

BID NOTICE

STELLENBOSCH MUNICIPALITY HEREBY INVITES YOU TO TENDER FOR BSM 46/22: CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER: **BSM 46/22**
DESCRIPTION: **CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH**
CLOSING DATE: **20 June 2022**
CLOSING TIME: **12h00: Bids will be opened in the Council Chambers or Supply Chain Management Boardroom. Due to Covid-19 restrictions, opening of tenders to the public will not take place, but the opening register will be posted on the municipal website, immediately thereafter.**
CIDB : The following CIDB class of construction works will be applicable to the Tender, in accordance with the sum tendered or value determined in accordance with regulation 25(7A) of the Construction Industry Development Regulations, 2004 (as amended) – As at 23 May 2019 - **Class of Construction Works: 6 EP or higher.**

INFORMATION:

Tender Specifications: Thinus Van As (021 417 2900); email: thinus.vanAs@smec.com
Vuyisile Lloyd (012 481 3800); email: vuyisile.Lloyd@smec.com
SCM Requirements: Jeanette Williams (021 8088524); email: Jeanette.Williams@stellenbosch.gov.za

Office hours for collection: 08h00-15h30

A **Compulsory Clarification Meeting** will be held on **Friday, 03 June 2022** at **10h00** on site at the Municipality's office located at La Rochelle Street, Franschhoek with GPS co-ordinates: -33.91034068147589, 19.119881786168783. Prospective tenderers shall register with the Consulting Engineer, Mr. Thinus Van As and Mr. Vuyisile Lloyd, via e-mail at thinus.vanAs@smec.com and Vuyisile Lloyd at Vuyisile.Lloyd@smec.com and provide the necessary contact details (email address and cell phone number) at least 48 hours prior to the meeting but no later than end of business on **Wednesday, 01 June 2022**, after which the total number of attendees can be confirmed. All Covid-19 protocols shall be followed during the Clarification Meeting, this includes wearing of Masks all the time, maintaining social distance and sanitizing of hands. Due to the Covid-19 health risks, only 1 attendee per tenderer will be allowed at the Clarification Meeting. No unregistered persons will be allowed into the meeting and tenderers who fail to attend the compulsory information session will be regarded as non-compliant.

Local production and content is applicable to this bid. Bidders must use the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on **21 May 2022**. The guidance document for the calculation of local content is included in the bid document and is also available on the municipality's website by following the Supply Chain Management link. If raw material or input to be used for a specific item is not available locally, bidders should obtain written authorisation from the dti should there be a need to import such raw material or input. A copy of the authorisation letter must be submitted together with this tender document at the closing date and time of bid. **Please note that the requirements in terms of local production and content are fully contained in the tender document.**

Tenders may only be submitted on the Tender documentation issued by Stellenbosch Municipality and must be valid for **180 days** after tender closing. Late, electronic format, telephonic or faxed Tenders will not be considered and Stellenbosch Municipality does not bind itself to accept the lowest, part of or any Tender.

Sealed Tenders, with "**BSM46/22 CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH,**" clearly endorsed on the envelope, must be deposited in the Tender box outside the offices of the Stellenbosch Municipality, Town House Complex, Plein Street, Stellenbosch. The Tender box is accessible 24 hours a day and Tenders must be accompanied by the completed Tender documents. Tenders not accompanied by a complete Tender document, will not be considered.

NOTE: This tender will be evaluated in terms of the General Conditions of Contract, Supply Chain Management Policy, relevant specification, local content as depicted in the document and also the **Preferential Procurement Regulations, 2017 that was promulgated by the Minister of Finance on 20 January 2017 in Government Gazette No 40553.**

The preferential points system applied is as follows:

Price	80
B-BBEE status level of contribution	20
Total points for Price and B-BBEE	100

The following conditions to Tender exist (failure to comply may result in your Tender being disqualified):

1. This Tender is subject to the General Conditions of Contract for Construction Works (Third Edition) 2015 and special conditions for Tendering;
2. Relevant terms of reference;
3. Tenderers must be registered on the Central supplier database (CSD) if they wish to conduct business with the municipality;
4. No award will be made to tenderers whose tax status is non-compliant;
5. Tenders submitted must be in a sealed envelope clearly marked with the Tender number, placed in the tender box before closing time. Failure will result in the tender being invalid;

*Tender documents, in English, are available free of charge on the website: www.stellenbosch.gov.za. Alternatively, hard copies of the documents are obtainable from the offices of the Supply Chain Management Unit, Stellenbosch Municipality, Town House Complex, 1st floor, Plein Street, Stellenbosch, upon payment of a non-refundable fee of **R1107.00 per document**.*

G Mettler (Ms)
MUNICIPAL MANAGER

TENDER KENNISGEWING

STELLENBOSCH MUNISIPALITEIT NOOI U VIR DIE VOLGENDE TENDER: B/SM 46/22 KONSTRUKSIE VAN DIE LA TERRA 11KV SKAKEL SUBSTASIE IN DIE FRANSCHHOEK AREA VAN STELLENBOSCH

TENDER NOMMER: **B/SM 46/22**
BESKRYWING: **KONSTRUKSIE VAN DIE LA TERRA 11KV SKAKEL SUBSTASIE IN DIE FRANSCHHOEK AREA VAN STELLENBOSCH**
SLUITINGSdatum: **20 Junie 2022**
TYD VAN SLUITING: **12h00.** Tenders sal oopgemaak word in die **Raadsaal** of in die **Voorsieningskanaalbestuurs Raadsaal**. As gevolg van die Covid-19 beperkinge sal die opening van tenders vir die publiek nie plaasvind nie maar die openingsregister sal onmiddellik daarna op die munisipale webwerf geplaas word.

KIOR: Die volgende KIOR klas vir konstruksiewerk, in ooreenstemming met die totale bedrag getender of waarde bepaal in ooreenstemming met regulasie 25 (7A) van die Konstruksie-industrie Ontwikkelingsraad, Regulasies, 2004 (soos gewysig) op 23 Mei 2019, sal op die bod van toepassing wees. Tendersaars moet 'n **geskatte KIOR kontrakteurgradering** van ten minste **6EP of hoër hê**

NAVRAE:

Tender spesifikasies: **Thinus Van As (021 417 2900); epos: thinus.vanAs@smec.com**
Vuyisile Lloyd (012 481 3800); epos Vuyisile.Lloyd@smec.com

Vkb vereistes: **Jeanette Williams (021 8088524); epos: Jeanette.Williams@stellenbosch.gov.za**
Kantoor Ure: 08h00-15h30

Inligtingsessie: 'n Verpligte toeligtingsvergadering sal gehou word op **Vrydag 03 Junie 2022** om 10h00 op die terrein by die Munisipaliteit se kantoor geleë te La Rochellestraat, Franschhoek met GPS-koördinate: -33.91034068147589, 19.119881783616. Voornemende tendersaars moet by die Raadgewende Ingenieur, Mnr. Thinus Van As en Mnr. Vuyisile Lloyd, registreer via e-pos by thinus.vanAs@smec.com en Vuyisile.Lloyd@smec.com en die nodige kontakbesonderhede (e-posadres en selfoonnommer) ten minste 48 uur voor die vergadering verskaf, maar nie later nie as einde van besigheid op Woensdag, **01 Junie 2022**, waarna die totale aantal deelnemers bevestig kan word. Alle Covid-19-protokolle sal tydens die Verklaringsvergadering gevolg word. Dit sluit in die voltydse dra van maskers, die handhawing van sosiale afstand en die ontsmetting van hande. As gevolg van die Covid-19-gesondheidsrisiko's, sal slegs 1 deelnemer per tenderaar by die Verklaringsvergadering toegelaat word. Geen ongeregistreerde persone sal tot die vergadering toegelaat word nie en tendersaars wat versuim om die verpligte inligtingsessie by te woon, se tender sal nie voldoen aan nodige vereistes nie.

Plaaslike produksie en inhoud is van toepassing op hierdie bod. Bieërs moet die wisselkoers wat om **12h00 op 21 Mei 2022**, soos deur die Suid-Afrikaanse Reserwebank (SARB) gepubliseer is, gebruik. Die begeleidingsdokument vir die berekening van plaaslike inhoud is ingesluit in die tenderdokument en is ook op die munisipaliteit se webwerf beskikbaar deur die Voorsieningskanaal Bestuurskakel. Indien grondstowwe of insette wat vir 'n spesifieke item gebruik word, nie plaaslik beskikbaar is nie, moet bieërs skriftelike magtiging van die dti verkry indien daar so 'n grondstof of inset benodig word. 'N afskrif van die magtigingsbrief moet saam met hierdie tenderdokument by die sluitingsdatum en tyd van die bod ingedien word. **Neem kennis dat die vereistes in terme van die plaaslike produksie en inhoud volledig in die tender dokument vervat is.**

Tenders mag slegs ingedien word op die tenderdokumentasie verskaf deur Stellenbosch Munisipaliteit en moet geldig wees vir **180.dae** na die sluitingsdatum. Laat, elektroniese formaat of gefakse tenders sal nie aanvaar word nie en Stellenbosch Munisipaliteit is nie verplig om die laagste of enige tender wat ingedien word te aanvaar nie.

Verseëde tenders duidelik gemerk: **"B/SM 46/22 KONSTRUKSIE VAN DIE LA TERRA 11KV SKAKEL SUBSTASIE IN DIE FRANSCHHOEK AREA VAN STELLENBOSCH"** op die koevert, moet geplaas word in tenderbus buite die kantore van Stellenbosch Munisipaliteit, Meenthuis Kompleks, Stellenbosch. Die tenderbus is 24 uur per dag beskikbaar en tenders moet vergesel word met die voltooide stel tenderdokumente. Tendersaanbiedinge wat nie deur die volledige tenderdokument vergesel word nie, sal nie oorweeg word nie.

LET WEL: Hierdie tender sal geëvalueer word ingevolge die Algemene Kontrakvoorwaardes, Voorsieningskanaal Bestuursbeleid, relevante spesifikasies, plaaslike inhoud soos vervat in die tender dokument asook die Voorkeurverkrygingsregulasies 2017 wat op 20 Januarie 2017 deur die Minister van Finansies in Staatskoerant No 40553 afgekondig is.

Tendersaars mag voorkeerpunte eis in terme van hul B-BSEB status vlak van bydrae as volg:

Prys	80
BBSEB	20
Totale punte	100

Die volgende voorwaardes vir Tender soos volg: (versuim om te voldoen, kan veroorsaak dat u Tender gediskwalifiseer word):

1. Hierdie tender is onderworpe aan die algemene kontrakvoorwaardes (GCC) vir konstruksiewerke (Derde uitgawe)2015 en spesiale voorwaardes vir die tender;
2. Toepaslike opdrag
3. Tendersaars moet geregistreer wees op Sentrale verskaffersdatabasis (SVD) as hulle met die munisipaliteit sake wil doen
4. Geen toekenning sal gemaak word aan diensverskaffers wie se Belasting status ongeldig is.
5. Die tender wat ingedien moet word, moet in 'n verseëelde koevert wees wat duidelik gemerk is met die Tondernommer, wat in die tenderbus voor sluitingstyd geplaas word. Versuim sal tot gevolg hê dat die tender ongeldig is.

*Tenderdokumente, in Engels, is verkrygbaar by die kantoor van die Voorsieningskanaalbestuurseenheid, Stellenbosch Munisipaliteit, Meenthuis Kompleks, 1ste Vloer, Pleinstraat, Stellenbosch na betaling van 'n nie-terugbetaalde tenderdeelnamewooi van **R 1107.00 per dokument**. Alternatiewelik mag die dokument gratis afgelaai word vanaf die webblad www.stellenbosch.gov.za.*

G Mettler (Me)

MUNISIPALE BESTUURDER



STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

TENDER NO.: B/SM 46/22
CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH

PROCUREMENT DOCUMENT

NAME OF TENDERER:	
Total Bid Price (Inclusive of VAT) <i>(refer to page 134):</i>	
COMPLETION PERIOD IN WORKING DAYS:	
ALTERNATIVE PRICE	
BBBEE LEVEL	

MAY 2022

PREPARED AND ISSUED BY:

Directorate: Finance:
Supply Chain Management Unit
Stellenbosch Municipality,
PO Box 17, Stellenbosch, 7599

**CONTACT FOR ENQUIRIES
REGARDING SPECIFICATIONS:**

Thinus Van As
Function Manager
Tel. Number: **021 417 2900**



TENDER NOTICE & INVITATION TO TENDER

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G Mettler (Ms)
MUNICIPAL MANAGER



TENDER KENNISGEWING

STELLENBOSCH MUNISIPALITEIT NOOI U VIR DIE VOLGENDE TENDER: B/SM 46/22 KONSTRUKSIE VAN DIE LA TERRA 11KV SKAKEL SUBSTASIE IN DIE FRANSCHHOEK AREA VAN STELLENBOSCH

TENDER NOMMER: **B/SM 46/22**
BESKRYWING: **KONSTRUKSIE VAN DIE LA TERRA 11KV SKAKEL SUBSTASIE IN DIE FRANSCHHOEK AREA VAN STELLENBOSCH**
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Kantoor Ure: **08h00-15h30**

Inligtingsessie: 'n Verpligte toelatingsvergadering sal gehou word op **Vrydag 03 Junie 2022** om 10h00 op die terrein by die Munisipaliteit se kantoor geleë te La Rochellestraat, Franschhoek met GPS-koördinate: -33.91034068147589, 19.119881783616. Voornemende tendersaars moet by die Raadgewende Ingenieur, Mnr. Thinus Van As en Mnr. Vuyisile Lloyd, registreer via e-pos by thinus.vanAs@smec.com en Vuyisile.Lloyd@smec.com en die nodige kontakbesonderhede (e-posadres en selfoonnommer) ten minste 48 uur voor die vergadering verskaf, maar nie later nie as einde van besigheid op Woensdag, **01 Junie 2022**, waarna die totale aantal deelnemers bevestig kan word. Alle Covid-19-protokolle sal tydens die Verklaringsvergadering gevolg word. Dit sluit in die voltydse dra van maskers, die handhawing van sosiale afstand en die ontsmetting van hande. As gevolg van die Covid-19-gesondheidsrisiko's, sal slegs 1 deelnemer per tenderaar by die Verklaringsvergadering toegelaat word. Geen ongeregistreerde persone sal tot die vergadering toegelaat word nie en tendersaars wat versuim om die verpligte inligtingsessie by te woon, se tender sal nie voldoen aan nodige vereistes nie.

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Tenderaars mag voorkeerpunte eis in terme van hul B-BSEB status vlak van bydrae as volg:

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3. Tenderaars moet geregistreer wees op Sentrale verskaffersdatabasis (SVD) as hulle met die munisipaliteit sake wil doen
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*Tenderdokumente, in Engels, is verkrygbaar by die kantoor van die Voorsieningskanaalbestuurseenheid, Stellenbosch Munisipaliteit, Meenthuis Kompleks, 1ste Vloer, Pleinstraat, Stellenbosch na betaling van 'n nie-terugbetaalde tenderdeelnemefooi van **R 1107.00 per dokument**. Alternatiewelik mag die dokument gratis afgelaai word vanaf die webblad www.stellenbosch.gov.za.*

G Mettler (Me)
MUNISIPALE BESTUURDER



**PART A
INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF MUNICIPALITY/ MUNICIPAL ENTITY)					
BID NUMBER:	BSM46/22	CLOSING DATE:	20 June 2022	CLOSING TIME:	12:00
DESCRIPTION	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MUST BE DEPOSITED IN THE BID BOX SITUATED AT **STELLENBOSCH MUNICIPALITY, TOWN HOUSE COMPLEX, PLEIN STREET, STELLENBOSCH**

SUPPLIER INFORMATION

NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		☐ Yes ☐ No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	2. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER PART B:3]
3. TOTAL NUMBER OF ITEMS OFFERED		4. TOTAL BID PRICE	R
5. SIGNATURE OF BIDDER	6. DATE		
7. CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	FINANCE (SCM)	CONTACT PERSON	Thinus van As / Vuyisile Lloyd
CONTACT PERSON	JEANETTE WILLIAMS	TELEPHONE NUMBER	021 417 2900 / 012 481 3800
TELEPHONE NUMBER	021 808 8524	FACSIMILE NUMBER	N/A
FACSIMILE NUMBER	N/A	E-MAIL ADDRESS	thinus.vanAs@smec.com Vuyisile.Lloyd@smec.com
E-MAIL ADDRESS	Jeanette.Williams@stellenbosch.gov.za		



PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.**
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.**
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.**
- 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.**
- 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.**
- 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.**
- 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.**
- 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.**

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- 3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?** ☐ YES ☐ NO
- 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?** ☐ YES ☐ NO
- 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?** ☐ YES ☐ NO
- 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?** ☐ YES ☐ NO
- 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?** ☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

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**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM46/22

PART T1 : TENDERING PROCEDURES

T1.1 Tender Data

T1.2 Standard Conditions of Tender (CIDB)

T1.3 General Conditions of Tender



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

T1.1 TENDER DATA

The Conditions of Tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts (refer: www.cidb.org.za) as included in the August 2019 edition (published in Government Gazette no 42622 of 8 August 2019) and which incorporates the amendments made in Board Notice No 423 of 2019.

The Standard Conditions of Tender make several references to the Tender Data. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Wording
C.1.1	The Employer is Stellenbosch Municipality.
C.1.2	The tender documents issued by the Employer comprise of: PART T1 : TENDERING PROCEDURES T1.1: Tender Notice and Invitation to Tender T1.2: Tender Data PART T2 : RETURNABLE DOCUMENTS T2.0: Supply Chain Management Documents T2.1: List of Returnable Documents T2.2: Returnable Schedules PART C1: AGREEMENTS AND CONTRACT DATA C1.1: Form of Offer and Acceptance C1.2: Contract Data C1.3: Form of Performance Security (Pro Forma) C1.4: Form of Retention Money Guarantee (Pro Forma) PART C2 : PRICING DATA C2.1: Pricing Assumptions C2.2: Bills of Quantities C2.3: Data Sheets PART C3 : SCOPE OF WORK C3.1: Project Specification Appendix A: Tender Drawings Appendix B: Occupational Health and Safety Specification
C.1.4	Attention is drawn to the fact that verbal information, given by the Employer or Employer's Agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer in writing to tenderers will be regarded as amending the Tender Documents. The Employer's Agent is: Thinus Van As – SMEC South Africa Tel: 021 417 2900 Email: thinus.vanas@smec.com
C.1.6.2	A competitive negotiation procedure will not be followed



Clause	Wording
C.1.6.3	A two-stage system will not be followed.
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders: a) Attendance of compulsory clarification meeting. b) The tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation. c) The tenderer to achieve the minimum local content Electrical and Telecom cables, Cable Joint kits, Cable Termination kits, LED Luminaires, LV Switches and Plugs, Earthing Copper Material, Stats Meters, GIS Switchgear, Miniature Substations, Steel material, Aluminium material, cement, as listed in Schedule 1N of the returnable documents. d) The tenderer has demonstrated previous experience in projects of the same nature namely, projects involving the construction of new 11kV brick-built switching station buildings and installation of 11kV indoor and installation and jointing of 11kV underground cables. e) Must have key personnel certified in terms of NRS 040 as a Responsible Person in its permanent employment at the time of tender.
C2.1	Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 6EP class of construction work, are eligible to have their tenders evaluated. Contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of the requirement above and who satisfy all other Eligibility Criteria in terms of this Tender, may submit tender offers. Joint ventures are eligible to submit tenders provided that: 1. each member of the joint venture is registered with the CIDB. 2. the lead partner has a contractor grading designation in the EP class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an EP class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.
C.2.7	The arrangements for a Compulsory Clarification Meeting are: Location: Stellenbosch, Franshoek Address: La Rochelle Street, Franschhoek GPS Coordinates: -33.91034068147589, 19.119881786168783 Date: 03 June 2022 Starting time: 10:00 Tenderers should be represented at the clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.
C.2.11	All corrections in the bill of quantities shall be done by deleting, re-writing and initialling next to the amendment. The use of correction fluid is prohibited.
C.2.12	If, a tenderer wishes to submit an alternative/equivalent offer, the only criteria permitted for such alternative/equivalent tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.
	Calculations, drawings and all other pertinent technical information and characteristics, as well as modified or proposed Pricing Data must be submitted with the alternative/equivalent tender offer to enable the Employer to evaluate the efficiency of the alternative/equivalent and its



Clause	Wording
	principal elements, to take a view on the degree to which the alternative/equivalent complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.
	Acceptance of an alternative/equivalent tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative/equivalent is accepted, to accept full responsibility and liability that the alternative/equivalent offer complies in all respects with the Employer's standards and requirements.
C.2.13.2	Tender documents submitted shall be the original completed document, completed by hand in black ink. Copies of the completed document or parts thereof will not be accepted as a legal tender document and will result in such tender to be considered as non-responsive.
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer are: Location of tender box: Stellenbosch Municipality Physical address: Plein Street Stellenbosch Identification details: TENDER B/SM46/22: CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH
C.2.14	All items indicated in the bill of quantities must be priced. The tender amount must therefore cover the total scope of work requested.
C.2.15	The closing time for submission of tender offers is: 12:00 on Monday, 20 June 2022. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted
C.2.16	The tender offer validity period is ONE HUNDRED AND EIGHTY (180) days.
C.2.17	A tender may be rejected if the unit rates or lump sums for some of the items in the Bill / Schedule of Quantities are, in the opinion of the Employer, unreasonable or out of proportion, and the tenderer fails, within a period of seven days of having been notified in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the total of the prices unchanged.
C.2.19	Access shall be provided for the following inspections, tests and analyses: All inspections, tests and analyses deemed necessary by the Engineer to enable him to verify the quality of work done. An opportunity for inspection of the site conditions will be provided for as part of the Compulsory Clarification Meeting.
C.2.23	The tenderer is required to submit the following certificates with his tender:
C.2.23.1	A Certificate of Contractor Registration (CIDB), issued by the Construction Industry Development Board, must be submitted. Where a tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.
C.3.2	Issue addenda <i>Add the following to C.3.2:</i> Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the Employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.
C.3.4	The time and location for opening of the tender offers are: Time: 12:00 on Monday 20 June 2022 Location: Stellenbosch Municipality Plein Street, Stellenbosch



Clause	Wording
C.3.8	Test for Responsiveness Tender offers will be considered non-responsive if, inter alia:
	a) the offer section of the “Form of Offer and Acceptance” (Part C1.1) is not fully completed and signed; b) the tenderer does not comply with the eligibility criteria listed above; c) the tender does not comply with the prescribed specifications; and d) the tenderer has failed to submit an original and valid Tax Clearance Certificate as issued by the South African Revenue Services or a valid PIN.
C.3.8	Test for Responsiveness <i>Add new sub-clause C.3.8.3</i> Risk Analysis Notwithstanding compliance with regard to CIDB requirements and other eligibility criteria, the Employer will perform a risk analysis in respect of the following: a) the reasonableness of the financial offer b) the reasonableness of individual rates and prices c) the tenderer’s ability to fulfil its obligations in terms of the contract, which will be based upon the tenderer demonstrating necessary technical qualifications, competence, technical expertise, technical and financial resources and other requirements as per the Tender Data d) the tenderers must have at least a Bank Code C or better (Good for the amount of the enquiry strictly in the way of business). Tenderers must complete Schedule 1A – Particulars of Tenderer A Tenderer will not be considered should there be a clear possibility that any of the above items can create a financial and/or technical risk for the Employer during the execution of the Contract.
C.3.9	Arithmetical Errors The highest ranked Tenderer will be notified of all errors or omissions that are identified in the tender offer and will be requested to either confirm the tender offer as tendered or accept the corrected total of prices as per clauses C.3.9.2 and C3.9.3. As per clause C3.9.4, where a Tenderer elects to confirm the tender offer as tendered, arithmetical errors will be corrected in the following manner: a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern, and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected. b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer’s addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices. The tender offer will be rejected if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.
C.3.11	The procedure for the evaluation of responsive tenders is indicated in the Preferential Procurement Policy of Stellenbosch Municipality and will be in line with the Preferential Procurement Regulations of 2017. Price and Preference will be used to evaluate this tender.



Clause	Wording																				
	Evaluation of tender offers General THE 80/20 PREFERENCE POINT SYSTEMS A maximum of 80 points is allocated for price for all projects with value up to R50 000 000 on the following basis: $Ps = 80 \left(1 - \frac{Pt - P \min}{P \min} \right)$ Where: Ps = Points scored for comparative price of bid under consideration Pt = Comparative price of bid under consideration Pmin = Comparative price of lowest acceptable bid Points awarded for B-BBEE Status Level of Contribution In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below: <table border="1"> <thead> <tr> <th>B-BBEE Status Level of Contributor</th><th>Number of points (80/20 system)</th></tr> </thead> <tbody> <tr><td>1</td><td>20</td></tr> <tr><td>2</td><td>18</td></tr> <tr><td>3</td><td>14</td></tr> <tr><td>4</td><td>12</td></tr> <tr><td>5</td><td>8</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>4</td></tr> <tr><td>8</td><td>2</td></tr> <tr><td>Non-compliant contributor</td><td>0</td></tr> </tbody> </table>	B-BBEE Status Level of Contributor	Number of points (80/20 system)	1	20	2	18	3	14	4	12	5	8	6	6	7	4	8	2	Non-compliant contributor	0
B-BBEE Status Level of Contributor	Number of points (80/20 system)																				
1	20																				
2	18																				
3	14																				
4	12																				
5	8																				
6	6																				
7	4																				
8	2																				
Non-compliant contributor	0																				
C.3.13	Stellenbosch Municipality reserves the right to scale down on the Scope of Work in order for the contract value to fit into the available budget for the three financial years.																				
C.3.13	Bid offers will only be accepted if: a) The bidder Tax matter have been declared in order by or has made arrangements to meet outstanding tax obligations. If an original Tax Clearance Certificate is not included with the tender submitted, a copy thereof will be accepted subject to the Tenderer providing the necessary PIN for the Employer to assess the validity of the certificate on the SARS database. The bidders or any of its directors is not listed on the Register of Bid Defaulters in terms of the Prevention and Combatting of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; b) The bidder has not:																				



Clause	Wording
	i) abused the Employer's Supply Chain Management System; or ii) failed to pay municipal rates and taxes of service chargers and such rates, taxes and charges are not in arrears for more than three months iii) failed to perform on any previous contract as has been given written notice to this effect. c) The bidder has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest that may impact on the bidder's ability to perform the contract in the best interests of the Employer or potentially compromise the bid process.
C.3.16	If the Supply Chain Management or the Municipal Manager, has resolved that a tender be accepted, the successful and unsuccessful tenderers shall be notified in writing of this decision. The Supply Chain Management Policy paragraph 49 allow persons aggrieved by decisions or actions taken by the municipality or municipal entity in the implementation of its Supply Chain Management system, the right to lodge within 14 days of the decision or action a written objection or complaint to the municipality or municipal entity against the decision. Any tenderer wishing to exercise this right, must submit their appeal in writing to the Municipal Manager, marked for the attention of the Stellenbosch Municipality, P O Box 17, Stellenbosch, 7600. The format of the appeal must: • set out the reasons for the appeal; • state in which way the appellant's rights have been affected by the decision; • state the remedy sought, and • be accompanied by a copy of the notification advising the tenderer of the decision of the Supply Chain Management Bid Adjudication Committee or Municipal Manager as applicable. Tenderers are also hereby informed also of their right to request reasons for the decision in terms of the Promotion of Administrative Justice Act (No. 3 of 2000). The notification of the decision sent to the successful tenderer is not acceptance of the tender and no rights shall accrue to the successful tenderer in terms of this notification. The consideration of appeals and if necessary, the invalidation of any decision made, shall be dealt with in terms of the Municipality's appeals process.
C.3.17	The number of paper copies of the signed contract to be provided by the Employer is one (1).



C.4	ADDITIONAL CONDITIONS OF THE TENDER
	The additional conditions of tender are:
C.4.1	Compliance with Occupational Health and Safety Act 1993 and Construction Regulations. Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith and also to comply with the requirements of the Health and Safety specifications included in this document in Appendix B Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract must also comply with the above requirements. The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall be available for inspection on Site at all times and handed over to the Employer on Final Completion of the project. The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement and a letter of good standing from the Compensation Commissioner, or a licensed compensation insurer, within 14 days after the Commencement Date of the contract
C.4.2	Claims arising after submission of tender No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer/Employer's Agent after the submission of any tender and the Tenderer shall be deemed to have: 1). inspected the Contract Drawings and read and fully understood the Conditions of Contract, 2). read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract, 3). visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials and plant to and from the site and made the necessary provisions for any additional costs involved thereby, 4). Requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer; and 5). Before submission of any tender, the Tenderer must check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the tenderer must apply to the Employer/Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer/Employer's Agent in respect of errors in any tender due to the foregoing.
C.4.3	Negotiations with preferred tenderers



	The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation: a) does not allow any preferred tenderer a second or unfair opportunity; b) is not to the detriment of any other tenderer; and c) does not lead to a change in the competitive position of the tender. Minutes of any such negotiations shall be kept for record purposes.
C.4.4	General supply chain management conditions applicable to tenders
	In terms of its Supply Chain Management Policy the Employer may not consider a tender unless the provider who submitted the tender: a) has furnished the Employer with that provider's: ▪ full name; ▪ identification number or company or other registration number; and ▪ tax reference number and VAT registration number, if any; b) has indicated whether: ▪ the provider is in the service of the state, or has been in the service of the state in the previous twelve months; ▪ the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; ▪ whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months; or c) irrespective of the procurement process followed, the Employer is prohibited from making an award to a person: ▪ who is in the service of the state; ▪ if the person is not a natural person, a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; or ▪ who is an advisor or consultant contracted with the client.
C.4.5	Combating abuse of the Supply Chain Management Policy
	In terms of the Employers Supply Chain Management Policy, the Employer must reject the tender of any tenderer if that tenderer or any of its directors has: a) failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months; b) failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory; c) abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system; d) been convicted of fraud or corruption during the past five years; e) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or



	f) been listed with the Register of Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector. In this regard, tenderers shall complete Part T2 : Returnable Documents: Declaration in terms of the Municipal Finance Management Act. Failure to complete this schedule may result in the tender not being considered.
C.4.6	UIF payments
	The tenderer shall submit to the Employer a letter from the Industrial Council indicating his good standing with regard to UIF payments upon being requested to do so.
C.4.7	Supplier database registration
	Supplier must be registered on the database of the Municipality. Suppliers not registered on the database must complete Part T2 : Returnable Documents : Registration Forms for the municipal Supplier Database and provide the relevant documentation.
C.4.8	Use of local labour
	It is a requirement of the Contract that the maximum possible use of local labour be made. To this end the Contractor shall limit his own staff to key personnel only. All unskilled staff shall be employed from within the Municipal boundaries. The Contractor shall make provision in the tendered Preliminary and General rates for all costs and additional superintendence to ensure a high standard of work when complying with these contractual requirements.
C.4.9	Community Liaison Officer
	It is a requirement of this Contract that a Community Liaison officer (CLO) be appointed for the area represented by the Tender. The function of the CLO shall be to represent the local community in matters concerning the use of local labour on the works and to assist with and facilitate communication between the Contractor, the Engineer, and the local communities. The period of appointment of the CLO shall be as stated in the Contract for Temporary Employment as a Community Liaison officer referred to below. It must be noted that the date of commencement of temporary employment of the CLO shall be no later than the date of commencement of the Contract. The identification of the approved CLO to be appointed by the Contractor under the Contract shall be resolved by the Contractor, the particular Ward Councillor in collaboration with the Local Communities. It will be required, therefore, that the successful Tenderer enters into a contract for the employment of the above-mentioned CLO. As said contract will be between the Tenderer and the CLO, all costs involved shall be borne by the Tenderer and the tender shall be deemed to include for this. Further to all the above, the Tenderer is referred to the relevant items contained in the Special Conditions of Contract.
C.4.10	Labour intensive construction/use of local labour
	It is a requirement of the Contract that the work be executed in such a manner as to maximise the use of labour intensive construction systems in order to provide the local community with employment opportunities. The Tenderer is to identify all activities for which it is intended to employ workers from the local community, and full details thereof are to be provided. Once a tender is accepted the activities and number of persons stated shall become the minimum contractual commitment.



	In applying the principles set out above, it is a specific requirement of this Tender that the successful Tenderer employs, in consultation with the CLO, unemployed persons from the ranks of the local communities and the immediate surroundings, who possess the appropriate skills required for a contract of this nature. ▪ In order to achieve the recruitment of local labour, the Local Communities together with the CLO would establish, a database of unemployed persons, indicating their specialised training, previous experience and employment. The successful Tenderer will be required to liaise with the CLO to recruit his workforce and will be required to produce monthly records suitably detailed to enable the Employer's Agent, or his authorised representative, and the Local Communities to ascertain that the abovementioned labour requirements are achieved. ▪ The Tenderer is required to provide informal skills training so that the required standard of workmanship is maintained. ▪ Any difficulty experienced by the Tenderer in the procurement of the requirement percentages of local labour is to be referred immediately to the Employer's Agent.
C.4.11	Unbundling of Municipal Infrastructure Assets
	As part of the project closeout, the Client's Agent and Contractor must also unbundle the assets. The unbundling of capital assets means breaking down the capital assets into components according to the capital asset hierarchy as per GRAP 17 (PPE) in support of the annual compilation of a GRAP compliant Fixed Asset Register. In dealing with the unbundling of capital assets, the unbundling must occur at the end of every financial year and the end of the project.



Annexure G
 (normative)

Alpha-numeric associated with the Contractor Grading Designations

Table G1 : Contractor grading designations and associated parameters (as from 5 October 2019)

Contractor Grading Designation	Tender Value Range Designation	Maximum Value of Contract that a Contractor is considered capable of performing (R)
1 (class of construction works)	1	500 000
2 (class of construction works)	2	1 000 000
3 (class of construction works)	3	3 000 000
4 (class of construction works)	4	6 000 000
5 (class of construction works)	5	10 000 000
6 (class of construction works)	6	20 000 000
7 (class of construction works)	7	60 000 000
8 (class of construction works)	8	200 000 000
9 (class of construction works)	9	No limit



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

T1.2 STANDARD CONDITIONS OF TENDER (CIDB)

The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 27831 of 22 July 2005, Board Notice 99 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice 9 of 2008 in Government Gazette No 30692, of 1 February 2008, Board Notice 11 of 2009 in Government Gazette No 31823, of 30 January 2009, Board Notice No 86 of 2010 in Government Gazette No 33239 of 28 May 2010 and Board Notice No 136 of 2015 in Government Gazette No 38960 of 10 July 2015 .

This August 2019 edition incorporates the amendments made in Board Notice No 423 of 2019, published in Government Gazette no. 42622 of 8 August 2019.

C.1 General

C.1.1 Actions

- C.1.1.1 The Employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- C.1.1.2 The Employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the Employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
- 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

- C.1.1.3 The Employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

C.1.2 Tender Documents

The documents issued by the Employer for the purpose of a tender offer are listed in the Tender Data.

C.1.3 Interpretation

- C.1.3.1 The Tender Data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- C.1.3.2 These conditions of tender, the Tender Data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
- C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:



- a) **conflict of interest** means any situation in which:
- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the Employer or his staff or agents in the tender process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the Employer, including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and Employer's Agent

Each communication between the Employer and a tenderer shall be to or from the Employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The Employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the Employer's agent are stated in the Tender Data.

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An Employer may, prior to the award of the tender, cancel a tender if:

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An Employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

Unless otherwise stated in the Tender Data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the Tender Data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the Employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the Tender Data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and



associated information.

Notwithstanding the provisions of C.2.17, the Employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the Employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The Employer shall evaluate each responsive submission in terms of the method of evaluation stated in the Tender Data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The Employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The Employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the Tender Data, and award the contract in terms of these conditions of tender.

C.2 Tenderer's obligations

C.2.1 Eligibility

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the Tender Data and the tenderer, or any of his principals, is not under any restriction to do business with Employer.

C.2.1.2 Notify the Employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the Employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the Employer's written approval to do so prior to the closing time for tenders.

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the Tender Data, the Employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the Employer shall be limited to the actual cost incurred by the Employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the Employer of any discrepancy or omission.

C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the Employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

C.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications,



conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

C.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the Employer may issue, and if necessary apply for an extension to the closing time stated in the Tender Data, in order to take the addenda into account.

C.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Tender Data.

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the Employer at least five (5) working days before the closing time stated in the Tender Data.

C.2.9 Insurance

Be aware that the extent of insurance to be provided by the Employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

C.2.10 Pricing the tender offer

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the Tender Data.

C.2.10.2 Show VAT payable by the Employer separately as an addition to the tendered total of the prices.

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Tender Data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the Employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

C.2.12 Alternative tender offers

C.2.12.1 Unless otherwise stated in the Tender Data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the Tender Data or criteria otherwise acceptable to the Employer.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the Tender Data.

C.2.13.2 Return all returnable documents to the Employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.



- C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the Tender Data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the Employer.
- C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the Tender Data. The Employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the Employer shall hold liable for the purpose of the tender offer.
- C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the Employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.
- C.2.13.6 Where a two-envelope system is required in terms of the Tender Data, place and seal the returnable documents listed in the Tender Data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the Employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.
- C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the Employer's address and identification details as stated in the Tender Data.
- C.2.13.8 Accept that the Employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the Employer, unless stated otherwise in the Tender Data.

C.2.14 Information and data to be completed in all respects

Accept that tender offers which do not provide all the data or information requested completely, and in the form required, may be regarded by the Employer as non-responsive.

C.2.15 Closing time

- C.2.15.1 Ensure that the Employer receives the tender offer at the address specified in the Tender Data not later than the closing time stated in the Tender Data. Accept that proof of posting shall not be accepted as proof of delivery.
- C.2.15.2 Accept that, if the Employer extends the closing time stated in the Tender Data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

C.2.16 Tender offer validity

- C.2.16.1 Hold the tender offer(s) valid for acceptance by the Employer at any time during the validity period stated in the Tender Data after the closing time stated in the Tender Data.
- C.2.16.2 If requested by the Employer, consider extending the validity period stated in the Tender Data for an agreed additional period with or without any conditions attached to such extension.
- C.2.16.3 Accept that a tender submission that has been submitted to the Employer may only be withdrawn or substituted by giving the Employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the Employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).
- C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the Employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance



of the tender offer is sought, offered, or permitted.

Note: *Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

C.2.18 Provide other material

C.2.18.1 Provide, on request by the Employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the Employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the Employer's request, the Employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the Employer, where required.

C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the Tender Data.

C.2.20 Submit securities, bonds and policies

If requested, submit for the Employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

C.2.21 Check final draft

Check the final draft of the contract provided by the Employer within the time available for the Employer to issue the contract.

C.2.22 Return of other tender documents

If so instructed by the Employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the Tender Data.

C.2.23 Certificates

Include in the tender submission or provide the Employer with any certificates as stated in the Tender Data.

C.3 The Employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.



C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the Tender Data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

C.3.5 Two-envelope system

C.3.5.1 Where stated in the Tender Data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the Tender Data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

C.3.8 Test for responsiveness

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the



Scope of Work,

- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

C.3.9 Arithmetical errors, omissions, and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - (ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern, and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the Employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require Employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.



Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the Employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

C.3.11.1 General

The Employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the Tender Data.

C.3.12 Insurance provided by the Employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the Employer to provide.

C.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the Employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the Employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the Tender Data; and
- f) is able, in the opinion of the Employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the Employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,



- b) inclusion of some of the returnable documents and
- c) other revisions agreed between the Employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

C.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

C.3.16 Registration of the award

An Employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the Employer, register and publish the award on the CIDB Register of Projects.

C.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

C.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

T1.3 GENERAL CONDITIONS OF TENDER

1. Sealed tenders, with the **“Tender Number and Title”** clearly endorsed on the envelope, must be deposited in the **tender box** at the offices of the Stellenbosch Municipality, Plein Street, Stellenbosch.
2. The tender must be lodged by the Tenderer in the tender box in the Main Hall Entrance, Stellenbosch Municipal Offices, Plein Street, Stellenbosch

PLEASE NOTE:

- 2.1. Tenders that are deposited in the incorrect box will not be considered.
 - 2.2. Mailed, telegraphic or faxed tenders will not be accepted.
 - 2.3. Documents may only be completed in non-erasable ink.
 - 2.4. The use of correction fluid/tape is not allowed.
 - 2.4.1. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.
 - 2.4.2. Alterations or deletions not signed by the Tenderer may render the tender invalid.
 - 2.5. All bids must be submitted in writing on the official forms supplied (not to be re-typed)
 - 2.6. All prices shall be quoted in South African currency and be **INCLUSIVE of VAT**.
- 3. Where the value of an intended contract will exceed R1 000 000, 00 (R1 million) it is the bidder's responsibility to be registered with the South African Revenue Service (SARS) for VAT purposes in order to be able to issue tax invoices. The municipality will deem the price above R 1 000 000,00 (R1 million) to be VAT inclusive even if it is indicated that no VAT is charged. Please insure that provision is made for VAT in these instances.**
- 3.1 It is a requirement of this contract that the amount of value-added tax (VAT) must be shown clearly on each invoice.
 - 3.2 The amended Value-Added Tax Act requires that a Tax Invoice for supplies in excess of R3 000 should, in addition to the other required information, also disclose the VAT registration number of the recipient, with effect from 1 March 2005. The VAT registration number of the Stellenbosch Municipality is **4700102181**.
4. Any Tender received after the appointed time for the closing of Tenders shall not be considered but shall be filed unopened with the other Tenders received or may be returned to the Tenderer at his request.
 5. Tenders may not be telefaxed to the Municipality and therefore any tenders received by fax will not be considered.
 6. Tenders shall be opened in public at the Stellenbosch Municipal Offices as soon as possible after the closing time for the receipt of tenders.
 7. The Municipality shall have the right to summarily disqualify any Tenderer who, either at the date of submission of this tender or at the date of its award, is indebted to the Municipality in respect of any rental, levies, rates and/or service charges; **ALTERNATIVELY**:
 - 7.1 That an agreement be signed whereby the Tenderer agrees that a percentage or fixed amount at the discretion of the Municipality, be deducted from payments due to him for this tender, until the debt is paid in full.
 - 7.2 The tenderer shall declare all the Municipal account numbers in the Stellenbosch Area for which the enterprise or the proprietors or directors in their personal capacity is/ are responsible or co-responsible.



