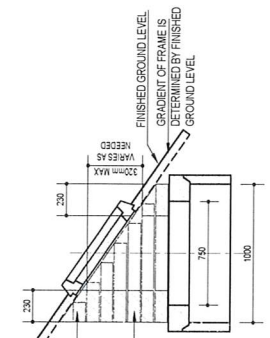


PLAN
 (TYPICAL EXAMPLE OF 90° CONNECTION IN MANHOLE)
 SCALE 1:25



PLAN
 (TYPICAL EXAMPLE OF THROUGH CONNECTION IN MANHOLE)
 SCALE 1:25

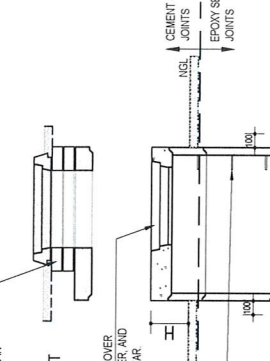
TYPICAL MANHOLE LAYOUTS SHOWING POSITIONS OF MANHOLE FRAME, STEPS AND CHANNELING



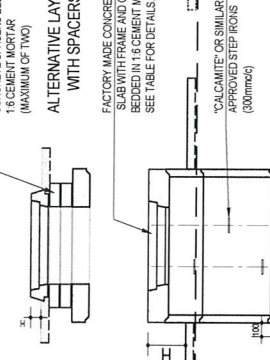
TYPICAL SECTION
 BUILT IN MANHOLE FRAME AT
 FINISHED SLOPED SIDEWALKS
 SCALE 1:25
 (WITH WRITTEN PERMISSION FROM THE ENGINEER ONLY)



TYPICAL SECTION
 BUILT IN MANHOLE FRAME AT
 FINISHED SLOPED SIDEWALKS
 SCALE 1:25
 (WITH WRITTEN PERMISSION FROM THE ENGINEER ONLY)

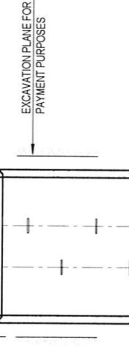
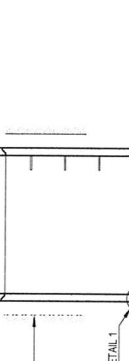


TYPICAL SECTION
 BUILT IN MANHOLE FRAME AT
 FINISHED SLOPED SIDEWALKS
 SCALE 1:25
 (WITH WRITTEN PERMISSION FROM THE ENGINEER ONLY)



TYPICAL SECTION
 BUILT IN MANHOLE FRAME AT
 FINISHED SLOPED SIDEWALKS
 SCALE 1:25
 (WITH WRITTEN PERMISSION FROM THE ENGINEER ONLY)

NOTES:
 1) CONCRETE FOR MANHOLES MUST BE OF DOLOMITIC ORIGIN.
 2) TYPICAL VALUES FOR H:
 H = 50 - 75mm WITHIN KERB AND ROAD RESERVES
 = 250mm LOW COST HOUSING DEVELOPMENTS
 = 500mm OPEN VELD OR ROAD RESERVES WHERE POSITION OF MANHOLES CAN BE CONCEALED
 = 750mm GRASS OR OTHER GROWTH.
 3) CHANNELING:
 NOMINAL DIAMETERS
 Ø ≤ 300mm CLAY OR DOLOMITIC CONCRETE OR NUTEC CEMENT
 Ø > 300mm INSTU CAST DOLOMITIC CONCRETE
 4) CONCRETE MANHOLE SECTIONS MUST BE FIXED WITH AN EPOXY SEALER SUCH AS EPOXYMAX 344 OR PRO STRUCT 887 OR SIMILAR APPROVED
 5) EACH OR MORE MANHOLE SECTIONS MUST BE CONNECTED TO THE MAIN SEWER LINE
 6) MANHOLE FRAMES MAY ONLY BE BUILT IN ON SLOPED FINISHED SIDEWALKS ON A WRITTEN INSTRUCTION BY THE ENGINEER
 7) OVER EXCAVATION MAY ONLY BE FILLED AFTER APPROVAL BY THE ENGINEER WITH GRADE 2019 CONCRETE OR SUITABLE MATERIAL AS DIRECTED BY THE ENGINEER.
 8) NO PART OF THE MANHOLE MAY BE FINISHED OFF WITH CEMENT WASH OR MORTAR.



TYPICAL SECTION
 BUILT IN MANHOLE FRAME AT
 FINISHED SLOPED SIDEWALKS
 SCALE 1:25
 (WITH WRITTEN PERMISSION FROM THE ENGINEER ONLY)



ANCHOR BLOCKS ON SLOPES STEEPER THAN 1:10



NOTES	1. ALL LEVELS AND DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE
	2. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT DRAWINGS

on bond summary

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*confined on bond summary as per Consolidated Summary
Notice AS-0108-1 (10/04/06) [E.O. 12812 (MAY 1997)]*

name _____

date _____

professional registration no. _____



public works

Department
of Public Works
REPUBLIC OF SOUTH AFRICA

EDUCATION GENIEVAL
MIL. MONTROISE 13 JANUARI

service
EMERLO : DEPARTMENT OF LABOUR
CONSTRUCTION OF LABOUR CENTRE:

WCS number	054120
drawing title	STANDARD DRAWING; SEWER ANCHOR BLOCKS AND RODDING EYE
ref. no.	designed E.M.
scale	drawn E.M.
date	checked C.T.P.
drawing number	

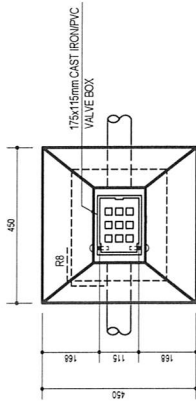
C054120/09



NOTES:
1. ALL LEVELS & DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE
2. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT DRAWINGS

BENDING SCHEDULE

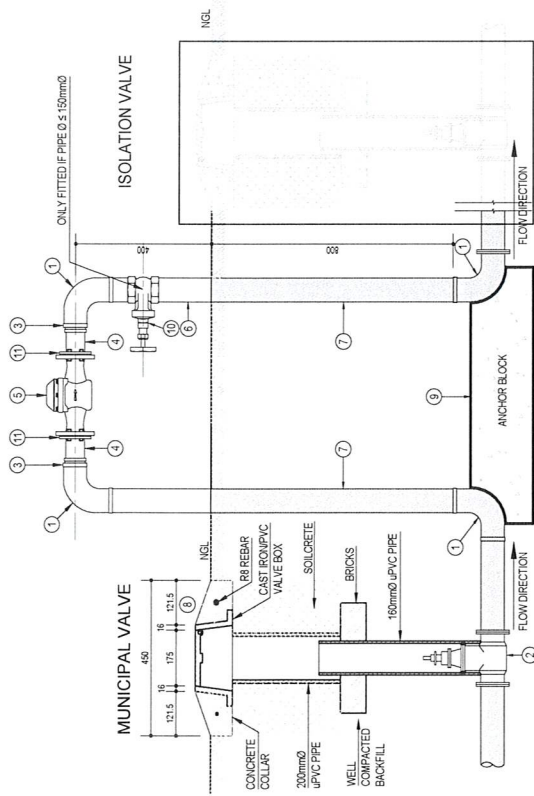
Type & size	Qty	Cut Length mm	Form Code	A mm	B mm	Mass kg
R8	1	1 400	60	300	300	0.553



No.	ITEM DESCRIPTION	WATER CONNECTION SIZES (mm)					
		500 METER	800 METER	1000 METER	1500 METER	1500 METER	
1	ELBOWS GALV	800	1000	1500			
2	VALVE	RSV 800	RSV 1000	RSV 1500			
3	REDUCING BUSH	80-500	100-800	150-1000			
4	NIPPLE	500	800	1000			
5	WATER METER	500	800	1000			
6	PIPE GALV	800	1000	1500			
7	'DENSOTAPE' WRAPPING	YES	YES	YES			
8	CONCRETE VALVE BOX	YES	YES	YES			
9	ANCHOR BLOCKS	YES	YES	YES			
10	WHEEL VALVE	800	1000	1500			
11	SCREWED FLANGE	500	800	1000			

TABLE 1

- CONCRETE STRENGTH FOR COLLAR: 20 MPa (8 DAYS)
- CONCRETE COVER: 50mm
- WHERE UNDERGROUND VALVE BOX IS PLACED IN THE ROAD OR PAVEMENT, THE TOP OF THE CONCRETE COLLAR SHALL BE FLAT.

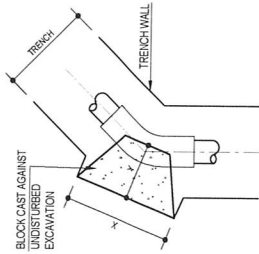


WATER METER CONNECTION

No.	DATE	AMENDMENT	D.P.W.
Copyright vests in the Department of Public Works			
as-built drawings confined to built drawings as per Commissioned Drawings Active AS-BUILT DRAWING REQUIREMENTS			
Name: _____ date: _____ professional registration no.: _____			
cad file name: _____ page type: A 1			
 public works Department REPUBLIC OF SOUTH AFRICA DIRECTOR-GENERAL MR. MZONKE DABANTU			
consultant  TMS Engineering & Construction P.O. Box 603, NELSPRUIT 1200 NELSPRUIT 1201 TEL: +27 11 752 8478 WWW.TMS-ENGINEERING.COM E-MAIL: info@tms-engineering.co.za			
discipline: CIVIL service: _____ EMERLO : DEPARTMENT OF LABOUR CONSTRUCTION OF LABOUR CENTRE.			
WCS number: 054120 drawing title: STANDARD DRAWING: WATER PIPE THRUST BLOCKS ref no.: _____ designed TC scale: AS SHOWN drawn EM date: 11/2017 checked CTP drawing number: C054120/12			

NOTES :
CONCRETE THRUST BLOCKS

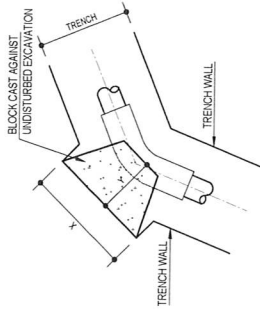
1. THRUST BLOCK DIMENSIONS ON THIS DRAWING ARE ONLY APPLICABLE UNDER THE FOLLOWING CONDITIONS
 - * UNDISTURBED SAND-GROUND MIXTURES OR DENSE SAND-GROUND MIXTURES WITH A BEARING CAPACITY OF AT LEAST 1800 kN/m²
 - * UNSUBMERGED CONDITIONS
 - * MAXIMUM INTERNAL PIPE PRESSURE OF 18 Bar
 - * USE 10 MPa CONCRETE
2. HALF THE DEPTH OF THE THRUST BLOCK TO BE PLACED BELOW THE PIPE AXIS
3. KEEP CONCRETE AWAY FROM THE COUPLINGS & THE PIPE JOINTS
4. THRUST BLOCKS FOR PIPE Ø LARGER THAN 300mm & HIGHER TEST PRESSURES THAN 18 BAR SHALL BE DESIGNED BY THE ENGINEER
5. THRUST BLOCKS AT FADDER PLACES SHALL BE REINFORCED & DESIGNED BY THE ENGINEER



THRUST BLOCK FOR 45° BEND

SCALE 1:30

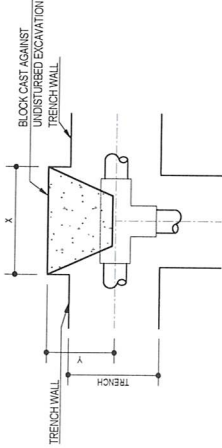
NOMINAL PIPE DIAMETER ø (mm)	AREA REQUIRED m ²	DIMENSIONS (mm)				AREA PROVIDED m ²	VOL PROVIDED (m ³)
		D	Z	X	Y		
75	0.061	800	400	450	225	0.180	0.040
100	0.089	1000	500	500	250	0.250	0.060
150	0.165	1500	750	750	375	0.500	0.120
200	0.318	2000	1000	1000	500	0.750	0.180
250	0.465	2500	1250	1250	625	1.000	0.250
300	0.680	3000	1500	1500	750	1.500	0.375
300+	0.979	1400	700	2600	1300	1.820	2.370
SEE NOTE 5							



THRUST BLOCK FOR 22½° BEND

SCALE 1:10

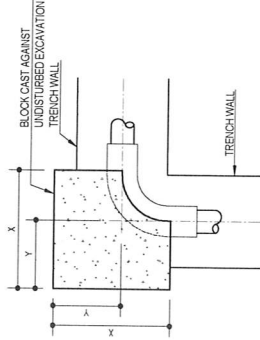
NOMINAL PIPE DIAMETER (mm)	AREA REQUIRED m ²	DIMENSIONS (mm)				AREA PROVIDED m ²	VOL PROVIDED (m ³)
		D	Z	X	Y		
75	0.031	800	400	400	200	0.1600	0.032
100	0.055	1000	500	500	250	0.2500	0.053
150	0.124	1500	750	750	375	0.5000	0.108
200	0.220	2000	1000	1000	500	0.7500	0.150
250	0.344	2500	1250	1250	625	1.0000	0.225
300	0.465	3000	1500	1500	750	1.5000	0.375
300+	0.979	1400	700	2600	1300	1.820	2.370
SEE NOTE 5							



THRUST BLOCK FOR TEE-PIECE

SCALE 1:30

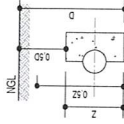
NOMINAL PIPE DIAMETER ø (mm)	AREA REQUIRED m ²	DIMENSIONS (mm)				AREA PROVIDED m ²	VOL PROVIDED (m ³)
		D	Z	X	Y		
75	0.080	800	400	400	200	0.160	0.032
100	0.141	1000	500	500	250	0.250	0.063
150	0.318	1500	750	750	375	0.500	0.123
200	0.595	2000	1000	1000	500	0.750	0.180
250	0.883	2500	1250	1250	625	1.000	0.250
300	1.272	3000	1500	1500	750	1.500	0.375
300+	1.272	1400	700	2600	1300	1.820	2.370
SEE NOTE 5							



THRUST BLOCK FOR 90° BEND

SCALE 1:30

NOMINAL PIPE DIAMETER ø (mm)	AREA REQUIRED m ²	DIMENSIONS (mm)				AREA PROVIDED m ²	VOL PROVIDED (m ³)
		D	Z	X	Y		
75	0.113	800	400	450	225	0.18	0.065
100	0.201	1000	500	500	250	0.25	0.100
150	0.451	1500	750	750	375	0.50	0.180
200	0.803	2000	1000	1000	500	0.75	0.300
250	1.254	2500	1250	1250	625	1.00	0.400
300	1.806	3000	1500	1500	750	1.50	0.600
300+	1.806	1400	700	2600	1300	1.82	2.370
SEE NOTE 5							



TYPICAL SECTION

SCALE 1:30

No.	DATE	AMENDMENT	D.P.W.