8 Negotiations for a fair market related price

8.1 The award of the tender may be subject to price negotiation with the preferred tenderers.

9. This bid will be evaluated and adjudicated according to the following criteria:

- 3.1 Relevant specifications
- 3.2 Value for money
- 3.3 Capability to execute the contract
- 3.4 PPPFA & associated regulations

10. Service Level Agreement

The award of the tender is subject to the signing of a Service Level Agreement (SLA) between the successful bidder and Stellenbosch Municipality.

11. Centralised Supplier Database

No Bids will be awarded to a bidder who is not registered on the Centralised Supplier Database (CSD).

The CSD supplier number starting with (MAAA) number is automatically generated by the Central Database System after successful registration and validation of a prospective service provider. This number is now a mandatory requirement, as referred to in regulation 14(1) (b) of the Municipal Supply Chain Management Regulations, as part of the listing criteria for accrediting a prospective service provider. Prospective suppliers should self – register on the CSD website at www.csd.gov.za Registration on the CSD will be compulsory in order to conduct business with the STELLENBOSCH MUNICIPALITY. Registration on CSD can be done by contacting 021 808 8594 or Nicolene.Hamilton@stellenbosch.gov.za

Centralised Supplier Database No. MAAA.....

12 Unbundling of Municipal Infrastructure Assets

As part of the project closeout, the contractor must also unbundle the assets. The unbundling of capital assets means breaking down the capital assets into components according to the capital asset hierarchy as per GRAP 17 (PPE) in support of the annual compilation of a GRAP compliant Fixed Asset Register. In dealing with the unbundling of capital assets, the unbundling must occur at the end of every financial year and the end of the project. See pt 11 on page 98 for more details.



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

PART T2 : RETURNABLE DOCUMENTS

T2.1 List of Returnable Documents

T2.2 Returnable Schedules



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

PART T2.1 : LIST OF RETURNABLE DOCUMENTS

The following documents are to be completed and returned as they constitute the tender. Whilst many of the returnables are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason, it is very important that tenderers return **all information requested**.

1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES (included hereafter for completion)

Schedule : 1A Particulars of Tenderer

Schedule : 1B Availability of Resources

Schedule : 1C Previous Experience on Contracts of a Similar Value and Nature

Schedule : 1D Key Personnel Schedule

Schedule: 1E Estimated Monthly Cash Flow

Schedule: 1F Joint Venture Disclosure Form

Schedule: 1G Contractor's Information

Schedule: 1H Clarification Meeting Certificate

Schedule: 1I Authority to Sign a Bid

Schedule: 1J Certificate of Authority for Joint Ventures

Schedule: 1K Declaration of Interest

Schedule: 1L Declaration for Procurement above R10 Million (VAT included)

Schedule: 1M Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2017

Schedule: 1N Declaration Certificate for Local Production and Content for Designated Sectors

Schedule: 1O Declaration of Bidder's Past Supply Chain Management Practices

Schedule 1P: Schedule of Subcontractors

Schedule 1Q: MBD 9 – certificate of independent bid determination

Schedule 1R: MBD 10 – certificate for payment of municipal services

Schedule 1S: Compensation for occupational injuries and diseases act, 1993 (act 130 of 1993)

Schedule 1T: Form of Indemnity

Schedule 1U: Schedule of Estimated Local Labour to be Employed on this Contract



- Schedule 1V: Schedule of plant and equipment
- Schedule 1W: Certificate of registration with CIDB
- Schedule 1X: Form of offer and acceptance
- Schedule 1Y: Pricing schedule
- Schedule 1Z: Declaration by tenderer
- Schedule 1AA: Pre-Qualification Score Sheet
- Schedule 1AB: Checklist

2. OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

- Schedule 2A Documents of Incorporation
- Schedule 2B Certificate of Contractor Registration Issued by the CIDB
- Schedule 2C B-BBEE Certificate
- Schedule 2D Health and Safety Agreement

RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (to be attached with submission)

- Schedule : 3A Record of Addenda to Tender Documents

3. OTHER SCHEDULES AND AFFIDAVITS THAT WILL BE INCORPORATED INTO THE CONTRACT (included hereafter for completion)

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data (Part 1&2)
- C1.3 Form of Performance Security (Pro Forma)
- C1.4 Form of Retention Money Guarantee (Pro Forma)
- C2.1 Pricing Instructions
- C2.2 Bills of Quantities
- C2.3 Data Sheets



SCHEDULE 1A : PARTICULARS OF TENDERER

1. TENDERER:
ADDRESS:
CONTACT PERSON:
TELEPHONE NUMBER:
FAX NUMBER:
2. BANK:
BRANCH:
CHEQUE ACCOUNT NUMBER:
CONTACT PERSON:
TELEPHONE NUMBER:
EMAIL ADDRESS:
3. PERFORMANCE SECURITY:
BRANCH -CONTACT PERSON:
TELEPHONE NUMBER:
4. VAT REGISTRATION NUMBER:
5. CIDB REGISTRATION NUMBER:
6. CSD REGISTRATION NUMBER:

I/we hereby give authorisation to Stellenbosch Municipality and/or SMEC South Africa (Pty) Ltd to obtain bank codes from my/our financial institution listed above.

.....
SIGNATURE OF TENDERER

.....
DATE

Bank Code definitions:

Code B: Good for the Amount

Code C: Good for the amount under normal working conditions

Code D: Reasonable risk for amount

Code E: Amount too high

Code F: Financial position unknown

Code G: RD commission occurs/payment deferred

Code H: RD commissions occurs frequently



SCHEDULE 1B : AVAILABILITY OF RESOURCES

The tenderer shall set out in the tables hereafter details of the **relevant items and/or equipment** available for this project.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, Size, Capacity, etc

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired or acquired for this contract if my/our tender is acceptable.

Quantity	Description, Size, Capacity, etc

Attach additional pages if more space is required.

Signed _____

Date _____

Name _____

Position _____

Tenderer _____



**SCHEDULE 1C : PREVIOUS EXPERIENCE ON CONTRACTS OF THE SAME
VALUE AND NATURE**

The tenderer shall insert in the spaces provided below a list of the tenderer's past work experience in terms of **similar projects successfully completed in the last five (5) years and the value of work for each project is at least R10 million. A minimum of three (3) similar construction of new switching station buildings and installation of MV indoor switchgear, MV underground cables projects for which the each project value is at least R10 million is required.** The value and scale of the projects indicated for these purposes must be supplied together with any other relevant information.

Listed projects with invalid or incorrect contact details for the Employer and/or consulting engineer and information not supplied in the format as requested below will **NOT** be considered.

Employer (Name and Contact No.)	Consulting Engineer (Name and Contact No.)	Similar indoor MV switching station or indoor MV switchgear substation projects (Indicate all relevant details of work)	Value of Work (incl. VAT) (R million)	Month & Year Commence	Month & Year Completed

Attach additional pages if more space is required.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____



SCHEDULE 1D : Key Personnel Schedule

Job Description (if applicable)	Non-Local	Local
Contract Manager:		
Construction Manager:		
Construction Civil Engineer or Construction Civil Engineering Technologist		
Electrical Substation Engineer or Electrical Substation Engineering Technologist		
Electrical Substation Commissioning Engineer or Electrical Substation Commissioning Engineering Technologist		
Occupational Health and Safety Officer		
Cable Jointers		
Bricklayers		
Skilled Labourer		
Unskilled Labourer		
* Other		
* Other		
* Other		

* To be filled in by Tenderer

Signed Date

Name Position

Tenderer



SCHEDULE 1E : Estimated cash-flow

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme and his tendered unit rates.

The amounts for Contingencies and Contract Price Adjustment must not be included. The Tenderer must make note of any cash-flow restrictions.

MONTH	VALUE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
TOTAL	

Signed Date

Name Position

Tenderer



SCHEDULE 1F : JOINT VENTURE DISCLOSURE FORM

GENERAL

- i) Refer Scope of Works: Part C3
- ii) All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be used and attached to the original documents.
- iii) A copy of the joint venture agreement must be attached to this form, in order to demonstrate the Affirmable, Joint Venture Partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:
 - a) the contributions of capital and equipment
 - b) work items to be performed by the Affirmable Joint Venture Partner's own forces
 - c) work items to be performed under the supervision of the Affirmable Joint Venture Partner.
- iv) Copies of all written agreements between partners concerning the contract must be attached to this form including those, which relate to ownership options and to restrictions/limits regarding ownership and control.
- v) ABE partners must complete ABE Declaration Affidavits.

1. JOINT VENTURE PARTICULARS

- a) Name
- b) Postal address
.....
.....
- c) Physical address
.....
.....
- d) Telephone
- e) Fax



2. IDENTITY OF EACH NON-AFFIRMABLE JOINT VENTURE PARTNER

2.1(a) Name of Firm

Postal Address

Physical Address

Telephone

Fax

Contact person for matters pertaining to Joint Venture Participation Goal requirements

.....

2.2(a) Name of Firm

Postal Address

Physical Address

Telephone

Fax

Contact person for matters pertaining to Joint Venture Participation Goal requirements

.....

(Continue as required for further non-Affirmable Joint Venture Partners)

3. IDENTITY OF EACH AFFIRMABLE JOINT VENTURE PARTNER

3.1(a) Name of Firm

Postal Address

Physical Address

Telephone

Fax

Contact person for matters pertaining to Joint Venture Participation Goal requirements

.....

3.2(a) Name of Firm

Postal Address

Physical Address

Telephone

Fax

Contact person for matters pertaining to Joint Venture Participation Goal requirements

.....



- 3.3(a)** Name of Firm
- Postal Address
- Physical Address
- Telephone
- Fax
- Contact person for matters pertaining to Joint Venture Participation Goal requirements
-

(Continue as required for further non-Affirmable Joint Venture Partners)

4. BRIEF DESCRIPTION OF THE ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE

.....

.....

.....

5. OWNERSHIP OF THE JOINT VENTURE

- a) Affirmable Joint Venture Partner ownership percentage(s) %
- b) Non-Affirmable Joint Venture Partner ownership percentage(s) %
- c) Affirmable Joint Venture Partner percentages in respect of *

(i) Profit and loss sharing

(ii) Initial capital contribution in Rand (R)

.....

.....

(*Brief descriptions and further particulars should be provided to clarify percentages)

(iii) Anticipated on-going capital contributions in Rand (R)

.....

.....

(iv) Contributions of equipment (specify types, quality, and quantities of equipment) to be provided by each partner.

.....

.....



6. RECENT CONTRACTS EXECUTED BY PARTNERS IN THEIR OWN RIGHT AS PRIVE CONTRACTORS OR AS PARTNERS IN OTHER JOINT VENTURES

NON-AFFIRMABLE JOINT VENTURE PARTNERS

PARTNER NAME

- | | |
|----------|-------|
| a) ..... | ..... |
| b) ..... | ..... |
| c) ..... | ..... |
| d) ..... | ..... |
| e) ..... | ..... |

AFFIRMABLE JOINT VENTURE PARTNERS

PARTNER NAME

- | | |
|----------|-------|
| a) ..... | ..... |
| b) ..... | ..... |
| c) ..... | ..... |
| d) ..... | ..... |
| e) ..... | ..... |

7. CONTROL AND PARTICIPATION IN THE JOINT VENTURE

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority e.g. co-signature requirements and Rand limits).

a) Joint Venture cheque signing

.....
.....

b) Authority to enter into contracts on behalf of the Joint Venture

.....
.....

c) Signing, co-signing and/or collateralising of loans

.....
.....

d) Acquisition of lines of credit

.....
.....



e) Acquisition of performance bonds

.....

.....

f) Negotiating and signing labour agreements

.....

.....

8. MANAGEMENT OF CONTRACT PERFORMANCE

(Fill in the name and firm of the responsible person)

a) Supervision of field operations

.....

b) Major purchasing

.....

c) Estimating

.....

d) Technical management

.....

9. MANAGEMENT AND CONTROL OF JOINT VENTURE

a) Identify the “managing partner”, if any

.....

.....

.....

b) What authority does each partner have to commit or obligate the other t financial institutions, insurance companies, suppliers, subcontractors and/or other parties participating in the execution of the contemplated works?

.....

.....

.....



c) Describe the management structure for the Joint Venture's work under the contract

MANAGEMENT FUNCTION / DESIGNATION	NAME	PARTNER*

(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner".)

10. PERSONNEL

- a) State the approximate number of operative personnel (by trade/function/discipline) needed to perform the Joint Venture work under the Contract

TRADE/FUNCTION/ DISCIPLINE	NUMBER EX AFFIRMABLE JOINT VENTURE PARTNERS	NUMBER EX NON-AFFIRMABLE JOINT VENTURE PARTNERS

(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner".)

- b) Number of operative personnel to be employed on the Contract who are currently in the employ of partners.

- (i) Number of currently employed by Affirmable Joint Venture Partners
- (ii) Number currently employed by the Joint Venture



c) Number of operative personnel who are not currently in the employ of the respective partner and will be engaged on the project by the Joint Venture

d) Name of individual(s) who will be responsible for hiring Joint Venture employees

.....
.....
.....

e) Name of partner who will be responsible for the preparation of Joint Venture payrolls

.....
.....

11. CONTROL AND STRUCTURE OF THE JOINT VENTURE

Briefly describe the manner in which the Joint Venture is structured and controlled.

.....
.....
.....
.....
.....

The undersigned warrants that he/she is duly authorized to sign this Joint Venture Disclosure Form and affirms that the foregoing statements are true and correct and include all material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual Joint Venture work and the payment therefore, and any proposed changes in any provisions of the Joint Venture agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorized representatives of the Employer.

Signature

Duly authorised to sign on behalf of

Name

Address

Telephone

Date



Signature

Duly authorised to sign on behalf of

Name

Address

Telephone

Date

Signature

Duly authorised to sign on behalf of

Name

Address

Telephone

Date

Signature

Duly authorised to sign on behalf of

Name

Address

Telephone

Date

[Continue as necessary]



SCHEDULE 1G : Contractor's information

COMPLETE AS FULLY AS POSSIBLE, WHERE APPLICABLE

CONTRACTORS, SUPPLIERS AND SERVICES PROVIDERS (PROFESSIONAL AND NON-PROFESSIONAL)

PART ONE

1. NAME OF COMPANY																															
2. ADDRESS: PHYSICAL																															
POSTAL																															
CODE					WEBSITE http																										
											E-MAIL																				
2.1 PHYSICAL ADDRESS IN LOCAL AREA (if applicable)																															
CONTACT PERSON (Name & Details)																															
TELEPHONE																FAX															
CELL PHONE																															
3. SECTOR (e.g. Construction)																															
3.1 NATURE OF BUSINESS (e.g. Plumbing)	1.																														
	2.																														



☐	CLOSE CORPORATION	☐	PTY LTD
☐	COMPANY	☐	CO-OPERATIVE
☐	PARTNERSHIP	☐	NOT REGISTERED

[illegible][illegible][illegible]

20 _____ R.....

20 _____ R.

20 _____ R.....

20 _____ R.....

20 _____ R.....

CONTRACT NO.	1.	2.	3.
--------------	----	----	----

DURATION					
----------	--	--	--	--	--

APPROXIMATE VALUE	R		R		R
-------------------	---	--	---	--	---

DATES CONTRACTS WERE SIGNED	1997						1998						1999					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1																		
2																		
3																		
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44																		

PAYMENT TERMS	
---------------	--

CONTRACT NO.					
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APPROXIMATE VALUE	R	R	R
-------------------	---	---	---



NAME

[illegible]

ADDRESS

[illegible][illegible]

CODE

--	--	--	--

Initials

--	--	--	--

[illegible]

--	--	--	--

[illegible]

--	--	--	--

[illegible]

--	--	--	--

[illegible]

Initials

--	--	--	--

[illegible]

--	--	--	--

[illegible]

--	--	--	--

[illegible]

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[illegible]



PART 2

12. NAMES AND NUMBERS OF DIRECTORS/PARTNERS/MEMBERS - % SHAREHOLDING

SCHEDULE 1H : Clarification Meeting Certificate

	Initials	Surname	ID Number	Sex	% Holding	*HDI
1.						YES/NO
2.						YES/NO
3.						YES/NO
4.						YES/NO
5.						YES/NO
6.						YES/NO
7.						YES/NO
8.						YES/NO

1 INDICATE ON WHICH DATE YOUR BUSINESS STARTED ITS CURRENT TYPE

3. OF BUSINESS

*DEFINITION OF HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI) MEANS A SOUTH AFRICAN CITIZEN.

- WHO, DUE TO THE APARTHEID POLICY THAT HAD BEEN IN PLACE, HAD NO FRANCHISE IN NATIONAL ELECTIONS PRIOR TO THE INTRODUCTION OF THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, 1983 (ACT NO. 110 OF 1983) OR THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, 1993 (ACT NO. 200 OF 1993) ("THE INTERIM CONSTITUTION") AND/OR
 - WHO IS A FEMALE; AND/OR
 - WHO HAS A DISABILITY.

PROVIDED THAT A PERSON WHO OBTAINED SOUTH AFRICAN CITIZENSHIP ON OR AFTER THE COMING INTO EFFECT OF THE INTERIM CONSTITUTION, IS DEEMED NOT TO BE A HDI.

I (FULL NAME) HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT

.....
SIGNATURE

.....
DATE

(ADDITIONAL INFORMATION MAY BE ATTACHED IF NECESSARY.)



I / We*, the undersigned, certify that I / we* have examined the Site for the Works and its surroundings for which I / we* am / are* submitting this Tender and have, as far as practicable possible, familiarized myself / ourselves* with all information, risks, contingencies and other circumstances which may influence or affect my / our* tender.

* cancel whichever is not applicable

NAME & SURNAME			
CAPACITY			
NAME OF FIRM			
ADDRESS			
TELEPHONE NO		FAX NO:	
E-MAIL		SIGNATURE	

NB: Please note that no latecomers will be allowed.

*For all compulsory briefing sessions/site meetings/clarification meetings, bids received from interested bidders that did not attend the meeting or arrived later than predetermined date and time, will be **disqualified***



SCHEDULE 1I: AUTHORITY TO SIGN A BID

1. SOLE PROPRIETOR (SINGLE OWNER BUSINESS) AND NATURAL PERSON

1.1. I, _____, the undersigned, hereby confirm that I am the sole owner of the business trading as _____.

OR

1.2. I, _____, the undersigned, hereby confirm that I am submitting this tender in my capacity as natural person.

SIGNATURE:		DATE:	
PRINT NAME:			
WITNESS 1:		WITNESS 2:	

2. COMPANIES AND CLOSE CORPORATIONS

- 2.1. If a Bidder is a **COMPANY**, a certified copy of the resolution by the board of directors, duly signed, authorising the person who signs this bid to do so, as well as to sign any contract resulting from this bid and any other documents and correspondence in connection with this bid and/or contract on behalf of the company **must be submitted with this bid**, that is, before the closing time and date of the bid
- 2.2. In the case of a **CLOSE CORPORATION (CC)** submitting a bid, a **resolution by its members**, authorizing a member or other official of the corporation to sign the documents on their behalf, **shall be included with the bid**.

PARTICULARS OF RESOLUTION BY BOARD OF DIRECTORS OF THE COMPANY/MEMBERS OF THE CC

Date Resolution was taken			
Resolution signed by (name and surname)			
Capacity			
Name and surname of delegated Authorized Signatory			
Capacity			
Specimen Signature			
Full name and surname of ALL Director(s) / Member (s)			
1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	
Is a CERTIFIED COPY of the resolution attached?		YES	NO
SIGNED ON BEHALF OF COMPANY / CC:		DATE:	
PRINT NAME:			
WITNESS 1:		WITNESS 2:	

3. PARTNERSHIP



We, the undersigned partners in the business trading as _____ hereby authorize Mr/Ms _____ to sign this bid as well as any contract resulting from the bid and any other documents and correspondence in connection with this bid and /or contract for and on behalf of the abovementioned partnership.

The following particulars in respect of every partner must be furnished and signed by every partner:

Full name of partner		Signature	
SIGNED ON BEHALF OF PARTNERSHIP:		DATE:	
PRINT NAME:			
WITNESS 1:		WITNESS 2:	

4. CONSORTIUM

We, the undersigned consortium partners, hereby authorize _____ (Name of entity) to act as lead consortium partner and further authorize Mr./Ms. _____ To sign this offer as well as any contract resulting from this tender and any other documents and correspondence in connection with this tender and / or contract for and on behalf of the consortium.

The following particulars in respect of each consortium member must be provided and signed by each member:

Full Name of Consortium Member	Role of Consortium Member	% Participation	Signature
SIGNED ON BEHALF OF PARTNERSHIP:		DATE:	
PRINT NAME:			
WITNESS 1:		WITNESS 2:	



SCHEDULE 1J - CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This returnable schedule is to be completed by JOINT VENTURES

We, the undersigned, are submitting this tender offer in joint venture and hereby authorize Mr./Ms. _____

authorized signatory of the Company/Close Corporation/Partnership (name) _____,
_____, acting in the capacity of lead partner, to sign
all documents in connection with the tender offer and any contract resulting from it on our behalf.

(i) Name of firm (Lead partner)			
Address			
		Tel. No.	
Signature		Designation	

(ii) Name of firm			
Address			
		Tel. No.	
Signature		Designation	

(iii) Name of firm			
Address:			
		Tel. No.	
Signature		Designation	

(iv) Name of firm			
Address			
		Tel. No.	
Signature		Designation	

NOTE: A copy of the Joint Venture Agreement showing clearly the percentage contribution of each partner to the Joint Venture, shall be appended to this Schedule.



SCHEDULE 1K: MBD 4 – DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid:

3.1.	Full Name of bidder or his or her representative				
3.2.	Identity Number				
3.3.	Position occupied in the Company (director, shareholder ² etc.)				
3.4.	Company Registration Number				
3.5.	Tax Reference Number				
3.6.	VAT Registration Number				
3.7.	Are you presently in the service of the state?	YES	☐	NO	☐
3.7.1.	If so, furnish particulars:				
3.8.	Have you been in the service of the state for the past twelve months?	YES	☐	NO	☐
3.8.1.	If so, furnish particulars:				

¹ MSCM Regulations: "in the service of the state" means to be –

- a. a member of –
 - i. any municipal council;
 - ii. any provincial legislature; or
 - iii. the National Assembly or the National Council of Provinces;
- b. a member of the board of directors of any municipal entity;
- c. an official of any municipality or municipal entity;
- d. an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- e. an executive member of the accounting authority of any national or provincial public entity; or
- f. an employee of Parliament or a provincial legislature.

² "Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.



3.9.	Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?	YES		NO	
3.9.1.	If so, furnish particulars:				
3.10.	Are you aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?	YES		NO	
3.10.1.	If so, furnish particulars:				
3.11.	Are any of the company's directors, managers, principal shareholders or stakeholders in the service of the state?	YES		NO	
3.11.1.	If so, furnish particulars:				
3.12.	Is any spouse, child or parent of the company's directors, managers, principal shareholders or stakeholders in the service of the state?	YES		NO	
3.12.1.	If so, furnish particulars:				
3.13.	Do you or any of the directors, trustees, managers, principal shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract?	YES		NO	
3.13.1.	If so, furnish particulars:				



3.14.	Please provide the following information on ALL directors/shareholders/trustees/members below:		
Full Name and Surname	Identity Number	Personal Income Tax Number	Provide State ³ Employee Number

NB: a) PLEASE ATTACH CERTIFIED COPY(IES) OF ID DOCUMENT(S) b) PLEASE PROVIDE PERSONAL INCOME TAX NUMBERS FOR ALL DIRECTORS / SHAREHOLDERS / TRUSTEES / MEMBERS, ETC.
--

4. DECLARATION

I, the undersigned (name) _____,
certify that the information furnished in paragraph 3 above is correct.

I accept that the state may act against me should this declaration prove to be false.

SIGNATURE		DATE	
NAME OF SIGNATORY			
POSITION			
NAME OF COMPANY			

³ MSCM Regulations: "in the service of the state" means to be –

- a. a member of –
 - i. any municipal council;
 - ii. any provincial legislature; or
 - iii. the National Assembly or the National Council of Provinces;
- b. a member of the board of directors of any municipal entity;
- c. an official of any municipality or municipal entity;
- d. an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- e. an executive member of the accounting authority of any national or provincial public entity; or
- f. an employee of Parliament or a provincial legislature.



SCHEDULE 1L - MBD5 – DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)
--

For all procurement expected to exceed R10 million (VAT included), bidders must complete the following questionnaire:

1. Are you by law required to prepare annual financial statements for auditing?	YES	☐	NO	☐
1.1. If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.				
2. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days?	YES	☐	NO	☐
2.1. If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.				
2.2. If yes, provide particulars.				
3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?	YES	☐	NO	☐
3.1. If yes, furnish particulars				
4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?	YES	☐	NO	☐
4.1 If yes, furnish particulars				
CERTIFICATION				
I, the undersigned (name) _____, certify that the information furnished on this declaration form is correct.				
I accept that the state may act against me should this declaration prove to be false.				
SIGNATURE		DATE		
NAME (PRINT)				
CAPACITY				
NAME OF FIRM				



**SCHEDULE 1M - MBD6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF
THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 –
PURCHASES/SERVICES 80/20**

NB:

Before completing this form, bidders must study the general conditions, definitions and directives applicable in respect of B-BBEE, as prescribed in the Preferential Procurement Regulations, 2017.

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or
- b) The 80/20 preference point system will be applicable to this tender

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.



4.2 FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME-GENERATING PROCUREMENT

4.3 POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

or

90/10

$$P_s = 80 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right) \text{ or } P_s = 90 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{max} = Price of highest acceptable bid

5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 5.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

6. BID DECLARATION

- 6.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

7. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 7.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.



8. SUB-CONTRACTING

8.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

YES	☐	NO	☐
-----	--------------------------	----	--------------------------

8.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

YES	☐	NO	☐
-----	--------------------------	----	--------------------------

- v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

9. DECLARATION WITH REGARD TO COMPANY/FIRM

9.1 Name of company/firm:.....

9.2 VAT registration number:.....

9.3 Company registration number:.....

9.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]



9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....
.....
.....

9.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
☐ Supplier
☐ Professional service provider
☐ Other service providers, e.g. transporter, etc.
[TICK APPLICABLE BOX]

9.7 MUNICIPAL INFORMATION

Municipality where business is situated:

Registered Account Number:

Stand Number:.....

9.8 Total number of years the company/firm has been in business:.....

9.9 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
(a) disqualify the person from the bidding process;
(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;



-
- (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

SIGNATURE OF BIDDER(S):			
WITNESS 1:		WITNESS 2:	
DATE:			
ADDRESS:			



SCHEDULE 1N - MBD 6.2 – DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where:

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;



2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

#	Description of services, works or goods	Stipulated minimum threshold as a %
1.	Electrical and Telecom cables	90%
2.	Cable Joint kits	90%
3.	Cable Termination kits	90%
4.	LED Luminaires	90%
5.	LV Switches and Plugs	90%
6.	Earthing Copper Material	90%
7.	Stats Meters	90%
8.	GIS Switchgear	90%
9.	Miniature Substations	90%
10.	Steel	100%
11.	Cement	100%
12.	Aluminum	100%

Should bidders not meet the stipulated minimum thresholds on the above table, they must submit a letter of exemption from DTI.

Please ensure that you put all the items on Annexure C on which you make an offer.

3. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

YES	☐	NO	☐
-----	--------------------------	----	--------------------------

- 3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.



4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

SIGNATURE OF BIDDER(S):			
WITNESS 1:		WITNESS 2:	
DATE:			
ADDRESS:			



LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF TENDER NO. B/SM 46/22 : CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thdti.gov.za/industrialdevelopment/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of (name of bidder entity), the
following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.



The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).

	SIGNATURE	DATE
TENDERER:		
WITNESS No. 1:		
WITNESS No. 2:		



ANNEXURE C1

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	MV and LV Cables		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Medium Voltage Cables										
5.1.1a	185mm ² 3C Cu PILC							40			
5.1.2a	70mm ² 3C Cu PILC							2000			
	Low Voltage Cable										
5.2	25mm ² Cu PVC PVC SWA PVC							50m			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Attach additional pages if more space is required



ANNEXURE C2

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	MV Cable Joints		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

		Calculation of local content						Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Medium Voltage Cable										
5.1.1c	185mm ² 3C Cu PILC Cable Joint										
5.1.2c	70mm ² 3C Cu PILC Cable Joint										
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEXURE C3

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	MV Cable Termination		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

		Calculation of local content					
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Medium Voltage Cable Termination						
5.1.1b	185mm ² 3C Cu PILC Indoor Cable Termination						
5.1.2b	70mm ² 3C Cu PILC Indoor Cable Termination						

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
5			
2			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEXURE C4

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	LED Luminaires		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

		Calculation of local content						Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	LED Luminaires										
2.3.1	42W, 3800 lm, 4000K Bulkhead LED luminaire							6			
2.3.2	55W, 6038 lm, 4000K Roughgaurd LED Luminaire							3			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Reference No: B/SM 46/22

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ANNEXURE C5	SATS 1286.2011
Local Content Declaration – Summary Schedule	

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	LV Light Switches and Wall Sockets		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	LV Light Switches and Wall Socket outlets										
2.3	2 lever 1 way light switch							1			
2.3	2 x 16A normal switched socket outlet							2			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEXURE C6

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	Earthing Copper Material		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

		Calculation of local content						Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Earthing Copper Material										
2.4.2	Earth mat material (10mm dia round copper)										
2.4.3	3 x 50mm Copper Earth bar in trench										
2.4.4	Earth connection strap (50mm x 3mm flat copper strap)										
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Reference No: B/SM 46/22

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ANNEXURE C7

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	Stats Meters		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	90%		

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Stats Meter						
2.5.4	Bulk Stats Meter						

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
2			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEXURE C8 **SATS 1286.2011**

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22			
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH			
(C3) Designated product(s)	GIS Switchgear			
(C4) Tender Authority	Stellenbosch Municipality			
(C5) Name of Tendering Entity				
(C6) Tender Exchange Rate	Currency		Rate	
(C7) Specified local content %	90%			

NOTE: VAT to be excluded from all calculations

		Calculation of local content					
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Incomer Switchgear						
4.4.1a	11kV 1250A GIS Switchgear						
	Outgoing Switchgear						
4.4.1b	11kV 630A GIS Switchgear						
	Bus Section Switchgear						
4.4.1c	11kV 1250A GIS Switchgear						

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
2			
5			
1			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Attach additional pages if mores space is required



ANNEXURE C9

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	Miniature Substations		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	100%		

NOTE: VAT to be excluded from all calculations

		Calculation of local content					
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Miniature Substations						
B5.3.1	315KVA 11000/400V Miniature substation						
B5.3.2	500KVA 11000/400V Miniature substation						

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
1			
1			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Attach additional pages if mores space is required

SATS 1286.2011

(C1) Tender No.	B/SM 46/22			
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH			
(C3) Designated product(s)	Steel			
(C4) Tender Authority	Stellenbosch Municipality			
(C5) Name of Tendering Entity				
(C6) Tender Exchange Rate	Currency		Rate	
(C7) Specified local content %	100%			

		Calculation of local content					
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Round mild steel bars						
6.8	Up to 12 mm diameter						
	High Tensile Steel Bars						
6.9	Up to 16 mm diameter						
6.10	20 mm to 24 mm diameter						
	Palisade fence						
11.1.1	Corner posts with double struts						
11.1.2	Intermediate posts (Dropper)						

[illegible]



11.1.3	3m Palisade Fence panels										
	Gate										
7.2	3m (w) x 2m (h) Gate										
	Door										
10.2	Steel Double Door										
	Roof										
10.2	Corrugated Roof Sheeting										
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Attach additional pages if mores space is required



ANNEXURE C11	SATS 1286.2011
Local Content Declaration – Summary Schedule	

(C1) Tender No.	B/SM 46/22		
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(C3) Designated product(s)	Cement		
(C4) Tender Authority	Stellenbosch Municipality		
(C5) Name of Tendering Entity			
(C6) Tender Exchange Rate	Currency		Rate
(C7) Specified local content %	100%		

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
10.2	Cement										
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEXURE C12

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	B/SM 46/22			
(C2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH			
(C3) Designated product(s)	Aluminum			
(C4) Tender Authority	Stellenbosch Municipality			
(C5) Name of Tendering Entity				
(C6) Tender Exchange Rate	Currency		Rate	
(C7) Specified local content %	100%			

NOTE: VAT to be excluded from all calculations

		Calculation of local content					
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	Aluminum Windows						
10.2	790 x 790 mm Aluminum Window with WB-300 Winvent Louvre						
	Aluminum Gutters						
10.2	Gutters						

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

Attach additional pages if mores space is required



ANNEXURE D1

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	MV & LV Cables		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D2

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22			
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH			
(D3)	Designated product(s)	Cable Joints			
(D4)	Tender Authority	Stellenbosch Municipality			
(D5)	Tendering Entity's Name				
(D6)	Tender Exchange Rate	Currency		Rate	

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value											
										This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer											



ANNEXURE D3

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Cable Termination		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D4

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	LED Luminaires		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D5

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Light switches and Socket outlets		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value											
This total must correspond with Annex C – C21											

B. Imported directly by the Tenderer				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer											



ANNEXURE D6

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Earthing Copper Material		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D7

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Stats Meters		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D8

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22			
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH			
(D3)	Designated product(s)	GIS Switchgear			
(D4)	Tender Authority	Stellenbosch Municipality			
(D5)	Tendering Entity's Name				
(D6)	Tender Exchange Rate	Currency		Rate	

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value											
This total must correspond with Annex C – C21											

B. Imported directly by the Tenderer				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer											



ANNEXURE D9

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Miniature Substations		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D10

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Steel		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)

(D19) Total exempt imported value

This total must correspond with Annex C – C21

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

Summary	
Tender Quantity	Total imported value
(D30)	(D31)

(D32) Total imported value by tenderer



ANNEXURE D11

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Cement		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D12

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	B/SM 46/22		
(D2)	Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH		
(D3)	Designated product(s)	Aluminum		
(D4)	Tender Authority	Stellenbosch Municipality		
(D5)	Tendering Entity's Name			
(D6)	Tender Exchange Rate	Currency		Rate

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)



ANNEXURE D - Continued

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

NOTE: VAT to be excluded from all calculations

C. Imported by a 3 rd party and supplied to the Tenderer				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3 rd party											

D. Other foreign currency payments			Calculation of foreign currency payments	
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender rate of exchange
(D46)	(D47)	(D48)	(D49)	(D50)

(D52) Total of foreign currency payments declared by tenderer and/or 3rd party

(D53) Total of imported content and foreign currency payments – (D32), (D45) and (D52) above

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

This total must correspond with Annex C – (C23)

DATE



ANNEX E1	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	MV and LV Cables	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	

(E13) Total local content	
This total must correspond with Annex C – C24	

 SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

 DATE



ANNEX E2	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Cable Joints	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	

(E13) Total local content	
This total must correspond with Annex C – C24	

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E3	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Cable Termination	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	

(E13) Total local content	
This total must correspond with Annex C – C24	

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E4	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	LED Luminaires	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E5	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Light Switches and Socket outlets	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E6	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Earthing Copper Material	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E7	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Stats Meters	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	
(E13) Total local content	

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E8	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	GIS Switchgear	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	

(E13) Total local content	
This total must correspond with Annex C – C24	

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E9	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Miniature Substation	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E10	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Steel	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	
(E13) Total local content	

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E11	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Cement	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	
(E13) Total local content	

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



ANNEX E12	SATS 1286.2011
Local content Declaration – Summary Schedule	

(E1) Tender No.	B/SM 46/22	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH	
(E3) Designated product(s)	Aluminum	
(E4) Tender Authority	Stellenbosch Municipality	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)	
(E13) Total local content	

This total must correspond with Annex C – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE



SCHEDULE 10: MBD 8 – DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - 3.1. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - 3.2. been convicted for fraud or corruption during the past five years;
 - 3.3. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - 3.4. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

4.1	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? <i>(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).</i>	Yes	No
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? <i>(To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).</i>	Yes	No
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No



4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes	No
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes	No
4.5.1	If so, furnish particulars:		

5. CERTIFICATION

I, the undersigned (full name), _____, certify that the information furnished on this declaration form true and correct.

I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

SIGNATURE:		NAME (PRINT):	
CAPACITY:		DATE:	
NAME OF FIRM:			



SCHEDULE 1P: SCHEDULE OF SUBCONTRACTORS

I/we the tenderer, notify the Stellenbosch Municipality that it is our intention to employ the following Subcontractors for work in this contract.

SUBCONTRACTORS					
Category / Type	Subcontractor Name; Address; Contact Person; Tel. No.		Nature and Extend of Work: Items of work (pay items) to be undertaken by the Subcontractor	Estimated cost of Work (Rand)	Previous Experience with Subcontractor
1.	Name of firm				
	Contact person				
	Tel No				
	Address				
2.	Name of firm				
	Contact person				
	Tel No				
	Address				
3.	Name of firm				
	Contact person				
	Tel No				
	Address				
4.	Name of firm				
	Contact person				
	Tel No				
	Address				
5.	Name of firm				
	Contact person				
	Tel No				
	Address				
Number of sheets appended by the tenderer to this schedule (If nil, enter NIL)					



Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Engineer.

SIGNATURE		NAME (PRINT)	
CAPACITY		DATE	
NAME OF FIRM			

SCHEDULE 1Q: MBD 9 – CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).⁴ Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - 3.1. take all reasonable steps to prevent such abuse;
 - 3.2. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - 3.3. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

⁴ Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.



CERTIFICATE OF INDEPENDENT BID DETERMINATION:

In response to the invitation for the bid made by:

STELLENBOSCH MUNICIPALITY

I, the undersigned, in submitting the accompanying bid, hereby make the following statements that I certify to be true and complete in every respect:

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - 5.1. has been requested to submit a bid in response to this bid invitation;
 - 5.2. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - 5.3. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium⁵ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - 7.1. prices;
 - 7.2. geographical area where product or service will be rendered (market allocation)
 - 7.3. methods, factors or formulas used to calculate prices;
 - 7.4. the intention or decision to submit or not to submit, a bid;
 - 7.5. the submission of a bid which does not meet the specifications and conditions of the bid; or
 - 7.6. bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

⁵ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.



10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

SIGNATURE:		NAME (PRINT):	
CAPACITY:		DATE:	
NAME OF FIRM:			



SCHEDULE 1R: MBD 10 – CERTIFICATE FOR PAYMENT OF MUNICIPAL SERVICES

DECLARATION IN TERMS OF CLAUSE 112(1) OF THE MUNICIPAL FINANCE MANAGEMENT ACT (NO.56 OF 2003)

I, _____, _____ (full name and ID no.), hereby acknowledge that according to SCM Regulation 38(1)(d)(i), the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to the Stellenbosch Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.

I declare that I am duly authorised to act on behalf of _____ (name of the firm) and hereby declare, that to the best of my personal knowledge, neither the firm nor any director/member/partner of said firm is in arrears on any of its municipal accounts with any municipality in the Republic of South Africa, for a period longer than 3 (three) months.

I further hereby certify that the information set out in this schedule and/or attachment(s) hereto is true and correct. The Tenderer acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or in the event that the tenderer is successful, the cancellation of the contract.

PHYSICAL BUSINESS ADDRESS(ES) OF THE TENDERER	MUNICIPAL ACCOUNT NUMBER

FURTHER DETAILS OF THE BIDDER'S Director / Shareholder / Partners, etc.:

Director / Shareholder / partner	Physical address of the Business	Municipal Account number(s)	Physical residential address of the Director / shareholder / partner	Municipal Account number(s)

NB: Please attach certified copy (ies) of ID document(s) and Municipal Accounts

If the entity or any of its Directors/Shareholders/Partners, etc. rents/leases premises, a copy of the rental/lease agreement must be submitted with this tender.

Signature	Position	Date



SCHEDULE 1S: COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993 (ACT 130 OF 1993)

COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993 (ACT 130 OF 1993)

Stellenbosch Municipality has legal duty in terms of Section 89 of the said Act to ensure that all contractors with whom agreements are entered into for the execution of work are registered as Employers in accordance with the provisions of this Act and that all the necessary assessments have been paid by the contractor.

In order to enter into this agreement, the following information is needed regarding the above-mentioned:

Contractor's registration number with the office of the Compensation Commissioner:

NOTE:

A copy of the latest receipt together with a copy of the relevant assessment OR a copy of a valid Letter of Good Standing must be handed in, in this regard.

PRINT NAME:			
CAPACITY:		Name of firm	
SIGNATURE:		DATE:	



SCHEDULE 1T: FORM OF INDEMNITY

INDEMNITY

Given by (Name of Company) _____
of (registered address of Company) _____
a company incorporated with limited liability according to the Company Laws of the Republic of South Africa (hereinafter called the Contractor), represented herein by (Name of Representative) _____
_____ in his capacity as (Designation) _____
of the Contractor, is duly authorised hereto by a resolution dated _____ /20____,
to sign on behalf of the Contractor.

WHEREAS the Contractor has entered into a Contract dated _____ / 20____,
with the Municipality who require this indemnity from the Contractor.

NOW THEREFORE THIS DEED WITNESSES that the Contractor does hereby indemnify and hold harmless the Municipality in respect of all loss or damage that may be incurred or sustained by the Municipality by reason of or in any way arising out of or caused by operations that may be carried out by the Contractor in connection with the aforementioned contract; and also in respect of all claims that may be made against the Municipality in consequence of such operations, by reason of or in any way arising out of any accidents or damage to life or property or any other cause whatsoever; and also in respect of all legal or other expenses that may be incurred by the Municipality in examining, resisting or settling any such claims; for the due performance of which the Contractor binds itself according to law.

SIGNATURE OF CONTRACTOR:	
DATE:	
SIGNATURE OF WITNESS 1:	
DATE:	
SIGNATURE OF WITNESS 2:	
DATE:	



SCHEDULE 1U :SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I/we **presently** own or lease and will have available for this contract or will acquire or hire for this contract if my / our tender is accepted.

DETAILS OF MAJOR EQUIPMENT THAT IS OWNED BY AND IMMEDIATELY AVAILABLE FOR THIS CONTRACT.			
QUANTITY	DESCRIPTION	SIZE	CAPACITY

Attach additional pages if more space is required.

DETAIL OF MAJOR EQUIPMENT THAT WILL BE HIRED, OR ACQUIRED FOR THIS CONTRACT IF MY / OUR TENDER IS ACCEPTED.			
QUANTITY	DESCRIPTION,	SIZE	CAPACITY

Attach additional pages if more space is required.