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as-built drawings	
checked as-built drawings as per Client's Drawing Requirements	
name: _____	
date: _____	
professional registration no.: _____	
cost No name _____	
page type _____	
A	

	
public works Department Public Works REPUBLIC OF SOUTH AFRICA DIRECTOR GENERAL MR. MUYWONDELEMBE	

	
consultant	
30A EMKIE STREET NELSPRUIT 1201 P.O. Box 603, NELSPRUIT 1200 TEL: +27 13 752 8478 E-mail: info@tmsconsulting.co.za Website: www.tmsconsulting.co.za	
discipline: CIVIL	
service: _____	
EMERLO - DEPARTMENT OF LABOUR CONSTRUCTION OF LABOUR CENTRE	

WCS number: 054120	
drawing title: STANDARD DRAWING - WATER PIPE THRUST BLOCKS	
ref no.: _____	
scale: AS SHOWN	
date: 11/03/17	
designed by: _____	
drawn by: _____	
checked by: _____	
drawing number: C054120/12	

[illegible]

NOTES:

1. SELECTED BACKFILL CLASS 1; IMPLIES APPROVED SELECTED MATERIAL FROM TRENCH EXCAVATION OR BORROW, FREE FROM STONES AND WITH AN OPTIMUM MOISTURE CONTENT.

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- certified as true drawings as per Consolidated Drawing
Act No. AS-0108, L 1716-A996-LR 0-0101 RM 1975.
- name _____
date _____
professional registration no. _____



public works
Department
of Public Works
REPUBLIC OF SOUTH AFRICA

ORIENTATION
MANAGEMENT
TRAINING

TMS
Consulting Engineers & Project
Management

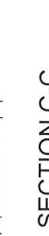
394 EMVKE STREET
NELSPRUIT 1201
P.O. Box 603, NELSPRUIT 1200
TEL: +27 13 752 8478
E-mail: info@tr-consulting.co.za
Web: www.trconsulting.com

CIVIL

the editor

WCD number	054120
drawing title	STANDARD DRAWING: SUBSOIL DRAINAGE DETAILS
scale	AS SHOWN
date	11/09/17
drawing number	
designed	LM
checked	LM
checked	CJP

C054120/14



ELECTRICAL DRAWINGS

PRELIM	WORK NUMBER	054120	UPPER GROUND LIGHTING LAYOUT	DATE	
	DRAWING TITLE			DATE	
	REF NO.		CHANGED	DATE	
	SCALE	1:50	CHANGED	DATE	
	PROJECT NUMBER	201-048505	CHANGED	DATE	
	drawing issued		REVISION		
					B
					140001-02-100-001



SCALE 1:50

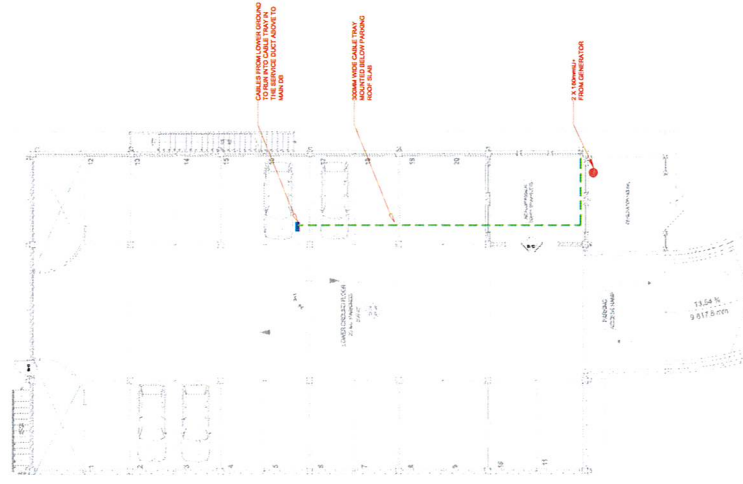
WCS NUMBER	054120
CONTAINER TITLE	
UPPER GROUND SMALL POWER LAYOUT	
REV. NO.	CONTAINER NO.
SCALE	DATE
DATE	DATE
20140805	08/05/2014
Drawing Number	REV. NO.
140001-02-100-003	B



SCALE 1:50

[illegible]

SCALE 1:50



REV	DATE	BY	DESCRIPTION
1	01/01/01	XXX	INITIAL RELEASE
2	01/01/01	XXX	INITIAL RELEASE

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CAO FILE NUMBER
ELECT - EE10491 - 011



WALL NUMBER	0541120
CONTAINER TYPE	
UPPER AND LOWER GROUND FLOOR PLAN TRUNKING LAYOUT	
REF. NO.	CONTAINER
SCALE	1:150
DATE	20/06/05
Drawing number	1400001-02-100-004
	8

LEGEND	SYMBOL	DESCRIPTION
		POWER TRANSFORMER
		THREE PHASE CIRCUIT BREAKER
		SINGLE PHASE CIRCUIT BREAKER
		ISOLATOR
		SWITCH
		GENERATOR
		CABLE TERMINATION
		EARTHING

REVISION	NO.	DATE	BY	CHKD.
1. Initial Design	1	10/01/2020	...	...
2. Design Change	2	10/01/2020	...	...
3. Design Change	3	10/01/2020	...	...
4. Design Change	4	10/01/2020	...	...
5. Design Change	5	10/01/2020	...	...
6. Design Change	6	10/01/2020	...	...
7. Design Change	7	10/01/2020	...	...
8. Design Change	8	10/01/2020	...	...
9. Design Change	9	10/01/2020	...	...
10. Design Change	10	10/01/2020	...	...

public works

ENGINEER GENERAL
SPECIALIST ELECTRICAL

PROJECT: ...

DATE: ...

BY: ...

CHKD.: ...

ENGINEERING CENTER

PROJECT: ...

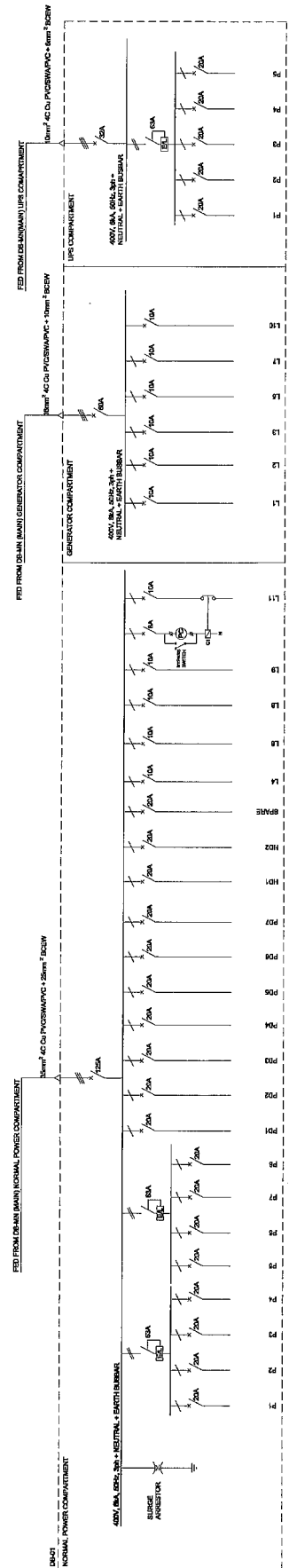
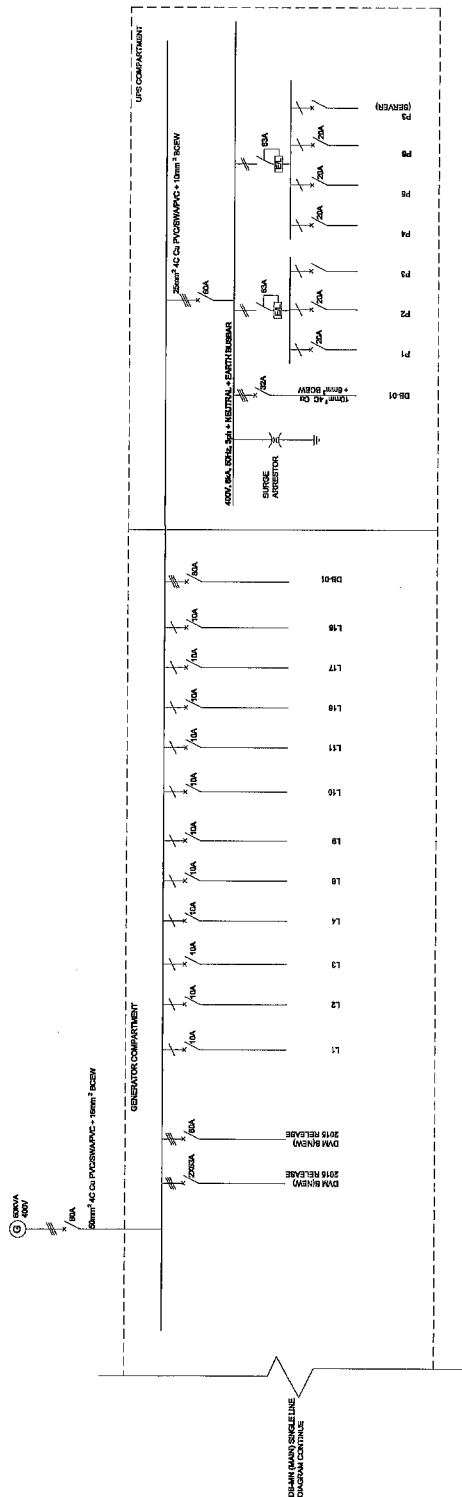
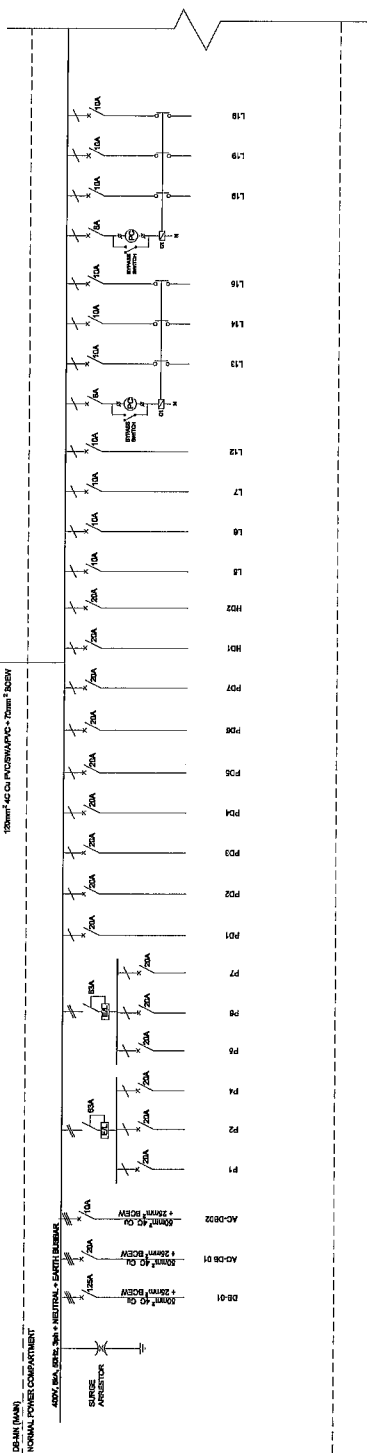
DATE: ...

BY: ...

CHKD.: ...

140001-02-100-006

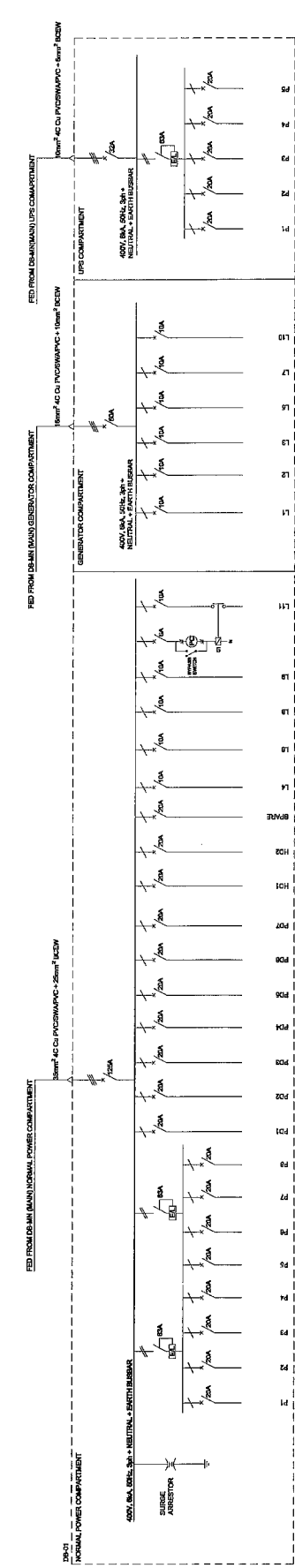
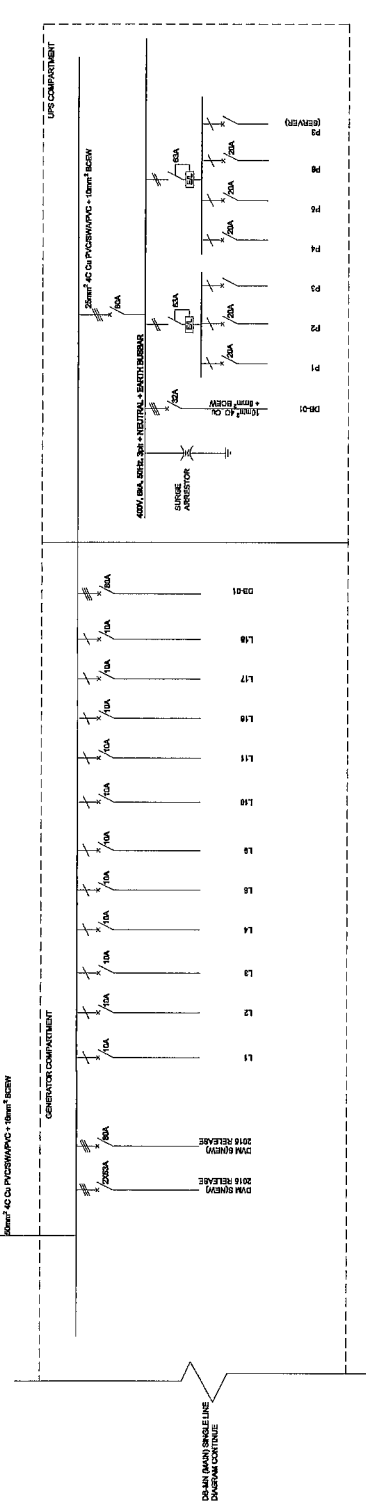
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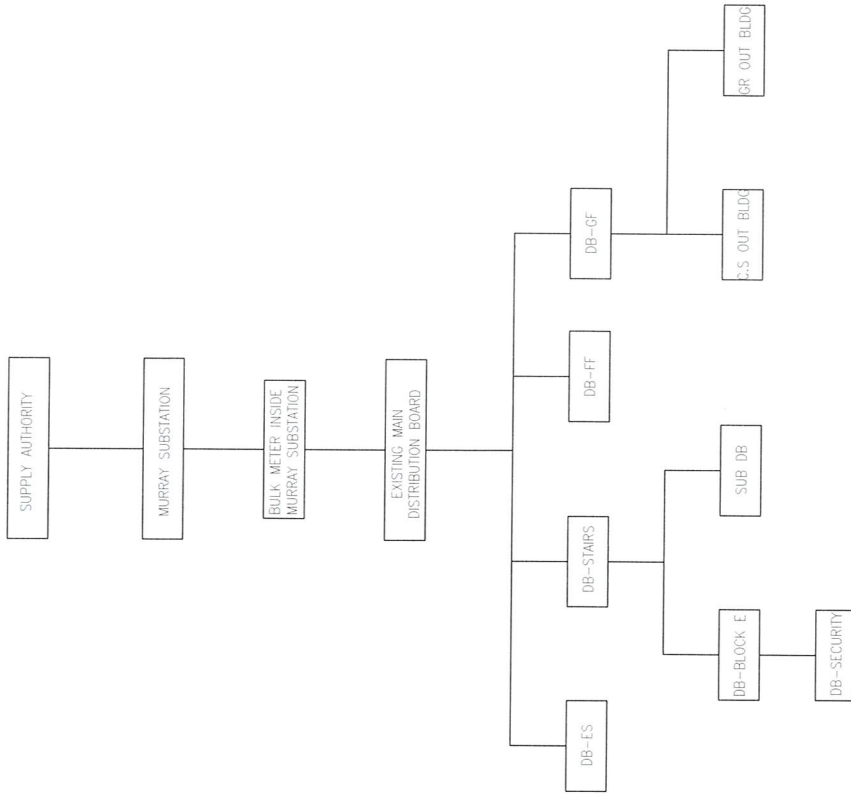


[illegible]

public works
 Department
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 DIRECTOR-GENERAL

ERMELLO LABOUR CENTER

[illegible]



REV	REVISION	DATE	BY

REVISION

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Department of Public Works

Drawing for information

NAME: _____
DATE: _____
PROFESSIONAL REGISTRATION NO.: _____

ISSUED FOR REVIEW
ELECT - EE10491 - 011
A 1



PROJECT: **ELECTRICAL**
PRODUCT: **ERMELLO LABOUR CENTER**
DRAWING NUMBER: **054120**

DRAWING TITLE: **EXISTING SITE PLAN LOW VOLTAGE SINGLE LINE DIAGRAM**

REVISION: **A**

DATE: 2011/06/05
DRAWN BY: SK
CHECKED BY: SK

MURRAY & DE CLERQ
SUBSTATION (NEW)

RELOCATED BULK
METER

NEW KIOSK (K1)

G
150kVA

AMF 260A

EXISTING MAIN
DISTRIBUTION BOARD

GENERATOR
KIOSK

DB-UPS

DB-MAIN

SUB - DB

AC-DB-01

AC-DB-02

REVISED FOR REVIEW	DESCRIPTION	DATE	BY	APP

REVISION

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Department of Public Works

Drawings for review and approval

NAME: S. Khumalo
DATE: 2021-10-31
PROFESSIONAL REGISTRATION NO.: 200550109

Call the name
ELECT - EE10491 - 011

Page No.
A 1



CONSULTANT:

ERM
Engineering & Project Management
UNIT 2, NORTON JAVAN BUILDING
100 NORTON STREET, 2ND FLOOR
JAN VUURE CENTRE, JOHANNESBURG
TEL: +27 (0)11 881 8811
FAX: +27 (0)11 881 8811
WWW.ERM.CO.ZA

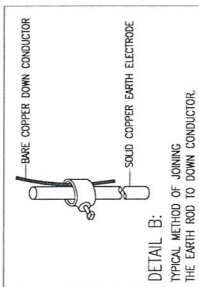
DISCIPLINE: **ELECTRICAL**

PROJECT: **ERMIELO LABOUR CENTER**

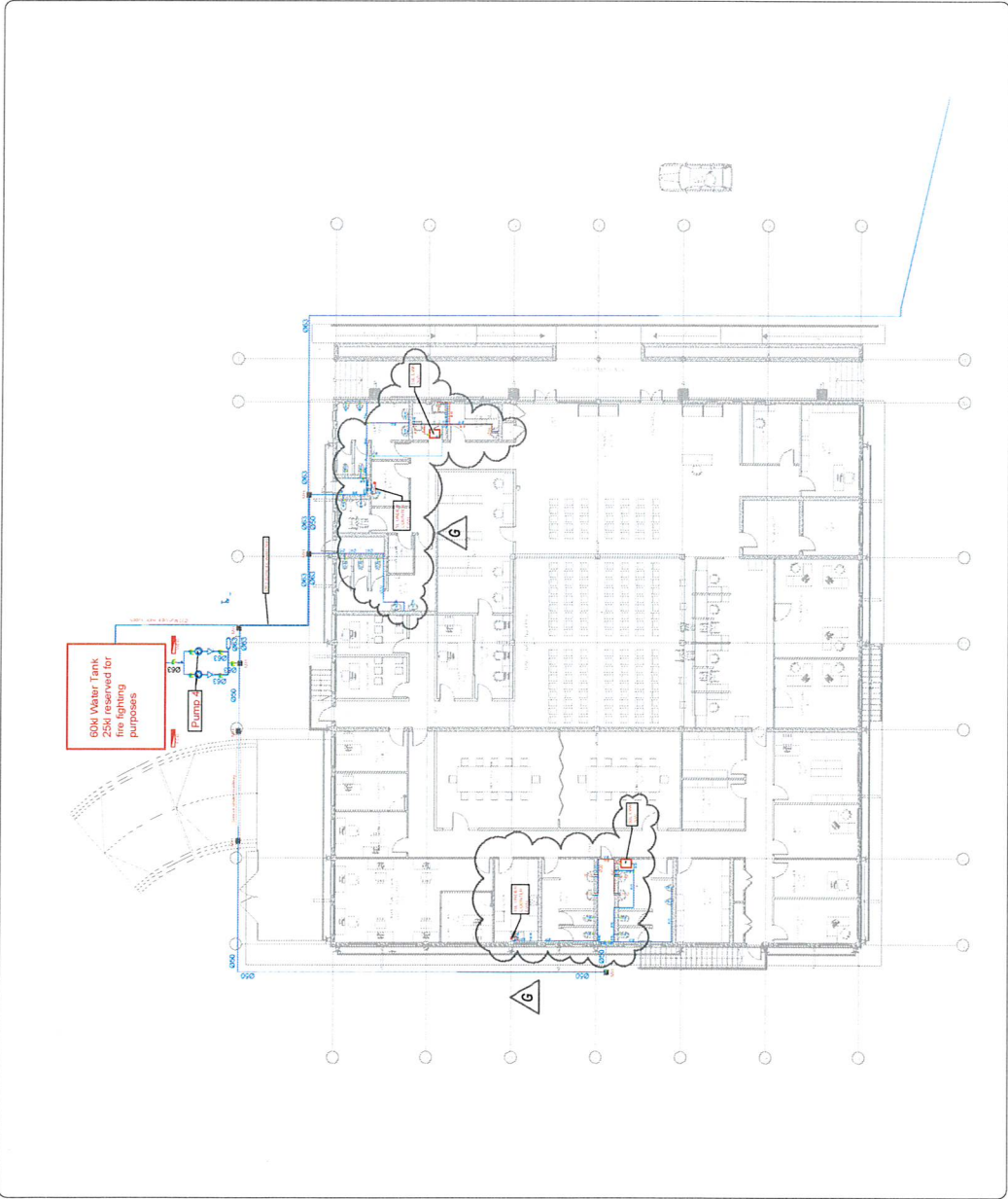
WORK NUMBER: **054120**

DRAWING TITLE: **PROPOSED SITE PLAN LOW VOLTAGE SINGLE LINE DIAGRAM**

REF NO: DESIGNED: MM
SCALE: DRAWN: MM
DATE: 2019/03/05 CHECKED: SK
drawing number: **140001-02-100-009** REVISION: **A**

[illegible]

MECHANICAL DRAWINGS



GROUND
1100

NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
- DIMENSIONS TO BE READ NOT TO BE SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

Fire Notes : All work to comply with SANS 10400 :
SANS 10400 REQUIREMENTS:
1.2 Supply water to the fire alarm system
4.35 Fire alarm system (Alarm)
4.36 Access for fire-fighting and rescue purposes - Complies - Access is provided

LEGEND

0	24-11-21	Updated to client's comments.	AMT
F	27-10-21	Updated Layout and issued for Shop Plan	AMT
E	16-09-19	Client's Comments	AMT
D	26-02-19	Architect's Layout Approved	WAK
C	25-10-18	Architect's Layout Revised	WAK
B	02-02-18	Architect's Layout Revised	WAK
A	29-01-18	For Information	WAK
REV No.	DATE	DESCRIPTION	NAME

REVISIONS



INSTITUTION		ERMELO LABOUR CENTRE	
PROPOSED NEW OFFICE BUILDING		SERVICE	
STAGE 2: CONCEPT DESIGN		DISCIPLINE	
CONTACT: SECTION		PROJECT TYPE	
MECHANICAL, WET SERVICES		2	
OFFICE SUITS, CONSULTING & SUPPORT FACILITIES			
GROUND FLOOR WET SERVICES			
DRAWING DESCRIPTION			
FILE No.	T.S.	KL	DRWN
DESIGN	1:100	1:1	CHGNSD
DATE	NAME	RESPONSIBLE PROFESSIONAL	PROJECT NO.
OCT 2021	ANTHONY	ANTHONY	1052-WS-01
OCT 2021	NAME	NAME	NAME



HDM Engineering

1052-WS-01

DATE	DATE	DATE	DATE
2021	2021	2021	2021
1052-WS-01	1052-WS-01	1052-WS-01	1052-WS-01
A1	A1	A1	A1
G	G	G	G

Pump Schedule	
Pump number	Description
4	Flow 6.4kl/s Head 200kPa Power 150kW

Electrical Consumption	
Description	Consumption
Flow 6.4kl/s Head 200kPa Power 150kW	150kW



- ### LEGEND



public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

STAGE 2: CONCEPT DESIGN

OFFICE SUITS, COUNSELLING & SUPPORT FACILITIES

[illegible]

0	1.5	CHCO
---	-----	------

ECISA		TOM KOTZE
-------	---	-----------

MM	10-10-10	10-10-10
----	----------	----------



CONTRACTOR :

CAD SYSTEM	CAD SIZE	CAD NAME	CAD REV
A1	1052-WS-02		B

STRUCTURAL DRAWINGS

1. ALL MORTAR TO BE CLASS II TO SANS 10164 (MIN. 7 MPa).
2. SAND IN MORTAR SHALL COMPLY TO SANS 1090.
3. ALL BRICKWORK TO MATCH EXISTING.
4. ALL BRICKS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 100.
5. 14 MPa AND A MAXIMUM WATER ABSORPTION OF 10%.
6. MANUFACTURING CONTROL OF MASONRY TO BE CATEGORY A TO SANS 10164.
7. CONSTRUCTION CONTROL OF MASONRY TO BE CATEGORY II TO SANS 10164.
8. PROVIDE ADEQUATE SEALING BETWEEN REINFORCED CONCRETE & STRUCTURAL STEEL FRAME AND MASONRY WALLS.

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2. SAND IN MORTAR SHALL COMPLY TO SANS 1090.
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6. MANUFACTURING CONTROL OF MASONRY TO BE CATEGORY A TO SANS 10164.
7. CONSTRUCTION CONTROL OF MASONRY TO BE CATEGORY II TO SANS 10164.
8. PROVIDE ADEQUATE SEALING BETWEEN REINFORCED CONCRETE & STRUCTURAL STEEL FRAME AND MASONRY WALLS.

1. CONCRETE CONSTRUCTION SHALL BE PERFORMED TO SANS 1200.
2. ALL CONCRETE SHALL BE 30 MPa AT 28 DAYS U.O.S.
3. BLINDING COURSE SHALL BE 10 MM ZINC.
4. EXPOSED CONCRETE TO BE HAVE ZINC CHAMFER
5. ALL REINFORCEMENT TO HAVE 50 MM COVER U.O.S
6. ALL REINFORCEMENT TO LAP WITH 40 DIAMETERS U.O.S.
7. ALL JOINT BOLTS SHALL BE SUPPLIED WITH NUTS AND WASHERS
8. ALL REINFORCEMENT SHALL BE ACCORDING TO SANS 262
9. REINFORCEMENT INDICATES THAT TIESET DROPPED BARS TO SANS 90
10. REINFORCEMENT INDICATES WELD STEEL SMOOTH BARS
11. ALL CONCRETE SHALL BE PROPERLY CURED FOR AT LEAST 7 DAYS U.O.S
12. GREAT SHALL BE NON-SKIN AND INSTALLATION PERFORMED TO MANUFACTURER'S SPECIFICATIONS
13. ROTATE TIE'S IN COLUMNS AND BEAMS SO THAT HOOKS ARE IN DIFFERENT CORNERS
14. REINFORCEMENT, COLUMNS AND GIRDERS MARKED BY NUMBERED AND IDENTIFIED BY SHORT CONNECTIONS
15. BEFORE THIS IS DONE, VERIFY THE EXACT CORNER OF ANY STRAP FORMING AS PER SANS 10040-4.
16. STEEL FORMWORK AS PER SANS 10040-4.