Number of sheets appended by the tenderer to this schedule (If nil, enter NIL)	
--	--

SIGNATURE		NAME (PRINT)	
CAPACITY		DATE	
NAME OF FIRM			



**SCHEDULE 1V: SCHEDULE OF ESTIMATED LOCAL LABOUR TO BE
EMPLOYED ON THIS CONTRACT**

DESCRIPTION OF TASK/ELEMENT/ TRADE	NO. OF ARTISANS AND/OR SKILLED LABOUR	NO. OF SEMI- SKILLED LABOUR	NO. OF LABOURERS	NO. OF OTHERS	TOTAL LABOUR/TASK
TOTAL ACTUAL LABOUR: _____					



**SCHEDULE 1W: CERTIFICATE OF REGISTRATION
WITH CIDB**

CIDB Contractor Registration Certificate

A Certificate of Contractors Registration issued by the Construction Industry Development Board (CIDB) shall be attached to this schedule.

Where a tenderer satisfies CIDB Contractor Grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

Number of sheets appended by the tenderer to this schedule (If nil, enter NIL)		
CRS Number:		

SIGNATURE		NAME (PRINT)	
CAPACITY		DATE	
NAME OF FIRM			



SCHEDULE 1X :FORM OF OFFER AND ACCEPTANCE

NOTE:

1. This form must be completed in duplicate by both the successful bidder (Part 1) and the purchaser (Part 2). Both forms must be signed in the original so that the successful bidder and the purchaser will be in possession of originally signed contracts for their respective records.
2. NO correction fluid/tape may be used.
 - a. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.
3. The Bidder MUST indicate whether he/she/the entity is a registered VAT Vendor or not.
 - a. In the case of the Bidder not being a registered VAT Vendor, both columns (amount/rate excluding AND including VAT) must reflect the same amount.

	INDICATE WITH AN 'X'							
Are you/is the firm a registered VAT Vendor	YES				NO			
If "YES", please provide VAT number								

1. OFFER

- 1.1. The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **B/SM: 46/22**
- 1.2. The tenderer, identified in the Offer signature block, has examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.
- 1.3. By the representative of the Tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the **Employer** under the contract, including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:	
In figures:	R
In words:	

- 1.4. This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the **Contractor** in the conditions of contract identified in the Contract Data.

Signature(s)		
Name(s)		
Capacity		
Name of tenderer:		
Name of witness:	<i>(Insert name and address of organisation)</i>	Date
Signature of witness:		



2. ACCEPTANCE

- 2.1. By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.
- 2.2. Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.
- 2.3. It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

Signature(s):		
Name(s):		
Capacity:		
For the Employer:	Stellenbosch Municipality, Plein Street, Stellenbosch	
Name of witness:		Date:
Signature of witness:		



SCHEDULE 1Y: PRICING SCHEDULE

NOTE:

1. Only firm prices will be accepted. Non-firm prices will not be considered.
2. All delivery costs **MUST** be included in the bid price, for delivery at the prescribed destination.
3. Document **MUST** be completed in non-erasable black ink.
4. NO correction fluid/tape may be used.
 - a. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.
5. The Bidder **MUST** indicate whether he/she/the entity is a registered VAT Vendor or not.
 - a.

I / We _____

(full name of Bidder) the undersigned in my capacity as _____

of the firm _____

hereby offer to Stellenbosch Municipality to render the services as described, in accordance with the specification and conditions of contract to the entire satisfaction of the Stellenbosch Municipality and subject to the conditions of tender, for the amounts indicated hereunder:

	INDICATE WITH AN 'X'									
	YES					NO				
Are you/is the firm a registered VAT Vendor										
If "YES", please provide VAT number										

Please note the following:

1. Stellenbosch Municipality reserves the right to downward adjust the scope of work/ quantity required to stay within its budget.
2. Only firm prices will be accepted and non-firm prices will not be considered.



SCHEDULE 1Z: DECLARATION BY TENDERER

I / We acknowledge that I / we am / are fully acquainted with the contents of the conditions of tender of this tender document and that I / we accept the conditions in all respects.

I / We agree that the laws of the Republic of South Africa shall be applicable to the contract resulting from the acceptance of *my / our tender and that I / we elect *domicillium citandi et executandi* (physical address at which legal proceedings may be instituted) in the Republic at:

I / We accept full responsibility for the proper execution and fulfillment of all obligations and conditions devolving in me / us under this agreement as the principal liable for the due fulfillment of this contract.

I / We furthermore confirm I / we satisfied myself / ourselves as to the corrections and validity of my / our tender; that the price quoted cover all the work / items specified in the tender documents and that the price(s) cover all my / our obligations under a resulting contract and that I / we accept that any mistake(s) regarding price and calculations will be at my / our risk.

I / We furthermore confirm that my / our offer remains binding upon me / us and open for acceptance by the Purchases / Employer during the validity period indicated and calculated from the closing date of the bid.

SIGNATURE		NAME (PRINT)	
CAPACITY		DATE	
NAME OF FIRM			
WITNESS 1		WITNESS 2	



SCHEDULE 1AA: PRE-QUALIFICATION

The tenderers bid will be evaluated based on the pre-qualification criterion described hereunder. The submission of the required documents is compulsory and failure to submit and or adhere to the requested information will result in your offer being disqualified. Tenderers who do not meet the requirements of the prequalification criterion will not be evaluated further.

1. The tenders must provide proof of contactable references in the form of a reference letter with respect to the construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station projects completed in the last 5 years.
2. Tenderers must include detailed copies of CVs and qualifications of the personnel who are going to be working on this project.
3. The tenderer is required to have a minimum experience of 3 **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects completed in the last 5 years.
4. **Experience and qualification of the key personnel**
 - 4.1. The Contractor shall only employ persons with the minimum number years applicable experience as shown below for the execution of work on this Contract: (Years' experience after obtaining qualifications). The Tenderer shall provide the name of the proposed personnel for each role. Note that no professional shall be allowed to act in more than one capacity.

4.1.1	Contract Manager	- minimum 10 years applicable experience
4.1.2	Construction Manager	- minimum 5 years applicable experience
4.1.3	Construction Civil Engineer/Engineering Technologist	- minimum 5 years applicable experience
4.1.4	Substation Electrical Engineer/ Engineering Technologist	- minimum 5 years applicable experience
4.1.5	Substation commissioning Electrical Engineer / Engineering Technologist	- minimum 5 years applicable experience
4.1.6	Medium Voltage Cable Jointer	- minimum 5 years applicable experience
4.1.7	Brick Layer	- minimum 5 years applicable experience
4.1.8	Occupational Health and Safety Officer	- minimum 5 years applicable experience
 - 4.2. Experience and qualification of the Contract's Manager: **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station**
 - 4.2.1 The appointed Contract's Manager is required to have at least 10 years relevant experience and a minimum of 3 **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects completed in the last 5 years.
 - 4.3. Experience and qualification of the Construction Civil Engineer or Construction Civil Engineering Technologist: construction of new substation with **indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects.
 - 4.3.1 The appointed the Construction Civil Engineer or Construction Civil Engineering Technologist is required to have at least 5 years post professional registration with ECSA relevant experience, with a minimum of 3 **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects completed in the last 5 years.
 - 4.4. Experience and qualification of the Substation Electrical Engineer or Substation Electrical Engineering Technologist: **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects.



- 4.4.1 The appointed the Substation Electrical Engineer or Substation Electrical Engineering Technologist is required to have at least 5 years post professional registration with ECSA relevant experience, with a minimum of 3 **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects completed in the last 5 years.
- 4.5 Experience and qualification of the Substation Commissioning Electrical Engineer or Substation Commissioning Electrical Engineering Technologist: **Commissioning of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects.
- 4.5.1 The appointed the Substation Commissioning Electrical Engineer or Substation Commissioning Electrical Engineering Technologist is required to have at least 5 years post professional registration with ECSA relevant experience, with a minimum of 3 **commissioning of new substation with indoor medium voltage switchgear room or commissioning of new indoor medium voltage switching station** projects completed in the last 5 years.
- 4.6 Experience and qualification of the Construction Manager: **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station**
- 4.6.1 The appointed Construction Manager is required to have at least 5 years relevant experience and a minimum of 3 **construction of new substation with indoor medium voltage switchgear room or construction of new indoor medium voltage switching station** projects completed in the last 5 years.
- 4.7 Experience and qualification of the Occupational Health and Safety Officer: **construction supervision of new substations with indoor medium voltage switchgear room or construction supervision of new indoor medium voltage switching stations.**
- 4.7.1 The appointed Occupational Health and Safety Officer is required to have at least 5 years relevant experience and a minimum of 3 **construction supervision of new substations with indoor medium voltage switchgear room or construction supervision of new indoor medium voltage switching station** projects completed in the last 5 years.
- 4.8 Experience and qualification of Cable Jointers: **Indoor and outdoor medium voltage cable terminations, medium voltage cable jointing.**
- 4.8.1 The appointed Cable Jointers are required to have at least 5 years post qualification relevant experience and a minimum of 3 **Indoor and outdoor medium voltage cable terminations, medium voltage cable jointing** projects completed in the last 5 years.
- 4.9 Experience and qualification of Brick layers: **construction of substation switchgear building or switching station building**
- 4.9.1 The appointed Cable Jointers are required to have at least 5 years post qualification relevant experience and a minimum of 3 **Construction of substation switchgear building or switching station building** projects completed in the last 5 years.



5.1 Please attach separate schedule in the format of Table 1 below with the returnable documents.

Table 1: Experience and qualifications of key personnel

	TENDER EXPERIENCE AND QUALIFICATION					
	NAME AND SURNAME	FORMAL QUALIFICATIONS	YEARS OF EXPERIENCE	ECSA Professional Registration Number	CV ATTACHED (YES/NO)	PROOF OF QUALIFICATIONS ATTACHED (YES/NO)
Contract Manager:						
Construction Manager:						
Construction Civil Engineer or Construction Civil Engineering Technologist						
Electrical Substation Engineer or Electrical Substation Engineering Technologist						
Electrical Substation Commissioning Engineer or Electrical Substation Commissioning Engineering Technologist						
Occupational Health and Safety Officer						



	TENDER EXPERIENCE AND QUALIFICATION					
	NAME AND SURNAME	FORMAL QUALIFICATIONS	YEARS OF EXPERIENCE	ECSA Professional Registration Number	CV ATTACHED (YES/NO)	PROOF OF QUALIFICATIONS ATTACHED (YES/NO)
Cable Jointers						
Bricklayers						



- 5.2 Successful bidder should ensure that the number of personnel indicated in Table 1 above must remain available for the duration of the tender contract.
- 5.3 Should there be changes or replacements of key personnel as indicated in Table 1 above, the successful bidder must inform the municipality immediately in writing. Failure to inform the municipality will result in termination of the contract.
- 5.4 Any person indicated by the successful bidder to be the replacement of the key personnel in Table 1, must adhere to the requirements of section 4 of the Tender experience and qualifications of this tender. Failure to provide such replacement will result in termination of the contract.

6 Company profile, plant, and equipment

Please include a company profile demonstrating the company establishment, financial status and experience as well as any other resources that are relevant and required for the successful implementation of this project, should their tender be successful. Failure to include this list may prejudice the Tenderers as being submitted by an insufficiently equipped Tenderer and it may be rejected for such cause.

7 Value of similar contracted successfully completed

- 7.1 Tenderers must complete the attached schedule for previous projects in this document to indicate previous similar project experience.
- 7.2 Only tenderers who have successfully completed a minimum of three (3) similar projects and have a positive written response from at least three (3) contactable references shall be considered for further evaluation.
- 7.3 Only tenderers who have provided similar services to a minimum of 3 similar projects with a value of R10 000 000 per project, will be eligible for further evaluation.

8 Evidence of experience of Tenderers

The Tenderer shall include satisfactory evidence of actual experience in the class of work being quoted for, and a complete schedule shall be included incorporating the following details:

Please attach separate schedule in the format below with the returnable documents.

Table 2: Evidence of experience

PREVIOUS CONTRACTS				
EMPLOYER (Name, Tel, Fax, Email)	Contact Person (Name, Tel, Fax, Email)	NATURE OF WORK	VALUE OF WORK (INCL. VAT)	DATE COMPLETED



CURRENT CONTRACTS				
EMPLOYER (Name, Tel, Fax, Email)	Contact Person (Name, Tel, Fax, Email)	NATURE OF WORK	VALUE OF WORK (INCL. VAT)	DATE COMPLETED

SIGNATURE (Bidder)		FOR OFFICE USE ONLY:	
CAPACITY		Evaluated by	
NAME OF FIRM		Signature:	
NAME (PRINT)		Designation:	
DATE		Date:	



SCHEDULE 1AB: CHECKLIST

PLEASE ENSURE THAT THE FOLLOWING FORMS HAVE BEEN DULY COMPLETED AND SIGNED AND THAT ALL DOCUMENTS AS REQUESTED, ARE ATTACHED TO THE TENDER DOCUMENT:

Certificate of Clarification Meeting Attendance - Is the form duly completed and signed by both tenderer and agent of the Stellenbosch Municipality?	Yes		No	
Authority to Sign a Bid - Is the form duly completed and is a certified copy of the resolution attached?	Yes		No	
MBD 4 (Declaration of Interest) - Is the form duly completed and signed?	Yes		No	
MBD 5 - Is the form duly completed and signed?	Yes		No	
MBD 6.1 (Preference Points claim form for purchases/services) - Is the form duly completed and signed? Is a CERTIFIED copy of the B-BBEE Certificate issued by a Verification Agency accredited by SANAS or the original Sworn Affidavit attached?	Yes		No	
MBD 6.2 (Local Content) - Is the form duly completed and signed? Guidance Document for the Calculation of Local Content attached for information purposes?	Yes		No	
MBD 8 (Declaration of Past Supply Chain Practices) - Is the form duly completed and signed?	Yes		No	
MBD 9 (Certificate of Independent Bid Determination) - Is the form duly completed and signed?	Yes		No	
MBD 10 (Certificate of Payment of Municipal Accounts) - Is the form duly completed and signed? Are the Identity numbers, residential addresses and municipal account numbers of ALL members, partners, directors, etc. provided on the form as requested?	Yes		No	
OHSA (Occupational Health and Safety) - Is the form duly completed and signed? Is a valid Letter of Good Standing from the Compensation Commissioner attached?	Yes		No	
Form of Indemnity - Is the form duly completed and signed?	Yes		No	
Pricing Schedule - Is the form duly completed and signed?	Yes		No	
Form of Offer - Is the form duly completed and signed?	Yes		No	
Declaration by Tenderer - Is the form duly completed and signed?	Yes		No	



SCHEDULE 2A : DOCUMENTS OF INCORPORATION

The tenderer must attach to this page a certified copy of the certificate of incorporation of his/her company, close corporation or partnership. In the case of a joint venture between two or more firms, the tenderer shall attach a copy of the document of incorporation of the joint venture.



SCHEDULE 2B : CERTIFICATE OF CONTRACTOR REGISTRATION ISSUED BY THE CIDB

The tenderer must attach to this page either a certificate of Contractor Registration issued by the Construction Industry Development Board or proof of registration in terms of the Construction Industry Development Board Act.



SCHEDULE 2C : B-BBEE CERTIFICATE

The tenderer must attach to this page a **certified copy of their B-BBEE level of contribution certificate** in respect of his/her company, close corporation or partnership. In the case of a joint venture between two or more firms, the tenderer shall attach a certified copy of the B-BBEE Certificate for each of the joint venture partners.



SCHEDULE 2D : OCCUPATIONAL HEALTH AND SAFETY AGREEMENT (SECTION 37(2))

AGREEMENT MADE AND ENTERED INTO BETWEEN STELLENBOSCH MUNICIPALITY (HEREINAFTER CALLED THE "CLIENT") AND

.....
(Contractor/Mandatory/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT No. 85 OF 1993 AS AMENDED.

I,, representing
....., as an Employer

in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated there under.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Signed aton the.....day of.....20....

Witness

Mandatory

Signed at on the.....day of.....20....

Witness

for and on behalf of Stellenbosch Municipality



OCCUPATIONAL HEALTH AND SAFETY CONDITIONS

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2014.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarizes himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his sub-contractor/s.
11. No use shall be made of any of the Employer's machinery / plant / equipment / substance / personal protective equipment or any other article without prior arrangement and written approval.
12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer



SCHEDULE 3A : RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer :

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer



THE CONTRACT



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

PART C1 : AGREEMENT AND CONTRACT DATA
--

- C1.1 Form of Offer and Acceptance**
- C1.2 Contract Data**
- C1.3 Form of Performance Security (Pro Forma)**
- C1.4 Form of Retention Money Guarantee (Pro Forma)**



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

C1.1 : FORM OF OFFER AND ACCEPTANCE

1. OFFER FOR TENDER NUMBER B/SM 46/22

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

The tenderer, identified in the offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value-Added Tax is

.....

.....

.....

..... Rand (in words);

R.....(in figures)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the Tender Data, whereupon the tenderer becomes the party named as the contractor in terms of the conditions of contract identified in the contract data.

Signature(s)

Name(s)

Capacity

for the **Tenderer**
(Name and address of organization)

Name and signature
of witness Date



ACCEPTANCE OF TENDER NUMBER

By signing this part of this form of offer and acceptance, the Employer identified below accepts the tenderer's offer. In consideration thereof, the Employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in

Part C1 : Agreements and contract data (which includes this agreement)

Part C2 : Pricing data

Part C3 : Scope of work

Part C4 : Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto, as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall, within two weeks after receiving a completed copy of this agreement including the schedule of deviation (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of the obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor), within five (5) working days of the date of such receipt, notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s)

Name(s)

Capacity

for the **Employer**
(Name and address of organization)

Name and signature
of witness Date

2. SCHEDULE OF DEVIATIONS APPLICABLE TO TENDER NUMBER

Notes:



1. The extent of deviations from the tender documents issued by the Employer before the tender closing date is limited to those permitted in terms of the conditions of tender.
2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents, and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the contract.

1. Subject
Details
2. Subject
Details
3. Subject
Details
4. Subject
Details

By the duly authorized representatives signing this schedule of deviations, the Employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

Signature(s)

Names(s)

Capacity

for the **Employer**

(Name and address of organisation)

Name and signature of witness Date

Signature(s)

Names(s)

Capacity

for the **Tenderer**

(Name and address of organisation)

Name and signature of witness Date

CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

C1.2: CONTRACT DATA (PART 1)

PART 1 : DATA PROVIDED BY THE EMPLOYER

GENERAL CONDITIONS OF CONTRACT

The following standardized General Conditions of Contract:

General Conditions of Contract for Construction Works (Third Edition) 2015

Prepared by the South African Institution of Civil Engineering (SAICE) shall apply to and from the General Conditions of Contract for this Contract. Copies of these conditions of contract are obtainable from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.

The General Conditions of Contract make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the General Conditions of Contract. Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.

The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Special Conditions of Contract below.

Save as amended in terms of this document, the provisions of the General Conditions of Contract – GCC 2015 shall remain unchanged.

The Contract Data must be read in conjunction with the schedule of Contract Specific Data included in Part C1.2.

C1.2.1 SPECIAL CONDITIONS OF CONTRACT

In this regard, the General Conditions of Contract 2015, 3rd Edition, issued by the South African Institution of Civil Engineering – GCC 2015 is amended by the numbered clauses set out below, as follows:

(i) where the General Conditions of Contract – GCC 2015 contains no provision with the corresponding clause number, the clause set out herein is inserted into the Contract; and

(ii) where the General Conditions of Contract – GCC 2015 contains a provision with the corresponding clause number, it is amended or replaced, as set out herein. (Amendments/replacements are shown in italics).

Save as amended in terms of this document, the provisions of the General Conditions of Contract – GCC 2015 shall remain unchanged.

1.1 Definitions

1.1.1.1 **"agreed"** means agreed by the Employer and the Contractor; *or the Employer's Agent and the Contractor expressly authorised in terms of the Contract*, unless specifically stated otherwise.

1.1.1.2 **"Bill of Quantities"** means the document so designated in the Pricing Data, if any.

1.1.1.3 **"Certificate of Completion"** means the certificate issued by the Employer's Agent stating the date on which completion was achieved

1.1.1.4 **"Certificate of Practical Completion"** means the certificate issued by the Employer's Agent stating the date on which Practical Completion was achieved.

1.1.1.5 **"Commencement Date"** means the date that the Contract, made in terms of the Form of Offer and Acceptance, comes into effect by signing the Acceptance part and returning one fully completed copy of this document, the Contract Agreement.

1.1.1.6 **"Construction Equipment"** means all appliances or things of whatsoever nature required for carrying out, completing or correcting defects in the Works, but does not include materials, Plant or other things that are part of, or intended to form part of the Permanent Works

1.1.1.7 **"Contract"** means the documentation of the agreement between the parties in terms of the Form of Offer and Acceptance, and such written amendments or additions to the Contract as may be agreed *and signed by both parties*.

1.1.1.8 **"Contract Data"** means the document that sets out the specific data which, together with these General Conditions of Contract, collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract.

1.1.1.9 **"Contractor"** means the person named in the Contract Data whose offer has been accepted in the Form of Offer and Acceptance and the legal successors in title of this person.

1.1.1.10 **"Contract Price"** means the Contract Sum subject to such addition thereto or deduction therefrom as may be made from time to time under the provisions of the Contract.

- 1.1.1.11 **"Contract Sum"** means the accepted amount provided for in the agreement made in terms of the Form of Offer and Acceptance.
- 1.1.1.12 **"Day"** shall mean a calendar day.
- 1.1.1.13 **"Defects Liability Period"** means the period stated in the Contract Data, commencing from the issue of the Certificate of Completion or Certificates of Completion in the event of more than one Certificate of Completion having been issued for different *portions of the Works*, during which the Contractor has both the right and the obligation to make good defects in the materials, Plant and workmanship covered by the Contract.
- 1.1.1.14 **"Due Completion Date"** means the *date or dates of the expiry of the time* stated in the Contract Data for achieving Practical Completion *for the whole or portions of the Works*, calculated from the Commencement Date and as adjusted by such extensions of time or acceleration as may be allowed *or agreed* in terms of Contract.
- 1.1.1.15 **"Employer"** means the person for whom the Works are to be carried out and who is named as the Employer in the Contract Data, and the legal successors in title of this person.
- 1.1.1.13 **"Employer's Agent"** means the person named as the Employer's Agent in the Contract Data, or any other person appointed from time to time by the Employer, and of whom the Contractor is notified, in writing, to act as Employer's Agent for the purposes of the Contract as substitute for the Employer's Agent so named.
- 1.1.1.14 **"Employer's Agent's Representative"** means the natural person appointed from time to time by the Employer's Agent in terms of the Contract
- 1.1.1.15 **"Final Approval Certificate"** means the certificate issued by the Employer's Agent stating the date on which the Works were completed and all defects corrected in accordance with the Contract.
- 1.1.1.16 **"Fixed Price Contract"** means the Contractor is paid the Contract Sum for carrying out the Works subject to adjustments in accordance with the Contract.
- 1.1.1.20 **"Form of Offer and Acceptance"** means the document *defined as the Contract Agreement* that formalises the legal process of offer and acceptance and gives rise to the Contract.
- 1.1.1.17 **"General Items"** means items stipulated in the Pricing Data relating to general obligations, site services, facilities, and/or items that cover elements of the cost of the work which are not considered as proportional to the cost of the Permanent Works.
- 1.1.1.22 **"Permanent Works"** means the permanent works to be designed (if required), constructed, and/or provided in accordance with the Contract.
- 1.1.1.18 **"Plant"** means machinery, apparatus, articles and things of all kind that become part of the Permanent Works to be provided in accordance with the Contract .
- 1.1.1.19 **"Practical Completion"** means that the whole or portion of the Works has reached a state of readiness, fit for the intended purpose, and occupation without danger or undue inconvenience to the Employer, even though some work may be outstanding.

- 1.1.1.20 **"Pricing Data"** means the document that sets out the Pricing Strategy and provides the criteria and assumptions which it will be assumed in the Contract were taken into account by the Contractor when developing the Contract Sum.
- 1.1.1.26 **"The Pricing Strategy"** is a Re-measurement Contract.
- 1.1.1.27 **"Re-measurement Contract"** means the Contractor is paid an amount determined from the actual quantities of work completed multiplied by the rates or prices for such work, subject to adjustments in accordance with the Contract
- 1.1.1.28 **"Scope of Work"** means the document(s) containing the Description of Works (C3.1), Engineering (C3.2), Procurement (C3.3), Construction (C3.4), Management (C3.5), Standard Specifications (C3.6), variations and additions to the SANS Standardized Specifications, Particular Specifications and the Drawings, that specifies and describes the Works, which are to be provided, and any other requirements and constraints relating to the manner in which the work is to be performed.
- 1.1.1.29 **"Site"** means the land and other places made available by the Employer, for the purposes of the Contract, on, under, over, in or through which the Works are to be carried out.
- 1.1.1.30 **"Site Information"** means the document that describes the Site as at the time of tender to enable the tenderer to price the tender and to decide upon the method of work and the programme.
- 1.1.1.31 **"Supplementary Agreement"** means an additional contract between the Employer and the Contractor for carrying out work, supplemental to the original Contract, which does not meet the requirements to be carried out by a Variation Order in terms of Clause 6.3.1.
- 1.1.1.32 **"Temporary Works"** means the temporary works required for or in connection with the execution of the Permanent Works and shall include items which are not intended to be permanent or to form part of the Permanent Works, including but not limited to dewatering, shoring, lateral support, access roads, haul roads, shuttering, jacking pits and method, scaffolding, etc.:
- 1.1.1.33 **"Works"** means the Permanent Works together with such Temporary Works as may be necessary for carrying out the Works.
- 1.1.1.34 **"writing"** means any hand-written typed or printed communication (comprising words, figures or drawings) including facsimiles, electronic communication, or any similar communication resulting in a permanent record. "In writing" and "written" shall have corresponding meanings.
- 1.1.1.35 **"parties"** means the Contractor and the Employer.
- 1.1.1.36 **"approved programme"** means the latest programme submitted by the Contractor and approved by the Employer's Agent. The latest programme approved by the Employer's Agent supersedes previous approved programmes.
- 1.1.1.37 **"Drawings"** means all drawings, calculations and technical information forming part of the Contract Documents and any modifications thereof or additions thereto from time to time approved in writing by the Employer's Agent or delivered to the Contractor by the Employer's Agent.
- 1.1.1.38 **"Letter of Notification"** means the letters of formal notification, signed by the Employer, of the decision of the Supply Chain Management Bid Adjudication Committee sent to all tenderers. The notification of the decision does not form part of the Employer's Acceptance of the successful tenderer's Offer and no rights shall accrue.



1.2 Interpretations

- 1.2.1 Any written communication between the parties shall have been duly delivered if:
- 1.2.1.1 Handed to the addressee or to his duly authorised agent; or
- 1.2.1.2 Delivered at the address of the addressee as stated in the Contract Data, *including an e-mail address; and*
- 1.2.1.3 *Any notice or claim required in accordance with this Contract shall be communicated separately from other communications, on a separate cover with specific reference to the clause in terms of which the communication was made - Provided that the Employer, Employer's Agent and Contractor shall be entitled, by written notice to each other, to change their said addresses.*
- 1.2.4 *Any act or communication, including but not limited to "accept, agree, appoint, approve, certify, decide, delegate, dispute, elect, grant, inform, instruct, issue, notice, object, order, record, refuse, request, require, state, dispute, call for" and their derivatives indicate an act to be carried out in writing.*

1.3 General provisions

- 1.3.1 No grant by the Employer or the Contractor to the other of any Concessions not concession, waiver, condonation or allowance shall, in respect to constitute of any specific event or circumstance other than that in respect waivers of which the grant was made, constitute a waiver of the rights of the grantor in terms of the Contract, or an estoppel of the grantor's right to enforce the provisions of the Contract.
- 1.3.2 The law which is to apply to the Contract, and according to Governing law which the Contract is to be interpreted, shall be the law of the Republic of South Africa, unless otherwise stated in the Contract Data.
- 1.3.3 The language of the Contract. and of written communications Language shall be English, unless otherwise stated in the Contract Data.
- 1.3.4 In the event that the Contractor and the Employer conclude a Supplementary Agreement, the additional work carried out in Agreement terms of such an agreement shall not be taken to be a variation or addition under Clause 6.3, but to be a separate contract. The value of such additional work shall, for the purposes of
- 1.3.5 Except where otherwise stated in the Contract, the Contractor shall retain the copyright and other intellectual property rights in documents supplied by the Employer or Employer's Agent under the Contract.

The Contractor shall legally be deemed to have given the Employer a non-terminable, transferable, non-exclusive, royalty-free licence to copy, use and communicate the Contractor's documents, including making and using modifications of such documents for the purpose of further work required to the Works

The Contract Specific Data, Specifications (other than Standardized Specifications), Bill of Quantities and Drawings are the copyright of Lyners Consulting Engineers.

1.4 Non-Variation Clause

- 1.4.1 *This Contract is the entire contract between the parties regarding the matters addressed in this Contract. No representations, terms, conditions or warranties not contained in this Contract shall be binding on the parties. No agreement or addendum varying, adding to, deleting or terminating this Contract including this clause shall be effective unless reduced to writing and signed by both parties.*



2 Basis of the Contract

2.1 Available data and information

- 2.1.1 The Employer shall have made available to the Contractor, as Available data part of, or by reference in the Site Information, data relevant to the Works obtained by or on behalf of the Employer, but the Contractor shall be responsible for his own interpretation thereof and deductions therefrom.
- 2.1.2 The Contractor shall be deemed to have inspected and examined Inspection of the Site and its surroundings and to have studied all .available the Site information pertaining thereto before submitting his tender (as far as is reasonable). The Contractor shall thus be considered knowledgeable in respect of:
- 2.1.2.1 The form and nature of the Site and its surroundings.
- 2.1.2.2 Environmental, hydrological and climatic conditions.
- 2.1.2.3 The extent and nature of the work and materials required for carrying out and completion of the Works.
- 2.1.2.4 The means of access to the Site and the accommodation he may require.
- 2.1.2.5 The design of the Works and site conditions insofar as they affect carrying out the Works with regard to health, safety and the environment.
- 2.1.3 The Contractor shall, in general, be deemed to have obtained all Obtaining available information on risks, contingencies and all other information circumstances which may influence or affect the Works (as far as is reasonable).

2.2 Adverse physical conditions

- 2.2.1 If, while carrying out the Works, the Contractor encounters Adverse physical conditions (other than weather conditions at the physical Site or the direct consequences of those particular weather conditions conditions) or artificial obstructions, which conditions or obstructions could not have been reasonably foreseen by an experienced contractor at the time of submitting his tender, and the Contractor is of the opinion that additional work will be necessary which would not have been necessary if the particular physical conditions or artificial obstructions had not been encountered, he shall give notice to the Employer's Agent in writing as soon as he becomes aware of the conditions or obstructions aforesaid, stating:
- 2.2.1.1 The nature and extent of the physical conditions and artificial obstructions encountered, and
- 2.2.1.2 The additional work required by reason thereof.
- 2.2.2 Should additional or more extensive adverse physical conditions or artificial obstructions within the meaning of Clause 2.2.1 be encountered by the Contractor, he shall give further notices thereof in terms of Clause 2.2.1.
- 2.2.3 Unless otherwise instructed by the Employer's Agent, the Contractor shall carry out the additional work proposed in the carry out notice or notices under Clauses 2.2.1 and 2.2.2 without limiting additional

work the right of the Employer's Agent to order a suspension of work in terms of Clause 5.11.2, or a variation in terms of Clause 6.3.

- 2.2.4 If the Contractor has duly given the notice referred to in either Clauses 2.2.1 or 2.2.2, he shall be entitled, in respect of the delay to Practical Completion and/or to proven additional cost, to make a claim in accordance with Clause 10.1, provided that the cost and time of all work done by the Contractor prior to giving the notice or notices in terms of Clauses 2.2.1 and 2.2.2 shall be regarded as covered by the rates and/or prices set out in the Pricing Data and the time stated in the Contract Data relating to Clause 1.1.1.14.

2.3 Technical Data

- 2.3.1 The Contractor shall legally be deemed to have based his tender on the technical data provided in the Contract and if, in the performance of the Contract, any circumstances shall differ from the said technical data, which difference causes delay to Practical Completion and/or brings about proven additional cost, the Contractor shall be entitled to make a claim in accordance with Clause 10.1.

2.4 Ambiguity or discrepancy

- 2.4.1 *The several documents forming the Contract are to be read and taken as mutually complementary to and explanatory to each other.*
- 2.4.2 *Any obscurity or ambiguity or discrepancy between the contract documents shall be referred to the Employer's Agent before the due date of submission of tenders for decision as to the true intent and meaning and the Employer's Agents' interpretation. This decision shall be final and binding.*
- 2.4.3 *No claims will be entertained from the contractor on the grounds of any misunderstanding of the contract requirements, which should have and could have been clarified in this manner prior to tendering.*

2.5 Assignment

- 2.5.1 Neither the Contractor nor the Employer shall, without the written consent of the other, assign the Contract or any part thereof, or any obligation under the Contract, or cede any right or benefit thereunder. *Such assignment or cession shall be null and void without the other parties consent.*

3.1 Qualifications of the Employer's Agent

- 3.1.1 The natural person *appointed by the Employer to administer the Contract* shall be a registered professional in a built environment profession that is appropriate to the Scope of Work.

3.2 Functions of the Employer's Agent

- 3.2.1 The function of the Employer's Agent is to *administer the Contract in accordance with the provisions of the Contract.*

4.1 Extent of obligations and liability

- 4.1.1 The Contractor shall, save insofar as it is legally or physically impossible, design (to the extent provided in the *Contract Data*), execute and complete the Works and obligations remedy any defects therein in accordance with the provisions of the Contract.
- 4.1.2 *Where the Contract Data provides that part of the Works shall be designed by the Contractor,*
- 4.1.2.1 *the relevant part of the Works shall be fit for such purposes for which it is intended as are specified in the Contract, and*



- 4.1.2.2 *the Contractor shall, notwithstanding approval by the Employer's Agent, be liable for any error or deficiency in any drawing or document supplied by him for that part of the Works, and for any loss or damage arising out of such error or deficiency.*
- 4.1.2.3 *the Contractor shall submit to the Employer's Agent the "as-built" documents and operation and maintenance manuals in accordance with the Scope of Works and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of issuing a Certificate of Practical Completion in terms of Clause 5.14.1 as read with the relevant Contract data until these documents and manuals have been submitted to the Employer's Agent.*
- 4.1.3 *The Contractor shall be responsible for the design of the Temporary Works, such responsibility shall be that the relevant part of the Temporary Works shall be fit for such purposes for which it is intended and, the Contractor shall, notwithstanding approval by the Employer's Agent, be liable for any error or deficiency in any drawing or document supplied by him for that part of the Works, and for any loss or damage arising out of such error or deficiency.*
- 4.1.4 *The Contractor indemnifies the Employer against any liability for any breach of the provisions of Clause 4.1.*

4.2 Employer's Agent's instructions

- 4.2.1 The Contractor shall, in carrying out his aforesaid obligations, comply with the Employer's Agent's instructions on all matters relating to the Works.
- 4.2.2 The Contractor shall take instructions only from the Employer's Agent, the Employer's Agent's Representative or a person authorised by the Employer's Agent in terms of Clause 3.3.4.
- 4.2.3 *Should the Contractor fail to proceed with due diligence with any Employer's Agent's instruction, the Employer's Agent may notify the Contractor to proceed within 7 days from receipt of such notice. Without further notice, on default by the Contractor, the Employer may employ other parties or use its own resources to give effect to such instruction in addition to any other rights that the Employer may have inter alia in terms of Clause 9.2.1.3.6. The Employer may recover such costs from the Contractor resulting from same.*

4.3 Legal provisions

- 4.3.1 The Contractor shall, in fulfilling the Contract, comply with all applicable laws, regulations, statutory provisions and agreements, and shall, at the request of the Employer's Agent, provide proof that he has complied therewith.
- 4.3.2 If required, the Contractor shall provide proof to the Proof of good Employer's Agent that the Contractor is in good standing with respect to duties, taxes, levies and contributions
- 4.3.3 *The Employer and the Contractor shall enter into an agreement required for the construction of the Works in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act 85 of 1993) and the latest Construction Regulations promulgated thereunder.*

An agreement is included in the Contract Document (C1.4 of Contract Data) and shall be completed and submitted to the Employer together with a letter of good standing from the Compensation Commissioner (if not insured with a Licenced Compensation Insurer) within fourteen (14) days after the Commencement Date. The Contractor shall ensure that any letter of good standing shall be timeously renewed in order that it remains in full force for the duration of the Contract.

4.4. Subcontracting



- 4.4.1 The Contractor shall not subcontract the whole Contract.
- 4.4.2 Except where otherwise provided in the Contract, the Contractor shall not subcontract any part of the Contract without the prior written consent of the Employer's Agent, which consent shall not be unreasonably withheld.
- 4.4.3 The Contractor shall be liable for the acts, defaults and negligence of any subcontractor, his agents or employees as fully as if they were the acts, defaults or negligence of the Contractor.
- 4.4.4 The contractual relationship between the Contractor and any subcontractors selected by the Contractor in consultation with the Employer in accordance with the requirements of and a procedure set out in the Scope of Work, shall be the same as if the Contractor had appointed the subcontractor in terms of Clause 4.4.3.
- 4.4.5 Any appointment of a subcontractor in accordance with Clause 4.4.4 shall not amount to a contract between the Employer and the subcontractor, or a responsibility or liability on the part of the Employer to the subcontractor and shall not relieve the Contractor from any liability or obligation under the Contract.
- 4.4.5 In the event of termination of the Contract under Clause 9.2, the subcontract in terms of Clause 4.4.4 shall be assigned to the Employer upon such an instruction by the Employer.
- 4.4.6 In the event of any subcontractor having undertaken towards the Contractor in respect of work carried out, or goods, materials, Plant or services supplied, any continuing obligation extending beyond the date of the Final Approval Certificate, the Contractor shall advise the Employer's Agent thereof. At the Employer's request and cost, the Contractor shall assign to the Employer the benefit of such obligation for the unexpired duration thereof.

4.5 Notices and Fees

- 4.5.1 The Contractor:
- 4.5.1.1 Shall in carrying out the Works comply with the provisions, give all notices and pay all fees, taxes, levies and other charges required to be given or paid in terms of:
- 4.5.1.1.1 Any Act of Parliament, Ordinance, Regulation or By- law of any local or other statutory authority, and
- 4.5.1.1.2 Conditions imposed by any other body or person stated in the Scope of Work.
- 4.5.2 *The Employer shall be responsible for obtaining any planning approval required in respect of the Permanent Works. The Contractor shall be responsible for obtaining any planning approval required in respect of the Temporary Works.*

4.6 Patient rights

- 4.6.1 Save in respect of the Employer's or the Employer's Agent's design of the Works, or method of construction and proprietary brand materials specified, the Contractor indemnifies the Employer against any liability arising from the infringement of any patent rights, design, trade-mark or name, or other protected right in respect of any design work, Construction Equipment, Plant, machine, work, method of construction or material used for or in connection with the works.
- 4.6.2 Except where otherwise specified in the Contract, the Contractor shall pay all amounts due by him in respect of the rights referred to in Clause 4.6.1.

4.7 Fossils

- 4.7.1 All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall, as between the Employer and the Contractor, be considered the absolute property of the Employer

The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, inform the Employer's Agent of such discovery and carry out the Employer's Agent's instructions for dealing therewith.

If, by reason of such instructions, the Contractor suffers delay to Practical Completion and/or incurs proven additional cost he shall be entitled to make a claim in accordance with Clause 10.1.

4.8 Facilities of Others

- 4.8.1 The Contractor shall, in accordance with the Contract, or the requirements of the Employer's Agent, afford on the Site all reasonable opportunities for carrying out his work to:

4.8.1.1 The Employer,

4.8.1.2 Any other contractors employed and other persons authorised by the Employer, and

4.8.1.3 Any local or other statutory authorities, who may be engaged in any work on the Site that is not included in the Contract, provided that adequate notice of the necessity thereof is given to the Contractor.

4.8.2 If, pursuant to Clause 4.8.1, the Contractor, on the written instruction by the Employer's Agent:

4.8.2.1 Makes available to the Employer, or to any such contractor or any such authority, any roads or ways for the maintenance of which the Contractor is responsible, or

4.8.2.2 Provides any other facility or service of whatsoever nature to any of the said persons or authorities, the Contractor shall, unless otherwise provided in the Contract, be entitled to make a claim in accordance with Clause 10.1 for the delay to Practical Completion and/or proven additional cost.

4.9 Construction Equipment

4.9.1 All Construction Equipment provided by the Contractor shall, when brought onto the Site, be regarded as exclusively intended for carrying out the Works and the Contractor shall not remove the same from the Site without the consent in writing of the Employer's Agent, which consent shall not be unreasonably withheld. The Contractor shall notify the Employer's Agent, in writing, of the name and address of the owner of any such Construction Equipment not owned by the Contractor.

4.10 Contractor's employees

4.10.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all employees and for their payment, housing, feeding and transport (provided that any use of any part of the Site for the said purposes shall be subject to the prior approval of the Employer's Agent) and the Contractor indemnifies the Employer against any liability arising out of the Contractor's said arrangements, whether such arrangements involve the use of the Site or not.

4.10.2 The Contractor shall, if instructed by the Employer's Agent, deliver to the Employer's Agent information, in such form and at such intervals as the Employer's Agent may prescribe, in respect of employees employed by the Contractor on the Site from time to time.

5.3 Commencement of the Works



- 5.3.1 Upon the Employer's Agent's instruction the Contractor shall, save as may be otherwise provided in the Contract or be legally or physically impossible, commence executing the Works. Such instruction shall be subject to the submission by the Contractor, and approval by the *Employer*, of documentation required before commencement with Works execution, as set out in the Contract Data.

The documentation required before commencement with Works execution are:

- *Health and Safety Plan (Refer to Clause 4.3)*
- *Signed agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (No. 85 of 1993) and the Construction Regulations promulgated thereunder.*
- *Initial programme (Refer to Clause 5.6)*
- *Security (Refer to Clause 6.2)*
- *Insurance (Refer to Clause 8.6)"*
- *Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer).*

- 5.3.2 If the documentation referred to in Clause 5.3.1 is not submitted within the number of days stipulated in the Contract Data from the Commencement Date, or is found to be unacceptable, the Employer may terminate the Contract in terms of Clause 9.2.

- 5.3.3 If the Employer's Agent's instruction to commence executing the Works, or to resubmit documentation *with reasons after having found to be unacceptable by the Employer*, is not received by the Contractor within 7 days from the actual date of the submission of *all* the documentation referred to in Clause 5.3.1, commencement of the Works shall be taken to be on the expiry of such 7 days. *However, deemed commencement of the Works shall not be construed as approval of the documentation submitted.*

5.4 Access to Site

- 5.4.1 The Employer shall, upon the Employer's Agent's instruction to commence carrying out the Works referred to in Clause 5.3.1, give to the Contractor right of access to the Site, the location of which is stated in the Site Information (including physical access to the extent stipulated in the Site Information) and possession of the whole of the Site subject to any provision to grant the Contractor possession of the Site in portions and/or any requirements as to the order in which the Works shall be carried out, all as stipulated in the Site Information.