1. CONCRETE CONSTRUCTION SHALL BE PERFORMED TO SANS 1200.
2. ALL CONCRETE SHALL BE 30 MPa AT 28 DAYS U.O.S.
3. BLINDING COURSE SHALL BE 10 MM ZINC.
4. EXPOSED CONCRETE TO BE HAVE ZINC CHAMFER
5. ALL REINFORCEMENT TO HAVE 50 MM COVER U.O.S
6. ALL REINFORCEMENT TO LAP WITH 40 DIAMETERS U.O.S.
7. ALL JOINT BOLTS SHALL BE SUPPLIED WITH NUTS AND WASHERS
8. ALL REINFORCEMENT SHALL BE ACCORDING TO SANS 262
9. REINFORCEMENT INDICATES THAT TIESET DROPPED BARS TO SANS 90
10. REINFORCEMENT INDICATES WELD STEEL SMOOTH BARS
11. ALL CONCRETE SHALL BE PROPERLY CURED FOR AT LEAST 7 DAYS U.O.S
12. GREAT SHALL BE NON-SKIN AND INSTALLATION PERFORMED TO MANUFACTURER'S SPECIFICATIONS
13. ROTATE TIE'S IN COLUMNS AND BEAMS SO THAT HOOKS ARE IN DIFFERENT CORNERS
14. REINFORCEMENT, COLUMNS AND GIRDERS MARKED BY NUMBERED AND IDENTIFIED BY SHORT CONNECTIONS
15. BEFORE THIS IS DONE, VERIFY THE EXACT CORNER OF ANY STRAP FORMING AS PER SANS 10040-4.
16. STEEL FORMWORK AS PER SANS 10040-4.

2. FOR HANDRAILS REFER TO ARCHITECTS DRAWINGS

2. FOR HANDRAILS REFER TO ARCHITECTS DRAWINGS

[illegible]

- [illegible]

[illegible]

DRAWING INDEX

DPW DRAWING NO.	LEF NAKO DRAWING NO.	DESCRIPTION
5/74330/0	15/303-0W-1000-00	NOTE: A. FINISHING NOTES
5/74330/1	15/303-0W-1000-01	LOWER FLOOR FLOOR: FOUNDATION
5/74330/2	15/303-0W-1000-02	A COLUMN LAYOUT
5/74330/3	15/303-0W-1000-03	LOWER GROUND FLOOR: SURFACE BED
5/74330/4	15/303-0W-1000-04	A RETAINING WALL LAYOUT
5/74330/5	15/303-0W-1000-05	UPPER GROUND FLOOR: FOUNDATION LAYOUT
5/74330/6	15/303-0W-1000-06	UPPER GROUND FLOOR: COLUMN LAYOUT
5/74330/7	15/303-0W-1000-07	UPPER GROUND FLOOR: BEAMS LAYOUT & RC SLAB LAYOUT WITH DOWNSTAMP BEAMS
5/74330/8	15/303-0W-1000-08	LOWER & UPPER CEILING RING BEAM LAYOUT
5/74330/9	15/303-0W-1000-09	SECTION A & B, ELEVATION ON ROOF & RETAINING WALL SECTION
5/74330/10	15/303-0W-1000-10	SECTION C & D, ELEVATION ON BACKS
5/74330/11	15/303-0W-1000-11	REAR FOR STEP FOOTINGS W.L. -2.200
5/74330/12	15/303-0W-1000-12	REAR FOR STEP FOOTINGS W.L. -2.270
5/74330/13	15/303-0W-1000-13	REAR FOR STEP FOOTINGS W.L. -4.270
5/74330/14	15/303-0W-1000-14	REAR FOR COLUMNS -2.200 TO -2.200
5/74330/15	15/303-0W-1000-15	REAR FOR COLUMNS -2.270 TO -2.270
5/74330/16	15/303-0W-1000-16	REAR FOR COLUMNS -4.270 TO -4.270 TO 0.800
5/74330/17	15/303-0W-1000-17	REAR LAYOUTS FOR RETAINING WALL SHAFTS
5/74330/18	15/303-0W-1000-18	STAIRWAYS, COLUMN STARTERS & WALL STARTERS
5/74330/19	15/303-0W-1000-19	REAR FOR COLUMNS IN THE RETAINING WALL
5/74330/20	15/303-0W-1000-20	REAR FOR COLUMNS IN THE RETAINING WALL
5/74330/21	15/303-0W-1000-21	REAR FOR DOWNSTAMP BEAMS
5/74330/22	15/303-0W-1000-22	REAR FOR DOWNSTAMP BEAMS
5/74330/23	15/303-0W-1000-23	REAR FOR DOWNSTAMP BEAMS
5/74330/24	15/303-0W-1000-24	REAR FOR 220 T.H.C SLAB
5/74330/25	15/303-0W-1000-25	REAR FOR 220 T.H.C SLAB
5/74330/26	15/303-0W-1000-26	REAR FOR LOWER & UPPER CEILING RING BEAMS
5/74330/27	15/303-0W-1000-27	REAR FOR LOWER & UPPER CEILING RING BEAMS
5/74330/28	15/303-0W-1000-28	REAR FOR RETAINING WALL SHAFT FOOTINGS, DOWNSTAMP BEAMS & WALL STARTERS CONTINUED
5/74330/29	15/303-0W-1000-29	REAR FOR RETAINING WALL CONTINUED
5/74330/30	15/303-0W-1000-30	REAR FOR STAIRWAY 1
5/74330/31	15/303-0W-1000-31	REAR FOR STAIRWAY 1
5/74330/32	15/303-0W-1000-32	CAGE IN PLATE LAYOUT & DETAILS
5/74330/33	15/303-0W-1000-33	WALL LAYOUT IN DETAILS
5/74330/34	15/303-0W-1000-34	FOUNDATIONS LAYOUT IN DETAILS
5/74330/35	15/303-0W-1000-35	STEEL ROOF LAYOUT
5/74330/36	15/303-0W-1000-36	STEEL ROOF TRUSS SECTIONS
5/74330/37	15/303-0W-1000-37	STEEL ROOF TRUSS SECTIONS
5/74330/38	15/303-0W-1000-38	BB ROOF & GUTTER LAYOUT WITH SECTIONS
5/74330/39	15/303-0W-1000-39	ROOF - CONNECTION DETAILS
5/74330/40	15/303-0W-1000-40	SECTION ELEVATION TYPE A COLUMNS
5/74330/41	15/303-0W-1000-41	TYPE B & E COLUMNS
5/74330/42	15/303-0W-1000-42	TYPE C & D COLUMNS
5/74330/43	15/303-0W-1000-43	SECTIONS J & K
5/74330/44	15/303-0W-1000-44	

ALLEGRA	               
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NAKO LBE DRAWING NUMBER
L16303-DW-1000-001-RevE

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED.
DIMENSIONS TO BE READ: NOT SCALED
FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS
ON SITE BEFORE CONSTRUCTION
COMMENCES AND ANY DISCREPANCY TO BE
REPORTED TO THE PROJECT ENGINEER.



public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

INSTITUTION
ERMELO LABOUR CENTRE
SERVICE
PROPOSED NEW OFFICE BUILDING
CONTRACT SECTION

PROJECT ST	DISCIPLINE	STRUCTURAL
WORK DESCRIPTION - SUB DIVISION		
OFFICE SUITS, COUNSELLING & SUPPORT FACILITIES		

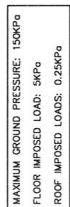
NOTES & DRAWING INDEX					
ITEM NO.	DESIGN		DATE	DRAWN	CHECKED
L16003	MKN / HCN			D.LOGE	
	INDICATED			MKN	

DATE	NAME	SIGNATURE	PRJ NO.
1 OCT 2018	N.PILLAY		2011027
DRAWING CO-ORDINATED			



LATELAIN BROWNE HERRING
P.O. BOX 872995, Highland Park, 07608
201-763-4100
201-763-4100
Tuckers Park, Lendonia
E-mail: paul.brown@brownerherring.com

41	CONTRACTOR :	
	AND SYSTEM	AUTOCAD
	FILE	ERMELO LABOUR CENTRE
		DRAWING NUMBER
		RE
		S/16303/0



SCALE 1:100

LATEGAN BOWNE ENGINEERS
Tel: (01793) 441155
Fax: (01793) 441152

NAKO LBE DRAWING NUMBER
L16303-DW-1000-006-Rev

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- DIMENSIONS TO BE READ: NOT SCALED FROM THIS DRAWING
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public works
Department:
Public Works
REPUBLIC OF SOUTH AFRICA

OUR CENTRE

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TOR:

1992-1993

5/3/5

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED. DIMENSIONS TO BE READ: NOT SCALED FROM THIS DRAWING. CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISIONS

CATELAN BOWEN ENGINEERS
P.O. BOX 87999, Highveld Park, 0180
203 Winc Haze Avenue, Highveld
Techno Park, Carletonville
Tel: (017) 924-4150
Fax: (017) 924-4180
E-mail: cat@bowen.co.za



PLEASE NOTE UPPER ROOF
DIFFERS FROM ARCHITECTURAL
DRAWINGS TO MATCH NEW ROOF
RING BEAMS, ROOF SLOPES

ELEVATION ON UPPER ROOF
SCALE 1:100



MAXIMUM GROUND PRESSURE: 150KPa
FLOOR IMPOSED LOAD: 5KPa
ROOF IMPOSED LOAD: 0.75KPa

REFER TO L16303-DW-1000-033

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
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- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

		REINFORCEMENT QUANTITIES									
BAR DIAMETER (mm)		8	10	12	16	20	25	32	40	GRAND TOTAL	
R	LENGTH (m)										
	MASS (kg)										
Y	LENGTH (m)										
	MASS (kg)		176.22	1357.70		2442.83	453.53			4430.28	
										4430.28	

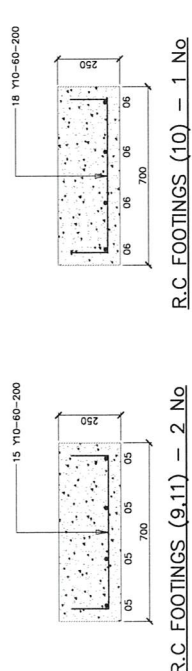
LATEGAN BOWMAN ENGINEERS
P.O. BOX 67289, Highveld Park, 0189
203 Willem Haasb. Avenue, Highveld
Tucking Park, Centurion
Tel: (011) 795 3441/50
Fax: (011) 795 3441/50

NAKO LBE DRAWING NUMBER
L16303-DW-1000-009-Rev

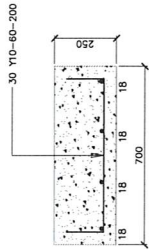
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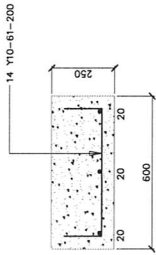
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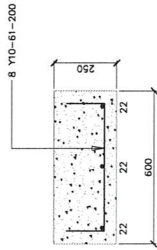
COVER: 50mm



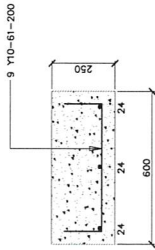
R.C. FOOTING (30) — 1 No



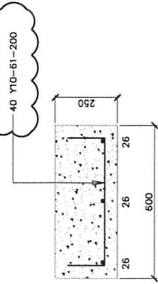
R.C. FOOTINGS (32) — 1 No



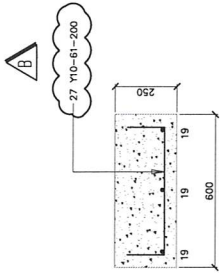
R.C. FOOTINGS (34) — 1 No



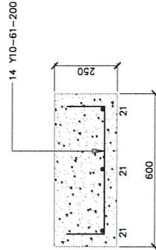
R.C. FOOTINGS (36) — 1 No



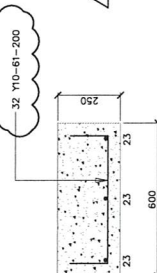
R.C. FOOTINGS (38) — 1 No



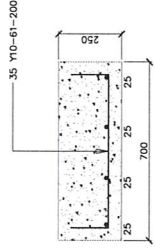
R.C. FOOTING (31) — 1 No



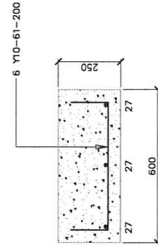
R.C. FOOTINGS (33) — 1 No



R.C. FOOTINGS (35) — 1 No



R.C. FOOTINGS (37) — 1 No



R.C. FOOTINGS (39) — 1 No

MEMBER/UNIT		REINFORCEMENT					DIMENSIONS				
TYPE AND SIZE	TYPE AND DIA	MARK	No. OFF UNITS	No. PER UNIT	TOTAL No. OFF	CUTTING LENGTH	SHAPE CODE	A	B	C	D
STRIP FOOTING (30) 700x250 DP 1 No	Y10	18	01	04	4	6600	20	6600			
	Y10	61	01	30	30	700	38	100	500		
STRIP FOOTING (31) 600x250 DP 1 No	Y10	19	01	03	3	5100	20	5100			
	Y10	61	01	27	27	700	38	100	500		
STRIP FOOTING (32) 600x250 DP 1 No	Y10	20	01	03	3	2800	20	2800			
	Y10	61	01	14	14	700	38	100	500		
STRIP FOOTING (33) 600x250 DP 1 No	Y10	21	01	03	3	2800	20	2800			
	Y10	61	01	14	14	700	38	100	500		
STRIP FOOTING (34) 600x250 DP 1 No	Y10	22	01	03	3	2800	20	2800			
	Y10	61	01	08	8	700	38	100	500		
STRIP FOOTING (35) 600x250 DP 1 No	Y10	23	01	03	3	5950	20	5950			
	Y10	61	01	32	32	700	38	100	500		
STRIP FOOTING (36) 600x250 DP 1 No	Y10	24	01	03	3	2800	20	2800			
	Y10	61	01	09	9	700	38	100	500		
STRIP FOOTING (37) 700x250 DP 1 No	Y10	25	01	04	4	6700	20	6700			
	Y10	61	01	35	35	700	38	100	500		
STRIP FOOTING (38) 600x250 DP 1 No	Y10	26	01	03	3	7750	20	7750			
	Y10	61	01	40	40	700	38	100	500		
STRIP FOOTING (39) 600x250 DP 1 No	Y10	27	01	03	3	2900	20	2900			
	Y10	61	01	06	6	700	38	100	500		

REINFORCEMENT QUANTITIES

BAR DIAMETER (mm)	8	10	12	16	20	25	32	40	GRAND TOTAL
R LENGTH (m)									
MASS (kg)									
Y LENGTH (m)									
MASS (kg)		186.58							186.58

NOTES

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- FROM THIS DRAWING
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public works
Department of
Infrastructure
REPUBLIC OF SOUTH AFRICA

REVISIONS

REVISION No. DATE DESCRIPTION

1

2

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NAKO LBE
LAWSON ENGINEERING
203 MANDALA Road, Grahamstown
Tel: 033 294 4400
Fax: 033 294 4401
E-mail: info@nako-lbe.co.za

CONTRACTOR

CONTRACTOR

CONTRACTOR

CONTRACTOR

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CONTRACTOR

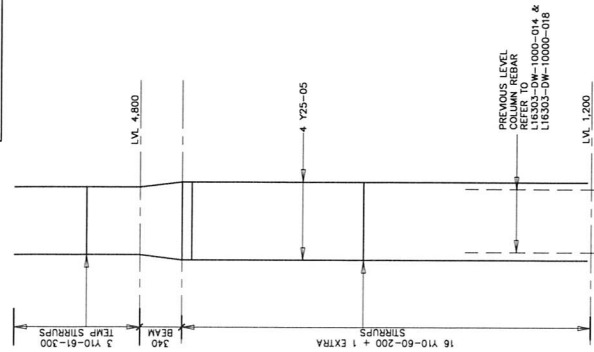
CONTRACTOR

CONTRACTOR

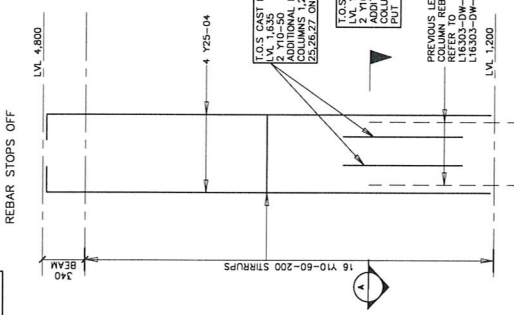
CONTRACTOR

CADD SYSTEM	AUTOCAD	DRAWING NUMBER	S/16303/12
SIZE			

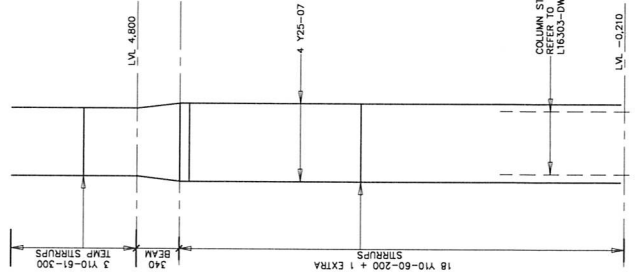
COLUMN COVER: 30mm



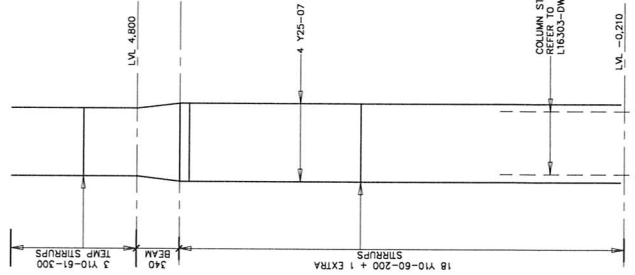
COLUMNS 29,33,34,35,36,37,38,39,40
(9 No.)



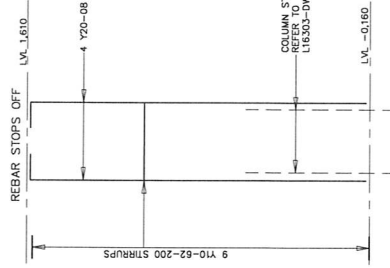
COLUMNS 30,31,32
(3 No.)



COLUMNS 1,2,3,4,5,12,13,20,21
(13 No.)

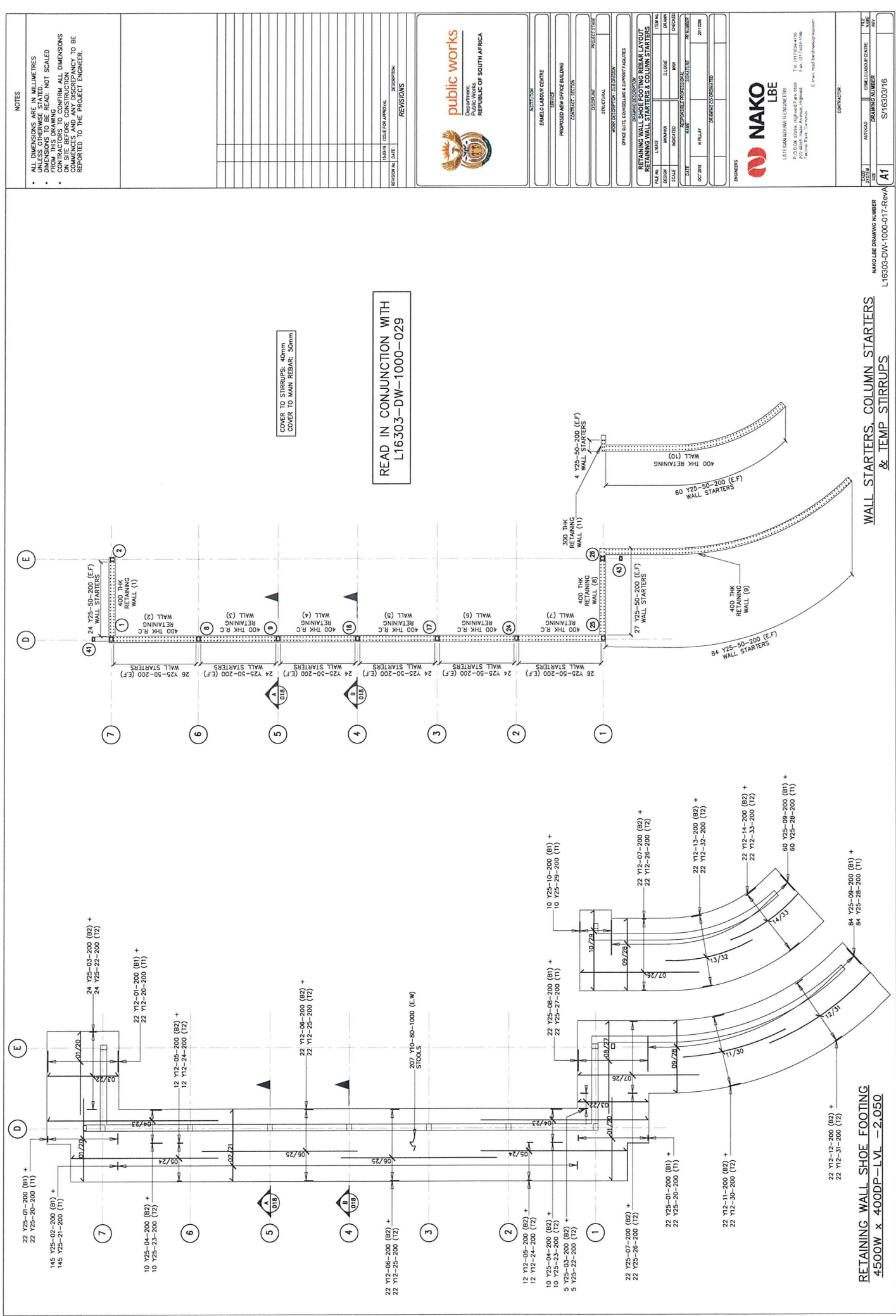


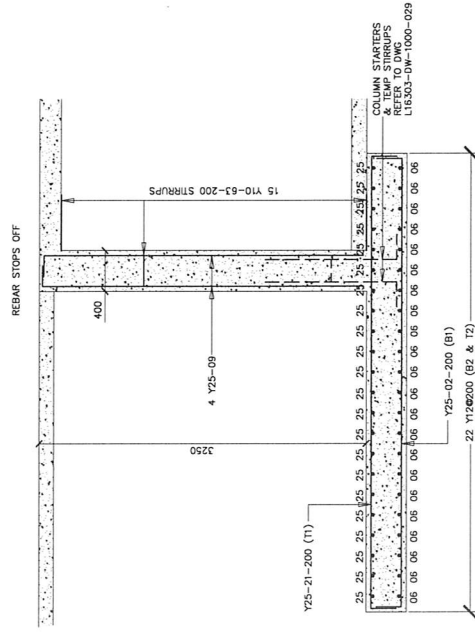
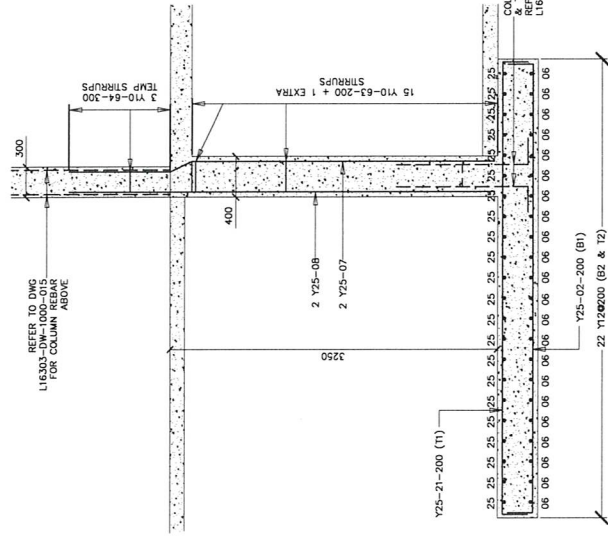
COLUMNS 1,2,3,4,5,12,13,20,21
(13 No.)



PLINTHS 44,45,46,47,48,49
(5 No.)

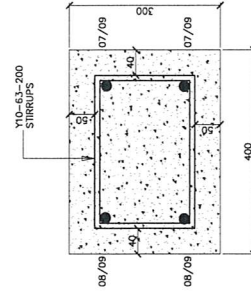
MEMBER/UNIT		REINFORCEMENT						DIMENSIONS				
TYPE AND SIZE	TYPE AND DIA	MARK	No. UNITS	No. PER UNIT	TOTAL No. OFF	CUTTING LENGTH	SHAPE CODE	A	B	C	D	E/R
COLUMNS (1,2,3,4,5,12,13,20,21,25,26,27,28) 300x300 13 No	Y25	04	13	04	52	3700	37	250				
	Y10	60	13	16	208	1100	60	240	240			
COLUMNS (9,10,15,17,18) 300x300 5 No	Y25	05	05	04	20	4550	41	1000	342		50	
	Y10	60	05	17	85	1100	60	240	240			
	Y10	61	05	03	15	1000	60	200	240			
COLUMNS (29,33,34,35,36,37,38,39,40) 300x300 9 No	Y20	06	09	04	36	5100	37	200				
	Y10	60	09	18	162	1100	60	240	240			
COLUMNS (30,31,32) 300x300 3 No	Y25	07	03	04	12	5950	41	1000	342		50	
	Y10	60	03	19	57	1100	60	240	240			
	Y10	61	03	03	9	1000	60	200	240			
COLUMN PLINTHS (49,50) 250x250 7 No												
	Y20	08	07	04	28	1900	37	200				
	Y10	62	07	09	63	900	60	190	190			
ADDITIONAL REBAR (COLUMNS 1,2,3,5) 12,13,20,21,25,26 27,29,33 13 No	Y10	50	13	02	26	950	20	950				
ADDITIONAL REBAR (COLUMNS 4&28) TO BE IN BEAM 2 No	Y10	50	02	02	4	950	20	950				
ADDITIONAL REBAR (COLUMNS 34,35,36,37,38,39,40) 7 No	Y10	51	07	02	14	400	20	400				
REINFORCEMENT QUANTITIES												
BAR DIAMETER (mm)	8	10	12	16	20	25	32	40	GRAND TOTAL			
LENGTH (m)												
MASS (kg)												
Y												
MASS (kg)												
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SECTION A
COLUMNS 1,2,9,17,25,26 017
6 No

SECTION B
COLUMNS 8,16,24
3 No

[illegible]

400x300 COLUMNS
(1,2,8,9,16,17,24,25,26)

NOTES

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- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISIONS	
REVISION No	DATE :
15-03-19	ISSUE FOR APPROVAL
DESCRIPTION	



Department:
Public Works

INSTITUTE
ERMELLO LABOUR CENTRE
SERVICE
PROPOSED NEW OFFICE BUILDING

PROJECT	DISCIPLINE	STRUCTURAL

OFFICE SUITS, COUNSELLING & SUPPORT FACILITIES

COLUMN REBAR IN RETAINING WALL

FILE NO.	L16303	
DESIGN	MANHON	D LOGE
SCALE	INDICATED	NOON

DATE	RESPONSIBLE PROFESSIONAL	PR
NAME	SIGNATURE	

OCT 2018	N. PILLAY	2
DRAWING CO-ORDINATED		

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NAKO
ENGINEERS



LDC
LATECAN BOUNER ENGINEERS

P.J.BOOK GROUP, Hyattsville Park, 2789
 3rd St. (301) 796-3410
 F ax: (301) 796-3411
 203 West Hazel Avenue, Hyattsville
 Technic Park, Catonsville
 (301) 796-3410

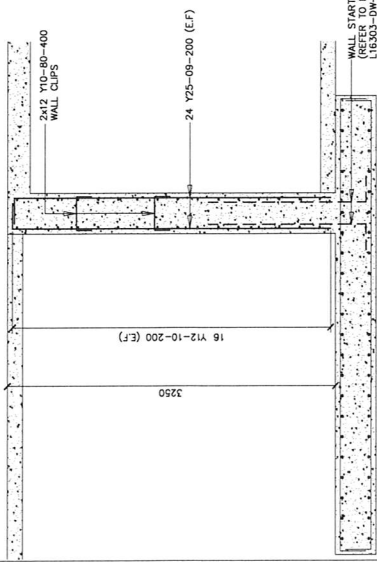
1

CONTRACTOR :