- 5.4.2 If the access to and possession of the Site referred to in Access not Clause 5.4.1 shall not be exclusive to the Contractor, such limitations shall be set out in the Contract Data.

- 5.4.3 If the Contractor suffers delay to Practical Completion and/or incurs proven additional cost from failure of the Employer to give *access to or* possession in accordance with the terms of this Clause, the Contractor shall be entitled to make a claim in accordance with Clause 10.1, for which purpose the time limits of 28 days provided in Clause 10.1.1.1 shall commence to run only from the time when *access to or* possession of the Site has actually been given.

5.5 Time for Practical Completion

- 5.5.1 Subject to any requirement in the Contract as to the Practical Completion of any portion of the Permanent Works before Practical Completion of the whole, the whole of the Works shall be completed by the Due Completion Date.

5.6 Programme

- 5.6.1 *The Contractor shall deliver to the Employer's Agent as part the documentation required before commencement with Works execution in accordance with Clause 5.3.1, an initial programme and method statement for carrying out the Works in order to meet the Due Completion Date.*



- 5.6.2 The initial programme and all subsequent adjusted programmes shall show and, when relevant, describe *in method statements, the entire scope of the Works to be performed* including but not limited to:
- 5.6.2.1 The Commencement Date, commencement of the Works, Due Completion Date(s) or *revisions thereof, and the planned date(s) of Practical Completion for the Works as a whole or in respect of different portions of the Works.*
- 5.6.2.2 The sequence, timing and resources for carrying out the Works,
- 5.6.2.3 The dates for Site accesses and possessions, approvals, instructions, inspections, tests, and all information required to carry out the Works,
- 5.6.2.4 The events that influence the carrying out of the Works, including float and the Contractor's time risk allowances,
- 5.6.2.5 Other programming information set out in the Scope of Work,
- 5.6.2.6 A detailed cash flow forecast, and
- 5.6.2.7 On adjusted programmes, the actual progress achieved for the various parts of the Works and the amounts paid.
- 5.6.2.8 *Health and safety requirements*
- 5.6.2.9 *Critical path including the links between all predecessors and successors for activities on the critical path and float.*
- 5.6.3 *The Employer's Agent shall, within 14 days after the Contractor has submitted an initial or adjusted programme, approve such programme or rejecting same with reasons and instruct the Contractor to amend such programme. Reasons for rejecting a programme are inter alia that it is not in accordance with the Contract or is not reflecting the actual progress.*
- The Employer's Agents failure to approve or reject, with reasons, the submitted programme:-*
- 5.6.3.1 *in the event of the submitted programme being an adjusted programme, shall be considered to be the approved programme; and*
- 5.6.3.2 *in the event of the submitted programme being an initial programme, it shall not be considered to be the approved programme. However, the Contractor shall have the right to suspend the Works in terms of Clause 5.11.1.3 and if the Contractor suffers delay to Practical Completion and/or incurs proven additional cost from such suspension, the Contractor shall be entitled to make a claim in accordance with Clause 10.1.*
- 5.6.4 The programme, *method statement* and the cash flow forecast shall be subject to *updates and review on a monthly basis. The Contractor shall monthly deliver to the Employer's Agent an adjusted programme reflecting actual progress and updated dates in accordance with Clause 5.6.2, even though it may reflect that the planned date(s) of Practical Completion will be later than the corresponding Due Completion Date(s), and in addition;*
- 5.6.4.1 *when instructed by the Employer's Agent,*
- 5.6.4.2 *when it no longer reflects the actual progress,*
- 5.6.4.3 *when a specific event, circumstance, act or omission may delay the execution of the Works, or*
- 5.6.4.4 *with each extension of time claim*



- 5.6.5 The submission to and approval by the Employer's Agent of any programme, method statement and/or cash flow forecast or its adjustments, or the delivery of any other relevant particulars, shall not relieve the Contractor of any of his duties or responsibilities under the Contract

5.7 Progress of the Works

- 5.7.1 If the rate of progress of the Works, or any part thereof, has fallen behind the approved programme, the Employer's Agent may notify the Contractor in writing, with specific reference to this Clause. If there is no approved programme the Employer's Agent shall make his own assessment of the progress before notifying the Contractor. The Contractor shall thereupon take the necessary steps to expedite progress to complete the Works, or the said part thereof, by the Due Completion Date. Such steps shall be approved by the Employer's Agent, which approval shall not be unreasonably withheld. The Employer's Agent may instruct the Contractor to submit an adjusted programme to accommodate the steps agreed upon to meet the Due Completion Date.

No instruction by the Employer's Agent to the Contractor to improve his rate of progress in this regard will qualify for additional compensation.

- 5.7.2 In respect of any action arising from Clause 5.7.1, if the work is not being carried out by day and by night and the Contractor requests permission to work by night as well as by day then, if the Employer's Agent grants permission, the Contractor shall not be entitled to any additional

payment for night work and all such work shall be carried out without excessive noise and disturbance. In such an event the proven additional attendance cost incurred by the Employer's Agent or the Employer in acceding to the Contractor's request, shall be deducted by the Employer's Agent from the Contract Price. The Contractor indemnifies the Employer against any liability resulting from noise, or other disturbance created, if the work is carried out at night

- 5.7.3 The Employer's Agent may request the Contractor to submit, or the Contractor may submit to the Employer's Agent, a revised programme and cost determined in accordance with Clause 6.4 for accelerating the rate of progress to achieve Practical Completion before the Due Completion Date. *If accepted by the Employer, the adjusted Due Completion Date and the conditions for payment of cost shall be agreed in writing and signed by the parties prior to the Contractor commencing to accelerate progress.*

5.8 Non-working times

- 5.8.1 None of the Works shall be carried out between sunset and sunrise and on the non-working and special non- working days stated in the Contract Data unless:

- 5.8.1.1 The Employer's Agent's written permission is obtained, subject to such conditions as may be laid down by the Employer's Agent,

- 5.8.1.2 Provision is specifically made for such work in the Contract,

- 5.8.1.3 It is customary to carry out the work concerned by multiple shifts, or

- 5.8.1.4 Work is unavoidable or necessary to save life or property, or for the safety of the Works

- 5.8.2 Written notice, with supporting particulars, shall be given to the Employer's Agent whenever the Contractor proposes to carry out any work during non-working

5.9 Instructions



- 5.9.1 On the Commencement Date, the Employer's Agent shall deliver to the Contractor copies of the drawings and an instruction required for the commencement of the Works.
- 5.9.2 The Employer's Agent shall deliver to the Contractor from Further drawings and time to time, during the progress of the Works, drawings instructions for construction purposes, or instructions as shall be necessary for the proper and adequate construction, completion and defect correction of the Works.
- 5.9.3 The Contractor shall give adequate *and appropriate* written notice to the Employer's Agent of *any instructions or drawings*, which the Contractor may require for the execution of the Works and the Employer's Agent shall deliver such instructions and/or drawings to the Contractor. *The notice shall include details of the necessary drawing or instruction, details of by when it should be issued, and details of the nature and amount of the delay likely to be suffered if it is late. The format of notices and communications shall be as described in the Scope of Works.*

5.10 Delays attributable to the Employer

- 5.10.1 The Contractor may, in writing to the Employer's Agent, demand compliance within a stated time by the Employer with the terms of the Contract, which terms shall be specified in such demand. If the Contractor suffers delay to Practical Completion and/or incurs proven additional cost from failure or delay on the part of the Employer, his agents, employees or other contractors (not employed by the Contractor) in fulfilling any necessary obligations in order to enable the Works to proceed in accordance with the Contract, the Contractor shall be entitled to make a claim in accordance with Clause 10.1, for which purpose the time limit of 28 days provided in Clause 10.1.1.1 shall commence to run only from the time when compliance with the said terms has actually taken place.

5.11 Suspension of the Works

- 5.11.1 The Contractor may, after giving fourteen (14) days written notice to the Employer, with a copy to the Employer's Agent, (with specific reference to this Clause) suspend the progress of the Works where the Employer *or the Employer's Agent* has failed in terms of Clause 6.10.4 to:
- 5.11.1.1 Deliver a payment certificate, or
- 5.11.1.2 Make full payment of the amount certified in the payment certificate without prejudice to the Contractor's other rights under this Contract or by law, or
- 5.11.1.3 *Failed to approve an initial programme in terms of Clause 5.6.3.2*

5.12 Extension of the time for Practical Completion

- 5.12.1 *If circumstances of any kind whatsoever which occurred be such as fairly entitle the Contractor to an extension of time and are delaying or will actually delay Practical Completion of the Works beyond the Due Completion Date, the Contractor shall claim in accordance with Clause 10.1 such extension of time as is appropriate. Such extension of time shall take into account any special non-working days and all relevant circumstances, including concurrent delays or savings of time which might apply in respect of such claim and the Due Completion Date will be revised accordingly.*
- 5.12.2.2 *Abnormal climatic conditions provided that no extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal Climatic Conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working days listed below, then abnormal climatic conditions shall be deemed to exist, and an extension of time shall be granted in accordance with the provisions of that Clause.*



The number of working days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where normal weather conditions prevents or disrupts critical work.

January	2 days
February	2 days
March	2 days
April	2 days
May	3 days
June	6 days
July	6 days
August	5 days
September	3 days
October	2 days
November	2 days
December	2 days

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced.

Should an extension of time be granted by the Employer's Agent such extension of time will be added to the Time for Completion or set off against any over-provision that may have occurred in the above-mentioned schedule and any other claim.

It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained."

5.12.2.3 *Any delay, impediment, or prevention caused by or attributable to the Employer, Employer's Agent, the Employer's personnel or the Employer's other contractor's on the Site.*

5.12.3 Instead of granting extension of time, if feasible, the Employer's Agent may request the Contractor to accelerate the rate of progress to achieve Practical Completion without extension of time and agree the cost for payment of such acceleration in accordance with *Clause 5.7.3.*

5.13 Penalties for delay

5.13.1 The penalty for failing to achieve Practical Completion for the Portions of the Works are:

Portion	Penalty per day
	R5000.00

Penalties for each uncompleted Portion shall be cumulative. The penalty for failing to achieve Practical Completion for the entire project shall be R5000.00 per day and shall be in addition to any penalties incurred for any incomplete Portions.

5.13.2 If, before the issue of the Certificate of Practical Completion of the whole of the Works, any part of the Works has been:

5.13.2.1 Certified by the Employer's Agent as complete in terms of a Certificate of Practical Completion, or

5.13.2.1 *Delete subclause 5.13.2.1.*

5.14 Completion

5.14.1 Practical Completion will be issued per Portion as defined in clause 5.13.1 above, only when the respective civil engineering services in that portion have reached a state of readiness, fit for the



purpose intended and can be accessed and occupied without danger or undue inconvenience to the Employer.

When the Works are about to reach the said stage, the Contractor shall, in writing, request a Certificate of Practical Completion and the Employer's Agent shall, within 14 days after receiving such request, *either where the Works;*

5.14.1.1 *has reached Practical Completion issue a Certificate of Practical Completion to the Contractor and to the Employer or*

5.14.1.2 *has not reached Practical Completion, issue a written list to the Contractor defining the incomplete work and defects to be rectified to achieve Practical Completion.*

Should the Employer's Agent not issue a Certificate of Practical Completion or such a list within the 14 days, Practical Completion shall be considered to have been achieved on the expiry of the 14 days of the written request in terms of Clause 5.14.1. only once the complete set of As-built drawings and information were submitted by the Contractor to the Employer's Agent.

5.14.2 *As soon as the work referred to in the list issued in terms of Clause 5.14.1 has been duly completed and defects that manifested after the list was issued rectified, the Employer's Agent shall deliver to the Contractor and to the Employer a Certificate of Practical Completion together with a further written list setting out the work to be completed to justify the issuing of a Certificate of Completion.*

5.14.3 Upon the issue of the Certificate of Practical Completion:

5.14.3.1 The Works shall be considered completed for the purposes of Clause 5.13.1, and

5.14.3.2 The Employer shall be entitled to take occupation of the Works, provided that the Contractor is given access to complete the Works in terms of the Contract

5.14.4 As soon as the work referred to in the further list issued in terms of Clause 5.14.2 has been duly completed, the Employer's Agent shall deliver to the Contractor and the Employer a Certificate of Completion; provided that the Employer's Agent shall be empowered to issue such certificate leaving any work and/or the rectifying of defects, and/or the clearing of the Site as specified therein, to be completed by a date stated in the certificate and the Contractor shall be obliged to complete the work specified by that date. Should the Contractor fail to complete the work by the specified date, the Defects Liability Period (if any) shall be extended by the amount of the additional time taken by the Contractor to complete the work specified, and the terms of Clause 7.8.3 shall apply with the necessary changes.

5.14.5 Upon the issue of a Certificate of Completion, unless otherwise provided in the Contract:

5.14.5.1 The performance guarantee, (if any), shall be returned within 14 days to the Guarantor,

5.14.5.2 The Defects Liability Period, if any, shall commence,

5.14.5.3 The retention shall be reduced to half in terms of Clause 6.10.5,

5.14.5.4 The possession of the Site shall revert to the Employer, and

5.11.5.5 Insurance of the Works in terms of Clause 8.6.1.1 shall cease.

5.14.6 *The Employer need not occupy the Works before the Due Completion Date*



- 5.14.7 If, in terms of the Contract Data stated for Clause 1.1.1.14, *different times for achieving Practical Completion* are specified in respect of different portions of the Works, *the provisions for the Works as a whole* shall apply with necessary adjustment in respect of such portions.

Practical Completion is required for portions of the Permanent Works as follows:

Portion	Time to Achieve Practical Completion from commencement date (days)
	180

5.15 Clearance of Site

- 5.15.1 On completion of the Works the Contractor shall clear Clearance of Site on away and remove from the Site all Construction completion Equipment, surplus materials, rubbish and Temporary Works of every kind and leave the whole of the Site and the Works clean and in a safe condition. All streams and watercourses shall be cleaned and restored to the condition as at the commencement of the Works.

5.16 Approval

- 5.16.1 The Works shall not be considered as completed in all respects until a Final Approval Certificate has been delivered by the Employer's Agent to the Employer and the Contractor stating the date on which the Works are completed and defects corrected, all in accordance with the Contract.

Such Final Approval Certificate shall be delivered by the Employer's Agent as soon as practicable after the completion of the whole of the Works, or of the expiration of the Defects Liability Period, if such a period is prescribed, or as soon thereafter as any works ordered during such period pursuant to Clauses 5.14.4, 7.7 and 7.8 shall have been completed in accordance with the Contract. Full effect shall be given to this Clause, notwithstanding any previous entry on the Permanent Works or the taking possession of, working in or using thereof, or any part thereof, by the Employer;

provided that the issue of the Final Approval Certificate shall not be a condition precedent to the payment to the Contractor of the second half of the retention money in accordance with Clauses 6.10.5.1 and 6.10.5.2.

- 5.16.2 No certificate other than the Final Approval Certificate referred to in Clause 5.16.1 shall constitute approval of the Works, or shall be taken as an admission of the due performance of the Contract or any part thereof, nor shall any other certificate exclude or prejudice any of the powers of the Employer's Agent.
- 5.16.3 The Contractor's liability for any latent defects shall continue beyond the date of the Final Approval Certificate but the Employer shall have no claim against the Contractor arising out of any latent defect which first manifests itself later than the period, stated in the Contract Data, after the issue of the Final Approval Certificate in terms of this Clause.

The Contractor's liability for any latent defects shall continue for 10 years from the date of the issue of the Final Approval Certificate.

6. PAYMENT AND RELATED MATTERS

6.1 Payment to Contractor

- 6.1.1 As consideration for the construction, completion, and Payment to Contractor defect correction of the Works, the Employer shall pay the Contractor in terms of the provisions of the Contract.

6.2 Security



- 6.2.1 The Contractor shall deliver to the *Employer*, as part of the documentation required before commencement with Works execution in accordance with Clause 5.3.1, at his cost, the type of security for the due performance of the Contract, as selected in the Contract Data.
- 6.2.2 *If the Contractor fails to provide or maintain the security as selected in the Contract Data within the time period stated in Clause 5.3.2 or if the performance guarantee is not in accordance with the relevant pro forma performance guarantee, the Employer, in his sole discretion, may either*
- 6.2.2.1 *Hand over the Site to the Contractor and withhold payment from the Contractor until the amount withheld is equal to ten per cent (10%) of the Contract Price. Such amount shall be reduced to five per cent (5%) of the Contract Price when the Employer's Agent has issued a Certificate of Completion [5.14.4] and to zero per cent (0%) in the Final Payment Certificate [6.10.9] or*
- 6.2.2.2 *Terminate this Contract in terms of Clause 5.3.2 as read with Clause 9.2.1.3.2.*
- 6.2.3 *If the Contractor is to provide a performance guarantee as security, he shall ensure that it remains valid and enforceable until the Certificate of Completion is issued. The expiry date shall be specified in the performance guarantee as the date on which the Certificate of Completion is issued.*

6.3 Variations

- 6.3.1 If, at any time before the issue of the Certificate of Completion, the Employer's Agent shall require any variation of the form, quality or quantity of the Works, or any part thereof that may be necessary, or for any reason appropriate, he shall have power to order the Contractor to do any of the following:
- 6.3.1.1 Increase or decrease the quantity of any work included in the Contract,
- 6.3.1.2 Omit any such work, provided it is not to be carried out by someone else,
- 6.3.1.3 Change the character or quality of any such work,
- 6.3.1.4 Change the levels, lines, position and dimensions of any part of the Works,
- 6.3.1.5 Carry out additional work of any kind necessary for the completion of the Works, and
- 6.3.1.6 Change the specified or approved sequence or method of construction.

No such variation shall in any way vitiate or invalidate the Contract, but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the Contract Price.

- 6.3.2 No such variation shall be made by the Contractor without a written order by the Employer's Agent in which it be in is stated to be a "Variation Order";

provided that:

- 6.3.2.1 If the Contractor, as soon as possible, but within seven days after receiving an oral order, or a written order which he contends to be a Variation Order confirms, in writing to the Employer's Agent that it is indeed a Variation Order, and such confirmation is not contradicted, in writing, by the Employer's Agent to the Contractor within seven days of receipt thereof, it shall legally be deemed to be a Variation Order within the meaning of this Clause. If the Contractor fails to confirm such order within the seven day period, such order shall not be a Variation Order.
- 6.3.3 No increase or decrease in the quantity of any work, set out in the Bill of Quantities for a Re-measurement Contract, where such increase or decrease is not the result of a Variation Order given under this Clause but is the result of the quantities exceeding, or being less than those stated in the

Bill of Quantities, shall be a variation to which this Clause applies and no order in writing shall be required therefor.

6.4 Value of variations

6.4.1 The value of all Variation Orders shall be calculated by the Employer's Agent in accordance with the following principles:

6.4.1.1 Where work is of a similar character and carried out under similar conditions to work priced in the Pricing Data, it shall be valued at such rates and/or prices (including General Items) contained therein as may be applicable;

6.4.1.2 Where work is not of a similar character or is not carried out under similar conditions, the rates and/or prices in the Pricing Data shall be used as the basis for valuation as far as may be appropriate;

6.4.1.3 Where work cannot reasonably be valued in accordance with Clauses 6.4.1.1 or 6.4.1.2, the value arising from all expenditure, including profit, necessary for carrying out the work shall be determined after due consultation by the Employer's Agent with the Employer and the Contractor; or

6.4.1.4 In respect of additional or substituted work, the Employer's Agent may issue an instruction that the work shall be carried out on a daywork basis in terms of Clause 6.5.

6.5 Dayworks

6.5.1 If work is to be carried out on a daywork basis:

6.5.1.1 The Contractor shall be paid for such work under the provisions set out in the daywork schedule included in the Pricing Data and at the rates and/or prices stated therein.

6.5.1.2 In the absence of a daywork schedule, and for items not included in the daywork schedule, the Contractor shall be paid the aggregate of:

6.5.1.2.1 The gross remuneration of the workmen, and of any foremen, for the time they are actually engaged in the work concerned,

6.5.1.2.2 The net cost of the materials actually used in the completed work,

6.5.1.2.3 The percentage allowances, stated in the Contract Data, in respect of the said remuneration of workmen and the cost of materials, which allowances shall be held to cover all charges for the Contractor's and subcontractor's *overheads and administration costs*, profits, timekeeping, *clerical work, insurances, establishment*, superintendence and the use of hand tools, and

For items not included in the daywork schedule, the percentage allowance will be 10%.

6.5.1.2.4 An amount in respect of Construction Equipment calculated as provided for in Clause 6.5.1.3.

6.5.1.3 The use of Construction Equipment shall be charged on a time basis at the rates stated in the Pricing Data, failing which at rates to be agreed between the Contractor and the Employer's Agent or, failing agreement, to be determined by the Employer's Agent on the basis of ruling plant hire rates.

6.5.2 If required by the Employer's Agent, the Contractor shall, before ordering material, submit to the Employer's Agent quotations for the same for his approval, which approval shall not be unreasonably withheld, and shall submit to him such receipts or other vouchers as proof for the amounts paid.

- 6.5.3 The Contractor shall, during the continuance of all work carried out on a daywork basis, deliver each day to the Employer's Agent, or the Employer's Agent's Representative, a list of the exact occupation and time of all workmen and foremen employed on such work and a statement showing the description and quantity of all materials and Construction Equipment used therefor (other than tools the cost of which is covered by the percentage addition in accordance with the daywork schedule in terms of which payment for daywork is made). If correct and agreed upon by the Employer's Agent or the Employer's Agent's Representative, and the Contractor, the Employer's Agent or the Employer's Agent's Representative shall sign the copies of each list and statement and return such copies to the Contractor within one working day of carrying out the work.
- 6.5.4 For the purpose of each monthly certificate referred to in Clause 6.10.1, the Contractor shall deliver to the Employer's Agent a priced statement of the labour, materials and Construction Equipment used (except as provided in Clause 6.5.3) and the Contractor shall not be entitled to any payment for the daywork concerned unless and until such statement has been properly rendered and supported by one copy of each of the signed lists and statements referred to in Clause 6.5.3

6.6 Provisional sums and prime cost sums

- 6.6.1 If any provisional sum is set out in the Pricing Data and the work to which the provisional sum relates has been ordered by the Employer's Agent and is:
- 6.6.1.1 Carried out by the Contractor, it shall be valued and paid for in accordance with the terms of Clause 6.4,
- 6.6.1.2 Carried out by a subcontractor appointed in terms of Clause 4.4.4, the Contractor shall be paid the sum, or sums paid, or due to be paid by him to the subcontractor, plus either:
- 6.6.1.2.1 A commission on the sum, or sums paid, or due to be paid to the subcontractor by the Contractor or the Employer, at the percentage stated by the Contractor in his Pricing Data, or failing such statement at 7.5 per cent, or,
- 6.6.1.2.2 If the Contractor in the Pricing Data has added to the provisional sum concerned a sum in respect of charges and profits, a pro rata amount of such sum, added in the proportion that the amount paid to the subcontractor by the Contractor or the Employer bears to the provisional sum.

6.7 Measurement of the Works

- 6.7.1 The quantities set out in the Bill of Quantities for a Re-measurement Contract are the estimated quantities of the work and they are not to be taken as the actual and final quantities of the Works to be carried out by the Contractor in fulfilment of his obligations under the Contract

6.8 Adjustment In rates and/or prices

- 6.8.1 Except as provided in this Clause, or elsewhere in the Contract, the rates and/or prices stated in the Pricing and binding Data shall be final and binding throughout the period of the Contract.
- 6.8.2 If the Contract Data provides for the application of a Contract Price Adjustment Factor, the value of certificates issued in terms of Clause 6.10.1 (excluding the value of those special materials referred to in Clause 6.8.3) shall be increased or decreased by applying a "Contract Price Adjustment Factor" calculated according to the formula and the conditions set out in the Contract Price Adjustment Schedule.
- 6.8.3 If price adjustment for variations in the cost of special materials is provided for in the Contract Data, it shall be made in the manner set out in the Contract Price Adjustment Schedule.

- 6.8.4 If at any time within 28 days before the closing date for tenders or thereafter, any Act of Parliament, Ordinance, Regulation or By-law of any local or other statutory authority is amended and this results in additional, or reduced cost to the Contractor in respect of carrying out the Contract (other than in terms of Clauses 6.8.2 and 6.8.3), such additional or reduced cost shall, after due consultation between the Employer and the Contractor, be determined by the Employer's Agent and shall be added to or deducted from the Contract Price and the Employer's Agent shall notify the Contractor accordingly, with a copy to the Employer.

6.9 Vesting of Plant and materials

- 6.9.1 All Plant and materials:
6.9.1.1 Brought on to the Site by or on behalf of the Contractor, or
- 6.9.1.2 Fabricated, or stored at places other than the Site, and agreed, in writing, by the Employer and the Contractor to be governed by this Clause,
- shall, immediately on delivery to the Site or, in the case of Plant and materials not on the Site, immediately on the conclusion of the said written agreement, legally be deemed to have become the Employer's property and to have been delivered to the Contractor to be held by him on behalf of the Employer.
- 6.9.2 The expression "materials" used in this Clause shall include all construction materials, commodities, substances, fixtures, equipment and appliances all of which are to be incorporated in the Works.
- 6.9.3 The Contractor shall hold, or cause to be held, on behalf of the Employer as owner, and be responsible for the care of all the Plant and materials referred to in Clause 6.9.1 and shall, in the case of Plant and materials referred to in Clause 6.9.1.2, take such steps as the Employer's Agent shall order to identify the Plant and materials as being the property of the Employer.
- 6.9.4 The Contractor shall not remove from the Site any such Plant and materials which are on the Site, or which are brought there from such place of fabrication or storage, and shall use all such Plant and materials exclusively for incorporation in the Permanent Works.
- 6.9.5 The operation of this Clause shall not imply any approval by the Employer's Agent of Plant and materials, nor shall it prevent the rejection of any such Plant and materials at any time by the Employer's Agent

6.10 Payment

- 6.10.1 With regard to all amounts that become due to the Contractor in respect of the matters set out in Clauses 6.10.1.1, 6.10.1.2, 6.10.1.3, 6.10.1.4, and 6.10.1.5 below, *the Contractor* shall deliver to the Employer's Agent a monthly statement for payment of all amounts he considers to be due to him (in such form and on such date as may be agreed between the Contractor and the Employer's Agent, or failing agreement, as the Employer's Agent may require) and the Employer's Agent shall, by signed payment certificates issued to the Employer and the Contractor, certify the amount *considered* to be due to the Contractor *or the Employer*, taking into account the following:
- 6.10.1.1 The estimated value of the Permanent Works carried out and calculated in terms of the Contract up to the date of the Contractor's said statement;
- 6.10.1.2 The amount for any Temporary Works, or other special items for which separate amounts are provided in the Pricing Data;
- 6.10.1.3 Any other additional amounts which are due to the Contractor or the Employer;
- 6.10.1.4 Adjustment under Clause 6.8;



- 6.10.1.5 The value up to the percentage limit stated in the Contract Data of Plant and materials referred to in *Clause 6.9.1 not yet built into the Permanent Works. No payment will be made for any Plant and/or materials off site, except if expressly agreed otherwise;*

Provided that the Contractor has produced documentary evidence of ownership of such Plant and/or materials and has delivered to the Employer a MOS Guarantee in accordance with the pro forma MOS Guarantee, approved in writing by the Employer, against any claim to or in respect of such Plant and/or materials, including but not limited to claims by reason of the Contractor's sequestration or liquidation, or of any defect in the Contractor's title to the Plant and/or materials; and

Provided that the total amount of Plant and/or materials referred to in Clause 6.9.1 not yet supplied to Site or built into the Permanent Works certified for payment in terms of the Contract, notwithstanding the percentage limit stated in the Contract Data, shall be limited to the Guaranteed MOS Sum as reflected in the MOS Guarantee.

- 6.10.1.6 A deduction of the amount of all previous payments;
- 6.10.1.7 A deduction for penalties imposed in terms of Clause 5.13; and
- 6.10.1.8 Any sales tax or value added tax which the law requires the Employer to pay to the Contractor.
- 6.10.2 The Contractor shall deliver with his statement, pursuant to Clause 6.10.1.5, copies of invoices or receipts in respect of the purchase and delivery of the materials for which the Contractor claims payment. The valuation of such materials shall be based on the purchase price and delivery cost reflected by the relevant invoices or receipts, exclusive of discounts to the Contractor and inclusive of any sales tax or value added tax which the law requires the Employer to pay to the Contractor, and duties payable on such materials by the Contractor;

provided that, if the materials have been produced by the Contractor himself, or if the valuation of such materials is not consistent with the relevant rates and/or prices set out in the Pricing Data, the Employer's Agent shall have the right to base the valuation and payment for such materials either on rates and/or prices consistent with the rates and/or prices set out in the Pricing Data, or on current market prices.

- 6.10.3 Payment of the amounts referred to in Clauses 6.10.1.1, 6.10.1.2, 6.10.1.3, and 6.10.1.4 shall be subject to a retention by the Employer of an amount (called the "retention money", being the percentage retention, of the selected security stated in the Contract Data, of the said amounts due to the Contractor, until the retention money reaches the "Limit of retention money" stated in the Contract Data.
- 6.10.4 The Employer's Agent shall deliver to the Employer and the Contractor the payment certificate referred to in Clause 6.10.1 within 7 days of the receipt by the Employer's Agent of the Contractor's said statement. Any dissatisfaction in respect of such payment certificate shall be dealt with in terms of Clause 10.2. *The Employer or the Contractor, as the case may be, shall pay the amount due to the other within 28 days of receipt by the Employer and the Contractor of the payment certificate signed by the Employer's Agent. Payment shall be subject to the Contractor or the Employer, as the case may be, submitting a tax invoice, if required by law, to the other party for the amount due.*
- 6.10.5 When a Defects Liability Period is specified, one half of the retention money shall become due and shall be paid to the Contractor when the Employer's Agent has issued a Certificate of Completion in terms of Clause 5.14.4. The other half shall become due and shall be paid to the Contractor within 14 days of the expiration of the Defects Liability Period, which may be extended in terms of Clauses 5.14.4 or 7.8.1, if necessary;

provided that:



- 6.10.5.1 If the Defects Liability Period is extended in terms of Clauses 5.14.4 or 7.8.1 or if at the expiration of the original Defects Liability Period, any works ordered during such period in terms of Clauses 7.7. and 7.8. still remains to be carried out by the Contractor, the Employer shall be entitled to withhold payment until the completion of the work concerned, of so much of the second half of the retention money as shall represent the cost of such work;
- 6.10.5.2 In the event of different Defects Liability Periods having become applicable to different parts of the Works pursuant to Clause 5.14, the expression "retention money" shall mean such proportion of the total retention money as is applicable to each completed part of the Works; and
- 6.10.5.3 If a Defects Liability Period is not specified, the whole amount of the retention money shall become due and shall be paid to the Contractor when the Contractor has become entitled, in terms of Clause 5.16.1, to receive a Final Approval Certificate.
- 6.10.6 In respect of any amount payable to the Contractor in terms of the Contract
- 6.10.6.1 The Employer may deduct from such payment any amount to which he is entitled in terms of this Contract, or by law to set off against such payment, and shall state, in a written notice to the Contractor, the reasons for such deductions, and
- 6.10.6.2 In the event of failure by the Employer to make the payment by the due date, he shall pay to the Contractor interest, at the prime overdraft rate charged by the Contractor's Bank, compounded monthly, on all overdue payments from the date on which the same should have been paid to the date when payment is effected, without prejudice to the Contractor's other rights under this Contract or by law.
- 6.10.7 The Employer's Agent may by any payment certificate make any correction or modification of any previous payment certificate, which has been issued by him.
- 6.10.8 Within 14 days of the date of the Certificate of Completion, the Contractor shall deliver to the Employer's Agent a completion statement showing the value of work done in respect of which a Certificate of Completion has been issued and shall supply such further information as the Employer's Agent may reasonably require. The Contractor shall not be entitled to any payment in respect of any matter which has not been included in such completion statement save as provided for in Clauses 5.14, 7.7 and 7.8 in respect of work executed during the Defects Liability Period and/or Clauses 10.3 to 10.11 in respect of any dispute. The Employer's Agent shall deliver to the Employer and the Contractor the payment certificate in respect of the completion referred to above within 14 days of the receipt by the Employer's Agent of the Contractor's said statement, and the Employer or the Contractor, as the case may be, shall pay the amount due to the other party within 28 days after receipt by the Employer and the Contractor of the payment certificate signed by the Employer's Agent.
- 6.10.9 Within 14 days of the date of final approval as stated in the Final Approval Certificate, the Contractor shall deliver to the Employer's Agent a final statement claiming final settlement of all moneys due to him (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11, and not yet resolved). The Employer's Agent shall within 14 days issue to the Employer and the Contractor a Final Payment Certificate, the amount of which shall be paid to the Contractor *or the Employer, as the case may be*, within 28 days of the date of such certificate, after which no further payments shall be due to the Contractor (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11 and not yet resolved).

7. QUALITY AND RELATED MATTERS

7.1 Quality of Construction Equipment



- 7.1.1 The nature and quality of all Construction Equipment to be provided by the Contractor for carrying out and making good of defects of the Works shall be such that it corresponds with the requirements and scope of the Works and the Construction Equipment shall be in good working order and shall, in particular, be well suited to the purpose for which it is to be used. The Contractor shall provide and maintain sufficient Construction Equipment to meet all the requirements and, when so ordered by the Employer's Agent, the Contractor shall remove from the site all unsuitable, outdated and obsolete Construction Equipment.

7.2 Quality of Plant, workmanship and materials

- 7.2.1 All Plant to be supplied shall be manufactured, all workmanship shall be carried out and all materials shall of the respective kinds specified in the Contract and shall comply with the requirements set in the Scope of Work and in the Employer's Agent's instructions. Failing requirements or instructions, the Plant, workmanship a materials of the respective kinds shall be suitable for the purpose intended.

7.3 Access to the Works

- 7.3.1 The Employer, the Employer's Agent and any person authorised by either of them shall, during working hours, have access to the Works and to the Site and to all workshops and places where work is being prepared, or where Plant, materials, manufactured articles and machinery are being manufactured or obtained for the Works, to inspect, examine and test such Plant, materials and workmanship and verify progress in accordance with the programme. The Contractor shall afford any necessary facility for and assistance in obtaining the right to such access.

7.4 Samples and testing

- 7.4.1 The Contractor shall, as set out in the Scope of Work, or as instructed by the Employer's Agent, provide at his own expense samples of materials intended to be incorporated into the Works.
- 7.4.2 The Contractor shall, as set out in the Scope of Work, or Test specimens from as instructed by the Employer's Agent, take and deliver to the Employer's Agent test specimens from portions of the Works already constructed, and make good any resultant damage to the Works.
- 7.4.3 The Contractor shall, in accordance with the Scope of Work, or if instructed by the Employer's Agent, carry out tests on Plant and samples of materials intended to be incorporated into the Works and on any test specimens from portions of the Works, and shall carry out any other tests specified in the Scope of Works.

The Contractor shall provide all necessary assistance, labour, materials, electricity, fuel, testing equipment and instruments for the purpose of such tests to be performed by him or, if so specified in the Scope of Work, or instructed by the Employer's Agent, for the purposes of tests to be performed by others.

- 7.4.4 The following provisions shall apply in respect of the cost of the Contractor's services in terms of Clauses 7.4.2 and 7.4.3:

- 7.4.4.1 It shall be taken that the Contractor has allowed in his rates and/or prices for all such services as are required to be rendered by him, provided that the tests have been particularised in the Scope of Work in sufficient detail for him to allow for them, and

- 7.4.4.2 The Contractor shall be paid the cost of any services not covered by Clause 7.4.4.1;

provided that, if any test establishes that the Plant, workmanship or the materials used do not comply with the requirements of the Contract, the Contractor shall not be paid any amount in respect of the services concerned whether or not payment would otherwise have been due in terms of Clauses 7.4.4.1 or 7.4.4.2.



- 7.4.5 The Employer's Agent and the Contractor shall deliver to each other, as and when testing has been carried out, on accurate and complete copies of all reports on tests carried out by or on behalf of either party, save to the extent that any such reports are prepared specifically for the purpose of proceedings in terms of Clauses 10.3 to 10.11.

7.5 Examination of the Works

- 7.5.1 No part of the Works or excavations shall be covered up or put out of view without the consent of the Employer's Agent, and the Contractor shall afford full opportunity for the Employer's Agent to examine and measure the Work\ and to inspect the excavations before any Permanent Works are placed thereon.

- 7.5.2 No Plant shall be delivered to Site until such Plant has passed testing in accordance with Clause 7.4.3 and the subsequent written authorization by the Employer's Agent for delivery to Site has been issued.

- 7.5.3 The Contractor shall give adequate written notice to the Employer's Agent whenever Plant, or any part of the Works, or excavations are ready or almost ready for testing, or inspection, and the Employer's Agent shall visit the site, as soon as practicable, for the purpose of testing such Plant or examining such work or excavations unless he considers it unnecessary and advises the Contractor accordingly in writing (in which event it shall be taken that the consent required in terms of this Clause has been given);

provided that, any delay occasioned by the said attendance of the Employer's Agent beyond that provided in the approved programme shall entitle the Contractor to make a claim in accordance with Clause 10.1 in respect of the delay to Practical Completion and/or to proven additional cost.

- 7.5.4 Any delay occasioned by the Employer in the dates of Delay by Employer to delivery of Plant beyond that provided in the approved programme shall entitle the Contractor to make a claim in accordance with Clause 10.1 in respect of the delay to Practical Completion and/or to proven additional cost.

- 7.5.5 The Contractor shall uncover any part or parts of the Works, or make openings in or through the same as the Employer's Agent may from time to time order, and reinstate and make good such part or parts in accordance with the terms of the Contract. If any such part or parts have been covered up or put out of view after compliance with the requirements of Clauses 7.5.1 and 7.5.3 and are found to have been carried out in accordance with the Contract, the Contractor shall in respect of the delay to Practical Completion and/or to proven additional cost, be entitled to make a claim in accordance with Clause 10.1, but in any other case the cost shall be borne by the Contractor and no extension of time shall be given.

7.6 Defective Plant, materials and work

- 7.6.1 The Employer's Agent shall, during the progress of the Works, have the power to order, in writing, from time to time, the making good to comply with the Contract and retesting of Plant that failed to pass the tests in accordance with Clause 7.4.3, within such time or times as specified in the order, all at the cost of the Contractor.

- 7.6.2 If, following retesting of Plant, it again fails to meet the requirements of the Contract the Employer's Agent shall be entitled to:

- 7.6.2.1 Instruct further making good and retesting of such Plant at such time or times as specified in the notice, all at the cost of the Contractor,

- 7.6.2.2 Subject to the Employer's written consent, accept such Plant subject to a reduction in the Contract Price as provided for in the Contract, or as may be agreed by the Employer and the Contractor, or



- 7.6.2.3 Reject the Plant if the results of the tests show that the Plant is not in accordance with the Contract.
- 7.6.3 The Employer's Agent shall, during the progress of the Removal of improper Works, have the power to order, in writing, from time to time and materials time, within such time or times as specified in the order:
- 7.6.3.1 The removal from the Site of any materials which are not in accordance with the Contract and the substitution of proper and suitable materials therefor, and
- 7.6.3.2 The removal and proper reconstruction (notwithstanding any previous test thereof or interim payment therefor) of any work which, in respect of materials or workmanship, is not in accordance with the Contract.
- 7.6.4 In case of failure on the part of the Contractor to carry out any of the orders referred to in Clauses 7.6.1 and 7.6.3 within the time period stated by the Employer's Agent in such order, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto, in excess of what would have been payable to the Contractor if the Contractor had carried out such order, shall be borne by the Contractor and shall be recoverable from him by the Employer.
- 7.7 Search for defects**
- 7.7.1 The Contractor shall by written order from the Employer's Agent, search for the cause of any defect. If such defect is one for which the Contractor is not liable under the Contract, the cost of the work carried out by the Contractor in the search shall be paid to him. If such defect is one for which the Contractor is liable, the cost of such work shall be borne by the Contractor.
- 7.8 Defects**
- 7.8.1 To the intent that the Permanent Works shall at, or as soon as practicable after the expiration of the Defects Liability Period, be in the condition (fair wear and tear excepted) required by the Contract, the Contractor shall, during the Defects Liability Period, carry out all such repair, reconstruction, rectification and making good of defects, shrinkages, settlements or other faults as may be ordered, in writing, by the Employer's Agent.
- All such work shall be carried out in terms of the Contract and shall be completed during the Defects Liability Period or, if necessary, within such time thereafter as the Employer's Agent shall, in writing, allow, if the reason why the work is being completed later is not attributable to any fault or failure of performance by the Contractor.
- If such work is delayed by the Contractor's own fault, the Defects Liability Period in respect of the work concerned shall be extended by the additional time taken by the Contractor to effect completion of the outstanding work.
- 7.8.2 All such remedial work shall be carried out by the Contractor,
- 7.8.2.1 At his own expense, if the necessity therefor is due to Plant, or the use of materials or workmanship not in accordance with the Contract, or to neglect or failure on the part of the Contractor to comply with any obligation under the Contract,
- 7.8.2.2 However, if such remedial work is due to any other cause, such work, if carried out by the Contractor, shall be valued and paid for in accordance with Clause 6.4.
- 7.8.3 If the Contractor shall fail, within 28 days of receipt of written notice from the Employer's Agent, to do any remedial work required by the Employer's Agent, the Employer shall be entitled to have such work done by his own workmen or by others, and:



- 7.8.3.1 If such work should have been done by the Contractor at his own expense, the Employer shall be entitled to recover from the Contractor the cost thereof, and
- 7.8.3.2 If the cost of such work, had it been done by the Contractor, would have been assessed and paid for as specified in Clause 7.8.2.2, the Employer shall be entitled to recover from the Contractor the amount by which the actual cost exceeds the cost which would have been so paid to the Contractor.

7.9 Urgent remedial work

- 7.9.1 If, by reason of any accident or failure, or other event at, on, or in connection with the Works or any part thereof, either while carrying out the Works, or during the Defects Liability Period (if any), any remedial or other repair work shall be urgently necessary for the safety and protection of the Works, or persons, or property, and the Contractor is not available or is unable to do such work, the Employer may have the necessary work or repair done by his own workmen or by others.

The Employer's Agent shall, before, or as soon as practicable after the occurrence of any such emergency, notify the Contractor thereof, in writing.

If the work so done by the Employer is work which the Contractor was liable to do at his own expense under the Contract, all costs incurred by the Employer in so doing shall be determined by the Employer's Agent and the Employer shall be entitled to recover from the Contractor such amount.

8. RISKS AND RELATED MATTERS

8.1 Protection of the Works

- 8.1.1 The Contractor shall protect the Works properly and shall so arrange his operations that they pose no danger, and cause the least possible inconvenience to the public and/or to vehicle and pedestrian traffic. For this purpose, he shall, inter alia, provide and maintain sufficient Temporary Works, road signs, lights, barricades, fencing and guarding as may be necessary, or required by any act, regulation, including the South African Road Traffic Signs Manual, or statutory authority.
- 8.1.2 All operations necessary for carrying out the Works shall, as far as compliance with the requirements of the Contract permits, be carried out in such a manner as not to cause unnecessary noise or pollution, or to interfere unnecessarily or improperly with, or encroach upon the use of public services, or access to, use and occupation of public or private roads and footpaths or properties, whether in the possession of the Employer or of any other person.
- 8.1.3 The Contractor shall use every reasonable means to prevent any of the roads or bridges to, or in the vicinity of the Site, from being subjected to damage by excessive loads, or disruption due to excessive traffic, occasioned by the transport arrangements of the Contractor.
- 8.1.4 The Contractor indemnifies the Employer against any liability arising out of the Contractor's non-compliance with his obligations in terms of this Clause.
- 8.1.5 It shall be taken that the Contractor has allowed in his rates and/or prices for all obligations in terms of this Clause, except insofar as provision is made in the Pricing Data for payment in respect of specific items pertaining to these obligations.

8.2 Care of the Works

- 8.2.1 From the date on which the Site is handed over to the Contractor to the date of the issue of a Certificate of Completion, the Contractor shall take full responsibility for the care of the Works and of all Plant intended for incorporation into the Works and materials on the Site intended for incorporation into the Works; provided that, if in terms of Clause 5.14.7 the Employer's Agent shall issue a Certificate of



Completion in respect of any part of the Works, the Contractor shall cease to be responsible for the care of such part and responsibility therefor shall pass to the Employer.

8.2.2 If there is any damage to the Works, or any part thereof, or to the said Plant or materials, or physical loss occurs:

8.2.2.1 From any cause whatsoever (other than the excepted risks defined in Clause 8.3.1) while the Contractor is responsible for the care thereof, the Contractor shall, at his own cost, repair and make good the same so that, at the issue of the Certificate of Completion, the Works, or the portions of the Works to which the Certificate relates, shall be in good order and condition, and in conformity with the Contract.

8.2.2.2 Arising from any of the excepted risks, referred to in Clause 8.3, the Contractor shall, if ordered by the Employer's Agent, repair and make good the same and the cost of such work shall be valued and paid in accordance with Clause 6.4.

8.2.2.3 Occasioned by the Contractor in the course of any operation carried out by him for the purpose of complying with his obligations under Clause 7.8, or in respect of work to be completed in terms of Clause 5.14.4, the Contractor shall be liable for such damage or loss.

8.3 Excepted risks

8.3.1 The excepted risks are risks of damage or physical loss or any other loss caused by or arising directly or indirectly as a result or consequence of:

8.3.1.1 War, invasion, act of foreign enemies, hostilities or warlike operations (whether war be declared or not) or imposition of economic sanctions between governments,

8.3.1.2 Insurrection, rebellion, revolution, acts of terrorism or civil war,

8.3.1.3 Mutiny, military uprising, military or usurped power, martial law or state of siege, or any other event or cause which determines the proclamation or maintenance of martial law or state of siege,

8.3.1.4 Strike, riot, commotion, disorder, violent demonstrations, sabotage or any form of civil disturbance (whether lawful or not) which is not attributable to any action or inaction of the employees of the Contractor or his Subcontractors,

8.3.1.5 The confiscation, commandeering, nationalisation, requisition or destruction of or damage to property by an order of government, or any public or local authority

8.3.1.6 Disconnection of electricity supply not covered by the agreement with the supply authority,

8.3.1.7 Epidemic famine or plague,

8.3.1.8 The impact of meteorites

8.3.1.9 Pressure waves caused by aircraft, or other aerial devices, travelling at sonic or supersonic speeds,

8.3.1.10 Ionising radiation, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuels,

8.3.1.11 The use of or occupation by the Employer or his employees or agents or other contractors (not employed by the Contractor) of any part of the Works,

8.3.1.12 The design, specification or instruction of the Employer's Agent, Employer or any of their employees or agents, or defects in the materials supplied by the Employer for incorporation in the Works, and/or

8.3.1.13 The fact that the value of materials, as supplied by the Employer for incorporation in the Works, exceeds the value thereof as specified by, or on behalf of the Employer, at the time of delivery thereof by the Employer.

8.3.2 If, in carrying out the Works, any of the excepted risks, other than pertaining to the damage or physical loss referred to in Clause 8.2.2.2, causes the Contractor to suffer delay to Practical Completion and/or brings about proven additional costs, the Contractor shall be entitled to make a claim in accordance with Clause 10.1.

8.4 Indemnifications

8.4.1 The Contractor

8.4.1.1 Indemnifies the Employer against any liability in respect of damage to, or physical loss of the property of any person, or injury to or death of any person, and

8.4.1.2 Shall be liable to the Employer for damage to or physical loss of all property of the Employer that is not part of the Works, nor of the Site,

Arising directly from carrying out the Works; provided that nothing herein contained shall render the Contractor liable in respect of:

8.4.1.3 The permanent use or occupation of land by reason of the Works or any part thereof,

8.4.1.4 The right of the Employer to construct the Works, or any part thereof, over, under, in or through any land,

8.4.1.5 Any nuisance, disturbance or interference arising necessarily by reason of the construction of the Works,

8.4.1.6 Interference, whether temporary or permanent, with any servitude, or any other right, which is the unavoidable result of the construction of the Works in accordance with the Contract,

8.4.1.7 Injuries or damage to persons or property resulting from any act, omission or neglect of the Employer, his agents, employees or other contractors (not being employed by the Contractor), or

8.4.1.8 Any agreement by the Employer to pay any sum by way of indemnity, or otherwise, unless liability for such payment would have existed in the absence of such agreement.

8.4.2 The Employer indemnifies the Contractor against all liability in respect of the matters referred to in the provision to Clause 8.4.1.

8.5 Reporting accidents

8.5.1 In addition to any statutory obligations, the Contractor shall, as soon as practicable, report to the Employer's Agent every occurrence on the Works, or the Site, which causes damage to property, or injury or death to persons.

If required by the Employer's Agent, the Contractor shall submit a written report to the Employer's Agent within 48 hours of such requirement, setting out full details of the occurrence. The Employer's Agent shall have the right to make any enquiries, either on the Site or elsewhere, as to the cause and results of any such occurrence and the Contractor shall make available to the Employer's Agent the necessary facilities for carrying out such enquiries.

8.6 Insurances

8.6.1 Except if provided otherwise in the Contract Data, the Contractor, without limiting his obligations in terms of the Contract, shall as part of the documentation required before commencing with the Works



in accordance with Clause 5.3.1, at his own cost, effect and maintain the following insurances in the joint names of the Employer and the Contractor:

- 8.6.1.1 Insurance of the Works, Plant intended for incorporation in the Works, and of all materials on the Site intended for incorporation in the Works against damage or physical loss arising from whatever cause (except the causes set out in Clause 8.3.1), for the period for which the Contractor is responsible for the Works in terms of Clause 8.2.1, and for a sum insured which shall be the aggregate of:
- 8.6.1.1.1 The Contract Price,
- 8.6.1.1.2 The amount stated in the Contract Data to cover the value of Plant and materials supplied by the Employer for incorporation in the Works and not included in the Contract Price, and
- 8.6.1.1.3 The amount stated in the Contract Data to cover professional fees, not included in the Contract Price, payable in respect of the repair or reinstatement of damage to the Works or said movables.
- 8.6.1.2 A Coupon Policy for Special Risks Insurance issued by Sasria unless otherwise stated in the Contract Data.
- 8.6.1.3 Liability insurance that covers the Employer as well as the Contractor against their respective liability for the death of, or injury to any person, or loss of, or damage to any property (other than property while it is insured in terms of Clause 8.6.1.1) arising from or in the course of the fulfilment of the Contract, from the Commencement Date to the date of the end of the Defects Liability Period, if there is one, or otherwise to the issue of the Certificate of Completion for a limit of indemnity stated in the Contract Data; provided that the insurance shall include a cross-liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured parties.
- 8.6.1.4 If ground support insurance is stipulated in the Contract Data, or the Contractor's design or method of construction for carrying out the Works involves the risk of removal of, or interference with support to adjoining properties including land or structures, or any structures to be altered or added to, the Contractor shall effect and maintain insurance against the death or injury to persons, or damage to such property consequent on such removal or interference with support, until such portion of the Works has been completed.
- 8.6.1.5. Such other additional or varied insurances as are stated in the Contract Data.
- 8.6.1.6 *In addition to the insurances required in terms of General Conditions of Contract Clauses 8.6.1.1 to 8.6.1.4 the following insurance is also required:*
- (a) *Insurance of Construction Plant and Equipment (including tools, offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.*
 - (b) *Insurance in terms of the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993.*
 - (c) *Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity.*
 - (d) *Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor's Policies of Insurance.*



(e) *Lateral Support liability insurance.*

- 8.6.2 The Contractor shall be liable for the payment of the deductibles in respect of each claim settlement in terms of the policies effected by the Contractor.
- 8.6.3 In respect of subcontractors, the Contractor shall legally be deemed to have complied with the provisions of the requirements relating to insurance by ensuring that the subcontractors have effected such insurance.
- 8.6.4 Save as otherwise provided in the Contract, nothing herein contained shall oblige the Contractor to effect any insurance which is not generally obtainable from a registered insurer in South Africa.
- 8.6.5 Save as otherwise provided in the Contract Data, the insurances referred to in Clause 8.6.1 shall be effected with an insurance company registered in South Africa and the terms thereof shall be subject to approval by the Employer, which approval shall not be unreasonably withheld.
- 8.6.6 The Contractor shall produce to the Employer's Agent the policies by which the insurances are effected and proof of the due payment of all premiums there under and of the continuity of the policies for the required period.
- 8.6.7 If the Contractor fails to effect and keep in force any of the insurances referred to in Clause 8.6.1, the Employer may effect and keep in force such insurance and pay such premium or premiums as may be necessary for that purpose, and the Employer shall be entitled to recover such amounts paid from the Contractor.
- 8.6.8 *The evidence that the insurances have been affected in terms of Clause 8.6.1, shall be in the form of an insurance broker's warranty worded precisely as given in part C1.6 Insurance Broker's Warranty.*

9. TERMINATION OF CONTRACT

9.1 Termination of Contract

- 9.1.1 If during the currency of the Contract, the excepted risks set out in Clause 8.3.1.1 occur in any part of the world, and if any such event shall materially affect the carrying out, or cost of the Works, the Contractor shall, unless and until the Contract is terminated in terms of this Clause, endeavour to complete the Works to the best of his ability;

provided that the Employer shall be entitled, at any time after such event, to terminate the Contract by giving written notice to the Contractor and, upon such notice being given, the Contract shall (save as to the rights of the parties under this Clause) terminate forthwith but without prejudice to the rights of either party in respect of any antecedent breach thereof.

- 9.1.2 If any of the excepted risks set out in Clauses 8.3.1.2 to and including Clause 8.3.1.5 occur, and if any such event beyond the control of the Contractor shall materially affect carrying out the Works, or the supply of labour or materials, or physically interfere with access to the Site, or constitute a material risk to persons or property associated with the Contract, the Contractor shall, unless and until the Contract is terminated in terms of this Clause, endeavour to complete the Works to the best of his ability;

Provided that:

- 9.1.2.1 Either the Employer or the Contractor shall, if such state of affairs continues for a period of at least 20 consecutive working days, or for two or more periods aggregating not less than 40 working days in any period of six months, be entitled to terminate the Contract by written notice to the other party and, upon such notice being given, the Contract shall (save as to the rights of the parties under this Clause)



terminate forthwith but without prejudice to the rights of either party in respect of any antecedent breach thereof; or

9.1.2.2 If the Employer shall undertake, in writing, to bear any resultant additional costs involved in continuing the Works, the Contractor shall not exercise his right to terminate the Contract.

9.1.3 Where the Contract is for alterations and/or additions to an existing structure and such existing structure is substantially destroyed, the Employer may terminate the Contract.

9.1.4 In the circumstances referred to in Clauses 9.1.1, 9.1.2 or 9.1.3, and whether or not the Contract is terminated under the provisions of this Clause, the Contractor shall be entitled to payment of any increased cost of or incidental to carrying out the Works which is specifically attributable to, or consequent upon the circumstances defined in Clauses 9.1.1, 9.1.2 or 9.1.3;

provided that the Contractor shall, as soon as any such increase in Cost comes to his knowledge, at least within 14 days after becoming aware of such increase in Cost, notify the Employer's Agent thereof, in writing. The provisions of Clause 6.4 shall then apply, with the necessary changes.

9.1.5 If the Contract is terminated on any account in terms of this Clause, the Contractor shall be paid by the Employer (insofar as such amounts or items have not already been covered by payments on account made to the Contractor) for all measured work carried out prior to the date of termination, the amount (without retention), payable in terms of the Contract and, in addition:

9.1.5.1 The amounts payable in respect of any General Items for the work or service comprised therein that has been carried out or performed and for work and servicing that has been partially carried out or performed, a proper proportion, as certified by the Employer's Agent, of the General Items,

9.1.5.2 The cost of Plant, materials or goods reasonably ordered for the Works which shall have been delivered to the Contractor, or of which the Contractor is legally liable to accept delivery (such Plant, materials or goods becoming the property of the Employer upon such payment by him),

9.1.5.3 A sum to be certified by the Employer's Agent as being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the Works, insofar as such expenditure shall not have been covered by the payments previously referred to in Clause 9.1.5,

9.1.5.4 The expense of removal from the Site of Construction Equipment and Temporary Works as are on the Site at the date of termination, and

9.1.5.5 Any additional sum payable under the provisions of Clause 9.1.4.

9.1.6 The provisions of this Clause shall, in the circumstances Over-riding described in Clause 9.1.1, 9.1.2 and 9.1.3 apply provisions notwithstanding anything to the contrary contained elsewhere in the Contract.

9.2 Termination by Employer

9.2.1 If:

9.2.1.1 Application is made for the sequestration of the Contractor's estate, or if the Contractor publishes a notice of surrender of his estate, or presents a petition for the acceptance of the surrender of his estate as insolvent, or (being a company or close corporation) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction),

9.2.1.2 The Contractor makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or if the Contractor assigns the Contract without having first obtained the Employer's written consent, or if execution is levied on his goods, or



- 9.2.1.3 After giving effect to Clause 3.2.2, the Employer's Agent certifies, in writing, to the Employer and to the Contractor, with specific reference to this Clause, that the Contractor:
- 9.2.1.3.1 Has abandoned the Contract; or
 - 9.2.1.3.2 Has failed, in terms of Clause 5.3.2, to submit documentation in time, or to submit acceptable documentation, *or to maintain and extend the validity of the performance guarantee until the Certificate of Completion; or*
 - 9.2.1.3.3 Has failed to commence the Works in terms of Clause 5.3 hereof, or has suspended the progress of the Works (other than in terms of Clause 5.11.1) for fourteen (14) consecutive days after receiving from the Employer's Agent written notice to proceed; or
 - 9.2.1.3.4 Has failed to proceed with the Works in accordance with the approved programme, or in the absence of an approved programme, in the Employer's Agent's opinion; or
 - 9.2.1.3.5 Has failed to remove Plant or materials from the Site, or to demolish and redo work, within fourteen (14) days after receiving from the Employer's Agent written notice that the said Plant, materials or work have been condemned and rejected by the
 - 9.2.1.3.6 Is not executing the Works in accordance with the Contract, or is neglecting *or failing* to carry out his obligations under the Contract, *inter alia to comply with any instruction under Clause 4.2; or*
 - 9.2.1.3.7 Anyone, on his behalf has paid, offered, or offer as payment, to any person in the employ of the Employer or to the Employer's Agent, or any person in the employ of the Employer's Agent, a gratuity or reward or commission; or
 - 9.2.1.3.8 Has furnished inaccurate information in the returnable documents completed at tender stage and forming part of the Contract;

then the Employer may, after giving fourteen (14) days written notice to the Contractor, (with specific reference to this Clause) to remedy the default, terminate the Contract and order the Contractor to vacate the Site and hand it over to the Employer. The Employer may then enter the Site and the Works and expel the Contractor therefrom without thereby affecting the rights and powers conferred on the Employer or the Employer's Agent by the Contract. The Employer may complete the Works himself, or may employ another contractor to complete the Works, and the Employer, or such other contractor, may use for such completion as much of the Construction Equipment, Temporary Works and materials brought onto the Site by the Contractor as the Employer may think proper. If, Clause 9.2.1.1 is not applicable, the Employer may at any time sell any of the said Construction Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances, the Contractor shall forthwith vacate the Site and shall not be entitled to remain on the Site based on a right of retention until amounts due to him have been paid and neither will the Contractor be entitled to any further payments in terms of this Contract.

- 9.2.1.3.9 *The Contractor fails to submit the documents within the number of days stipulated or if the documents submitted are found to be unacceptable in accordance with Clause 5.3.2*
- 9.2.1.3.10 *The Contractor committed a corrupt or fraudulent act during the procurement process or the execution of the Contract.*
- 9.2.1.3.11 *An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the Contract that benefited the Contractor.*

10.1 Contractor's Claim



- 10.1.1 The following provisions shall apply to any claim by the Contractor for an extension of time for *Practical Completion* of the Works in terms of Clause 5.12, or in terms of any Clause that refers to Clause 10.1 for additional payment or compensation:
- 10.1.1.1 The Contractor shall within 28 days *after the commencement of each circumstance, event, act or omission giving rise to such a claim*, deliver to the Employer's Agent a written claim, referring to this Clause and setting out:
- 10.1.1.1.1 The particulars of the circumstance, event, act or omission giving rise to the claim concerned,
- 10.1.1.1.2 The provisions of the Contract on which he bases the claim
- 10.1.1.1.3 *The length of the extension of time, if any, claimed and the basis of the calculation by incorporating the effects of each circumstance, event, act or omission on the critical path of an Approved Programme, indicating the delay on Practical Completion, and*
- 10.1.1.1.4 The amount of money claimed and the basis of calculation thereof.
- 10.1.1.2 If, by reason of the nature and circumstances of the claim, the Contractor cannot reasonably comply with all or any of the provisions of *Clause 10.1.1.1.1 to 10.1.1.1.4 to deliver a claim* within the said period of 28 days, he shall:
- 10.1.1.2.1 Within the said period of 28 days *issue a further notice referring to the relevant notice in terms of Clause 10.1.2* and confirming his intention to make the claim and comply with such of the requirements of Clause 10.1.1.1.1 to 10.1.1.1.4 as he reasonably can, and
- 10.1.1.2.2 As soon as practicable, comply with such of the requirements of Clause 10.1.1.1.1 to 10.1.1.1.4 as have not yet been complied with.
- 10.1.1.3 If the *circumstance, event, act or omission relating to the claim are of an ongoing nature*:
- 10.1.1.3.1 *the Contractor shall, within 14 days after the commencement of each circumstance, event, act or omission giving rise to such a claim, deliver to the Employer's Agent a written notice of his intention to submit a claim, referring to this Clause and setting out the particulars of the circumstance, event, act or omission. Provided that the additional payment or compensation or delay that occurred before 14 days prior the date on which the notice in terms of this clause was delivered, shall be deemed to be covered by the rates and/or prices set out in the Pricing Data and the time stated in the Contract Data relating to Clause 5.5.1*
- 10.1.1.3.2 *The Contractor shall, in addition to delivering the said further notice within 28 days in terms of Clause 10.1.1.2.1, each month deliver to the Employer's Agent, in writing, updated particulars required in terms of Clause 10.1.1.1.1 to 10.1.1.1.4 and, within 28 days after the end of the circumstance, event, act or omission deliver his final claim.*
- 10.1.2 *The Contractor shall issue an early warning notifying the Employer's Agent as soon as he becomes aware of any circumstance, event, act or omission which could*
- 10.1.2.1 *Increase the Contract Prices,*
- 10.1.2.2 *Delay Practical Completion, or*
- 10.1.2.3 *Impact on the quality or*
- 10.1.2.4 *Impair the performance of the Works in use*



- 10.1.3 To properly assess the extent and validity of claims submitted in terms of this Clause, the following provisions shall apply:
- 10.1.3.1 All facts and circumstances relating to the claims shall be investigated as and when they occur or arise. For this purpose, the Contractor shall deliver to the Employer's Agent, records in a form approved by the Employer's Agent, of all the facts and circumstances which the Contractor considers relevant and wishes to rely upon in support of his claims, including details of all Construction Equipment, labour and materials relevant to each claim. Such records shall be submitted promptly after the occurrence of the event giving rise to the claim.
- 10.1.3.2 The Employer's Agent may record facts and circumstances, additional to those recorded by the Contractor, he considers relevant and the Contractor shall, for this purpose, supply the Employer's Agent with all the information he may require.
- 10.1.3.3 The Employer's Agent and the Contractor shall, at the time of recording in terms of Clauses 10.1.3.1 and 10.1.3.2, set out, in writing, signed by each party and delivered to each other, their respective agreement, or disagreement, with regard to the correctness of the matters recorded.
- 10.1.3.4 Each record of an agreed fact in terms of Clause 10.1.3.3 shall in any dispute be conclusive evidence of the fact concerned.
- 10.1.3.5 For the purpose of this Clause, information arising from a technical investigation, or analysis, undertaken after the events that gave rise to the claim have occurred, shall not be regarded as facts or circumstances required to be recorded in terms of this Clause.
- 10.1.3.6 The Employer, the Employer's Agent and the Contractor shall not in any proceedings in accordance with Clauses 10.3 to 10.11 be entitled to give or lead evidence of or rely on any fact or circumstance not recorded in *terms of this Clause*.
- 10.1.4 If, in respect of any claim to which this Clause refers, the Contractor fails to deliver his claim within the *28 day claim period in terms of Clause 10.1.1.1 or does not deliver a further notice within the period of 28 days in terms of Clause 10.1.1.2.1 or does not deliver his final claim within 28 days after the circumstance, event, act or omission ceased in terms of Clause 10.1.1.3.2*, the Due Completion Date shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged all liability in connection with the claim.
- Should the Contractor fail to give an early warning notice in terms of Clause 10.1.2 which an experienced Contractor could have given, then the claim shall be assessed by the Employer's Agent and the ruling in terms of Clause 10.1.5 shall take into account the lack of mitigation measures that could have been employed if the Contractor had given an early warning notice.*
- 10.1.5 Unless otherwise provided in the Contract, the Employer's Agent shall within 28 days after the Contractor has delivered his *claim in terms of Clause 10.1.1*, give effect to Clause 3.2.2 and deliver to the Contractor and the Employer his written and adequately reasoned ruling on the claim (referring specifically to this Clause). The amount thereof, if any, allowed by the Employer's Agent shall be included to the credit of the Contractor the next payment certificate. *Where the Employer's Agent fails to make a ruling within such 28 days the claim shall be deemed to be refused;*
- Provided that:
- 10.1.5.1 The said period of 28 days may be extended if so agreed between the Contractor and the Employer's Agent *prior to the expiry of such 28 days*, and
- 10.1.5.2 Any amount that has been established to the satisfaction of the Employer's Agent, before his ruling on the whole claim, shall be included to the credit of the Contractor in the next payment certificate.



10.2 Dissatisfaction claim

- 10.2.1 In respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1, the Contractor or the Employer shall have the right to deliver a written dissatisfaction claim to the Employer's Agent. This written claim shall be supported by particulars and substantiated.
- 10.2.2 If, in respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1, the Contractor or the Employer fails to submit a claim within 28 days after the cause of dissatisfaction, he shall have no further right to raise any dissatisfaction on such matter.
- 10.2.3 The Employer's Agent shall, within 28 days after the Contractor or Employer has delivered the dissatisfaction claim to him, give effect to Clause 3.2.2 and give his adequately reasoned ruling on the dissatisfaction, in writing to the Contractor and the Employer, referring specifically to this Clause. The amount thereof allowed by the Employer's Agent, if any, shall be included to the credit of the Contractor or the Employer in the next payment certificate.

10.3 Dispute Notice

- 10.3.1 *Any dispute of whatsoever nature arising out of this Contract concerning any of the rights and/or obligations of any party thereto, either during the Time for Completion of the Contract or after the completion thereof, including any dispute as to the validity of the Contract, shall be referred to adjudication in terms of Clause 10.5. The Contractor or the Employer, hereinafter referred to as "the parties", may deliver to the other a written notice, hereinafter referred to as a "Dispute Notice", of any dispute arising out of or in connection with the Contract;*
provided that:
- 10.3.1.1 The dispute arises from a rejected claim,
- 10.3.1.2 Reference shall be made to this Clause in the Dispute Notice,
- 10.3.1.3 A copy of the Dispute Notice shall be delivered to the Employer's Agent,
- 10.3.1.4 The Dispute Notice shall clearly state the nature of the dispute and the extent of the redress sought, and
- 10.3.1.5 The Dispute Notice shall be delivered within 28 days of the event giving rise to the dispute. Failing such delivery, the parties shall have no further right to dispute the matter.
- 10.3.2 If either party shall have given notice in compliance with Clause 10.3.1, the dispute shall be referred immediately to adjudication in terms of Clause 10.5, unless amicable settlement is contemplated.
- 10.3.3 In respect of a ruling given by the Employer's Agent, and Ruling in full force although the parties may have delivered a Dispute Notice, the ruling shall be in full force and carried into effect unless and until otherwise agreed by both parties, or in terms of an adjudication decision, an arbitration award or court judgement.
- 10.3.4 Should the parties fail to resolve any dispute by way of mutual consultation, either party shall be entitled to refer the matter for mediation. Such referral shall be done by either party giving written notice to the other of its intention to commence with mediation. No mediation may be commenced unless such notice is given to the other party.**



Irrespective whether the mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and share the costs of the mediator and related costs equally.

Where the parties reach settlement of the dispute or any part thereof, the mediator shall record such agreement and on signing thereof by the parties the agreement shall be final and binding.

Save for reference to any portion of any settlement or decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement by mutual consultation, or the fact that any particular evidence was given, or to any submission, statement or admission made in the course of amicable settlement by mutual consultation or mediation.

If the parties cannot reach an agreement, the Mediator must refer the matter to Arbitration.

10.4 Amicable settlement

- 10.4.1 The parties may at any time, without prejudice to any other proceedings, agree to settle any claim or any dispute amicably with the help of an impartial third party. Amicable settlement may include any settlement technique as agreed by the parties.
- 10.4.2 If the other party rejects the invitation to amicable settlement in writing, or does not respond in writing to the invitation within 14 days, or amicable settlement is unsuccessful, referral to adjudication shall follow immediately, provided that, if amicable settlement failed subsequent to adjudication, the dispute shall be resolved by arbitration or court proceedings, whichever is applicable in terms of the Contract.
- 10.4.3 Amicable settlement shall become final and binding on the parties only to the extent that it is correctly recorded as being agreed by the parties.
- 10.4.4 Save for reference to any portion of any settlement, or of decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party in any subsequent adjudication, arbitration or court proceedings, to any outcome of an amicable settlement, or to the fact that any particular evidence was given, or to any submission, statement or admission made in the course of the amicable settlement.

10.5 Adjudication

- 10.5.1 If the Contract Data provides for dispute resolution by a Dispute resolution by standing Adjudication Board, the Employer, together with standing adjudication the Contractor, shall, within 56 days of the Commencement

Date, appoint the member or members of the Adjudication Board.

- 10.5.2 If the Contract Data does not provide for dispute resolution by a standing Adjudication Board, the dispute shall be referred to ad-hoc adjudication.



- 10.5.3 The Adjudication Board shall consist of the number of members stated in the Contract data. It shall be affected and its proceedings conducted in accordance with the Adjudication Board Rules.
- 10.5.4 The parties shall implement the Adjudication Board's decision without delay whether or not the dispute is to be referred to arbitration or court proceedings. Payment shall be made in accordance with Clause 6.10 in the payment certificate which becomes due after the date of issue of the decision, unless otherwise directed by the Adjudication Board.
- 10.6 Disagreement with Adjudication Board's decision
- 10.6.1 Either party shall have the right to disagree with any decision of the Adjudication Board and refer the matter to arbitration or court proceedings, whichever is applicable in terms of the Contract; provided that:
- 10.6.1.1 The decision shall be binding on both parties unless and until it is revised by an arbitration award or court judgement, whichever is applicable in terms of the Contract.
- 10.6.1.2 A party shall not dispute the validity, or correctness of the whole, or a specified part of the decision, be ore 28 days or after 56 days from receipt of the decision
- Unless either party shall on or after the said 28 days, or on or before the said 56 days from receipt of the decision, give written notice to the other party, referring to this Clause, disputing the validity, or correctness of the whole, or a specified part of the decision, he shall have no further right to refer such a dispute to arbitration or court proceedings, whichever is applicable in terms of the Contract.
- 10.6.2 In the event that a decision of the Adjudication Board was not disputed and a party fails to comply with the decision, the other party may, without prejudice to any other right he may have, refer the failure to arbitration or court proceedings, whichever is applicable in terms of the Contract.
- 10.6.3 If the Adjudication Board fails to give its decision within the time stated in the Adjudication Board Rules, or otherwise agreed by the parties, either party shall have the right to "submit the dispute to arbitration or court proceedings, whichever is applicable in terms of the Contract, by giving written notice to the other party, referring to this Clause, within 28 days after the decision should have been given. If either party fails to give such a notice within the 28 days, the Employer's Agent's ruling, or any agreed settlement, shall be final and binding.

10.7 Arbitration

- 10.7.1 If the Contract Data provides for determination of disputes by arbitration and a dispute is still unresolved, the matter shall be referred to a single arbitrator. Any such reference shall be regarded as a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No. 42 of 1965, as amended) o any legislation passed in substitution therefor.
- 10.7.2 In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa) which is current at the time of the referral to arbitration.
- 10.7.3 The arbitrator shall, in his award, set out the facts and the provisions of the Contract on which his award is based-.



- 10.7.4** Arbitrator will be appointed by mutual agreement as per the provisions of the Arbitration Act of 1965 as amended, nominated from the Association of Arbitrators (Southern Africa).
- 10.7.5** The Arbitrator must be a legal practitioner with more than 10 years legal experience. Must have a good knowledge of the Municipal Finance Management Act and other relevant Municipal Legislation, and may in addition be qualified in respect of the main nature of the Contract (Engineer, Quantity Surveyor, Accountant, etc.).
- 10.7.6** The Arbitrator shall hear arguments both in writing and oral representations and parties shall have the right to contend the position of the other party and shall have the right to defend its own position.
- 10.7.7** The ruling of the Arbitrator shall be executed, but the matter may thereafter be defended in court if parties still do not agree.
- 10.8** Court proceedings
- 10.8.1** If the Contract Data does not provide for the settlement of disputes by arbitration, and if a dispute is still unresolved, the dispute shall be determined by court proceedings.
- 10.9** Appointment
- 10.9.1** The dispute resolving person or persons shall be appointed by agreement of the parties. Failing agreement within seven days of either party delivering a request in writing to agree to such appointment, the person or persons shall be nominated, on the application of either party, by the President, or his nominee, of the South African Institution of Civil Engineering.
- 10.10** Common Provisions
- 10.10.1** Nothing herein contained shall deprive the Contractor *or the Employer of either party's right* to institute immediate court proceedings in respect of failure by *the Employer or the Contractor, as the case may be*, to pay the amount of a payment certificate on its due date, or to pay any amount of retention money on its due date for payment.
- 10.10.2** No ruling given by the Employer's Agent in accordance with the provisions of the Contract shall disqualify him from being called as a witness and giving evidence before the arbitrator or the court on any matter whatsoever relevant to the dispute concerned
- 10.10.3** The *Adjudication Board*, arbitrator and the court shall have full power to open up, review and revise any ruling, decision, order, instruction, certificate or valuation of the Employer's Agent. *The Arbitrator and the court shall have full power to and to reconsider any decision by the Adjudication Board relevant to the matter in dispute*, and neither party shall be limited in such proceedings before such arbitrator or court to the evidence or arguments put before the Employer's Agent for the purpose of obtaining his ruling, or the Adjudication Board for the purpose of obtaining a decision.



11. ADDITIONAL CONDITIONS OF CONTRACT

11.1 Details to be confidential

11.1.1 The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Engineer.

11.2 Priority of documents

11.2.1 The documents forming the Contract are to be taken as mutually explanatory of one another. For the purpose of interpretation, the priority of the documents shall be in accordance with the following sequence:

- a) the Form of Offer and Acceptance;
- b) Contract Data: Data provided by the Employer;
- c) the General Conditions of Contract;
- d) the Project Specification;
- e) the Tender Drawings;
- f) the Particular Specifications (if applicable);
- g) the Bills of Quantities



12.1 CONTRACTOR'S GENERAL OBLIGATIONS

Add the following sub-clause:

12.1.1

Unbundling of Municipal Infrastructure Assets

The unbundling or componentization of the Property, Plant and Equipment (PPE) assets is required to update the Fixed Asset Register (FAR) as well as for effective asset maintenance and provision of services. The FAR will annually be updated for all assets and components. All new assets to be recorded on the FAR would there for have to be unbundled into its constituent components and all components be recorded on the FAR under the parent asset. The unbundling of primary assets into secondary components will be to a level that is sufficient for GRAP 17 compliance. Generally, the componentization of the PPE assets will be based on the component value, type of component (civil, electrical & mechanical) as well as anticipated lifespan of the component.

The unbundling of projects may only commence once the project is complete, all cost is known, including retention fees, and the following documents are available:

- Final bill of quantities;
- As-built plans;
- Completion certificate; and
- Final payment certificate.

All capital expenditure per project or per capital expense must be verified in order to ensure that the total expenditure on a project is included, that is professional fees, actual cost, retention fees and all other relevant expenditure.

Once the final cost is determined, then the unbundling of the project commences. The total project cost should be broken down to a component level.

The following information should be provided for each component of the capital asset once the project has been unbundled:

- Asset description;
- Original cost;
- Capital suspense account;
- WIP Asset code;
- Expected useful life;
- Acquisition date (Equal to the date of last expenditure, except retention);
- Start depreciation date;
- Asset Class as per Asset hierarchy

All unbundled capital assets must be captured spatially by geo referencing it in ESRI or Arcmap or a compatible spatial program

In doing so the replaced or upgraded capital assets must be identified.

When a replacement or upgrade is identified, the following information must be provided, the asset code, the portion in units that is replaced or in the case of a complete replacement an indication to this extend.

The GIS layer for as-built plans must be updated independently for the capital asset register layer. All information must be made available in electronic format to the Asset and IT section



Find below list of generic components per asset type is listed below for ELECTRICITY, but additional/ special components would however also have to be considered when unbundling assets.

OTHER STRUCTURES (INFRASTRUCTURE ASSETS)

ELECTRICITY	USEFUL LIFE IN YEARS		
	MIN	-	MAX
Cooling towers	25	-	30
Mains	15	-	20
Meters			
Prepaid	10	-	20
Credit	20	-	25
Power stations			
Coal	50	-	60
Gas	50	-	60
Hydro	50	-	60
Nuclear	50	-	60
Supply/reticulation	15	-	25
Transformers	25	-	50
Lines			
Underground	25	-	45
Overhead	20	-	30
Cables	25	-	45
Substations			
Switchgear	20	-	30
Equipment			
Outdoor	20	-	30
GIS	15	-	30
Indoor	30	-	40
Electrical panels	3	-	5
Telemetry	7	-	15

NB: FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS THE BID WILL BE CONSIDERED AS NON RESPONSIVE.AND WILL BE DISQUALIFIED.

12.1.2

Employment of Local Labour

It is the intention that the project, of which this contract is a part, should make the maximum possible use of the local labour force which is at present under employed.

To this end the Contractor is expected to limit non-local employees to key personnel only and to employ 100% of all unskilled labour from the Municipal boundaries on this contract.

The Contractor shall fill in Schedule 1Z: Schedule of Estimated Local Labour to be Employed on this Contract and state how many non-local key personnel he intends to employ in the various categories. The Tenderer must also state on this form the number of local labourers he intends employing for this contract.

The numbers stated in the above-mentioned data sheet will be strictly controlled during the contract period and any increase in numbers shall be subject to the approval of the Employer.

The workforce utilized on the contract is to comprise only of local workers within the area of the jurisdiction of the client i.e. within municipal boundaries. The Employer's Agent



may, at his discretion, upon receipt of a written and fully motivated application from the Contractor and where he deems the circumstances so warrant, authorize in writing that non-local temporary works, not being his Key Personnel, be included in the workforce.

The Contractor shall pay to all temporary workers engaged in terms of this clause, not less than the minimum rate of remuneration as specified in the Government Gazette.

The Contractor must provide records of all labour employed including name, surname and ID number, differentiating between male, female, local or non-local key personnel, youth and handicapped on a monthly basis. This record must also indicate the total number of man-hours and total remuneration of labour. Monthly payment certificates will only be processed if they are accompanied by the completed reports.

All costs, relating to identification, acquisition, allocation, training, relieving labour of their duties, problem-solving and attending to any other matters in order that the employment of local labour proceeds smoothly, shall be included in the relevant rates.

12.1.3

Community Liaison and Community Relations

In all dealings with the community and works employed from within the community, the Contractor shall take due cognizance of the character, culture and circumstances of the community involved and shall at all times use his best endeavours to avoid the development of disputes and to foster a spirit of cooperation and harmony towards the project.

The Contractor shall at all times, keep the Employer's Agent fully informed on all matters affecting the Contractor and the community, and shall attend all community meetings relating to the project as may be reasonably required by the Employer's Agent. All matters concerning the community shall be discussed and where possible, resolved at such meetings.

Where any resolution of a community meeting shall be contrary to the terms and provisions of the Contract, the Contractor shall not give effect there-to without a prior written instruction from the Employer's Agent. Where the Contractor is of the opinion that any instruction of the Employer's Agent issued in terms of this clause will result in the incurring of additional costs which were not provided for in his tendered rate and/or that a delay in the progress of the works will result, he shall be entitled to submit a claim in terms of Clause 10.1 of the Conditions of Contract, provided always that the period of twenty-eight (28) days referred to in Clause 10.1.1.1 shall be reduced to five (5) normal working days in respect of all claims submitted in terms of this clause

12.2

PERFORMANCE SECURITY

In this last line of the last paragraph replace the words "Performance Certificate" with "Taking-over Certificate".

12.3

PERFORMANCE SECURITY

At the end of the second paragraph of sub-clause 12.2, insert:

If the Performance Security is in the form of a bank guarantee, it shall be issued either:

- a) by a bank located in the country or
- b) directly by a foreign bank acceptable to the Employer.

If the Performance Security is not in the form of a bank guarantee, it shall be furnished by a financial entity registered, or licensed to do business, in the country. **The performance**

security shall not have a calendar end date, but shall stay in full force until issuing of the “Taking over Certificate”.

12.4 PERFORMANCE SECURITY

Add the following: No payments shall be certified before the performance security has been handed over to the client. The performance security shall be provided by the Contractor within fourteen (14) days from the commencement date.

12.5 AMOUNT OF PERFORMANCE SECURITY

10% of Accepted contract amount, in the currencies and proportions in which the Contract Price is payable.

12.6 CONTRACTOR’S REPRESENTATIVE

At the end of sub-clause 12.6, add:

The Contractor’s Representative and all these persons shall also be fluent in the English language.

12.7 SAFETY PROCEDURES

Add new paragraphs:

- f) The Contractor shall be responsible for Health and Safety as prescribed in the relevant acts.
- g) The Contractor shall provide a site specific Health and Safety plan based on the Employer’s Health and Safety Specification within fourteen (14) days from date of appointment.

12.8 SITE CONDITIONS

Responsibility for the determination of site conditions prior to construction shall rest with the Contractor.

12.9 ELECTRICITY, WATER AND GAS

Add the following at the end of sub-clause 12.10 :

- a) Electricity is available at the site. (Billed to Contractor).
- b) Water is available at the site. (Billed to Contractor).

12.10 EMPLOYER’S EQUIPMENT AND FREE ISSUE MATERIAL

The following equipment and material are provided by the Employer, free from any defects:

- Refer to the project specification (Part C3.1) and bill of quantities (Part C2) for details of material free issued by the Employer.

12.11 SECURITY OF THE SITE

Add new paragraph:

- c) From the date on which the site is handed over to the Contractor to the date of handover to the Client, the Contractor shall take full responsibility for the care of the Works and of all Plant intended for incorporation into the Works and all materials on the Site (installed and not installed) intended for incorporation into the Works. The cost of security to protect the Works, Plant and all materials must be priced as part of the time related P&G costs in the bill of quantities.

12.12 CONTRACTOR’S OPERATIONS ON SITE

The Tenderer shall have a fully operational office in the Western Cape, through which all communication with the Employer will flow, for the full duration of the Contract, including the defects liability period.

13.1 STAFF AND LABOUR

A minimum of 100% of unskilled labour shall be from the boundaries of Stellenbosch Municipality. Labour to be sourced from the approved Municipal database, with assistance of a CLO employed from the local community.

13.2 NORMAL WORKING HOURS

Normal working hours are as follows 7h00 – 18h00 (Monday to Friday)

Non-working days are Sundays, Public holidays and end-of-the-year builder's break.

14.1 REJECTION

Costs incurred by the Employer and applicable to re-testing or re-inspection shall include costs of the Engineer.

15.1 COMMENCEMENT OF WORKS

The commencement date shall be seven (7) working days from the date of the Letter of Acceptance.

The Engineer shall give notice of the commencement date to the Contractor.

15.2 TIME FOR COMPLETION

The start date of the Time for Completion will be the commencement date.

15.3 MAXIMUM AMOUNT OF DELAYS DAMAGES

5 % of the final contract price.

15.4 DELAY DAMAGES FOR THE WORKS

0,1 % of the final contract price per day, in the currencies and proportions in which the contract price is payable.



16. ADDITIONAL CONDITIONS OF THE TENDER

The additional conditions of tender are:

16.1 Compliance with Occupational Health and Safety Act 1993 and Construction Regulations.

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith and also to comply with the requirements of the Health and Safety specifications included in this document in Appendix B

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract must also comply with the above requirements.