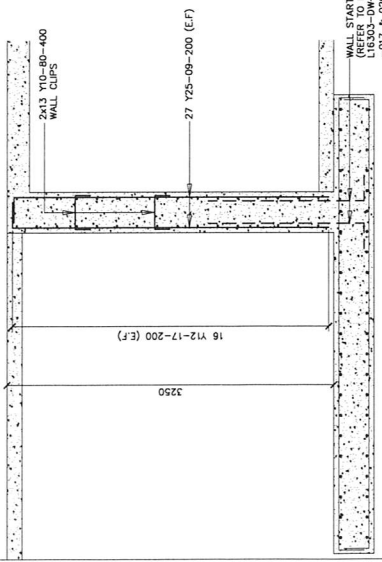
CUDO SYSTEM SIZE	AUTOCAD	ERMELLO LABOUR CENTRE
DRAWING NUMBER		

A1	S/16303/17
----	------------

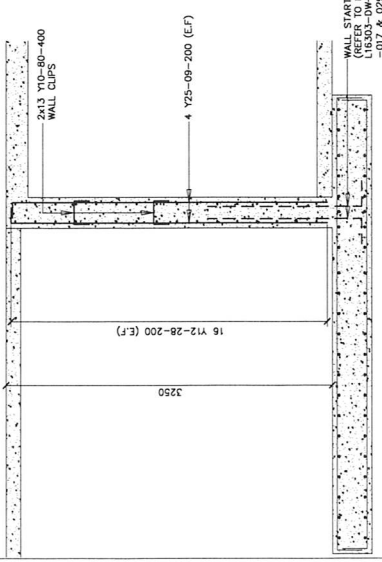
COVER: 50mm



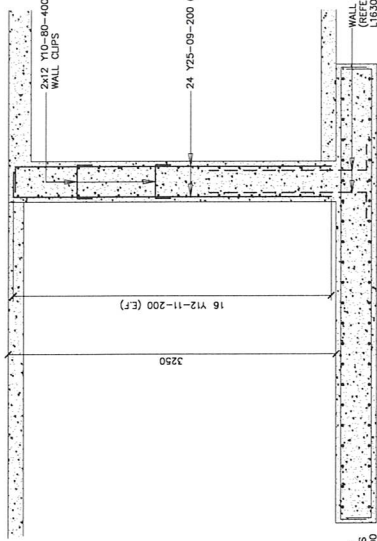
RETAINING WALL (1)
1 NO



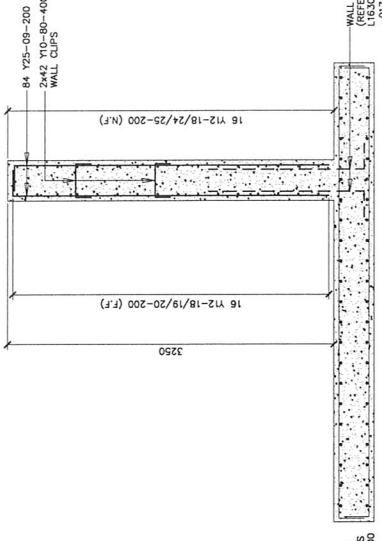
RETAINING WALL (8)
1 NO



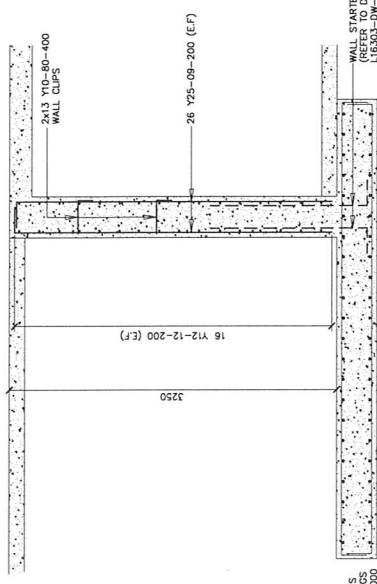
RETAINING WALL (11)
1 NO



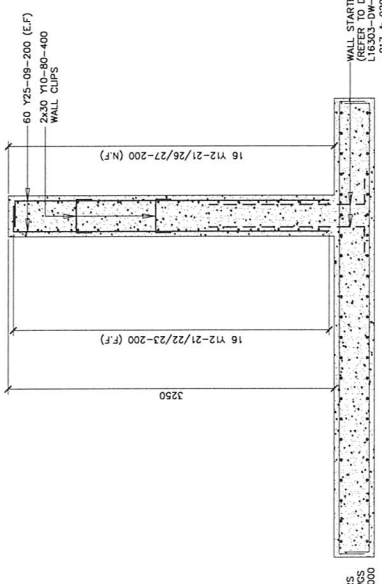
RETAINING WALL (3, 4, 5, 6)
4 NO



RETAINING WALL (9)
1 NO



RETAINING WALL (7)
1 NO



RETAINING WALL (10)
1 NO

READ IN CONJUNCTION WITH
L16303-DW-1000-030

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- DIMENSIONS TO BE READ: NOT SCALED
- CONTRACTOR TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION
- CONTRACTOR TO REPORT ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISION	DATE	DESCRIPTION
1	15/01/19	ISSUE FOR APPROVAL



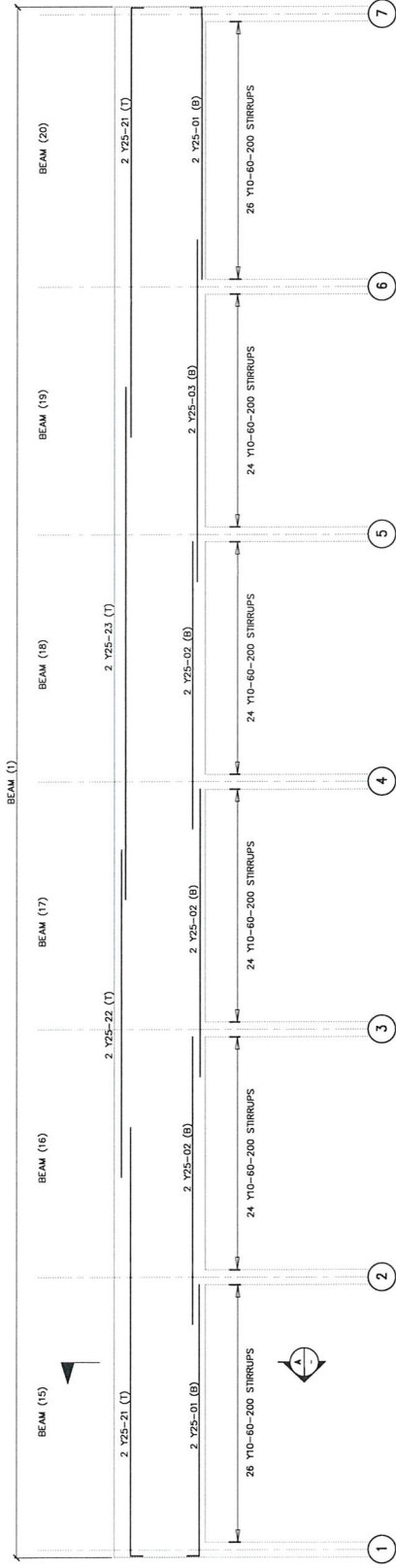
PROJECT TITLE	
EMMELAJAQUE CENTRE	
PROJECT	
PROPOSED NEW OFFICE BUILDING	
CONTRACT SECTION	
PROJECT NO.	
PROJECT DATE	
PROJECT LOCATION	
PROJECT DESCRIPTION	
OFFICE BUILDING, CONSTRUCTION & REPAIRS	
CONTRACTOR	
RETAINING WALL & BEAM REBAR	
ITEM NO.	16303
DESCRIPTION	REBAR
QUANTITY	16303-DW-1000-030
DATE	15/01/19
BY	N. PELAYO
CHECKED BY	20/01/19
APPROVED BY	20/01/19



LATIF CAN KUCUKELI ENGINEER
16303-DW-1000-030
16303-DW-1000-030
16303-DW-1000-030
16303-DW-1000-030

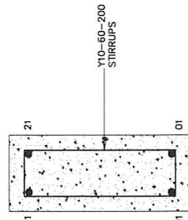
DATE	15/01/19
BY	N. PELAYO
CHECKED BY	20/01/19
APPROVED BY	20/01/19
CONTRACTOR	
NAKO LBE DRAWING NUMBER	SI/16303/18

BEAM COVER: 60mm



DOWNSTAND BEAMS (1) & (15-20) - 2 No
300x720 DP

MEMBER/UNIT		REINFORCEMENT				REINFORCEMENT QUANTITIES				DIMENSIONS			
TYPE AND SIZE	TYPE AND DIA	MARK	No. OFF UNITS	No. PER UNIT	TOTAL No. OFF	CUTTING LENGTH	SHAPE CODE	A	B	C	D	E/R	
DOWNSTAND BEAMS (1) & (15-20) 300x720 DP 2 No	Y25	01	02	04	8	5700	37	250					
	Y25	02	02	06	12	5800	20	5800					
	Y25	03	02	02	4	6900	20	6900					
	Y25	21	02	04	8	8900	37	250					
	Y25	22	02	10	20	6600	20	6600					
	Y25	23	02	08	16	10350	20	10350					
	Y10	60	02	148	296	1700	60	600	180				
BAR DIAMETER (mm)	8	10	12	16	20	25	32	40					
R LENGTH (m)													
Y MASS (kg)													
Y LENGTH (m)													
Y MASS (kg)		310.47						1916.53				2227.00	
												2227.00	



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION.
- CONTRACTORS TO REPORT ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISIONS



INSTITUTION	EMELGADOUR CENTRE	
SERVICE	PROPOSED NEW OFFICE BUILDING	
CONTRACT SECTION		
PROJECT TITLE		
STRUCTURAL		
WORKS/COMPONENTS/DETAILS		
OFFICE/UNIT CONSULTANT/ENGINEER/ARCHITECT		
REVISIONS		
NO.	DATE	DESCRIPTION
1	10/07/2024	ISSUED FOR PERMIT
2	10/07/2024	ISSUED FOR PERMIT
3	10/07/2024	ISSUED FOR PERMIT
4	10/07/2024	ISSUED FOR PERMIT
5	10/07/2024	ISSUED FOR PERMIT
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8	10/07/2024	ISSUED FOR PERMIT
9	10/07/2024	ISSUED FOR PERMIT
10	10/07/2024	ISSUED FOR PERMIT
11	10/07/2024	ISSUED FOR PERMIT
12	10/07/2024	ISSUED FOR PERMIT
13	10/07/2024	ISSUED FOR PERMIT
14	10/07/2024	ISSUED FOR PERMIT
15	10/07/2024	ISSUED FOR PERMIT
16	10/07/2024	ISSUED FOR PERMIT
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100	10/07/2024	ISSUED FOR PERMIT

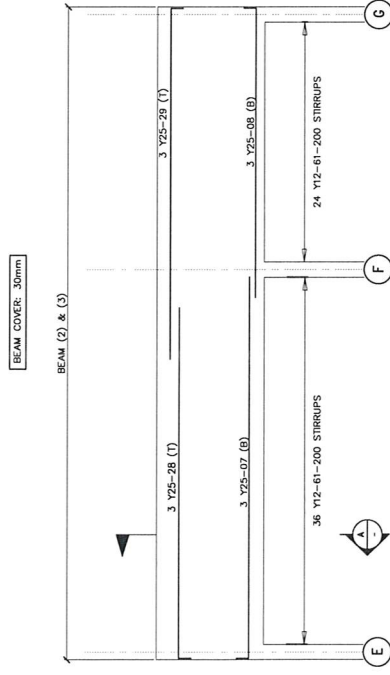


LATVIAN ENGINEERING
P.O. BOX 40789, Nampole Road, 100
203 NAKO LBE, Nampole Road, 100
Tel: 00354 944 4444
Fax: 00354 944 4444
E: info@nako-lbe.com

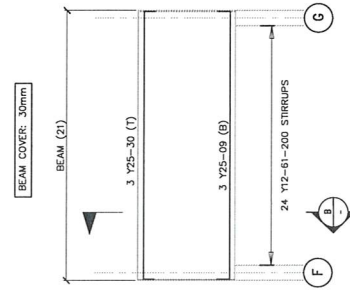
CONTRACTOR

CLIENT	NAKO LBE
PROJECT	PROPOSED NEW OFFICE BUILDING
DRAWING NUMBER	SI/6303/19
DATE	10/07/2024

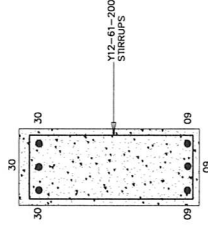
NAKO LBE DRAWING NUMBER
L-6303-DW-1000-020-RevA

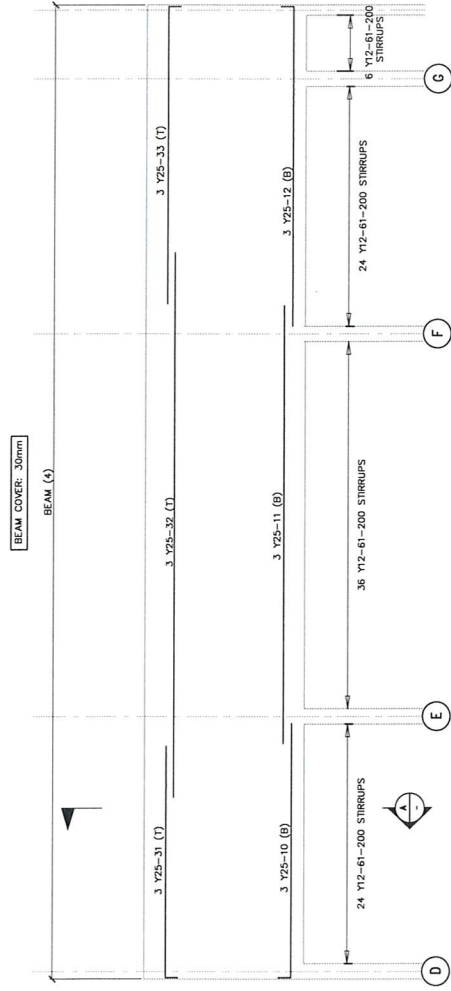


DOWNSTAND BEAMS (2) & (3) - 2 No
300x720 DP

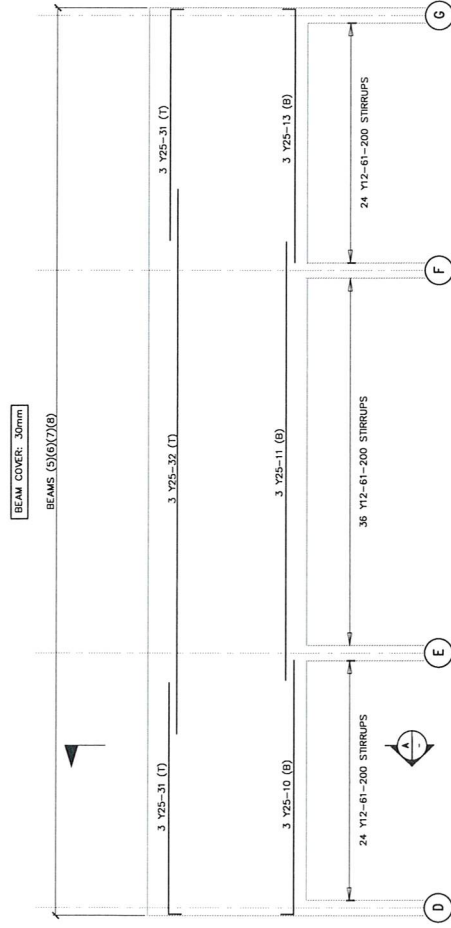


DOWNSTAND BEAM (21) – 1 No
300x720 DP

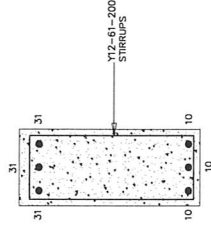
[illegible][illegible]