The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall be available for inspection on Site and at all times and handed over to the Employer on Final Completion of the project.

The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement and a letter of good standing from the Compensation Commissioner, or a licensed compensation insurer, within 14 days after the Commencement Date of the contract

16.2 Claims arising after submission of tender

No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer/Employer's Agent after the submission of any tender and the Tenderer shall be deemed to have:

- 16.2.1 inspected the Contract Drawings and read and fully understood the Conditions of Contract,
- 16.2.2 read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract,
- 16.2.3 visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials and plant to and from the site and made the necessary provisions for any additional costs involved thereby,
- 16.2.4 Requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer; and

- 16.2.5 Before submission of any tender, the Tenderer must check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the tenderer must apply to the Employer/Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer/Employer's Agent in respect of errors in any tender due to the foregoing.

16.3 Negotiations with preferred tenderers

The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

- 16.3.1 does not allow any preferred tenderer a second or unfair opportunity;
- 16.3.2 is not to the detriment of any other tenderer; and
- c) does not lead to a change in the competitive position of the tender.

Minutes of any such negotiations shall be kept for record purposes.

16.4 General supply chain management conditions applicable to tenders

In terms of its Supply Chain Management Policy the Employer may not consider a tender unless the provider who submitted the tender:

- 16.4.1 has furnished the Employer with that provider's:
- full name;
 - identification number or company or other registration number; and
 - tax reference number and VAT registration number, if any;
- 16.4.2 has indicated whether:
- the provider is in the service of the state, or has been in the service of the state in the previous twelve months;
 - the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months;
 - whether a spouse, child or parent of the provider or of a director, manager, share holder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months; or
- 16.4.3 irrespective of the procurement process followed, the Employer is prohibited from making an award to a person:
- who is in the service of the state;
 - if the person is not a natural person, a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; or
 - who is an advisor or consultant contracted with the client.

16.5 Combating abuse of the Supply Chain Management Policy

In terms of the Employers Supply Chain Management Policy, the Employer must reject the tender of any tenderer if that tenderer or any of its directors has:



- 16.5.1 failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- 16.5.2 failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory;
- 16.5.3 abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system;
- 16.5.4 been convicted of fraud or corruption during the past five years;
- 16.5.5 wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- 16.5.6 been listed with the Register of Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector.

In this regard, tenderers shall complete Part T2 : Returnable Documents: Declaration in terms of the Municipal Finance Management Act. Failure to complete this schedule may result in the tender not being considered.

16.6 UIF payments

The tenderer shall submit to the Employer a letter from the Industrial Council indicating his good standing with regard to UIF payments upon being requested to do so.

16.7 Supplier database registration

Supplier must be registered on the database of the Municipality. Suppliers not registered on the database must complete Part T2 : Returnable Documents : Registration Forms for the municipal Supplier Database and provide the relevant documentation.

16.8 Use of local labour

It is a requirement of the Contract that the maximum possible use of local labour be made. To this end the Contractor shall limit his own staff to key personnel only. All unskilled staff shall be employed from within the Municipal boundaries. The Contractor shall make provision in the tendered Preliminary and General rates for all costs and additional superintendence to ensure a high standard of work when complying with this contractual requirements.

16.9 Community Liaison Officer

It is a requirement of this Contract that a Community Liaison officer (CLO) be appointed for the area represented by the Tender. The function of the CLO shall be to represent the local community in matters concerning the use of local labour on the works and to assist with and facilitate communication between the Contractor, the Engineer, and the local communities. The period of appointment of the CLO shall be as stated in the Contract for Temporary Employment as a Community Liaison officer referred to below. It must be noted that the date of commencement of temporary employment of the CLO shall be no later than the date of commencement of the Contract. The identification of the approved CLO to be appointed by the Contractor under the Contract shall be resolved by the Contractor, the particular Ward Councillor in collaboration with the Local Communities.

It will be required, therefore, that the successful Tenderer enters into a contract for the employment of the above-mentioned CLO. As said contract will be between the Tenderer and the CLO, all costs involved shall be borne by the Tenderer and the tender shall be deemed to include for this.

Further to all the above, the Tenderer is referred to the relevant items contained in the Special Conditions of Contract.

16.10 Labour intensive construction/use of local labour

It is a requirement of the Contract that the work be executed in such a manner as to maximise the use of labour intensive construction systems in order to provide the local community with employment opportunities.

The Tenderer is to identify all activities for which it is intended to employ workers from the local community, and full details thereof are to be provided.

Once a tender is accepted the activities and number of persons stated shall become the minimum contractual commitment.

In applying the principles set out above, it is a specific requirement of this Tender that the successful Tenderer employs, in consultation with the CLO, unemployed persons from the ranks of the local communities and the immediate surroundings, who possess the appropriate skills required for a contract of this nature.

- In order to achieve the recruitment of local labour, the Local Communities together with the CLO would establish, a database of unemployed persons, indicating their specialised training, previous experience and employment. The successful Tenderer will be required to liaise with the CLO to recruit his workforce and will be required to produce monthly records suitably detailed to enable the Employer's Agent, or his authorised representative, and the Local Communities to ascertain that the abovementioned labour requirements are achieved.
- The Tenderer is required to provide informal skills training so that the required standard of workmanship is maintained.
- Any difficulty experienced by the Tenderer in the procurement of the requirement percentages of local labour is to be referred immediately to the Employer's Agent.

16.11 Unbundling of Municipal Infrastructure Assets

As part of the project closeout, the Client's Agent and Contractor must also unbundle the assets. The unbundling of capital assets means breaking down the capital assets into components according to the capital asset hierarchy as per GRAP 17 (PPE) in support of the annual compilation of a GRAP compliant Fixed Asset Register. In dealing with the unbundling of capital assets, the unbundling must occur at the end of every financial year and the end of the project.



Schedule of Contract Specific Data

NOTE: Clause numbers (CL No) refer to the General Conditions of Contract 2015 3rd Edition, issued by the South African Institution of Civil Engineering.

	CL No	
Defects liability period	1.1.1.13	12 calendar months.
Time for achieving Practical Completion	1.1.1.14	240 Days for completion of Works as a whole
Name of Employer	1.1.1.15	Stellenbosch Municipality
Name of Employer's Agent	1.1.1.16	SMEC South Africa Pty Ltd
Address and telephone number of Employer's Agent	1.2.1.2	P O Box 8022, Roggebaai, 8012 65 Riebeek Street, Cape Town, 8001 Tel (021) 471 2900
Address and telephone number of Employer	1.2.1.2	PO Box 17, STELLENBOSCH, 7599 Tel. (021) 808 8111
Time in which the Health & Safety Plan must be submitted	5.3.1	Within 7 Days after the Commencement Date
Time within which initial programme must be submitted	5.3.1	Within 14 Days after the Commencement Date.
Time within which the agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (No. 85 of 1993) and the Construction Regulations promulgated there under must be signed		
5.3.1	Within 14 Days after the Commencement Date	
Time within which Performance Guarantee (Security)	5.3.1	Within 14 Days after the Commencement Date must be provided
Time within which Insurance must be provided	5.3.1	Within 14 Days after the Commencement Date
Non working days	5.8.1	Sundays
Special non-working hours/days	5.8.1	Year-end break(s) not exceeding 15 working days in duration. All statutory holidays
Amount of penalty for delay	5.13.1	R 5 000 per calendar day or part thereof
Latent Defect Period	5.16.3	10 years after issue of Final Completion Certificate
The Security Provided by the Contractor	6.2.1	Performance guarantee of 10 % of the Contract Sum <u>plus</u> Retention of 10 % of the value of the Works.
Percentage allowance to cover overhead charges	6.5.1.2.3	10 %
Contract Price Adjustment	6.8.2	The rates and prices stated in the Pricing Data shall be final and binding throughout the period of the Contract.
Percentage advance on unused materials on site	6.10.1.5	80 % or value of the MOS Guarantee submitted and approved whichever is the lesser amount.
Limit of retention money	6.10.3	Ten percent (10 %) of the contract sum.
The value of materials supplied by the Employer not included in the contract price and to be included in the insurance sum	8.6.1.1.2	R 0-00



The amount to cover professional fees for Repairing damage and loss to be included in the Insurance sum	8.6.1.1.3	15 % of the Contract sum
Limit of indemnity for liability insurance required	8.6	R20 000 000-00 for any single claim and the number of claims To be unlimited during the construction and defects liability periods
Dispute resolution	10.5.1	Ad-hoc Adjudication
Settlement of disputes to be by reference to	10.7.1	Arbitration

SIGNED ON BEHALF OF TENDERER : _____



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

C1.2 : CONTRACT DATA (PART 2)

PART 2 : DATA PROVIDED BY THE CONTRACTOR

Clause	Description
1.1.2.3 & 1.3	The Contractor is the <i>[Enter the Legal name of the Contractor].</i> The Contractor's address for receipt of communications and notices is : Telephone: Facsimile: E-mail : Address (Postal) : Address (Physical) :
1.1.3.3	The Works shall be completed in days/weeks/months



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

C1.3 : PERFORMANCE SECURITY (PRO FORMA)

TENDER NO. B/SM 46/22

Whereas Stellenbosch Municipality (hereinafter referred to as “the Employer”) entered into, a Contract with

.....

(hereinafter called “the Contractor”) on the day of 20.....

for the construction of

.....

at

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS

has/have at the request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE,

do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Taking-over Certificate in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.



5. Our total liability hereunder shall not exceed the Guaranteed Sum of
.....(R.....)
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.
7. We hereby choose our address for the serving of all notices for all purposes arising here from as
.....

IN WITNESS WHEREOF this guarantee has been executed by us at
on this day of 20.....

As witnesses:

1. Signature
2. Duly authorized to sign on behalf of
.....
Address
.....



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

C1.4 : FORM OF RETENTION MONEY GUARANTEE (PRO FORMA)

ISSUED TO: STELLENBOSCH MUNICIPALITY (hereinafter referred to as "the Employer")

ON BEHALF OF (hereinafter referred to as "the Contractor")

in connection with TENDER NUMBER B/SM 46/22 (hereinafter referred to as "the Contract")

WHEREAS the Employer and the Contractor have agreed that the Contractor may provide a guarantee in lieu of the whole or portion of the retention monies provided for under the Contract;

NOW THEREFORE we, the undersigned, undertake, in accordance with the following provisions, to pay to the Employer such amounts as the Employer may, from time to time, demand from us.

1. Each demand by the Employer shall be in writing signed by the Employer and delivered to us at

or such other address in as we shall

in writing notify to the Employer and shall be accompanied by a certificate complying with Clause 2, signed by the Engineer in office as such in terms of the Contract.
2. The Engineer's certificate referred to in Clause 1 shall certify:
 - a) that he is the Engineer in office as such in terms of the Contract;
 - b) that the Contractor is in breach of his obligations under the Contract, and
 - c) that the amount demanded, which amount the certificate shall specify,
 - i) does not exceed the amount of retention monies which, but for this guarantee, would have been retained by the Employer in terms of the Contract at the date of the certificate, less the aggregate of the amount of retention money actually retained by the Employer and the amounts previously paid by us to the Employer in terms hereof, and
 - ii) does not exceed a genuine estimate of the cost to the Employer of having the breach referred to in paragraph (b) remedied less the aggregate of any amounts withheld by the Employer from payments due to the Contractor in terms of the Contract by reason of the breach referred to, and any amount of retention money actually held by the Employer save to the extent that the same had been deducted from any previous demand in terms hereof.
3. We shall within days after our receipt of a demand complying with the provisions of Clause 1 and 2 make payment to the Employer of the amount demanded at or at such other address in as the Employer shall in writing notify to us.



4. Subject to compliance with the provisions hereof, our liability to make the payment herein referred to shall be unconditional and shall not be affected or diminished by any disputes, claims or counterclaims between the Employer and the Contractor
5. Our aggregate liability under this guarantee is limited to R.....
6. This guarantee shall expire on the date on which the last of the retention monies, which but for this guarantee would have been retained by the Employer, becomes payable to the Contractor.
7. This guarantee is not transferable and must be produced for endorsement if any part payment is made and must be returned to us against final payment of our aggregate liability or on the date of the expiry of the guarantee in terms of Clause 6, whichever is the earlier.

Signed in the presence of the subscribing witnesses:

AT for and on behalf of **(Guarantor)**

on this day of 20.....

SIGNATURE:

NAME:
(Print)

CAPACITY:

SIGNATURE:

NAME:
(Print)

CAPACITY:

ADDRESS:

.....

.....

AS WITNESSES:

1.

NAME:
(Print)

2.

NAME:
(Print)



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

PART C2 : PRICING DATA

C2.1 Pricing Instructions

C2.2 Bills of Quantities

C2.3 Data Sheets



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

C2.1 PRICING ASSUMPTIONS

C2.1.1 PREAMBLE TO THE SCHEDULE OF PRICES

- C2.1.1.1 All prices shall be quoted in the currency of the Republic of South Africa and will be held to be firm unless otherwise stated, in which case sufficient information must be afforded at the time of tendering to indicate the basis on which payment shall be adjusted.
- C2.1.1.2 The Tenderer shall enter a price against each item in the schedule of prices where quantities and/or "Rate Only" items have been included. If the Tenderer fails to enter a price against any item in the schedule of prices the relevant cost for such item shall be regarded as being covered by other prices in the schedule of prices. **Should an item specifically be excluded from the offer submitted, such tender will be regarded as non-responsive and not be considered.**
- C2.1.1.3 The prices quoted against each item of these schedules shall cover the full inclusive cost of everything required for the execution of the work under the item plus an apportionment of any cost involved in meeting the obligations and liabilities imposed by the conditions of contract and in complying with the specifications. Any exclusions of any part of the specified scope of work shall cause the tender to be regarded as non-responsive.
- C2.1.1.4 The prices quoted for the supply of plant and equipment shall include for all handling, loading, transporting and of-loading required for the delivery of the plant and equipment to the site, including in the case of off-site storage for double handling at the store.
- C2.1.1.5 The prices quoted for erection and installation shall include for all handling, loading, transporting and of-loading, to take plant and equipment to place on site where required, erection, installation, painting, commissioning, operating, testing, adjusting, handing over in proper working order and upholding for a period of 12 months, all as specified.
- C2.1.1.6 Any additional charges in connection with off-site storage which there may be over and above the prices quoted in the various sections of these schedules of prices shall be set out in detail by the Tenderer.
- C2.1.1.7 The tendered rates and amounts must exclude Value Added Tax (VAT) but must include all levies, other taxes and duties on items to which they apply. Separate provision has been made in the Tender Summary for the purpose of VAT.
- C2.1.1.8 Amounts allowed for contingencies will be spent in part or as a whole at the sole discretion of the Engineer.
- C2.1.1.9 Schedule of Prices shall be completed by hand and signed in **black ink**. Corrections must be done by deleting, rewriting and initialling next to the amendment. A soft copy of the pricing schedule shall be made available on request. The hard copy pricing shall



take preference if there are any discrepancy found between the pricing schedule completed by hand and the soft copy.

- C2.1.1.10 **The final quantities for each item must be verified by the Contractor before ordering. Any discrepancy between the bill of quantities and the verified quantities must be reported to the Engineer before ordering of such material.**
- C2.1.1.11 Stellenbosch Municipality reserves the right to scale down on the Scope of Work in order for the tender value to fit into the available budget for the three financial years (2021/22, 2022/2023 & 20203/2024). The evaluation of the tender offers will however, as per the guidelines of the CIDB, be based on the full tender amounts as received.



STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

C 2.2 BILLS OF QUANTITIES



Item	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward					R -
1.2.3	Supervision	sum	1		R -
1.2.4	Company and head office overhead costs	sum	1		R -
1.2.5	Other time-related obligations	sum	1		R -
1.3	SUMS STATED PROVISIONALLY BY ENGINEER				
1.3.1	For materials used in the execution of dayworks	P.sum	1		R -
1.4	PRIME COST ITEMS				
1.4.1	For acceptance control testing of earthworks by a commercial laboratory	P.C.	1		R -
1.4.2	For stormwater management design across site	P.C.	1		R -
1.5	Temporary Works				
1.5.1	Provide temporary access to works to allow for construction and delivery of materials incl transformers to site, reinstate to original or desired condition.	sum	1		R -
1.6	Cost to comply with Health and Safety Obligations aswell as construction regulations	sum	1		R -
1.7	Cost to cover the provision of all necessary Wayleaves	sum	1		R -
Carried Forward					R -
TOTAL: SCHEDULE 1					R -
PRELIMINARY AND GENERAL					R -
CARRIED TO SUMMARY					R -
TOTAL					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
2.	SCHEDULE 2				
	DAYWORKS				
	FOR USE ONLY AS DIRECTED BY ENGINEER IN WRITING				
2.1	LABOUR				
	a. Qualified artisan	hour	50	R	-
	b. Welder	hour	50	R	-
	c. Foreman, leader-hand / workday	W/day	5	R	-
	d. Semi-skilled labourer / workday	W/day	20	R	-
	e. Labourer / workday	W/day	40	R	-
2.2	PLANT HIRE : WORK RATES ON SITE				
2.2.1	Tipper truck	hour	20	R	-
	a. Small	hour	10	R	-
	b. Large				
2.2.2	Flatbed truck	hour	R/only		
	a. Small	hour	R/only		
	b. Large	km	1600	R	-
2.2.3					
2.2.4	LDV	hour	10	R	-
2.2.5		hour	10	R	-
2.2.6	Wheel loader m60 bucket (specify type)				
	Motor grader	hour	R/only		
		hour	R/only		
2.2.7	Bulldozer	hour	20	R	-
	a. Small				
	b. Large				
2.2.8		hour	20	R	-
2.2.9	Back-actor				
	Tractor loader backhoe (TLB) m60 bucket	hour	20	R	-
	Specify type	hour	20	R	-
2.2.10	Pedestrian roller	hour	R/only		
2.2.11	a. Bomag BW 90	hour	R/only		
	b. Other (<3 000 kg applied force)	hour	R/only		



Item	Description	Unit	Qty	Rate (R)	Amount (R)
2.2.12	Vibratory road roller (specify type) Water tanker a. (small, towable) b. (large) Concrete mixer	hour	40		R -
Carried Forward					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
3	SCHEDULE 3 SITE CLEARANCE <i>Note: All Steel, Copper and Aluminium to be set aside for controlled disposal via specified scrap merchant.</i> <i>All building rubble and spoil to be removed and disposed at a site/pit of the contractors own choice. Transport and dumping costs for the disposal of rubble and spoil to be included in the clearance rates.</i>				
3.1	Clear and Grub site as directed	m ²	200		R -
3.2	Install above wire-mesh fence as required in a temporary format for security/safety reasons.	m	100		R -
3.3	Remove topsoil to nominal depth of 150mm and stockpile	m ³	30		R -
	TOTAL: SCHEDULE 3 SITE CLEARANCE CARRIED TO SUMMARY				R -
				TOTAL	R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
4	SCHEDULE 4				
	EARTHWORKS				
	Site Preparation				
	Bulk excavation for creating platforms				
4.1	Cut to spoil (spoil site to be designated by contractor)	m ³			R -
4.2	Excavate in all materials stockpile and backfill in 150 mm layers, compacted to 93% mod AASHTO density	m ³	6		R -
4.3	Extra-over items 4.2 to 4.8 for excavation in				
4.3.1	Intermediate material	m ³	25		R -
4.3.2	Hard rock material	m ³	25		R -
4.3.3	Overhaul (5km radius from site)	m ³ .km	-		
	Roadbed preparation and the compaction of insitu material				
4.3.4	Compaction to 90% of modified AASHTO density	m ³	50		R -
	Import Rock material from borrow pit designated by contractor as directed by Geo-Tech Report				
4.3.5	150mm nominal size				R -
4.3.6	Selected				
4.3.6.1	Import & Construct the 150mm thick selected layer using G7 material (PI<12) from a commercial source and compact to 93% mod AASHTO density at optimum moisture content.	m ³	28		R -
4.3.6.2	Import and Construct 150mm layer with G5 material imported under above item, compact to 93% Mod. AASHTO density	m ³	28		R -
4.4	Subbase (for Roads)				
4.4.1	Import & Construct 150mm layer with G5 material imported under above item, compact to 95% Mod. AASHTO density	m ³	28		R -
4.4.2	Process subbase material (chemically stabilised C4 layer, with UCS>750, GM >1.2 and PI<6), compacted to 95% mod AASHTO - 3% stabilisation	m ³	28		R -
4.5	Restricted excavation				
	Excavate for foundations in terrace material and place within 5 km for :				
4.5.1	Building strip footings	m ³	165		R -
4.5.2	Retaining wall strip footings	m ³	120		R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
4.5.3	Boundary wall strip footings	m ³	75		R -
4.5.4	Cable ducts	m ³	210		R -
4.5.5	Equipment bases	m ³	325		R -
4.5.6	Palisade & Electric Fence Footings	m ³	250		R -
4.6	Import G7 material from borrow pit designated by contractor, compact to 95% mod AASHTO density to construct	m ³	80		R -
4.7	Import Rock material from borrow pit designated by contractor as directed by Geo-Tech Report				
4.7.1	150mm nominal size	m ³	10		R -
4.8	Extra-over for backfill against				
4.8.1	Building strip footings	m ³	50		R -
4.8.2	Cable ducts	m ³	100		R -
4.8.3	Equipment bases	m ³	125		R -
4.8.4	Palisade & Electric Fence Footings	m ³	90		R -
4.9	Importing				
4.9.1	37 mm nominal size aggregate from commercial sources and placing it as a 100 mm thick layer	m ³	20		R -
	TOTAL:SCHEDULE 4 EARTHWORKS CARRIED TO SUMMARY				R -
TOTAL					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
5	SCHEDULE 5 Earthworks (Pipe & Cable Trenches)				
5.1	Excavate in all materials for trenches, backfill, compact and dispose of surplus material Cable Trenches	m ³	960		R -
5.2	Earthmat trenching in yard platform and insitu along perimeter	m ³	150		R -
	Extra-over item(a) above for				
5.3	Intermediate material	m ³	10		R -
5.4	Hard rock material	m ³	5		R -
5.5	<u>Hand excavation all materials</u>	m ³	200		R -
5.6	Make-up deficiency in backfill material by importation from borrow pit /commercial sources designated by contractor (provisional)				
5.6.1	Selected granular material	m ³	50		R -
5.6.2	Selected fill material with thermal resistivity of ≤ 1.2	m ³	100		R -
5.7	Site Preparation Excavate trench 1,25 m wide to move existing cables to new trench (construction of new trench measured elsewhere)	m ³	175		R -
5.9	WATER FIT AND DISINFECT PIPES, VALVES, AND SPECIALS.				
5.9.1	Complete installation	Sum	1		R -
	TOTAL: SCHEDULE 5 EARTHWORKS (Pipe & Cable Trenches) CARRIED TO SUMMARY				R -



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Item	Description	Unit	Qty	Rate (R)	Amount (R)
TOTAL					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
6	SCHEDULE 6 CONCRETE Equipment Structure Foundations Complete Foundations and concrete structures to be supplied complete with Formwork, reinforcing, concrete to specified strength using all necessary aggregates, price inclusive of holding down bolts & frame. Inclusive of concealed earthing connected to holding down bolts.				
6.1	3000mm x 1300mm x 300mm 315kVA Mini-sub Plinth foundation	each	1	R	-
6.2	3200mm x 1300mm x 300mm 500kVA Mini-sub Plinth foundation	each	1	R	-
6.3	Foundation for sliding access gates complete with embedded guide for rollers, including the poles of the palisade fence.	sum	1	R	-
	Note: Items below are not associated with 6.1- 6.3 above which are to be priced fully inclusive Formwork				
6.4	Class II vertical formwork to the perimeter of the concrete base in 120mm height.	m ²	6	R	-
6.5	Class I vertical formwork to concrete columns	m ²	13	R	-
6.6	Class I vertical formwork to ring beam	m ²	31	R	-
6.7	170 mm stair riser	m	8	R	-
6.8	Round mild steel bars Up to 12 mm dia	kg	860	R	-
6.9	High Tensile Steel Bars Up to 16 mm dia	kg	680	R	-
6.10	20 mm to 24 mm dia	kg	100	R	-
	Welded Mesh				



Item	Description	Unit	Qty	Rate (R)	Amount (R)
6.11	Ref 245	m ²	44		R -
6.12	Concrete 30 MPa Foundations and duct floor slabs	m ³	13		R -
6.13	Columns	m ³	1,5		R -
6.14	150mm Thick Surface Bed	m ³	6		R -
6.15	120mm Thick Apron	m ³	10		R -
6.16	Ring Beam	m ³	4		R -
6.17	Finishes Concrete polished finish	m ²	44		R -
6.18	Wood float finish to aprons and stairs	m ²	58		R -
6.19	10 Mpa Soilcrete	m ³	7		R -
6.20	Joints 10mm Isolation joints in surface beds & aprons sealed with polyurethane sealant	m	70		R -
6.21	3 x 40mm Saw Cut joints in surface beds & aprons	m	50		R -
6.22	Brickwork (All rates to include class II mortar bedding with reamed joints and brickforce in every 5th brick course)	m	32		R -
6.23	230mm Load Bearing brick wall, 3780mm high	m	23		R -
6.24	345mm Retaining Cavity wall with 10MPa infill, 1250mm high	m	10		R -
	230mm Retaining wall, 1250mm high	m			R -
	CARRIED FORWARD				R -
	TOTAL:SCHEDULE 6 CONCRETE				R -
	CARRIED TO SUMMARY				R -
TOTAL					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
7.	SCHEDULE 7 STRUCTURAL STEELWORK				
7.1	Supply and fabrication Preparation of shop detail drawings	Sum	1		
	Supply, fabrication, delivery and erection of steelwork, complete with all the necessary cleats, brackets, gussets packs, etc. using steel to SABS 1431 Grade 300 WA for electrical equipment support				
	All steelwork to be hot dipped galvanized to SABS spec 763 - in accordance with SABS 1200HC				
	Price to include erection, bolts, nuts and rivets				
7.2	Sliding Access Gate for Main Entrances c/w terminal posts, rollers, guides etc. 3m (w) x 2m (h)	No	1		R -
7.3	4.5mm 'vastrap plate' for trench covers cut and installed complete with supports as necessary	m ²	10		R -
7.4	Battison kerbing or similar for seating of trench covers flush with floor	m	225		R -
				Carried Forward	R -
				TOTAL: SCHEDULE 7	R -
				STRUCTURAL STEELWORK	
				CARRIED TO SUMMARY	R -
				TOTAL	R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
8	SCHEDULE 8 SUB-SECTION LV : CABLE DUCTS				
	Supply and lay rectangular portal culverts and slab as cable trench or cable tunnel, Alternatively brick built trenches can be provided Supply of Trench covers measured elsewhere				
8.1	900w x 900d	m	300		R -
	TOTAL SCHEDULE 8 CABLE DUCTS CARRIED TO SUMMARY				R -
				TOTAL	R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
10	SCHEDULE 10 SUB-SECTION BUILDING WORK				
	Prepare and submit Foundation plan design and drawings for approval				
10.1	Switchgear Room	sum	1		R -
	Prepare and submit Roof Truss design and drawings for approval				
10.2	Switchgear Room	sum	1		R -
	Supply and construct complete building / structure as per drawing				
	<u>Price to include:</u> Strip footings and foundations + Re-enforcing as required see geotech report including concrete Brick force, Wall ties, DPC, expansion Joints, Bricks, Face Bricks, Glass bricks, Mortar, Plasterwork, Floor Finishes, Ceilings, Brandering, Insulation, Airfilters, Paintwork, Doors and iron mongery. Cable trenches including battison kerbing for floor plates. Roof trusses, tie beams, wall plates, purlins, roof sheeting (chromadek plus 0.8mm), ridge caps. Gutters, down pipes, gable flashing and fascia boards. Lintels and cable ramps Include for power floating of floorslab with BRC617 weldmesh and cementitious floor hardener, for complete building.				
	<u>Price to exclude:</u> Earthworks incl excavation of building platform and foundations, backfilling and importation of fill material. Cable trench cover Plates and supports Building Electrical and Ventilation installation. Cable racking/basket and trays				
10.3	Switchgear Room - Inclusive of trench construction	m ²	310		R -
	Ant poisoning and weed killer under surface bed of Switchgear Room building				
10.4	Switchgear Room	m ²	50		R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
	TOTAL: SCHEDULE 10 BUILDING WORK CARRIED TO SUMMARY				R -
TOTAL					R -



Item	Description	Unit	Qty	Rate (R)	Amount (R)
11	SCHEDULE 11 Fencing				
11.1	Palisade Fencing				
	Supply all materials necessary, fabricate, deliver to site and erect new 1,8 m high Palisade Fence				
11.1.1	Corner posts with double struts	No	7		R -
11.1.2	Intermediate posts (Dropper)	No	18		R -
11.1.3	3m Palisade Fence panels	m	60		R -
	TOTAL: SCHEDULE 11 FENCING CARRIED TO SUMMARY				R -
TOTAL					R -



ITEM	DESCRIPTION	UNIT	QTY	Material Rate (R)	Labour Rate (R)	AMOUNT
1	BILL E1					
1.1	PRELIMINARY AND GENERAL					
1.1.1	Allow for complying with all General and Special Conditions of Contract, labour requirements, site establishment and the provision of a site office for use of the contractor, client and engineer, storage, water and sanitary facilities, first aid services etc.	sum	1			R -
1.1.2	Allow for attendance to all site meetings and inspections, transport and time, related to such meetings and inspections. Allowance shall be made for a Switching Station log book (in triplicate) and a visitor's book to be kept in the Switching Station building.	sum	1			
1.2	STORAGE, INSURANCE AND GUARANTEE					
1.2.1	Allow for the storage and safe keeping of all materials and equipment including the provision of insurances as stipulated in the Conditions of Contract.	sum	1			R -
1.2.2	Allow for 24hr security for the duration of the contract	sum	1			
1.2.3	Allow for the costs to cover the provision of providing a Performance Guarantee and/or Surety as stipulated in the Conditions of Contract.	sum	1			
1.2.4	Allow for the costs of providing a 12 month guarantee against defects on all workmanship, material and equipment, (Normal maintenance, abuse, wear and tear excluded) and visiting the site at quarterly intervals for inspections and service if necessary.	sum	1			
1.3	PERMITS AND NOTICES					
1.3.1	Allow for obtaining all necessary permits for transport of equipment and/or giving of notices to any other authority or institute involved, as well as co-operation agreements with other traders/contractors involved with the project.	sum	1			R -
1.4	SUPERVISION AND ADMINISTRATION					
1.4.1	Allow for all costs for supervision, management and coordination of all the sub	sum	1			R -



ITEM	DESCRIPTION	UNIT	QTY	Material Rate (R)	Labour Rate (R)	AMOUNT
	contractors, other Contractors and parties in the construction process.					
1.5	DRAWINGS AND DOCUMENTATION					
	Allow for marking-up a full set of drawings to show the exact positions of cables, cable joints, road crossings etc. These "As Built" drawings must be handed to the engineer at commissioning of the contract and also included in the maintenance manuals to be provided. Electronic copies of all drawings, wiring diagrams, cable schedules shall be handed to the engineer on completion of the project.					
1.5.1		Sum	1			R -
1.6	SWITCHING STATION ALARM & SURVEILLANCE					
	Provisional amount for the design, supply, delivery and installation of a Switching Station Alarm linked to the clients armed response contractor.	Prov Sum	1			R -
1.7	SWITCHING STATION FIRE DETECTION					
	Provisional amount for the design, supply, delivery and installation of a Switching Station fire detection system linked to the Client's armed response contractor	Prov Sum	1			R -
1.7	ADDITIONAL ITEMS					
	Any additional item(s) that the tenderer may wish to detail and price. (Provide full details)					
						
						
						
						
						
						
						
						
	TOTAL: SCHEDULE EB1 P & G CARRIED TO SUMMARY					R -
TOTAL						R -



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
	BILL E2				
2	GENERAL ELECTRICAL				
2.1	Signs and Notices				
	Allow for all the signs as per the Detail Technical Specification				
2.1.1	Signs and notices on Buildings	Sum	1	R	-
2.1.2	Signs and Notice on Perimeter Fences and Switching Station Entrances	Sum	1	R	-
2.1.3	Combined Emergency Notices	Sum	1	R	-
2.1.5	Wall mounted key box	each	1	R	-
2.1.6	First Aid kit to NOSA requirements	each	2	R	-
2.2	Fire Extinguishers				
	Supply and Install fire Extinguishers in positions directed by engineer / fire chief				
2.2.1	Indoor 9kg	No	2	R	-
2.2.2	Outdoor 9kg in Weather and vandal resistant enclosure	No	2	R	-
2.3	Lighting and Small Power Lights complete with fittings and luminaires and control compartment				
	Supply, deliver and install all the necessary lighting equipment and small power equipment as per drawing layouts.				
2.3.1	42W, 3800 lm, 4000K Bulkhead LED Luminaires with IP66	No	6	R	-
2.3.2	55W, 6038 lm, 4000K Roughgaurd LED Luminaire with IP65	No	3	R	-
2.4	Earthing and Lightning Protection				
	Switching station Earthing			R	-



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
2.4.1	Take appropriate Earth Resistance Measurements (soil resistivity tests) and submit earth grid design to Engineer for approval submit earth test results after completion	Sum	1		R -
2.4.2	Earth mat material (10mm dia round copper)	Sum	1		R -
2.4.3	3 x 50mm Copper Earth bar in trench	Sum	1		R -
2.4.4	Earth connection strap (50mm x 3mm flat copper strap)	Sum	1		R -
2.4.5	Flexicor Anti-Theft type Earth connection Conductor (16mm ² copper conductor equivalent)	m	rate only		
2.4.6	Flexicor Anti-Theft type Earth connection Conductor (70mm ² copper conductor equivalent)	m	rate only		
2.4.7	Flexicor Anti-Theft type Earth connection Conductor (16mm ² copper conductor equivalent)	m	rate only		
2.4.8	10mm dia bare round copper conductor	m	rate only		
2.4.9	Welding material (Copper weld or Exothermic)	sum	1		R -
2.4.10	Lightning Protection of Switchyard Provisional amount for the specialist evaluation of the LPS in terms of SANS 10313 and necessary modifications to proposed LPS	Prov Sum	1		R -
2.4.11	Lightning Protection of Building Co-ordinate and provide Lightning protection system for the switching station building to SANS 10313 including equipotential bonding and electronic earthing requirements (cross bond to earthmat) inclusive of certification by specialist.	Sum	1		R -
2.5	AC/DC Distribution Switchgear Room				



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
2.5.1	Main AC/DC distribution board supplied from 315KVA mini-sub.	sum	1		R -
	Main 110V DC transfer panel/ distribution board for 11kV protection and SCADA	sum	1		R
2.5.2	110V DC Battery charger	sum	1		R
2.5.3	110V DC Battery tripping unit with batteries - include for stand and battery cabling and connections and battery condition monitor.	sum	1		R -
2.5.4	Supply, install and comission Stats metering	sum	1		R -
2.5.7	LV Cable Reticulation -Supply and Install Include for supply, delivery, storage, insurance, installation in lengths as required in trenches or cable racks or pipes	sum	1		R -
2.5.8	Cable Reticulation - Terminate and connect Include for all glands, SPDs, lugs, ferrules, core numbering and cable identification	sum	1		R -
2.5.9	Cable Reticulation - Joints Include for all jointing material, lugs, ferrules etc , cast resin joint only will be accepted	sum	1		R -
2.6	Control cables				
2.6.1	Supply and Install Include for supply, delivery, storage, insurance, installation in lengths as required in trenches or cable racks or pipes	sum	1		R -
2.6.2	Terminate and Connect Include for all glands, SPDs, lugs, ferrules, core numbering and cable identification	sum	1		R -
2.7	Signal Cables - for hard wire connection between switchgear and SCADA system				
2.7.1	Supply and Install				



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
	Include for supply, delivery, storage, insurance, installation in lengths as required in trenches or cable racks or pipes	sum	1		R -
2.7.2	Terminate and Connect Include for all glands, SPDs, lugs, ferrules, core numbering and cable identification	sum	1		R -
2.8	Equipment Labelling				
2.8.1	Indoor Labels				
a	Primary Panel Labels	sum	1		R -
b	Descriptive Operational Labelling	sum	1		R -
2.9	Interlocking and Intertripping				
2.9.1	Wiring / Programming of Electrical Interlocking	Sum	1		R -
2.9.2	Provisional Amount for provision of Mechanical interlocking	Prov Sum	1		R -
Carried Forward					R -
TOTAL: SCHEDULE EB2 GENERAL ELECTRICAL CARRIED TO SUMMARY					R -
TOTAL					R -



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
4	BILL E4 CONTROL, PROTECTION AND 11KV SWITCHGEAR				
4.1	11kV Control & Protection Panels				
4.1.1	11kV On-Board Protection Panels				
a	11kV Incomer Cable Protection	each	2	R	-
b	11kV Cable Feeder Protection scheme	each	5	R	-
c	11kV Bus Section Protection Scheme	each	1	R	-
4.2	Protection Settings Price for the determination of protection relay settings and programming of the protection relays	sum	1	R	-
4.3	Metering and Quality of Supply				
4.3.1	Metering & Quality of Supply panel	sum	1	R	-
4.4	Indoor Metal Clad Switchgear New 11 kV 1250A, 25kA, 1s AFLR rated switchboard complete as per specification inclusive of CT's, VT's & DS with ES. Protection to be provided On-Board as per 4.1.1, Inc for the specified No of cable terminations per panel.				
4.4.1					
a	11kV Incomer Feeder GIS switchgear 1250A	each	2	R	-
b	11KV Outgoing Feeder GIS Switchgear 630A	each	5	R	-
c	Bus Section GIS Switchgear 1250A	each	1	R	-
4.5	11kV indoor Busbar Rating 11kV Indoor Cu Busbar Rated at 1250A	each	1	R	-
	TOTAL: SCHEDULE EB3 CONTROL & SWITCHGEAR CARRIED TO SUMMARY			R	-
TOTAL				R	-



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
5	BILL E5				
5.1	MV & LV Cable and Miniature Substations				
	11kV Cable Work				
5.1.1	11kV Incomer Feeder Cables				
a	Supply and lay 11/6.35kV , 185mm ² PILC three core Cu cable	m	40		R -
b	Supply and install 11/6.35kV , 185mm ² PILC three core Cu cable indoor termination	No	2		R -
c	Supply and install 11/6.35kV , 185mm ² PILC three core Cu cable joint	No	2		R -
d	Supply and lay BCEW 70mm ²	m	20		R -
					R -
5.1.2	11kV Outgoing Feeder Cables				
a	Supply and lay 11/6.35kV , 70mm ² PILC three core Cu cable	m	2000		R -
b	Supply and install 11/6.35kV , 70mm ² PILC three core Cu cable indoor termination	No	5		R -
c	Supply and install 11/6.35kV , 70mm ² PILC three core Cu cable joint	No	8		R -
5.1.3	New connections between 315KVA mini-sub and 11kV switchboard				
a	Supply and lay 11/6.35kV , 70mm ² PILC three core Cu cable	m	50		R -
5.2	LV Cable				
	Supply and lay 400V 4C 25mm ² Cu PVC SWA PVC Cable for Auxiliary supply	m	50		R -
5.3	Miniature Substations				
	Supply, delivery and installation of the miniature substations which includes the MV cable terminations				
5.3.1	315KVA 11000/400 V Miniature substation	No			R -
5.3.2	500KVA 11000/400 V Miniature substation	No			R -
	TOTAL: SCHEDULE EB4				
	11KV CABLE NETWORK				
	CARRIED TO SUMMARY				R -
TOTAL					R -



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
6	BILL E6				
	Switching Station AUTOMATION				
6.1	Switching Station ICAP				
6.1.1	Supply and install all necessary Fibre Optic Cables, complete with connectors for a fully functioning ICAP system as specified	sum	1		R -
6.1.2	Supply and install CAT5 / 6 (UTP) cables, complete with connectors for a fully functional ICAP system as specified	sum	1		R -
6.1.3	Supply and install all Switches, Hubs and Accessories as required	sum	1		R -
6.1.4	Supply & Install complete Switching Station free standing Control Panel, C/W HMI, communication gateway PC, GPS Clock, discrete I/O device.	sum	1		R -
6.1.5	Provision, Setup & programming of all software	sum	1		R -
6.1.6	Setup interfacing to IEDs	sum	1		R -
6.1.7	Remote engineering workstation (Note-Book) C/W all necessary software for remote engineering integration of complete ICAP system.	sum	1		R -
6.1.8	supply and Install approved RTU (D20).	sum	1		R -
6.1.9	Supply and Install serial or hardwired communication for SCADA to all Protection, Metering, DC and Security equipment.	sum	1		R -
6.1.10	Pre-commissioning and commissioning of the new installation.	sum	1		R -
	TOTAL: SCHEDULE EB5				R -
	SCADA				
	CARRIED TO SUMMARY				
TOTAL					R -



ITEM	DESCRIPTION	UNIT	QTY	Rate (R)	AMOUNT
7	BILL E7 COMMISSIONING				
7.1	EQUIPMENT				
7.1.1	General	sum	1		R -
	Functional Testing				
7.1.2	Complete	sum	1		R -
7.2	Switching Station ICAP				
7.2.1	Switching Station ICAP - FAT	sum	1		R -
7.2.2	Switching Station ICAP - SAT	sum	1		R -
7.3	Factory Acceptance Testing & Travel Related Costs				
7.3.1	This item must allow for the travel, accommodation & out of office (Promulgated) professional hourly rates for inspections. This shall apply for 2 members of professional team.	sum	1		R -
	TOTAL: SCHEDULE EB6 COMMISSION CARRIED TO SUMMARY				R -
TOTAL					R -



CIVIL AND BUILDING WORKS

TOTAL

SCHEDULE 1	: GENERAL (SANS 1200 A) , PU, PLI	R	-
SCHEDULE 2	: DAYWORKS	R	-
SCHEDULE 3	: SITE CLEARANCE (SANS 1200 C)	R	-
SCHEDULE 4	: EARTHWORKS (SMALL WORKS) SANS 1200 DA	R	-
SCHEDULE 5	: EARTHWORKS (PIPE TRENCHES) SANS 1200 DB	R	-
SCHEDULE 6	: CONCRETE (SMALL WORKS) SANS 1200 GA	R	-
SCHEDULE 7	: STRUCTURAL STEELWORK (SANS 1200 H ,HC)	R	-
SCHEDULE 8	: CABLE DUCTS (SANS 1200 LC)	R	-
SCHEDULE 9	: BUILDING WORK (PB)	R	-
SCHEDULE 10	: FENCING (PA)	R	-
Subtotal Civil and Appurtenant Works		A R	-

ELECTRICAL WORKS

BILL E1	: PRELIMINARY AND GENERAL	R	-
BILL E2	: GENERAL ITEMS	R	-
BILL E3	: CONTROL, PROTECTION AND SWITCH GEAR	R	-
BILL E4	: MV CABLE	R	-
BILL E5	: SCADA	R	-
BILL E6	: COMMISSIONING & TRAINING	R	-
Subtotal Electrical Equipment		B R	-

TOTAL CIVIL AND ELECTRICAL (A+B)	R	-
ADD 10% CONTINGENCIES	R	-
SUBTOTAL	R	-
ADD 15% VAT	R	-
TOTAL CARRIED FORWARD TO FORM OF OFFER	R	-



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

C2.3 DATA SHEETS

C2.3 DATA SHEETS

No tender for any equipment will be accepted unless the schedules have been completed where applicable. Delivery dates must be considered to determine the completion period of the contract.

Missing information must be provided for the specified equipment offered or for any alternative/equivalent which the Tenderer might like to offer. When an alternative/equivalent is offered the comparative prices must be given but, only the cost of the specified items must be transferred to the schedule of quantities.

Abbreviations specific to this schedule

3C	=	3 Core
A	=	Ampere
Cu	=	Copper
Hz	=	Hertz
Kg	=	Kilogram
KV	=	Kilovolt
LED	=	Light Emitting Diode
LV	=	Low Voltage
max	=	maximum
MV	=	Medium Voltage
min	=	minimum
mm	=	millimetre
N/O	=	normally open
N/C	=	normally close
O/H	=	Overhead
PILC	=	Paper Insulated Lead Cable
PVC	=	Polyvinyl Chloride
SWA	=	Steel Wire Armour
VA	=	Volt-Ampere
V	=	Volt
U/G	=	Underground



C2.3.1 11KV COMPACT SWITCHGEAR

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	GENERAL		
1.1	Manufacturer		
1.2	Country of origin		
1.3	Catalogue model / type designation		
1.4	Circuit breaker module	Qty	8
1.5	Metering module	Qty	2
1.6	Busbar sectionalizer module complete with busbar riser (for busbar-sections)	Qty	1
1.7	Busbar earthing module	Qty	1
1.8	Guarantee period	months	12
1.9	Maintenance trolley (if applicable)		No
1.10	Required period for spares	years	10
2.	PRIMARY & EARTH CIRCUIT RATING		
2.1	Nominal Voltage	kV	11
2.2	Rated frequency	Hz	50
2.3	Rated voltage (insulation)	kV	12
2.4	Rated impulse withstand voltage	kV _{PEAK}	95
2.5	Rated short-duration power frequency withstand voltage (50 Hz: 1 min)	kV _{RMS}	28
2.6	Rated short-time withstand r.m.s. current (short-circuit breaking)	kA _{RMS}	20
2.7	Rated duration of short circuit (0.5 s)	kA for 0.5 s	20
2.8	Internal arc classification		IAC AFL
2.9	Rated short circuit making current for all switches	kAp	50
3.	ASSEMBLY		
3.1	Enclosure material		Metal Clad
3.2	Horizontal levels		Single
3.3	Colour (NRS 003, Clause 4.14.4)		RAL 7035
3.4	Overall board dimensions Length Depth Height	mm mm mm	
3.5	Component withdraw dimensions max. width per panel max. depth per panel max. height per panel	mm mm mm	
3.6	Joggle chamber width (if used)	mm	N/A



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
3.7	Integral shutters to NRS 003-1:1994 (Clause 4.2.8)		N/A
3.8	Cable testing facilities:		
	Isolator switch disconnecter		Required
	Fixed circuit breaker module		Required
3.9	Integral cable earthing switch:		
	Isolator switch disconnecter		Required
	Circuit breaker		Required
3.10	Accessibility of compartments:		
	Switch / disconnecter / busbar enclosure		Not accessible
	Cable compartment		Interlocked
	Cable test facility compartment		Interlocked
	Metering compartment – air insulated		Interlocked
3.11	Padlocking facilities: All operating shafts, metering compartments		Required
3.12	Pad-locking facility - shank diameter	mm	
3.13	Withdrawable, pad-lockable parts		N/A
3.14	Insulation medium in switch enclosure		SF6
3.15	Switch disconnecter / earth switch interrupting medium		SF6
3.16	Circuit breaker interrupting medium		Vacuum
3.17	Circuit breaker operation:		
	Umbilical cord facility "Cannon socket" with 15 m lead		Required
3.18	Dimensions of cable boxes:		
	Internal arc vented air insulated (interlock front covers)		Required
	Distance between cable support and bushing center		650mm
3.19	Comply with IEC 62271-200, IAC A-FL, 20kA, 0.5s		Yes
3.20	Separate compartments needed for:		
	Main switch		Yes
	Primary busbar		Yes
	Voltage transformers		Yes
	Power cable		Yes
	Relay & Control		Yes
4.	BUSBAR		
4.1	Number of 3-phase busbar sets		
4.2	Number of busbar sections		2
4.3	Configuration (Horizontal/Vertical/Delta)		Horizontal
4.4	Section coupling device (Breaker, Link)		three position isolator/earthing switch



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
4.5	Busbar rated current	A	1250
5.	ACCESS		
5.1	Switching operations		From front
5.2	Panel hinges with removable doors		Vertical
5.3	Door stop		Yes
6.	POWER CABLING		
6.1	Min height of cable box above floor	mm	200
6.2	Cable entry		From Rear Bottom
	Minimum cable termination height in panel	mm	530
6.3	Termination medium		AIR
6.4	Termination method		Shrink-end
6.5	Termination clearances (Air & bare lugs)		
6.6	Earthing via insulated glands		Yes
6.7	Cores per cable		3
6.8	Type & Size: Incomer circuits	mm ²	185 3C Cu PILC
	Feeder circuits	mm ²	70 3C Cu PILC
7.	EARTHING		
7.1	Busbar/Bus-section earthing facilities		Yes
7.2	Circuit earthing facilities (cables)		Yes
7.3	To be rated for fault making		Yes
7.4	Type of earthing device (Busbar and Circuit) with indication		Fixed, Integral (Safety Interlocks)
7.5	Details of earthing facilities offered		
7.6	Details of earthing busbar in bus-section panels		
7.7	Copper earth-strap (rectangular)	mm ²	3 x 50
8.	CURRENT TRANSFORMERS		
8.1	Rated short-time withstand r.m.s. current	kA _{RMS}	20kA, 1s
8.2	Location		All Panels
8.3	Position of bar primary		Cable Side
8.4	Type		Bar Primary
8.5	Used ratios		As per Project Specification



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
8.6	Protection current transformers		As per Project Specification
8.7	Metering current transformers		As per Project Specification
8.8	Shorting-facility on terminal blocks		Yes
8.9	Secondary winding circuits wired to		Relay Chamber
9.	VOLTAGE TRANSFORMERS		
9.1	Rated short-time withstand r.m.s. current	kA _{RMS}	20
9.2	Location		Metering Module
9.3	Position of primary		Busbar
9.4	Function		Metering
9.5	Type		3-Phase
9.6	Quantity per busbar section	Set	
9.7	Ratio		11000/110 V
9.8	Class		0.5
9.9	Rated Burden	VA	25
9.10	Accuracy Range		SANS 60044-2
9.11	Voltage factor:		
	- Continuous		1.2
	- 30 s		1.9
9.12	Short-circuit withstand capability (1s)		SANS 60044-2
9.13	Retractable/Withdrawable with shutters		No
9.14	Protection of primary windings		MV Fuses
9.15	VT MV fuse rating	A	
9.16	VT MV fuse make and type		
9.17	Protection of secondary windings		Fuses
9.18	Secondary winding circuits wired to		Metering Cubical
10.	POWER SUPPLY		
10.1	Peak power requirement/panel	VA	
10.2	Standby power requirement/panel	VA	
10.3	AC auxiliary supply (available on site)	V _{ac}	240
10.4	DC auxiliary supply	V _{dc}	
11.	MARKING & LABELS		
11.1	Label visibility		During In-Service Conditions



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
11.2	Main circuit label dimensions on front and rear of switch-panels min width min height	mm mm	Front and Rear of Panels (NOT ON REMOVABLE DOORS)
11.3	Main circuit label positions		
11.4	Function label dimensions (min height)	mm	
11.5	ON, OFF, EARTH labels per NRS 003-1		
11.6	Shutter labels per NRS 003-1		
11.7	Busbar blanking plates		N/A
12.	ACCESSORIES (where applicable)		
12.1	Racking, charging and closing handles	Sets	1
12.2	Ramp/alignment plates	Sets	N/A
12.3	Special and custom tools	Sets	1
12.4	Accessories cabinet	Qty	1
12.5	Maintenance trolley	Qty	N/A
12.6	Spares for routine maintenance	Sets	2
13.	DOCUMENTATION		
13.1	Type test certificates	Sets	2
13.2	Routine test certificates for each panel	Sets	2
13.3	General arrangement as-built drawing	Sets	2
13.4	Schematic & wiring diagrams	Sets	2
13.5	Replacement part lists	Sets	2
13.6	Operation & maintenance manuals	Sets	2
13.7	Units used in Republic of South Africa		In Tender/ Offer
13.8	Spare lists, if applicable		2
13.9	Pack lists, if applicable		2



C2.3.2 11KV CIRCUIT BREAKER

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	GENERAL		
1.1	Manufacturer		
1.2	Country of origin		
1.3	Model/Type designation		
1.4	Total breaker mass (Cart included)	kg	
1.5	Rating nameplate position		Front
2.	PRIMARY CIRCUIT RATINGS		
2.1	Rated normal (630/800/1250/2000/2500)		
	Incomer circuits	A	1250
	Feeder circuits	A	630
	Bus Section	A	1250
3.	OPERATION & FUNCTION		
3.1	Type of arc control method		Vacuum
3.2	Number of poles		3
3.3	Interchange ability with units in existing switchboard (main & control circuits)		Only to breakers rated equivalent or lower
3.4	Isolation displacement (Vertical/Horizontal)		
3.5	Withdrawable with self-alignment device		N/A
3.6	Transport device (Integral/External)		
3.7	Transport-device wheels		N/A
3.8	Level alignment on external transport device, if applicable		N/A
3.9	Number of external transport-devices, if applicable		
4.	STATUS INDICATION		
4.1	Location of indicators		Front on Breaker
4.2	Breaker Open/Closed		Mechanical
4.3	Breaker racking/test position		Mechanical
4.4	Mechanism charged/discharged		Mechanical
4.5	Trip counter		Mechanical
4.6	Earthing position		Mechanical
5.	OPERATING MECHANISM		
5.1	Mechanical Open, Close & Trip		Yes



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
5.2	Closing mechanism type [NRS 300-2(4.3)] Transformer and feeder circuits Coupler circuits (XEM – Motor charged spring with manual or electrical release)		XEM XEM
5.3	Charge method for closing device (Spring)		Hand & Motor
5.4	Spring-charge motor ratings AC Supply voltage AC real power (max)	V _{ac} kW	240
5.5	Isolation of trip-circuit if breaker earthed		Yes
5.6	Trip-free breaker operation		Yes
5.7	Lock-out on SF ₆ pressure failure		N/A
6.	COIL DEVICES		
6.1	Range of operation (as applicable) AC supply voltage DC supply voltage	% %	85 TO 110 70 TO 110
6.2	Ratings for continuous operation DC supply voltage DC real power (max)	V _{dc} kW	30 1,5
6.3	Trip coils required	Qty	1
6.4	Close coils required	Qty	1
7.	AUXILIARY CONTACTS/FACILITIES (Spare, mechanically operated)		
7.1	Duty rating AC & DC supply current AC supply voltage DC supply voltage	A V _{ac} V _{dc}	10 240 30
7.2	N/O & N/C contact reference positions		Breaker Open Spring Discharged
7.3	Alarm SF ₆ contacts	N/O N/C	N/A N/A
7.4	Lockout - SF ₆ contacts	N/O N/C	N/A N/A
7.5	Breaker auxiliary "a" and "b" contacts	N/O N/C	
7.6	Spring-limit-switch contacts	N/O N/C	
7.7	Breaker earthed	N/O	
7.8	Motor protection (Fuses/MCCB's/None)		MCCB



11KV SWITCHGEAR CONTROL ANCILLARIES

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	CONTROL CABLING		
1.1	Cross-sectional area Control wires CT & VT wires	mm ² mm ²	2.5 2.5 / 4
1.2	Minimum number of strands		7
1.3	Colour Earth wires All other wires		Green & Yellow Grey
1.4	Screening in main circuit compartments		Yes
1.5	Insulated gland plates - cable screens		Yes
1.6	Wiring to separate external terminal box		Yes
2.	CONTACT RATING		
2.1	DC category duty rating	A V _{dc}	10 30
2.2	AC category duty rating	A V _{ac}	10 240
3.	FUSES		
3.1	Type		HRC
3.2	Location		Relay Chamber
4.	INDICATORS		
4.1	Type		LED
4.2	Location		Front of Panels
4.3	Equipment status SF6 low gas alarm Breaker closed Breaker open Breaker earthed Heaters on		Yes Red Green Blue White
4.4	Busbar section/s in-service		Per Phase
4.5	Live phase indication		Per Phase with Phasing Facility
4.6	Voltage divider/transducer Make Type Dielectric Rating		



C2.3.3 BATTERY CHARGER AND BATTERIES

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	GENERAL		
1.1	Manufacturer		
1.2	Country of origin		
1.3	Catalogue model / type designation: - Main Charger - Secondary Charger		
1.4	Required period for spares	years	10
2.	CHARGER SPECIFICATIONS		
2.1	Dimensions of free-standing battery cabinet: - Main Charger - Secondary Charger		
2.2	Supply power	V	230/250V single phase
2.3	Output voltage	V	30V DC
2.4	Minimum charging capacity: - Main Charger - Secondary Charger	A A	30A DC continuous 20A DC continuous
2.5	Minimum standing load capacity	A	2.5A DC
2.6	Charger type		Constant voltage, Ampere limited
2.7	Regulation		± 10% Input variation, ± 1% DC
2.8	Amp hour rating: - Main Charger - Secondary Charger	Ah Ah	98 Ah 29 Ah
3.	BATTERIES		
3.1	Type		Single Nickle Cadmium vented plate cells (NiCAD)
3.2	Nominal voltage per cell	V	1.2V



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
3.4	Quantity for 98 Ah rating (Main Charger)		25 series connected L49P batteries or similar / equivalent approved (two 49 Ah battery banks connected in parallel to make 98 Ah battery)
3.5	Quantity for 29 Ah rating (Secondary Charger)		25 series connected L29P batteries or similar / equivalent approved
3.6	Battery nominal voltage	V	30V DC
3.7	Maximum boost / float voltage	V	35V DC / 38V DC (pre-settable)
3.8	Operating temperature		-10 to +40 deg Celsius
4.	DOCUMENTATION		
4.1	Type test certificates	Sets	2
4.2	Routine test certificates for each unit	Sets	2
4.3	General arrangement as-built drawing	Sets	2
4.4	Schematic & wiring diagrams	Sets	2
4.5	Replacement part lists	Sets	2
4.6	Operation & maintenance manuals	Sets	2



C2.3.4 METERING CURRENT TRANSFORMERS AND VOLTAGE TRANSFORMERS

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	PROTECTION CURRENT TRANSFORMERS		
1.1	Means of current measurement		CT's / Current Sensors
1.2	CT Make and designation		
1.3	CT Ratio	A	200/1
1.4	CT Class and accuracy limit factor		5P10
1.5	CT burden	VA	2.5
1.6	Short-circuit withstand capability (1s)	kA for 1 s	25
1.7	Current sensor make and designation		
1.8	Current sensor type		
1.9	Current sensor rating/ratio	A	200/1
1.10	Short-circuit withstand capability (1s)	kA for 1 s	25
2.	METERING CURRENT TRANSFORMERS		
2.1	CT Ratio		100/200/5
2.2	Rated burden		10VA
2.3	Accuracy class		0.5
2.4	Short-circuit withstand capability (1s)	kA for 1sec	25
2.5	Metering CT type		Ring Core CT's
3.	METERING VOLTAGE TRANSFORMERS		
3.1	Ratio	V	11000/110
3.2	Rated burden	VA	25
3.3	Accuracy Class		0.5
3.4	Accuracy Range		SANS 60044-2
3.5	Voltage factor:		
	- Continuous		1.2
	- 30 s		1.9
3.6	Short-circuit withstand capability (1s)		SANS 60044-2
3.7	VT MV fuse rating	A	
3.8	VT MV fuse make and type		
3.9	Secondary compartment		Insulated from primary
3.10	Secondary test block facility		Required



ITEM NO	DESCRIPTION	UNIT	SPECIFIED
3.11	Secondary terminals enclosed in LV compartment		Required
Additional information			



C2.3.5 11 kV TERMINATIONS

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	Manufacturer	kV	11 kV Indoor heatshrink termination as supplied by Raychem or Tank with RICS 3133 12kV insulated T-adapters or approved equivalent to Stellenbosch Municipality specifications
2.	Voltage rating		
3.	Type		
4.	Code No	weeks	
5.	Delivery period		
Additional information		Terminations kits shall include earthing kits with constant force springs for earth strap fitting.	

C2.3.6 11 kV CABLE JOINTS

ITEM NO	DESCRIPTION	UNIT	SPECIFIED
1.	Manufacturer	kV	11 kV Compound filled cast iron to Stellenbosch Municipality specifications
2.	Voltage rating		
3.	Type		
4.	Code No	weeks	
5.	Delivery period		
Additional information			



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PART C3: SCOPE OF WORKS



SCOPE OF WORKS:

1.1. Scope of Project

The extent of the works includes the La Terra detailed design and construction for the establishment of a new La Terra 11kV switching station. The project scope of works shall comprise of the following, as detailed in the attached design drawings in Annexure A. The Contractor is responsible for the final designs and submitting the as-built drawings. The following scope of work is required to complete this project:

1.2. Preliminary works

It is the contractor's responsibility to identify the existing on the area of construction and the surrounding areas. The extent of the works includes the La Terra detailed design and construction for the establishment of a new La Terra 11kV switching station. The project scope of works shall comprise of the following,

- Identification of all the existing services service on the area of constructions and within the vicinity of the construction area.
- Locate and relocation of the 70mm² 11kV underground cable running across the area of construction.
- If the existing 70mm² 11kV underground cable running across the area of construction, is not fit for use
- Located and relocate the 2 x 185mm² 11kV underground cable running along the area of construction.
- Move the pile of soil and the bricks that are on the area of construction.

1.3. Electrical Design Scope of Works

- Design, supply, delivery and installation of 11kV metalclad switchgear
 - 1 x 1250A 11kV Bus-section breaker
 - 2 x 1250A 11kV incomer breakers
 - 8 x 630A 11kV outgoing feeder breakers.
- Design, supply, delivery and installation of auxiliary equipment.
- Design, supply, delivery and installation of 11kV cables and cable terminations:
 - Locate the existing 2 x 185mm² bulk supply cables installed from Franschhoek substation and terminate them onto the 11kV switchboard of the new La Terra switching station. The cables may have to be rerouted or extended depending on the location of the switching station.
 - Installation and termination of outgoing feeders.
- Design, supply, delivery and installation of MV mini substations at determined points around the Franschhoek area:
 - 315kVA mini substation
 - 500kVA mini substation
- Testing and commissioning of all electrical equipment.

1.4. Civil Scope of Works

- Design and construction monitoring of the civil works of the project, this includes:
- Design of yard area and associated stormwater drainage.
- Clear view security fence around the station and access into the station yard.



- Cut and fill earthworks to level the ground for the switching substation building.
- Structural design of building in conjunction with architectural design, including submission to council for approval.



APPLICABLE STANDARDS

1.1. Design information

1.1.1. Applicable Electrical Standard and Specifications

The following standards and specifications shall be applicable to the supply, design, delivery and installation of the electrical equipment, for the project.

Specification	Description
DST-34-034	Generic Substation Design
BS EN 50272-2	Battery Stands
DST-34-05	Planning Guide for Medium Voltage Underground Cable systems
NRS 039:1995:	Guide for the application of gapless metal oxide surge arresters in distribution system.
BS 88	Fuses
IEC 60071	Insulation Coordination
IEC 60099	Surge Arresters
NRS 039:1995	Guide for the application of gapless metal oxide surge arresters in distribution system.
IEC 62271-102	Alternating current dis-connectors and earth switches
IEC 60137	Insulated bushings for alternating voltages above 1 000V
IEC 60168	Tests on indoor and outdoor post insulators of ceramic material or glass for systems with nominal voltages greater than 1 000 V
IEC 60273	Characteristic of indoor and outdoor post insulators >1000V
IEC 60502	Power cables with extruded insulation and their accessories
IEC 60529	Degree of protection provided by enclosures (IP code)
IEC 60947	Low-voltage switchgear and control gear
SANS 1632-1	Batteries Part 1: General information
SANS 1652	Battery Chargers – Industrial type
SANS 1339	Electric cables - Cross-linked polyethylene (XLPE)
SANS 156	Moulded-case Circuit Breakers
IEC 61869-1	Instrument transformers Part 1: General.
IEC 61869-2	Instrument transformers Part 2: Current transformers.
IEC 61869-3	Instrument transformers- Part 3: Voltage transformers.
NRS 003:2008 and 003-2	Metal-clad switchgear and standard wiring numbers.
NRS 030	Electromagnetic Voltage transformers.
NRS 040 All parts	Operating Regulations for High Voltage Systems
IEC 60889	Hard drawn Aluminium wire for overhead line conductors
IEC 61089	Round wire concentric lay overload electrical stranded conductors
IEEE Standard 80	Guide for safety in alternating current substation grounding.
IEC 60146	Battery Chargers



Specification	Description
IEC 62271-100 and 200	AC metal-enclosed switchgear and control gear for rated voltages above 1kV and up to and including 52kV
IEC 60623	Batteries
IEEE 1115-2000	Sizing of Nickel-Cadmium batteries
DIN VDE 48 084, 46 203 & 46 206 Part 2 & 3, 0220: BS 159	Busbars and busbar connections
IEC 60038	IEC Standard Voltages
IEC 60068	Environmental testing
IEC 60664	Insulation co-ordination for equipment within low-voltage systems
ANSI C37.90	IEEE Standard for Relays and Relay Systems Associated with Electric Power Apparatus
IEC 62053-22	Alternating current static watt-hour meters for active energy (classes 0, 2 S and 0, 5 S).
IEC 60296	Specification for unused mineral insulating oils for transformers and switchgear
IEC 60156	Insulating liquids - Determination of the breakdown voltage at power frequency

1.1.2. Applicable Civil and Structural Standard and Specifications

The following industry codes and standards should be used in the design of the civil and structural items. The design code applicable shall refer to the latest revision of the code at the time of the design.

Number	Title
SANS 10100-1	South African Standard: Code of Practice for the Structural Use of Concrete, Part 1: Design
SANS 10100-2	South African Standard: Code of Practice for the Structural Use of Concrete, Part 2: Materials and Execution of Work
SANS 10144	Detailing of Steel reinforcement for Concrete
SANS 10161	South African Standard: Design of Foundations for Buildings
SANS 10160	South African Standard: Basis of Structural design and actions for buildings and industrial structures
SANS 10162-1	The structural use of steel. Part 1: Limit state design of hot rolled steelwork
SANS 10162-2	The structural use of steel. Part 2: Limit state design of cold formed steelwork
SANS 1200 Series	The Code of practice for use with standardized specifications for civil engineering construction and contract documents.
C&CI	Concrete industrial floors on the ground – Louis R Marais & Bryan D Perrie
SANS 9001	Quality management systems: Requirements
SAISC	Southern African Steel Construction Handbook – Limit state design.
SAISC	Structural steelwork Connections – Limit state design
SAISC	Southern African Hollow sections handbook – Limit state design
SANS 1024	Welded steel fabric for concrete reinforcement.
SANS 920	Steel bars for concrete reinforcement.
SANS 878	Ready-mixed concrete.



Number	Title
SANS 1431	Steel used for fabrication work.
SANS 135	ISO metric black bolts, screws and nuts (hexagon and square).
SANS 136	ISO metric precision hexagon-head bolts, screws and nuts (coarse thread medium fit series).
SANS 1282	High strength friction grip bolts.
SANS ISO 1461	Hot-dip (galvanised) zinc coatings.
SANS 558	Cast iron surface boxes and manhole and inspection covers and frames.
SANS 791	Un-plasticized polyvinyl chloride (uPVC) sewer and drain pipe fittings
BS 5337	The structural use of concrete for retaining aqueous liquids
SANS 1305	Sealing compounds for the building industry, one-component, silicone-rubber-base
BS 1247	Manhole step irons.
SANS 471	Portland cements (ordinary, rapid hardening, and sulphate resisting).
SANS 1083	Aggregates from natural sources.
SANS 455 & SANS 044	Welded connections
SANS 0400	The application of the National Building Regulations 1990 Part G – Excavations
TRH 10	The Design of Road Embankments - Committee of State Road Authorities (CSRA) (1994);
TRH 20	Structural Design, Construction and Maintenance of Unpaved Roads

1.1.3. General System information

	System Value
Rated Voltage Un	11kV
Maximum Voltage Um	12kV
Rated short duration power-frequency RMS withstand voltage	28kV
Rated peak lightning impulse withstand voltage (BIL)	95kV
Frequency	50Hz
Short Time Current Duration	3s
Rated Short Circuit Current	25kA
Creepage Distance (Heavy Pollution)	25mm/kV

1.2. Substation Primary Equipment Design

1.2.1. Cables

The La Terra 11kV switching station will be supplied by 2 x 185 mm² 11kV 3C PILC Cu. Cables that are already installed from Franschhoek 66/11 kV substation, these feeders are terminated approximately 20 m away from the location of the La Terra Switching Station. The 2 x 185 mm² 11kV 3C PILC Cu Cables shall be jointed and terminated into the 11 kV busbar of the new La Terra switching station via the 11kV incomer panel. The 5 x 11kV outgoing feeder cable sizes and types are given in the table below.



Feeder	Cable Size and Type
11kV Incoming Franschhoek Feeder 1	185 mm ² 3C PILC Cu
11kV Incoming Franschhoek Feeder 2	185 mm ² 3C PILC Cu
11kV Outgoing La Chantelle Feeder	70 mm ² 3C PILC Cu
11kV Outgoing La Terra Feeder	70 mm ² 3C PILC Cu
11kV Outgoing La Montagne Feeder	70 mm ² 3C PILC Cu
11kV Outgoing Dirkie Uys Feeder	70 mm ² 3C PILC Cu
11kV Outgoing Domaine Feeder	70 mm ² 3C PILC Cu
400 LV Auxiliary Supply From 315 kVA to LV AC Board	1kV 25 mm ² 4C Cu PVC PVC SWA PVC

1.2.1.1. Cable Jointing

The pre-installed 2 x 185 mm² PILC Cu cables that are on site shall be jointed if deemed necessary with the same cable type (185 mm² Cu PILC cable) and be terminated onto the 11kV Busbar of the switching station.

1.2.1.2. Cable Termination

The cable termination creepage and clearance distance shall comply with the NRS 012 Standard to ensure the safety of personnel and equipment.

The following 11kV cable terminations shall entail:

- The 11 kV incomer cables shall be terminated at the cable support structure with the indoor type (type 2) terminations.
- The 11 kV outgoing cables shall be terminated at the cable support structure with the indoor type (type 2) terminations.
- These cable termination compartments shall be compatible with the 70 mm² and the 185 mm² cable sizes for this project. Heat shrink terminations shall be used with the provision to clamp the cables with polypropylene blocks for 70 mm² to 185 mm² Cu cables.

1.2.2. Current Transformers

The current transformers (CTs) required for metering and protection are detailed in the following table.

CT	Core	Function	Class	Ratio	Burden/Vkp	Rsec
11kV Incomer Feeder	1	Cable Diff	x	1/200/400T	300V @ 1/400T	<1.6oh m
	2	50/51/67N S & Arc det.	5P20	400/200/1A	5 VA	-
	3	Measurements	0.5	200/100/5A	5 VA	-
11kV Outgoing Feeder	1	Cable Diff	x	1/400/800T	600V @ 1/800T	<3.2oh m
	2	50/51/67N S & Arc Det	5P20	400/200/1A	5 VA	
	3	Measurements	0.5	200/100/5A	5 VA	
11kV Bus Section	1	50/51 & Arc Det	5P20	800/400/1A	5 VA	



1.2.3. Voltage Transformers

The Voltage transformers (VTs) required for metering and protection are detailed in the following table.

Type	Electromagnetic	Unit
Voltage Transformer Ratio	11000/110	V/V
Nominal system RMS phase-to-phase voltage (Un)	11	kV
Highest RMS voltage phase-to-phase of equipment (Um)	12	kV
Number of phases	3 phase 5-limb or 3 x single-phase units with open-delta	
Rated frequency	50	Hz
Burden	25	VA
Rated accuracy	Class 1.0/3P	Protection
Rated accuracy	0.5	Metering

1.2.4. Surge Arrestors

The surge arrestor (SA) requirements are detailed in the table.

Electrical Conditions	Required	Unit
Nominal system RMS phase-to-phase voltage (Un)	11	kV
Maximum system voltage (Um)	12	kV
Rated frequency	50	Hz
BIL of equipment to be protected		
System earthing	Effective	
Arrester classification	Station Class	
IEC line discharge class	2	
MCOV (Uc)	12	kV

1.2.5. Indoor 11kV Gas Insulated Switchgears (GIS)

The circuit breakers shall be of the SF6-insulated, type-tested, three-phase metal-enclosed medium-voltage switchgear designed as single-bus bar switchgear for indoor installation. The insulation level required is to be maintained inside the gas compartments without additional insulation material. Enclosures have a suitable degree (rating) of ingress protection IP65. Each closed gas compartment shall have its own pressure relief mechanism to prevent rupture of the housing in case of an arc fault. The switchgear panel shall comply with ratings and duties as specified in the detailed specification and schedules.

The switchgear panel shall have an on-board protection, metering, control and SCADA included on the panel.

Inside the panel the circuit breaker enclosure and the busbar enclosure shall be separated insulated from each other by means of gas insulation.

Electrical Conditions	Required
Rated Voltage	12 kV



Electrical Conditions		Required
Nominal Voltage		11 kV
Type		Metalclad Compact Switchgear
Number of poles		3
Interrupting Medium		SF6
Rated Frequency		50 Hz
Outgoing Feeder Rated Current		630A
Busbar Section Rated Current		1250A
Incomer Feeder Rated Current		1250A
Single Pole or Three Pole Operation		Three Pole
Number of terminations	Feeder (70 mm ²)	1
	Incomer (185 mm ²)	1
Panel Rated short-time withstand current 3s		25kA
Rated Short Circuit Carrying / breaking current		31.5kA / 31.5kA@3s
Rated Power Frequency withstand voltage		28kV
Rated Pick Impulse withstand Voltage		95kV
Circuit Breaker Operations	Open / Close Positions	Mechanical
	Mechanism Charged/Discharged	Mechanical
	Earthing Position	Mechanical
Ingress Protection		IP65
Charge Method for Mechanism		Hand and Motor
Charge motor rating – circuit breaker		110 V DC
Isolator switch disconnectors motors		110 V DC
Close and trip coils required		110 V DC, two trip coils & one close coil

- **Switchgear Enclosure**

The switchgear housings shall consist of a corrosion-resistant aluminium alloy and shall be screwed together by using sealing rings.

- **Circuit-Breaker**

Circuit-breakers shall be SF6 circuit-breaker type. The drive and the SF6 switching interrupter shall be maintenance-free up to 10 000 switching cycles. The maintenance-free operating mechanism shall include the following equipment features:

- Motor operating stored-energy spring mechanism, with auto-reclosing capacity
- "Trip-Free" according to IEC 6227-100
- Auxiliary switch contacts for control / signalling as specified
- Operations counter
- Circuit-breaker tripping signal
- Closing solenoid



- Releases as specified
- 'Spring charged' indication
- Mechanical position indication
- Mechanical OFF pushbutton
- Mechanical ON pushbutton
- Mechanical, lockable lock-in for earthed feeder
- Endurance class of circuit-breaker:
- Function Class Standard Properties

- **Interlocks**

- **Panel-internal interlocking**

In normal operating conditions where both 11kV incoming cables are live and energised the normal state shall be to have the bus-section open and it must not be possible to switch both 11kV incomers on at the same time if the bus-section is closed.

- **Internal panel and overall interlocks**

All internal panel interlocks shall be mechanical. In busbar sectionalizers, additional electromagnetic interlocks shall be provided.

- **Earthing of the feeder**

For earthing of the feeder, reliable "interrogation interlocking" must be provided: Only after the switch has been switched into the "ready-to-earth" position the feeder is earthed in a short-circuit-proof way by switching in the circuit-breaker.

- **De-earthing of the feeder**

The feeder earthing is to be protected against "disconnection from earth": The remote control and protective tripping facility of the circuit-breaker shall automatically become ineffective as soon as the switch is switched into the "ready-to-earth" position and the feeder earthed locking device is pad-locked. A "feeder earthed" locking device shall prevent the local mechanical and electrical tripping by blocking the tripping mechanism mechanically.

1.2.6. Lightning Protection and Earthing

A complete Earthing and Lightning Shield design must be carried out as per the general technical specification.

The contractor is responsible for conducting soil resistivity test and submit them to the project engineer for approval. Upon approval the contractor shall be responsible for the detailed earthing grid design of the based on the soil resistivity tests conducted. All the panels, and equipment shall be earthed and bonded together with a to the same earthing system designed by the contractor. The bonding of all these equipment's also includes the switching station building to ensure that equipotential earthing is achieved.

1.2.7. Auxiliary Supply (Miniature Substation)

A 315kVA 11kV/400V miniature substation that shall be installed inside the switching station yard and it shall also be used to supply the auxiliary loads in the switching station as well as the loads in the surrounding areas..

Electrical Conditions	Parameter
Quantity	1



Type:	Oil filled two winding (MV/LV)
Vector Group:	Dyn11
Primary Power Rating:	315 kVA
Cooling:	ONAN
Ratio	11kV to 400V
Terminations:	Cable box on MV and LV
%Impedance:	Standard

1.2.8. LV cabling and Accessories

LV power and control cabling and accessories shall comply with the relevant codes of practices and standards. Installation of the cables shall comply with SANS 10142-1:2010.

Cables shall be neatly installed on cable racks, ladders or basket and properly secured at regular intervals by means of clamps, straps and ties. Cablebasket shall be provided on primary equipment where the control cubicle is raised above ground level. The basket shall be neatly and securely fastened to the equipment supporting structure and installed between the equipment gland plate and ground level.

All cable trays, baskets and ladders shall be neatly installed, properly secured and free of sharp edges. All cable trays, baskets and ladders and their accessories shall be hot dip galvanised. Cable fixing accessories shall be fit for purpose and installed to the engineer's satisfaction.

Power cables shall be de-rated as necessary to SANS 10142 where installed in exposed locations or in trenches with other current carrying cables.

1.2.9. Cable Racks, Ladders and Basket

Cables shall be neatly installed on cable racks, ladders or basket and properly secured at regular intervals by means of clamps, straps and ties. Plastic /PVC ties shall not be allowed outdoors. Cablebasket shall be provided on primary equipment where the control cubicle is raised above ground level. The basket shall be neatly and securely fastened to the equipment supporting structure and installed between the equipment gland plate and ground level.

All cable trays, baskets and ladders shall be neatly installed, properly secured and free of sharp edges. All cable trays, baskets and ladders and their accessories shall be hot dip galvanised.

Cable fixing accessories shall be fit for purpose and installed to the engineer's satisfaction.

Power cables shall be de-rated as necessary to SANS 10142 where installed in exposed locations or in trenches with other current carrying cables.

1.2.10. Substation and Yard Lighting

The lighting inside the switching station building and around the switching station building shall have a luminance of 200 lux and 20 lux respectively.

1.2.11. 11kV Network System integration

The main objective of the new La Terra switching station is to deload the Franschhoek 11kV network, the integration of the new switching station is shown in the proposed 11kV SLD network drawing; C1849-SMEC-01-EE-MVSLD-0001-0001.

1.3. Substation Secondary Plant Design



1.3.1. LV AC indoor distribution

An indoor distribution board will be supplied by the AC yard panel which shall be supplied from the 315kVA Miniature substation. The panel will supply the following:

- All internal AC power requirements including plugs and lights, equipment heaters etc
- Inverter Unit (under normal condition when AC is available). The following items is supplied through the inverter unit:
 - Cameras
 - Fire detection system
 - Intruder detection system
 - All protection systems
- Battery Tripping Unit

1.3.2. Battery Tripping Unit (BTU)

A dual BTU system is required which consists of two sets of chargers and battery banks. The dual system shall supply a common DC panel. This DC panel shall supply all the DC requirements in the substation. The table below details the main parameters:

Electrical Conditions	Parameter
AC supply voltage	230V (Single Phase)
Output DC voltage	110V Nominal
Charger Amperage	15A cont/25A boost
Earth Fault detection	Floated positive /negative with positive & negative earth fault detection

The output shall be smoothed to 5% RMS of the nominal DC output with the battery disconnected. The charging unit shall be of the constant voltage controlled current type suitable for pre-selection of the DC float voltage which is to be maintained across the battery to within $\pm 1\%$ for a variation in AC supply voltage of $\pm 10\%$. The voltage adjusting devices shall be mounted inside the panel and provided with screwdriver slots for adjustment. Each adjustment shall be labelled to indicate its purpose and the direction it must be rotated to raise or lower the voltage setting.

The design of the charger shall be such that the failure of the control equipment shall automatically reduce the DC output current to a safe minimum value.

A double pole AC circuit breaker shall be provided for the incoming AC supply, for single phase chargers and triple pole for three phase chargers.

The outgoing circuits shall be protected by Load Circuit Breakers "LCB"

Chargers shall be provided with surge suppressors for protection against diode failure, due to voltage transients, such as AC input surge suppression.

The charger shall be provided with static overload protection to ensure that in the event of the charger output being short circuited, the maximum output current is kept to a value within the continuous rating of the charger components.

All indicating instruments shall be of the flush mounting, square dial type. An ammeter shall be provided to indicate charger output. A voltmeter shall be provided across the battery.

A battery monitoring device is required for each set of batteries. The alarm outputs shall be coupled to the SCADA system alarm facility as detailed.



1.3.3. Battery

The battery shall be nickel cadmium, fibre plate matrix design, designed to provide reliable DC power. The battery shall be designed for a 25-year service life.

All internal construction of the battery shall be nickel plated fibre and nickel-plated steel and impervious to alkaline electrolyte. The structural integrity of the battery shall remain intact for the life of the battery. The battery shall be housed in an enclosed cabinet.

The battery shall be sized to supply the DC load for 12 hours in the instance that the AC supply has failed. Note that the battery size must assume a 20% thermal reduction in capacity as well as a 25% capacity degradation over life, and an additional 20% future load. Full calculation of sizing for the offered equipment must be given as per IEEE 1115.

1.3.4. Inverter

The inverter located in the control building will be required to supply the following loads when the main AC is not available.

- Cameras
- Fire detection system
- Intruder detection system
- All protection systems

1.3.5. 11kV incoming Feeder Protection

The proposed protection scheme for the 11kV incoming feeders uses the protection relay with the following protection schemes.

- Directional Over current (O/C)
- Directional Earth fault (E/F) protection
- Cable differential
- Arc protection
- The protection shall operate two shunt trip coils

1.3.6. 11kV outgoing Feeder Protection

The proposed protection scheme for the 11kV outgoing feeders uses the protection relay with the following protection schemes.

- Directional Over current (O/C)
- Directional Earth fault (E/F) protection
- Cable differential
- Arc protection
- The protection shall operate two shunt trip coils

1.3.7. 11kV Bus Sections Panel Protection

For 11kV bus section panel with a 1250A circuit breaker and a 1250A busbar, the following is specified for the protection:

- Directional Over current (O/C)
- Directional Earth fault (E/F) protection
- Cable differential



- Arc protection
- A VT Selection Scheme
- The protection shall operate two shunt trip coils

1.3.8. Arc Protection

All schemes shall have zone-segregated arc flash detection with current supervision.

1.3.9. Protection and Control

1.3.9.1. General

The protection panels shall be on-board and mounted switchgear panels in the switching station building. Control equipment shall include voltage selection and metering equipment as well as voltage regulation.

Although it is desired to set-up a substation network with sophisticated communication interfaces the primary objective of the protection system is to provide simple, effective protection. To this end all unit protection (except cable diff protection) shall be hardwired. New cable diff protection shall be via dedicated fibre optic cable/cores.

The communication interface may be used to provide secondary / backup trip / breaker fail commands as well as access to information for the SCADA system.

Controls (i.e. open and closing of breakers) via the SCADA interface shall also be made possible.

IEDs shall preferably be provided with sufficient analogue and digital inputs and outputs to cater for the protection and indication functions required without the need for a stand-alone alarm annunciator. All schemes shall also include oscillograph recording capabilities, capturing all analogue data channels, as well as all significant binary inputs. These functions should however be secondary to the effective protection functionality.

All CT secondary outputs shall be standardised at 1A for 11kV protection. CT secondaries are to be 5A where indicated for metering.

For all the schemes the white phase current shall be available for display on the SCADA master system and shall be either via the IED or via a separate current transducer.

Each scheme shall be fitted with a counter that may be configured either as a trip counter (i.e. counting circuit-breaker operations) or a fault counter (i.e. counting protection trips).

1.3.9.2. Busbar Arc detection scheme

The Busbar Arc Detection scheme must operate independently from any other protection scheme and operation must be based on a two out of two principle, i.e. combined light and current detection, before issuing a trip. Arc detection must be via radial "lens" sensors installed in all the relevant switchgear compartments, namely the busbar and breaker compartments.

Similarly, the two out of two principle shall also apply when sending a trip signal to the relevant feeder breakers when an arc is detected in the cable/CT compartments. The 'fault current present' signal will be derived from the corresponding zone Incomer protection relay.

The relay unit must be flush mountable on the Incomer No 1 panel LV compartment door and must monitor Incomer 1 current and the Zone 1 equipment for arcing faults. A high-speed lockout relay will trip all circuit breakers connected to the specific busbar zone. The operation time of the high-speed relay must be $\leq 7\text{ms}$. Similarly, an extension relay unit will monitor Incomer 2 current and the Zone 2 equipment for arcing faults and will send a signal to the master unit to trip all the circuit breakers connected to the specific busbar zone via a high-speed lockout relay.

The Contractor (in conjunction with his equipment supplier) must supply a diagram indicating the placement of arc sensors, extension/ slave units and master units with the tender.