DOWNSTAND BEAMS (4) – 1 No
300x720 DP



DOWNSTAND BEAMS (5)(6)(7)(8) - 4 No
300x720 DP



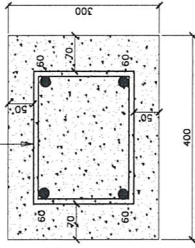
SECTION A-A

MEMBER/UNIT		REINFORCEMENT					REINFORCEMENT QUANTITIES					DIMENSIONS				
TYPE AND SIZE	TYPE AND DIA	MARK	No. OFF UNITS	No. PER UNITS	TOTAL OFF	CUTTING LENGTH	SHAPE CODE	A	B	C	D	E/R				
DOWNSTAND BEAM (4) 300x720 DP 1 No	Y25	10	01	0.3	3	5200	37	250								
	Y25	11	01	0.3	3	8600	20	8600								
	Y25	12	01	0.3	3	6500	37	250								
	Y25	31	01	0.3	3	4800	37	250								
	Y25	32	01	0.3	3	10700	20	10700								
	Y25	33	01	0.3	3	6100	37	250								
DOWNSTAND BEAMS (5/6)/(7/8) 300x720 DP 4 No	Y12	61	01	90	90	1900	60	660	240							
DOWNSTAND BEAMS (5/6)/(7/8) 300x720 DP 4 No	Y25	10	04	0.3	12	5200	37	250								
	Y25	11	04	0.3	12	8600	20	8600								
	Y25	13	04	0.3	12	5200	37	250								
	Y25	31	04	06	24	4800	37	250								
	Y25	32	04	0.3	12	10700	20	5700								
	Y12	61	04	84	336	1900	60	660	240							
REINFORCEMENT QUANTITIES													25	32	40	GRAND TOTAL
BAR DIAMETER (mm)	8	10	12	16	20								GRAND TOTAL			
R LENGTH (m)													3018.35			
MASS (kg)													3018.35			
Y			718.75										2299.60			
MASS (kg)													3018.35			

[illegible]

(REFER TO DWG L16303-DW-1000-018
FOR COLUMN REBAR)

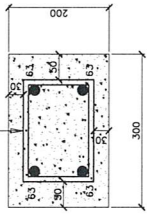
3 Y16-65-300
TEMP STIRRUPS



400x300 COLUMNS (TEMP STIRRUPS)
(1,2,8,9,16,17,24,25,26)
9 No

(REFER TO DWG L16303-DW-1000-014
FOR COLUMN REBAR)

3 Y10-65-300
TEMP STIRRUPS



300x200 COLUMNS
(TEMP STIRRUPS)
(41,43)
2 No

READ IN CONJUNCTION WITH
L16303-DW-1000-017

MEMBER/UNIT		REINFORCEMENT					DIMENSIONS				
TYPE AND SIZE	TYPE AND DIA	MARK	No. OFF UNITS	No. PER UNIT	NO. OFF	CUTTING LENGTH	SHAPE CODE	A	B	C	D E/R
RETAINING WALL SHOE FOOTING 4500Wx400 DP 1 No	Y25	01	01	88	88	5450	37	250			
	Y25	02	01	145	145	4800	38	250	4400		
	Y25	03	01	48	48	4800	38	250	4400		
	Y25	04	01	20	20	10800	37	250			
	Y12	05	01	24	24	9350	37	150			
	Y12	06	01	44	44	9750	20	9750			
	Y25	07	01	44	44	7850	37	250			
	Y25	08	01	22	22	6000	37	250			
	Y25	09	01	144	144	4800	38	250	4400		
	Y25	10	01	10	10	5300	38	250	4900		
	Y12	11	01	22	22	6750	65	6750			16270
	Y12	12	01	22	22	7750	65	7750			16270
RETAINING WALL STARTERS	Y12	13	01	22	22	5700	65	5700			10291
	Y12	14	01	22	22	5150	65	5150			10291
	Y25	20	01	88	88	5450	37	250			
	Y25	21	01	145	145	4800	38	250	4400		
	Y25	22	01	48	48	4800	38	250	4400		
	Y25	23	01	20	20	10800	37	250			
	Y12	24	01	24	24	9450	37	250			
	Y12	25	01	44	44	9750	20	9750			
	Y25	26	01	44	44	7850	37	250			
	Y25	27	01	22	22	6000	37	250			
	Y25	28	01	144	144	4800	38	250	4400		
	Y25	29	01	10	10	5300	38	250	4900		
COLUMN STARTERS (1,2,8,9,16,17,24,25,26) 400x300 9 No	Y12	30	01	22	22	6750	65	6750			16270
	Y12	31	01	22	22	7750	65	7750			16270
	Y12	32	01	22	22	5700	65	5700			10291
	Y12	33	01	22	22	5150	65	5150			10291
	Y10	80	01	207	207	1000	83	200	200		
	Y25	50	01	694	694	1850	37	300			
	Y25	60	09	04	36	1800	37	300			
	Y10	61	09	03	27	1050	60	200	260		
COLUMN STARTERS (41,43) 300x200 2 No	Y20	63	02	04	8	1550	37	250			
	Y10	62	02	03	6	800	60	140	200		
REINFORCEMENT QUANTITIES											
BAR DIAMETER (mm)	8	10	12	16	20	25	32	40	GRAND TOTAL		
R LENGTH (m)											
MASS (kg)											
Y LENGTH (m)											
MASS (kg)		148.17	2153.04								29420.05
											29420.05

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES
- ALL DIMENSIONS TO BE READ: NOT SCALED
- FROM THIS DRAWING, ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISION No. DATE DESCRIPTION

REVISIONS



public works
REPUBLIC OF SOUTH AFRICA

UNIT TITLE

EMULID LABOUR CENTRE

PROJECT

PROPOSED NEW OFFICE BUILDING

CORRELATE SECTION

PROJECT FILE

PROJECT NAME

PROJECT ADDRESS

PROJECT CONTACT

PROJECT DESCRIPTION

PROJECT DATE

PROJECT STATUS

PROJECT LOCATION

PROJECT DRAWING

PROJECT SCALE

PROJECT DATE

PROJECT STATUS

PROJECT LOCATION

PROJECT DRAWING

PROJECT SCALE

PROJECT DATE

PROJECT STATUS

PROJECT LOCATION

PROJECT DRAWING

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PROJECT STATUS

PROJECT LOCATION

PROJECT DRAWING

PROJECT SCALE

PROJECT DATE

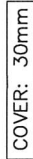
PROJECT STATUS

PROJECT LOCATION

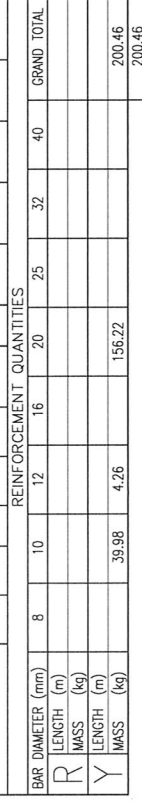
PROJECT DRAWING

PROJECT SCALE

PROJECT DATE



STAIRCASE 3

[illegible][illegible]

NAKO LBE DRAWING NUMBER
L16303-DW-1000-031-Rev

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- DIMENSIONS TO BE READ: NOT SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REVISIONS		
REVISION NO	DATE :	DESCRIPTION
	14-03-19	ISSUE FOR APPROVAL



INSTITUTION	ERMEO LABOUR CENTRE
SERVICE	PROPOSED NEW OFFICE BUILDING

DISCIPLINE	ACQUAINTANCE	ACQUAINTANCE STAGE

STRUCTURAL

100-11188-1017 (10/15/2002)

CONSUMER LINGUISTICS

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STAIRCASE 3

REBAR

[illegible]

	UNFIN	CHECK
	MON	

DATE	NAME	SCORE
	ON-SITE PROFESSIONAL	

REVENUE AND	DEPARTMENT
PROPERTY TAX	

20110236

PLANNING CO-ORDINATED

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--

ON

OM

1BF

107

World Bank Atlas

Dr. J. H. P. van der Velden
F.O.B., (017) 634-4199

E-mail: mad.bon@nagano.jp

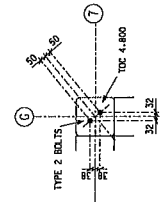
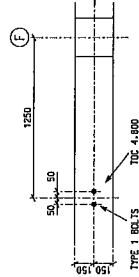
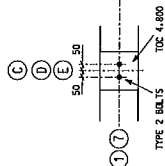
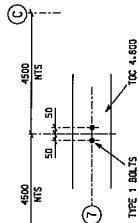
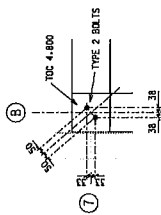
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	STANDARD A18 BONDING PROCEDURE	FILE
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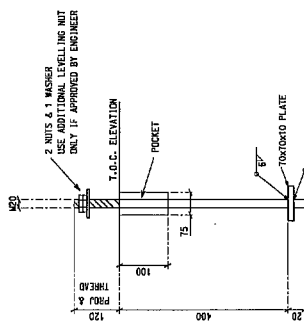
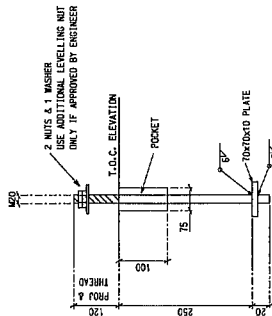
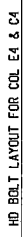
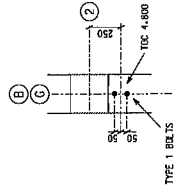
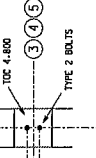
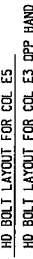
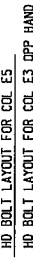
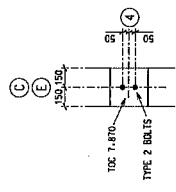
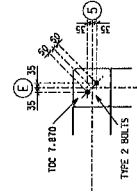
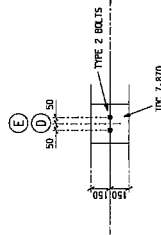
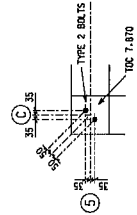
DATE	DESCRIPTION	REV
	PAWING NUMBER	

16303737

[illegible]



HD BOLT LAYOUT FOR COL G7



M20 HD BOLT TYPE 1
16 OFF REQUIRED

M20 HD BOLT TYPE 2
48 OFF REQUIRED

1. BOLT THREADS SHALL BE IN ACCORDANCE WITH SANS 1556-1
2. BOLTS, NUTS AND PLATES TO BE GRADE 8.8 OR EN19
3. ROUND WASHERS AS PER GRADE A PLAIN WASHERS (SANS 1700-16-2)
1. BOLT ASSEMBLY TO BE ZINC ELECTROPLATED IN ACCORDANCE
WITH SANS 2081 (CLASSIFICATION FEZING)
3. BOLT SHANKS TO BE DECLASSIFIED BEFORE EMBEDMENT IN CONCRETE
2. TEMPLATES TO BE USED WHEN POCKETS ARE NOT PROVIDED
1. NUTS SHALL BE TIGHTENED USING POWER TOOLS OR SHALL BE FULLY
BY HAND USING APPROPRIATE STANDARD LENGTH SPANNERS

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
- DIMENSIONS TO BE READ ; NOT TO BE SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

REVISION No	DATE :	FOR APPROVAL	DESCRIPTION
REVISIONS			



public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

INSTITUTION	SERVICE
ERNESTO LABOUR CENTRE	PROPOSED NEW OFFICE BUILDING

STEELWORK

MOSEBY, BRYAN. Mouldboard Plow
1887-1892

ROOF STRUCTURE
AND BOLT LAYOUT & DETAILS

[illegible]

REMOVED FROM FILE

LBE

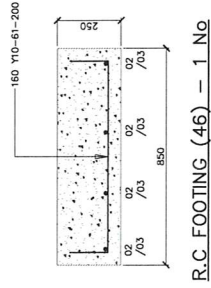
Highland Park, 07033
Avenue, Highland
station

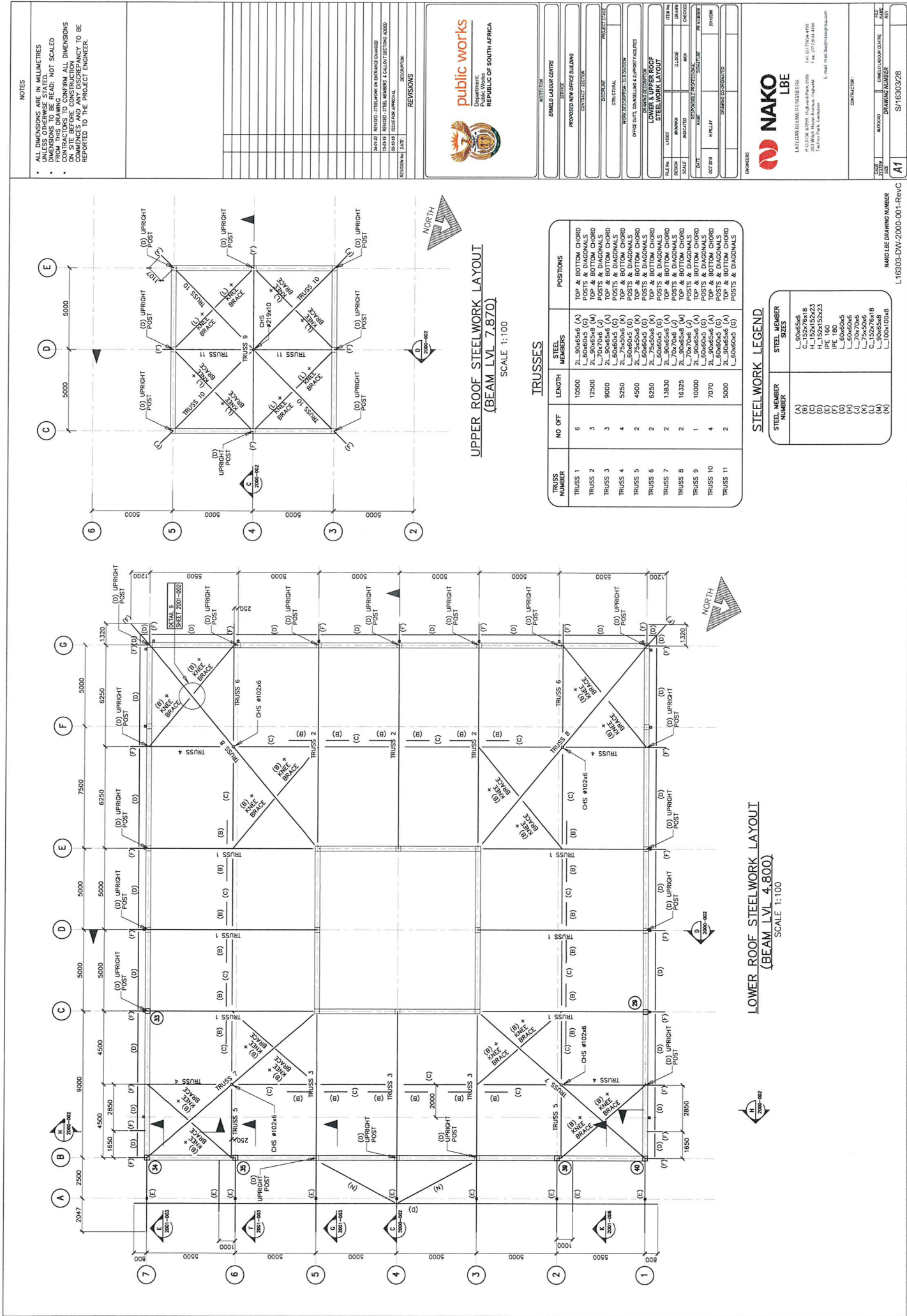
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North 10 Links	40
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S/16303/39

NAKOLIE DRAWING NUMBER
L16303-DW-1000-034-REV A

[illegible]



NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
- DIMENSIONS TO BE READ: NOT TO BE SCALED FROM THIS DRAWING
- CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

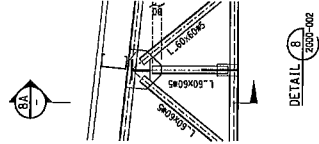


FOR APPROVAL DATE: 15/01/2020
DESIGNER: [Signature]
REVISIONS

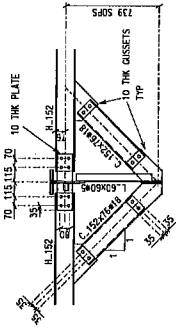


NAKO LBE
NATIONAL BUILDING ENGINEERING
2011 WILSON AVENUE, HYDE PARK
Johannesburg, South Africa
Tel: 011 735 41 125
Fax: 011 735 41 126
Email: info@nako.co.za

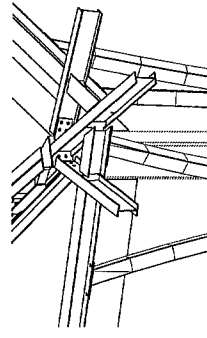
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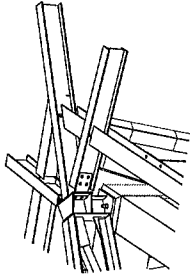
DETAIL 8
200-402



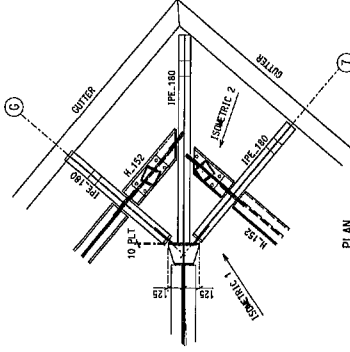
SECTION 8A
200-402



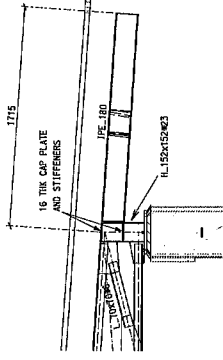
DETAIL 7 ISOMETRIC 1



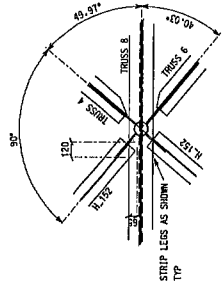
DETAIL 7 ISOMETRIC 2



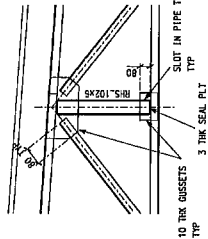
PLAN
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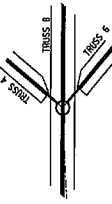
DETAIL 9
200-402



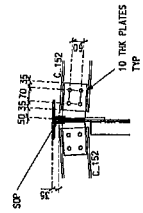
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200-402



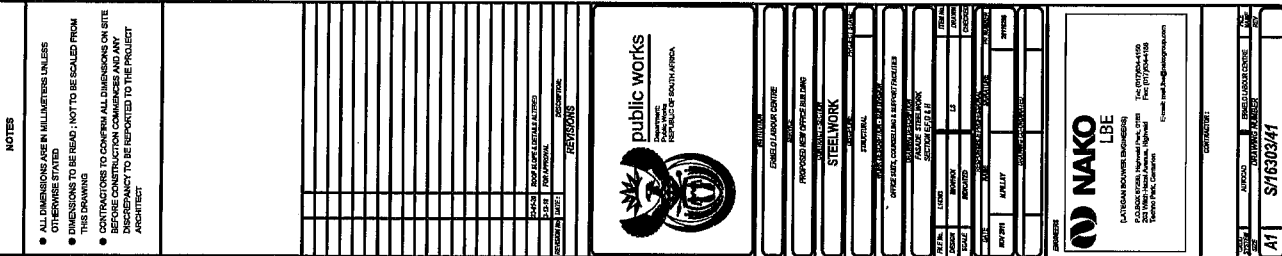
DETAIL 6
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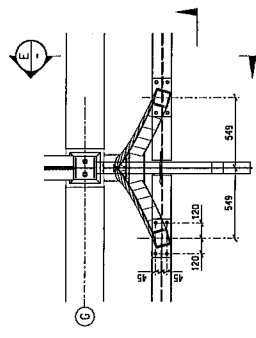


SECTION 6B
200-402

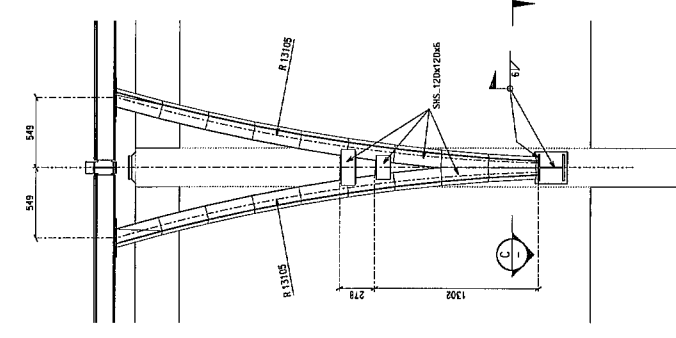


DETAIL 5
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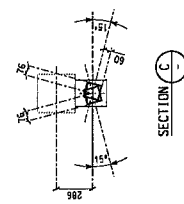




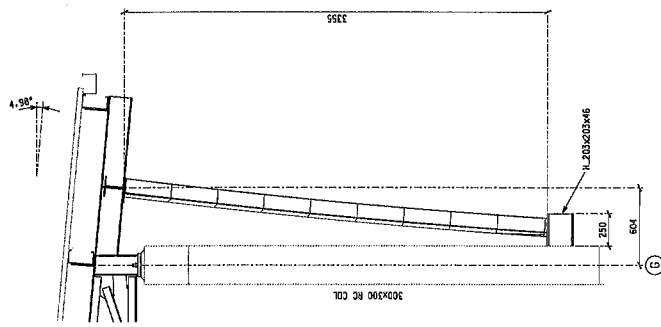
PLAN ON TYPE E COLUMNS
E ARE REQUIRED



SECTION 



SECTION



SECTION E

[illegible]

• ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.

• DIMENSIONS TO BE READ: NOT SCALED FROM THIS DRAWING

• CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES AND ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ENGINEER.

REASON NO.	DATE	DESCRIPTION	DEUTSCHMAN'S
	10-01-19	ISSUE FOR APPROVAL	
	10-01-19	REMOVED - COLUMBIA PLUMBERS H & S	
	10-01-19	REMOVED - SUNSCREEN FACILE DETAIL ADDED	

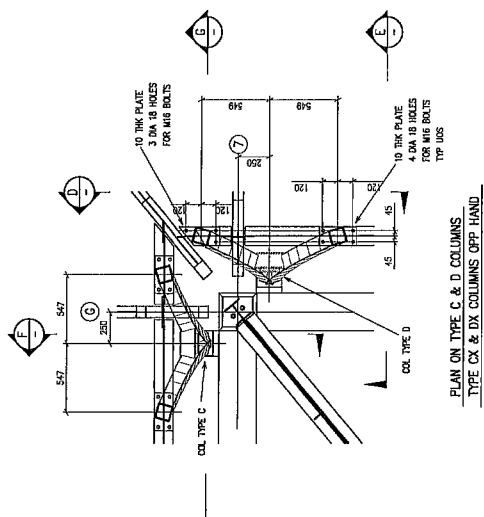
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NAKO
IBF

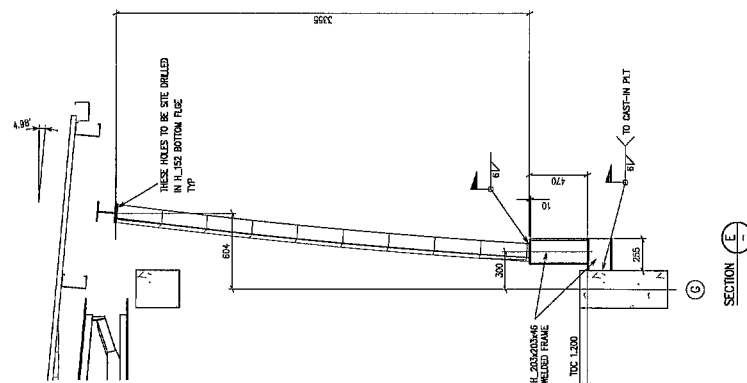
P.O. BOX 67286, Highveld Park, 0169
203 Wit-N-Hazel Avenue, Highveld
Techno Park, Centurion

INTERACTING:

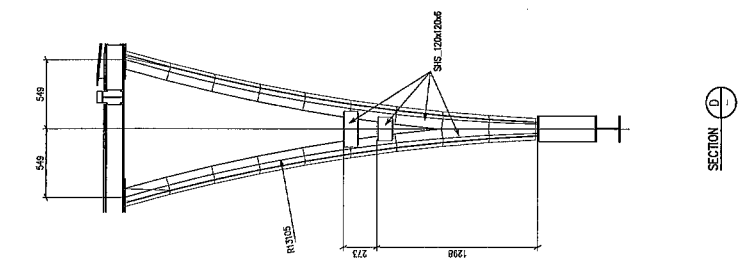
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		AUTOCAD		
		SYSTEM		
		SIZE		



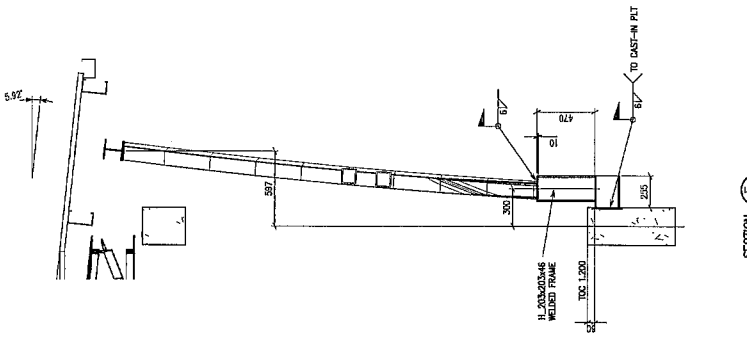
PLAN ON TYPE C & D COLUMNS
TYPE CX & DX COLUMNS OPP HAND



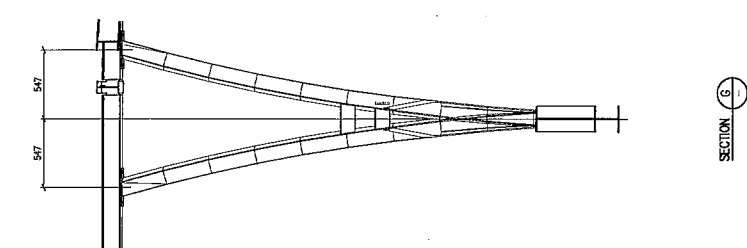
SECTION E



SECTION D



SECTION _____



SECTION 9

NEW SUNSCREEN FACADE DETAIL

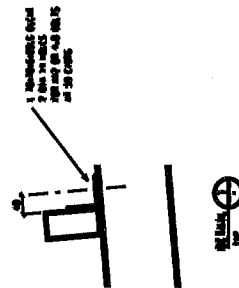
120x120x3 STEEL MEMBERS
FULLY WELDED IN BETWEEN
Y-SHAPED COLUMNS

RHS_120x60x3 SHAPED BRACKET
FULLY WELDED TO NEW Y SHAPED
COLUMNS

6x6 RHS_120x60x3 SUNSCREEN
--STEEL MEMBERS WELDED ON EAST
FACE OF NEW SHAPED BRACKET

REFER TO ARCHITECTURAL DWG
WQSE-DS-4120-A-600-05
FOR SETTING OUT DIMENSIONS

NAKO LBE DRAWING NUMBER
16303-DW-2001-005-RevB



- 1111

[illegible]

public works
Department
Public Works
REPUBLIC OF SOUTH AFRICA

ERNESTO LABOUR CENTRE

PROPOSED NEW OFFICE BUILDING

STEELWORK

STRUCTURAL

OFFICE SUITS, COUNSELLING & SUPPORT FACILITIES

**FACADE STEELWORK
SECTIONS J & K**

[illegible]

NAKO
LIFE

(LATEGAN BOWLER ENGINEERS)
P.O. BOX 87299, Highland Park, 0108
203 Welch Road Avenue, Highland
Park, Canton

Fashion Park, Cambridge

NAKOLISE DRAWING NUMBER

DATE	ATTORNEY	EMERGENCY CONTACT	REF
A1	DAEWANG HUBBER	S/16303/44	