The Arc detection main and/ or extension units will conform to the following requirements:

- The system must be fully supervised monitoring and positively alarming all voltages and communication channels between main and extension units. Extension units per zone must be powered from the main unit for that specific zone. In the event of hardware failure, only the affected equipment must lock out and alarm to prevent and incorrect operation.
- LEDs must indicate overcurrent detection and light detection per specific sensor to locate faulted compartments fast and reliably.
- Overcurrent detection will allow for three-phase and neutral overcurrent detection (two phase elements and one neutral element are acceptable). Phase overcurrent detection should be selectable between 50% to 600% (1A) and neutral overcurrent detection between 5% to 50%.
- Light detection level adjustment based on manual or automatic backlight intensity compensation.
- Two high-speed trip outputs per zone suitable for direct tripping with a maximum total operating time $\leq 2.5\text{ms}$.
- Current transformer inputs will have 1A inputs with the following minimum thermal ratings:
 - Continuous: 4xIn
 - 1s Short time: 100xIn
 - Dynamic half cycle: 250xIn

Any trip operation must latch the output contacts until a manual reset of the protection is performed.

1.3.9.3. Busbar arc protection zone

The arc protection for the 11kV board will consist of two zones, one on each side of the Bus Section panel. The bus section circuit breaker compartment will fall within both Arc Protection zones.

- **Zone 1**

This zone will include the 11kV Line Incomer 1 circuit breaker compartment and the busbar. Any arc detected in the circuit breaker or busbar compartment of these panels will trip 11kV Line Incomer 1, the Bus Section. Tripping must be done directly to the trip-coil of each circuit breaker, as well as to the specific protection relay on each panel.

- **Zone 2**

This zone will include the 11kV Line Incomer 2 circuit breaker compartment and the busbar and the Bus Section. Any arc detected in the circuit breaker or busbar compartment of these panels will trip 11kV Line Incomer 2, the Bus Section. Tripping must be done directly to the trip-coil of each circuit breaker, as well as to the specific protection relay on each panel.

1.3.10. 11kV Incomer/Feeder Protection

1.3.10.1. General minimum requirements

All incomer / feeder protection relays will be microprocessor-based multifunction protection relays, suitable for use on medium voltage cable distribution networks. The IEDs offered will provide for an integrated protection, control, interlocking and monitoring solution to allow optimum and seamless integration into the SCADA system (future). IEC61850 GOOSE messaging shall be used for communication between protection relays. Each IED unit will provide protection, control, interlocking and monitoring functions for its individual feeder only and will act as gateway for switchgear statuses to the SCADA system to eliminate excessive wiring to a separate RTU.

The schemes shall comply with the Eskom guideline provided below:

Distribution Specification for a Medium Voltage Cable Feeder Protection Ref: DSP 34-1515 Rev: 0



All IEDs supplied will preferably be of a similar range and conform to the following minimum general requirements:

1.3.10.2. Human machine interface and communication requirements

- Indication LEDs clearly indicating relay healthy, relay alarm/ fail states, protection function starting and tripping states.
- Minimum of eight user configurable LEDs, preferably programmable to latch, flash or reset under specific alarm conditions.
- Liquid crystal display to allow easy access to control functions, measured values and setting parameters.
- Front serial communication interface for use as PC interface to configure and change setting parameters on the relay.
- Ethernet rear communication port for GOOSE messaging between IEDs and connection to the future SCADA system.
- Display of primary current, voltage and energy values on LCD.
- Circuit breaker open / close status indication.
- Close or open commands from HMI.

1.3.10.3. Protection functionality

The following protection functions shall be implemented for the 11kV incomer/feeder relays as a minimum:

11kV Incomer/Feeder Protection Relay Functions	
87	Cable Differential (Incomer only)
50/N	Instantaneous Over-current & Earth fault (directional)
51/N	DT/IDMT Over-current & Earth fault (directional)
79	Auto Reclose (available for overhead lines, locked out for cables)
CBF	Circuit Breaker Fail

1.3.10.4. Control functionality

- Circuit breaker control function, Open and Closing for local operation of the circuit breaker, incorporating user defined interlocking logics.
- Monitoring of circuit breaker status, busbar & line isolator status and earth switch status for interlocking and SCADA display purposes.
- Local / Remote control selection for circuit breaker control selection between local and SCADA control.
- 86 - Lockout function stored in non-volatile memory.
- All control switches on the panel must be lockable by padlock

1.3.10.5. Statistical measurement functionality

To be displayed locally and on SCADA:

- Three-phase RMS Voltage (V)
- Total Active Power (P)
- Total Reactive Power (Q)
- Power Factor (pf.)



- Active Power demand
- Reactive Power Demand
- Four quadrant Energy (kWhr and kVAhr) measurements.

1.3.10.6. Condition monitoring functionality

- TCS - trip circuit supervision in both circuit breaker open and closed states.
- Circuit breaker wear monitoring

1.3.10.7. Inputs/outputs

- Minimum fifteen digital inputs, monitoring, as a minimum, circuit breaker status, busbar & line isolator status, earth switch status, circuit breaker spring charged, MCBs tripped, and external trip/ close commands. The Contractor (in conjunction with the equipment supplier) shall, however, assess the additional requirements specified for each scheme in this specification and provide the required number of inputs to conform to the specified requirements. Where more inputs are required, the Contractor (in conjunction with the equipment supplier) will offer additional means to provide the required number of inputs.
- Two high-speed power outputs for tripping the circuit breaker (main and backup trip coils).
- Minimum four user configurable power outputs suitable for closing and inter-tripping circuit breakers.
- Minimum six user configurable signal outputs for alarm and protection purposes.
- One internal relay-fail (IRF) signal output

1.3.10.8. Analog inputs

- Current transformer inputs will have 1A inputs with the following minimum thermal ratings:
 - Continuous: 4xIn
 - 1s Short time: 100xIn
 - Dynamic half cycle: 250xIn
- VT inputs shall be 110V AC R, W, B

1.3.10.9. Disturbance Recorder

- Transient disturbance recorder capturing current and voltage (when applicable) waveforms. Triggering by one or several internal or digital input signals, recording a minimum of four analogue channels and up to eight user-selectable digital channels.
- Time stamped sequence of event recording.
- Local time synchronisation via communication port

1.3.10.10. Main incomer: specific requirements

Main Incomers are defined as the two Incomers (incoming feeders) supplied from the 11kV Franschhoek network.

• Main Incomer Protection Relay

The following additional functionality is required for each Main Incomer:

- **FFS** - Fuse Fail supervision by monitoring negative phase sequence voltage and currents together with the VT MCB auxiliary contact. In addition, three voltage phases will be monitored to detect a possible fuse failure when no current is flowing in the primary circuit.
- **Digital Inputs:** Additional binary inputs will be required to achieve interlocking requirements. The Contractor (in conjunction with the equipment supplier) will assess binary input requirements based on his protection and control



scheme design offered and ensures that a sufficient number of binary inputs are provided to conform to the specification.

- **Signal Outputs:** Additional power or signal outputs will be required to achieve interlocking requirements. The Contractor (in conjunction with the equipment supplier) will assess output requirements based on his protection and control scheme design offered and ensures that enough outputs are provided to conform to the specification.

1.3.11. 11kV Interlocking and Control

The 11kV bay controllers will provide all interlocking and control functionality. Provision must be made for remote control via the future SCADA system. SCADA control will only be allowed with the protection relay selected to "Remote". With the relay selected to "Remote", no local switching will be possible. Local switching will only be possible with the relay selected to "Local". In this case no switching from the SCADA system will be possible.

Specific reference is made to the following functions:

- Local control of equipment will be mechanically and/or electrically (hardwired) interlocked to prevent:
- Operation of the isolator when the relevant circuit breaker is closed.
- The additional hardware required to interlock manually operated equipment.

Further specifications on the minimum functionality and the technical details required for the transformer protection and tap change control relays are given in the Detail Equipment Data Sheets.

1.3.12. 11kV Panel Indication Requirements

1.3.12.1. Ammeters

Analogue ammeters shall be installed on the two Incomer feeder panels. One ammeter shall be installed per CT with an ammeter selection switch to display the different phase values. Ammeters must be capable of displaying from 0% to 120% of the connected CT primary current and shall have maximum demand indications. Square type (96x96, 90°) meters shall be used with accuracy Class 0.5 or better. Spring-loaded sliding link terminals shall be installed in metering circuit for testing purposes.

1.3.12.2. Voltmeters

Analogue voltmeters shall be installed on the two Incomer feeder panels. One voltmeter shall be installed per VT with a voltmeter selection switch to display the different phase to phase values. Voltmeters shall be clearly marked to indicate "Incoming Line Voltage". Voltmeters shall be able to indicate from 0 to 120% of 11kV with indications marked in kV. Square type (96x96, 90°) meters shall be used. Spring-loaded sliding link terminals shall be installed in the VT circuit for testing purposes.

1.3.13. 11kV Panel Test Blocks

Test blocks (PK-2 4 way) for the protection CT and VT circuits shall be installed on the two Incomer feeder panels and the two transformer panels. Test blocks shall be clearly marked with circuit entry at the bottom side and relay connections at the top. The Contractor (in conjunction with the equipment supplier) shall include a set of 3 test handles that can be used with the PK-2 test blocks for testing purposes.

Provision must be made for test points in all the protection panels. Potential free contacts from the protection relay shall be wired to the test points for protection start, protection trip and circuit breaker fail (where applicable) signals

1.3.14. Protection Settings



The contractor shall be required to set all relays in conjunction with the Stellenbosch Municipality protection settings requirements. Protection settings shall provide the necessary protection levels and discrimination between the various elements of Plant in Franschhoek network.

1.3.15. Metering and Quality of Supply Monitoring

1.3.15.1. Tariff Metering

No Tariff Metering will be required.

1.3.15.2. Quality of Supply

Quality of Supply (QoS) monitors shall be installed to monitor supply voltage quality, harmonics, voltage unbalance and voltage flicker in terms of NRS 048. To this end the contractor shall install a suitable panel in the Control room to which 3ph supplies from all the VT's 11kV are cabled. The necessary auxiliary AC and DC supplies required shall also be provided as necessary for the correct functioning of the monitoring system.

The monitors shall connect directly to the QoS server. Alternatives whereby this information can be provided to the Stellenbosch Municipality via the substation SCADA network to the satisfaction of NRS048 and the Stellenbosch Municipality's QoS division will be considered by the engineer.

1.3.16. SCADA System

The SCADA system consists of an On-site SCADA system and Off-site SCADA system.

Both the on-site and off-site SCADA systems will utilise existing EMM infrastructure where possible, including existing hardware/licenses/software. The on- and off-site SCADA systems will utilise the same platforms to ensure ease of long-term maintenance.

Sequence of Event (SER) report with search, filtering and reporting as well as search, filtering and Graphical Trending display of simultaneous analogues and digital quantities (including zoom functionality), with millisecond resolution and accuracy will be provided, for both Digital and Analog quantities captured.

All data displayed and captured will be stored, time-stamped and accurate with a maximum difference of 2ms when compared to true time.

All signals received by the Scada system will be setup, captured and configured for millisecond resolution and accuracy.

All Analog quantities will have an accuracy of at least 1%.

Where necessary, hardware and software are to be supplied to integrate alarms into the SCADA system from:

- Battery and related charger systems
- Surveillance System
- On-site security and alarm system
- Excess control
- On-site siren (to alert personnel of an action to occur)

Relevant on-site RTUs are to be configured to communicate and pass information to EMM's control centre SCADA system.

The software system will capture all quantities retrieved from RTUs into a Microsoft SQL Server database at the EMM control centre, with 1 millisecond resolution and accuracy.

Platforms:



- The on-site and off-site SCADA for the substation will utilise:
- The same HMI and SQL server platform(s), such as software versions, as per existing EMM infrastructure.
- Standalone HMI (no RTU/Gateway built-in HMI will be accepted).
- On-site communications infrastructure for the on-site HMI.
- Fibre to communicate to the off-site SCADA.

The RTU/Gateway utilised will include I/O units that can pick up and issue control signals to/from other general systems on-site (e.g. security, batteries, chargers, etc.) as per EMM specifications.

The on-site and off-site SCADA will include full logic processing capabilities (similar to a software-based PLC or other as per EMM specifications).

- **Power**

The SCADA will be powered from the DC in all aspects (e.g. screen, RTU/Gateways, Ethernet switches, converters, etc.), 50V DC standalone. Where necessary industrial rated DC/DC converters or power supplies may be utilised for converters and the PC screen.

The PC, RTU/Gateway and Ethernet switches will power direct from DC (RTU/Gateway Telecom 50 V Dc).

- **Update Rate**

The full Scada system will be able to refresh, update and display all information from all the relays and other devices in a maximum 2 seconds, including but not limited to digitals, analogues, SER, trends, etc.

A control signal sent from the SCADA will take no longer than 1 second to execute (e.g. breaker open/close).

No (zero) information changes on the relays, RTUs/Gateways or other devices part of the Scada system will be missed by the system (at best/full accuracy and resolution of all devices), e.g. all mill-second changes in digitals will be fully captured in the correct sequence and displayed in the correct sequence.

- **Protocols**

Protocols to be utilised and available to fulfil required functionality will be:

- IEC 61850 GOOSE and MMS and
- DNP3 (master and slave, serial and Ethernet)

All devices, relays, RTUs and Gateways will be fully capable of communications using above protocols simultaneously to different on-site and off-site masters and relays and other RTUs/Gateways.

Both DNP3 and IEC61850 GOOSE and MMS will be available within all devices, relays, RTUs and Gateways for simultaneous use via different communications ports.

The system will be fully capable of sending SMS and Email as a stand-alone system, per EMM specifications. The SCADA system on-site and off-site will be fully capable of sending SMS and Email notifications for any combination of data captured or received.

The on-site SCADA will utilise:

- IEC 61850 MMS for communications to/from the relays to the RTU/Gateway.
- DNP3 from the on-site RTU/Gateway.



The off-site SCADA will utilise:

- DNP3 from the on-site RTU/Gateway.

The RTU/Gateway utilised will also have the following protocol capabilities included:

- IEC 60870-5-103
- IEC 101/104
- Modbus / RTU
- Modbus Serial
- Modbus TCP
- Generic ASCII
- Hydrant (Transformer Monitor)
- OPC
- SNTP
- SNMP
- Master Protocols to IED's IEC61850 Client

- **Industrial Ratings**

The complete and full SCADA will be industrial rated as per EMM specifications. No non- industrial solution, equipment or software will be accepted.

No part of the system may interfere with the operation of any other part of the system. All functionalities and performance will operate 100% even if another part of the system fails or operates poorly or incorrectly (e.g. GOOSE vs MMS).

No moving parts may be used in any part of the hardware and solution offered (e.g. cooling fans). The lifetime and ratings of the SCADA hardware and system will be at least the same as for the protection/control system offered.

All devices and data as part of the system will be monitored and will indicate and alarm only relevant failure(s). The minimum amount of alarms will be indicated should a failure occur (e.g. a single data item failure will not result in the whole relay/IED data being indicated as faulty, but only the relevant item will be indicated as having failed and alarm accordingly).

- **Engineering Access**

Local engineering access to all devices will be available from a front port. Remote engineering access to all devices will be available from a rear port. Full engineering access will be available at all times to all devices and will not interfere or depend on other SCADA functionality or protocols or communications.

- **Control Functionality**

Where required and possible, control functionality shall include:

- Circuit breaker control function, incorporating user defined interlocking logics for safe local operation of the circuit breaker.
- Monitoring of circuit breaker status, lockout, racking status and earth switch status for interlocking and SCADA display purposes.
- Local / remote control selection for circuit breaker control selection between local and SCADA control.
- With the bay control relay selected to "Local", no SCADA operations will be possible.
- Full control functionality shall be included for remote operation via SCADA.

- **Battery, charger and general alarms and statuses**



The following specific requirements are applicable:

- Provision will be made to include all battery and charger and general alarms into the SCADA software system.

- **SCADA may not interfere with Protection**

Where IEDs are required to perform protection functions, these IEDs shall contain separate CPUs for protection and automation functionality in order to ensure that the protection is at no time compromised due to mal-operating communication equipment.

- **Communications and Monitoring**

The RTU/Gateway must communicate with the IEDs by addressing each IED on an individual and polled basis – that is, the system must poll each IED as if it were discrete module. This enables the gateway to apply quality flags to the data elements derived from an individual IED – should the unit fail or communication to the unit fail, the data shall be marked as off-line within the gateway real-time database and communicated as such to the master station.

To cater for the failure mode where the relay detects an internal fault but is still able to communicate with the gateway - such failure status may be communicated to the gateway provided that all other potentially corrupt data from the IED is flagged as 'off-line' and communicated as such to the master station. Alternatively, if the IED detects an internal fault, it may be programmed to halt all communications to the gateway, whereupon the gateway will mark the data as indeterminate, generate an 'IED faulty' alarm and communicate such to the master station.

Full support for data quality flags is required to ensure that indeterminate states are reported as such, and no possibility exists of communicating stale data to the SCADA master station as a result of the failure of a system component or the communication network.

1.4. General Building Installation

1.4.1. Lighting Installation

The internal lighting installation shall be designed to satisfy the minimum average illumination of 200 lux. This lighting level shall be maintained under emergency conditions as well. The external area is regarded as a medium security risk area with an average illuminance of 20 lux and 0.4 uniformity. The lighting shall comply with the requirements of SANS 10098-1. The lighting layout for both internal and external are shown in drawing number C1849-SMEC-01-EE-LL-0001.

1.4.1.1. Switching

Internal light switches shall be linked to a timer circuit which switches on the lights for one hour. It shall be possible to override this mechanism and permanently switch the lights on. External building lighting shall be switched on using a photocell in the evening.

1.4.1.2. Luminaires

The table below details the proposed luminaires

Luminaire Type	Area Used	DESCRIPTION
A	Substation Building (External Lighting)	42W LED bulkhead to the following specification: • 42W LED Luminaire • 4000K CCT • IP66 • L70 • 3800 lm • No emergency backup



Luminaire Type	Area Used	DESCRIPTION
B	Substation Building (Internal Lighting)	55W LED Roughguard • 55W LED Luminaire • 6038lm • 4000K CCT • IP 65 • L70 • No emergency backup

1.4.2. Power outlets

Wall-mounted socket outlets shall be similar or approved equal to 16A 3-pin type complete with cradle and white socket outlet cover plates for normal power. Two double socket outlets shall each be mounted in a flush-mounted in a horizontal 100 x 100mm wall box or in the power skirting as shown in drawing number C1849-SMEC-01-EE-SP-0001.

1.4.3. Earthing and Lightning Protection

The station earthing is to be designed according to IEEE Std 80, with the following specific requirements.

Parameter	Value/Description
Single-phase fault level:	720A
IEEE 80 person mass:	50kg
System X/R:	20
Fault duration:	3.0s
Outdoor ground cover:	crushed granite of >3000ohm-m wet resistivity, 100-150mm thick.
Earth conductor depth:	800mm below bottom of granite layer
Earth conductor type:	10mm diameter Annealed round copper
Maximum allowable conductor temp:	250deg @ 3.0s
Design method:	SES CDEGS finite element analysis.
Touch and Step Potential:	limited to safe values per IEEE Std 80 for all metal objects, including outer perimeter fence.
Grid potential rise (GPR) limit:	<5kV
Ground resistance (Rg) upper limit:	13 ohm in driest season, i.e. 6.5ohm design wet season.
Copper bonding method:	C-type crimps.

Electrical Equipment earth connection to buried earth conductor shall be via C-type crimped copper bar with two separate connections to switchgear. The buried earth conductor is to be buried under the outer fence foundation in order to reduce the risk of theft. The earthing design system is shown in drawing number C1849-SMEC-01-EE-ELP-0001 indicates the buried earth conductor and building/switchgear earthing requirements.

The final Rg is estimated to be 12.4 ohm. Based on an average soil resistivity of 250ohm at buried conductor depth, representative of dry conditions, and using IEEE formula 51 to estimate Rg.

1.4.4. Fire Detection



An addressable fire detection system will be required in the substation building. It shall cover the switchgear rooms, control room and battery room. The smoke detectors shall be of the optical type capable of measuring the density of smoke particles in the 0.5 to 10-micron range. Each detector shall be capable of covering 100m². The smoke detectors shall also comply with EN 54 Part 7.

The control panel shall be fully addressable covering all zones and be of the ZITON type or similar approved. It shall be situated at the control room. The status of the fire detection system should be relayed to the SCADA system.

1.4.5. Access Control

Access to the switching station shall always be restricted by keeping the gates and the switching station building doors locked and the keys shall be with the personnel of the municipality. Any access required to the switching station shall be granted by the owner of the switching station (i.e. the Stellenbosch Municipality).

1.5. Substation Civil and Structural Works Design

1.5.2. General Design Considerations

1.5.2.1. Function and design life of the structure

Since the building is for an electrical switching station development, a 50-year design life approach to the design of the building work shall be adopted. In order to allow varying functions in the life cycle of the structure it is crucial that there is sufficient robustness in the design.

1.5.2.2. Limit state design

The civil and structural works will be designed to be serviceable during its useful life and safe from collapse during construction and its useful life. Limit states define the various types of collapse and un-serviceability that are to be avoided.

Those concerning safety are called the ultimate limit states which include exceeding of the load carrying capacity, overturning, uplift, sliding, fracture and fatigue failure of the structure. Those concerning serviceability are called the serviceability limit states which include excessive deflection, vibration and permanent deformation of the structure.

The object of limit states design calculations is to keep the probability of a limit state being reached below a certain value prescribed in the relevant structural code for the given type of structure. This is achieved by the use of load factors applied to the specified nominal loads (as set out in the basis of structural design code) and resistance factors applied to the specified resistances (as set out in the various material design codes).

1.5.2.3. Structural Integrity

The arrangement of the structural system and connections must provide resistance to widespread collapse as a consequence of local failure. During the structural assessment it shall be evaluated that the state of the structural work and design remedial measures if required do ensure the structural integrity of the structure.

1.5.2.4. Serviceability

Deformation of the structure in terms of deflection and rotation must be limited to the deformation limitations as set out in SANS 10160. It should be taken into consideration that the effect of deflection of the proposed finished structure and may result in higher deformation limitations.

The designer shall make suitable provision in the design for the effect of an imposed load that induces impact and/or vibration. Special consideration shall be given to the design to ensure that the harmonic resonance and vibration of the structure is acceptable for the intended use.



Areas subject to repetitive loads should be designed to resist the effects of fatigue.

1.5.2.5. Durability

Provision should be made in the design for the expansion and contraction of the structure in the form of movement joints. The location and detailing will allow for shrinkage, creep and thermal movement in the structure and prevent cracking, splitting and spalling in local areas between the existing and the new structure.

To ensure the durability of the concrete and corrosion protection of the reinforcement the concrete cover complies with the requirements of SABS 0100-1&2 for a moderate exposure condition (Highveld outdoor) according to Table 5 of SABS 0100-2 as shown below:



Element	Minimum Concrete Cover (mm)
Foundations, ground beams and pile caps cast directly against the excavated surfaces.	100
Foundations, ground beams and pile caps not cast directly against excavated surfaces.	50
Surface beds, stub columns and ground beams	50

Corrosion protection of structural steelwork shall take into account the severity of the conditions to which the structure will be exposed and the ease of subsequent inspection and maintenance. The selection of the corrosion protection for steelwork should be in accordance with SABS 0120-3, section HC. The application of such system should be in accordance with SABS 1200-HC.

The designer shall propose the corrosion protection method suitable for the design and logistics available, this will be hot dip galvanizing all the members to suit the moderate exposure conditions. The system will be designed to suit the fabrication logistics available.

Concrete corrosion protections with regard to concrete cover to the reinforcement and acceptable crack widths must comply with SABS 0100. Special care must be taken in the design to prevent the ingress of water into the structure. Specific areas are concrete roofs and wet service ducts. Cracks will be limited to 0.3mm in general applications and 0.1mm in liquid retaining applications.

Curing of concrete shall be specified together with minimum curing periods as per SANS code.

1.5.2.6. General details

The following table shows the minimum thickness of steel members

Steel Members	Min Thickness
Chequered plate	6mm
Bracing	5mm
Main leg/member	6mm
Minimum fillet	5mm
Gusset plate	5mm
Minimum bolt diameter for all members (Grade 8.8)	16mm

The following table shows the minimum thickness of reinforced concrete members

Concrete member	Min. Thickness
Slab in raft	150mm
Cable trench walls	100mm
Cable Trench base	100mm
Internal Roadways	250mm
Underground reinforced concrete tanks	250mm



1.5.2.7. Foundations and plinths

Reinforced concrete surface beds and reinforced concrete plinths as required by the machinery and equipment shall be designed to suit the loading requirement of such machinery and equipment.

1.5.3. Site Clearing, Earthworks and Platforms Construction

The platform will be constructed for the new switching substation area along the existing berm in the area provided. Prior to the commencement of any excavations, the Contractor is required to consult local authority record with the view of establishing the existence of any municipal services in or near the construction site. Where required, the Contractor is to prove the presence of existing services prior to any excavation work. The Contractor shall be liable for any damage to existing services

The documents listed below form the basis of the Earthworks and Platform design guidelines.

SANS 0400-1990 Part G – Excavations, The Council of the South African Bureau of Standards (1990);

Lateral Support in Surface Excavations – The South African Institute of Civil Engineers, Geotechnical Division (1989);

The underlying principles of the Engineering Design therefore are based on the recommendations as set out in the aforementioned documents.

1.5.3.1. Platform design consideration

The contractor shall comply with the specified standards and specifications and ensure the following.

- Temporary slopes steeper than 1 vertical to 1 horizontal shall be subject to specific design.
- Ponding or flow restrictions to natural storm water runoff shall not be permitted, even during construction, unless by specific agreement for temporary situations.
- Existing services affected by earthworks shall be evaluated for adequacy and shall be upgraded or relocated as necessary.
- The contractor shall verify the accuracy of the topographical survey and ensure that imported material achieves the original natural ground level.
- The contractor shall indicate the level of the new platform relative to the natural ground level and existing adjacent building.

1.5.3.2. Materials

The contractor shall ensure that the earthworks design be carried out in accordance with the following requirements in accordance with the Geotechnical report. If additional geotechnical investigations are required these are to be undertaken by Contractor.



CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE FRANSCHHOEK AREA OF STELLENBOSCH

TENDER NUMBER B/SM 46/22

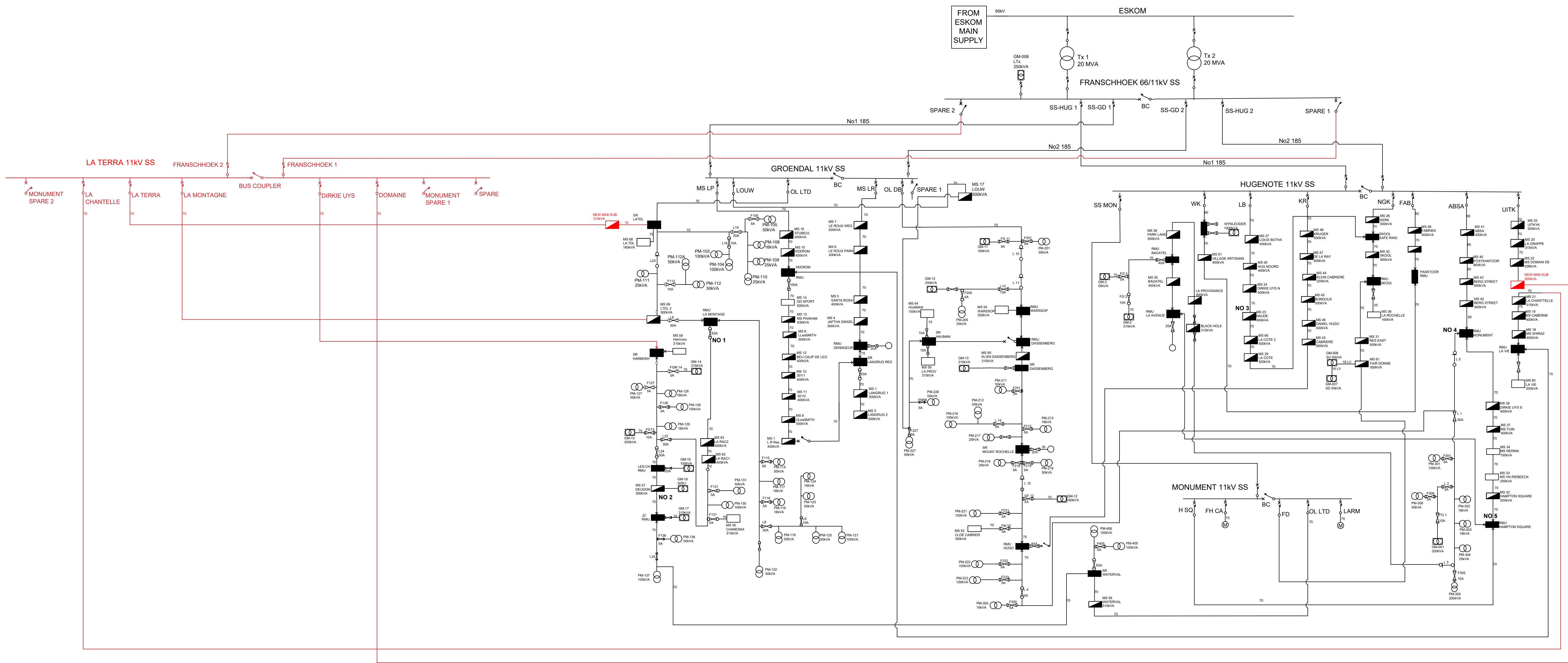
APPENDIX A: TENDER DRAWINGS

1. **GENERAL**

The following drawings shall form part of the specification. Any discrepancy between specifications and drawing shall be referred to the Engineer for resolution at tender stage.

2. **LIST OF PROJECT DRAWINGS**

Description	Drawing Number
Reticulation Network Single Line Diagram	C1849-SMEC-01-EE-RNSLD-0001
Switching Station Single Line Diagram	C1849-SMEC-01-EE-SLD-0001
Interior and Exterior Lighting Layout	C1849-SMEC-01-EE-LL-0001
Small Power	C1849-SMEC-01-EE-SP-0001
Earthing & Lightning Protection	C1849-SMEC-01-EE-ELP-0001
Distribution Board Single Line Diagram	C1849-SMEC-01-EE-DBSLD-0001
Cable Layout Plan	C1849-SMEC-01-EE-CLP-0001
Switching Station Building Locality Plan	C1849-SMEC-01-EE-BLP-0001
Switching Station Layout Plan	C1849-W-P-001
Switching Station Drainage & Kerb Layout	C1849-W-P-002
Switching Station Levels Plan	C1849-W-P-003
Switching Station Layouts and Sections	C1849-1-DCN-010-A
Switching Station Layouts and Sections	C1849-1-DCN-011-A
Typical Details	C1849-1-DCN-015-A
General Notes & Specifications 1	C1849-1-DCN-001-A
General Notes & Specifications 2	C1849-1-DCN-002-A
Floor Plan, Roof Plan & Section	C1849-W-A-001
Elevations	C1849-W-A-002
Door & Window Schedule	C1849-W-A-003
SANS 10400xa Calculations	C1849-W-A-004



- NOTES**
- DO NOT SCALE THE DRAWINGS.
 - ALL DIMENSIONS TO BE VERIFIED ON SITE, PRIOR TO MANUFACTURING OR ORDERING OF EQUIPMENT.
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NO.	DATE	REVISION DESCRIPTION
0	2021-11-05	FIRST REVISION

ENGINEER	PR ENG no.	DATE
CLIENT		DATE

PROJECT

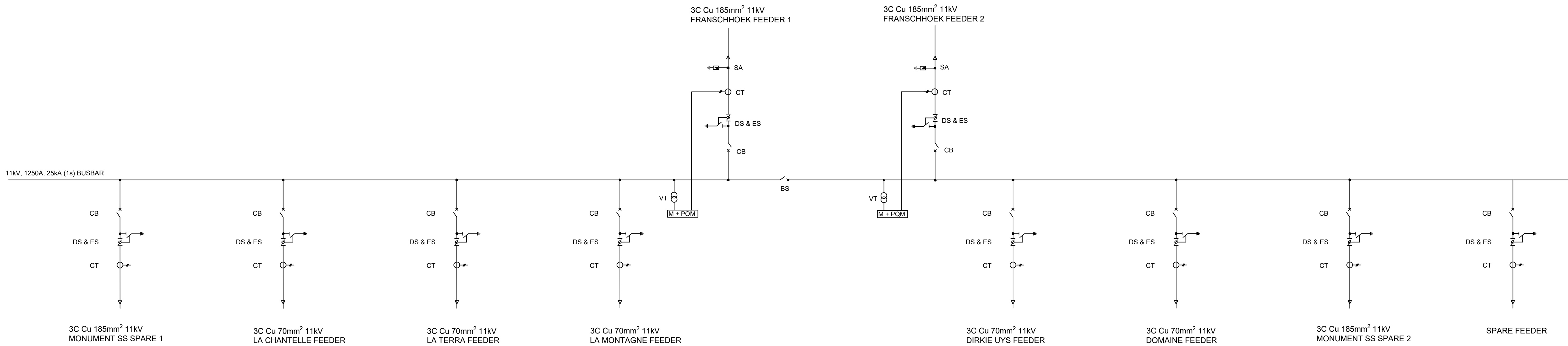
LA TERRA SWITCHING STATION

DRAWING DESCRIPTION

**LA TERRA 11kV SWITCHING STATION
RETICULATION NETWORK
SINGLE LINE DIAGRAM**

TENDER DRAWING		
DESIGNED	DRAWN	CHECKED
TM	TM	VL
REV DATE	SCALE	ORIGINAL SIZE
2021-11-05	N/A	A1
DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		
C1849-SMEC-01-EE-RNSLD-0001		
		REV
		0

SINGLE LINE DIAGRAM LEGEND	
BS	BUS SECTION BREAKER
CB	CIRCUIT BREAKER
CT	CURRENT TRANSFORMER
DC & ES	DISCONNECTOR & EARTH SWITCH
M + PQM	METERING AND POWER QUALITY METER
SA	SURGE ARRESTOR
VT	VOLTAGE TRANSFORMER



NOTES

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PROJECT

LA TERRA SWITCHING STATION

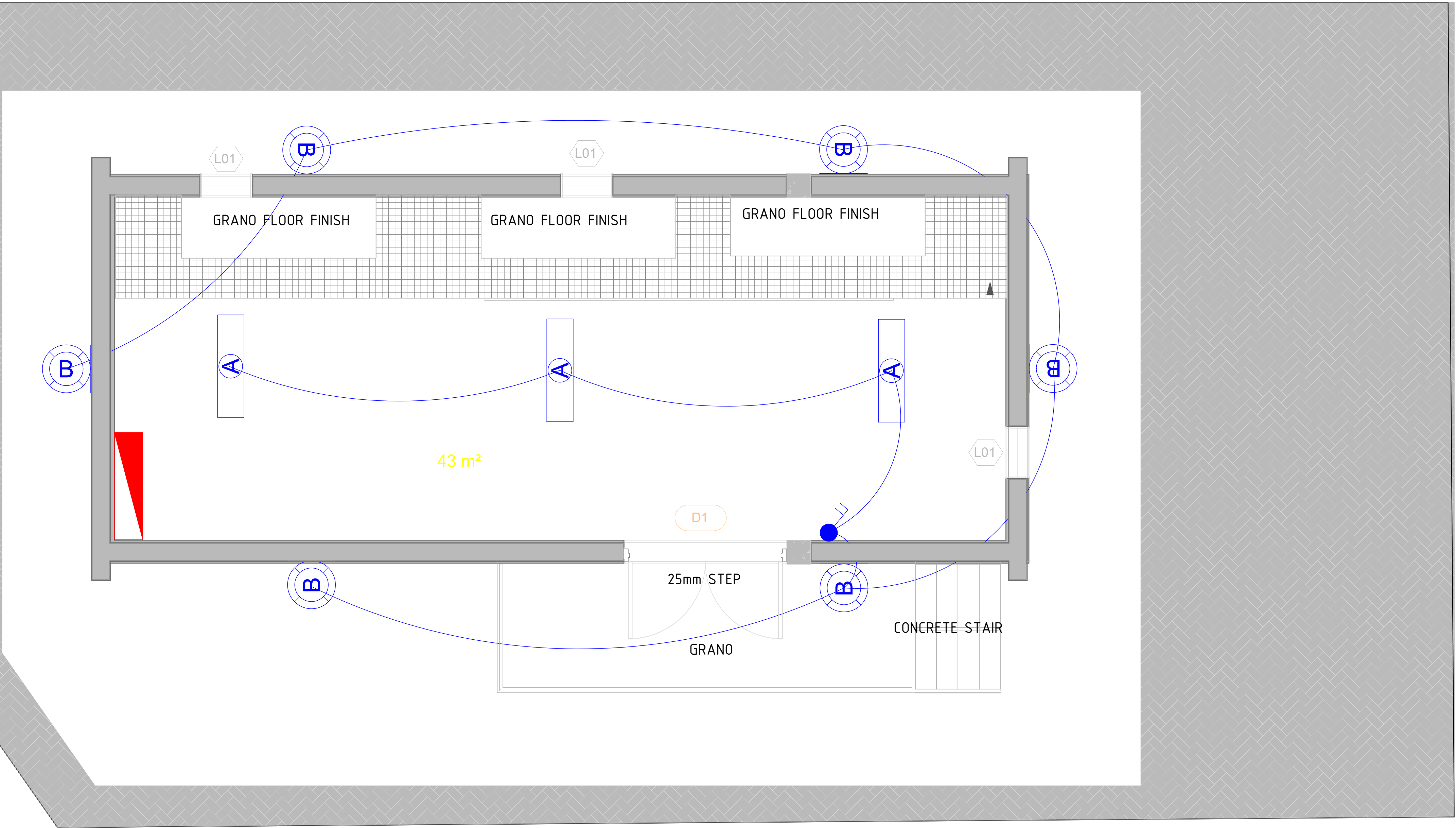
DRAWING DESCRIPTION

**LA TERRA 11kV SWITCHING STATION
SINGLE LINE DIAGRAM**

TENDER DRAWING		
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DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		REV
C1849-SMEC-01-EE-SLD-0001		0

LIGHTING LEGEND	
	CEILING MOUNTED 55W, 6038 LM, 4000K ROUGHGAURD LED LUMINAIRE
	WALL MOUNTED 42W, 3800lm, 4000K BULKHEAD LED LUMINAIRES
	2 LEVER 1 WAY LIGHT SWITCH @ 1000mm A.F.F.L.
	DISTRIBUTION BOARD

CLEAR-VU FENCE



NOTES

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PROJECT

LA TERRA SWITCHING STATION

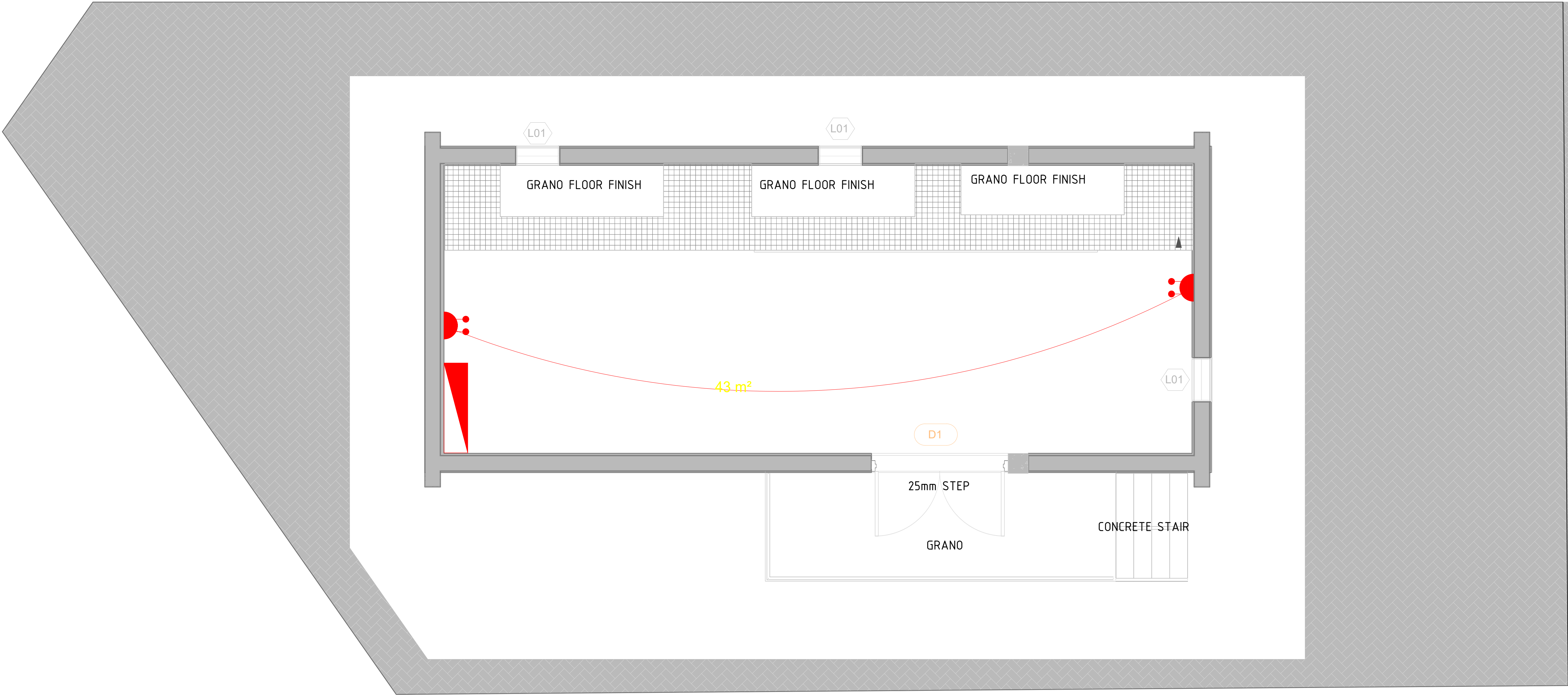
DRAWING DESCRIPTION

**LA TERRA 11kV SWITCHING STATION
INTERIOR AND EXTERIOR
LIGHTING LAYOUT**

TENDER DRAWING		
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REV DATE	SCALE	ORIGINAL SIZE
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DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		REV
C1849-SMEC-01-EE-LL-0001		0

SMALL POWER LEGEND		
	2 x 16A NORMAL SWITCHED SOCKET OUTLET, HEIGHT AS INDICATED - FLUSH MOUNTED	
	DISTRIBUTION BOARD - DB / MDB	

CLEAR-VU FENCE



NOTES

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DATE		

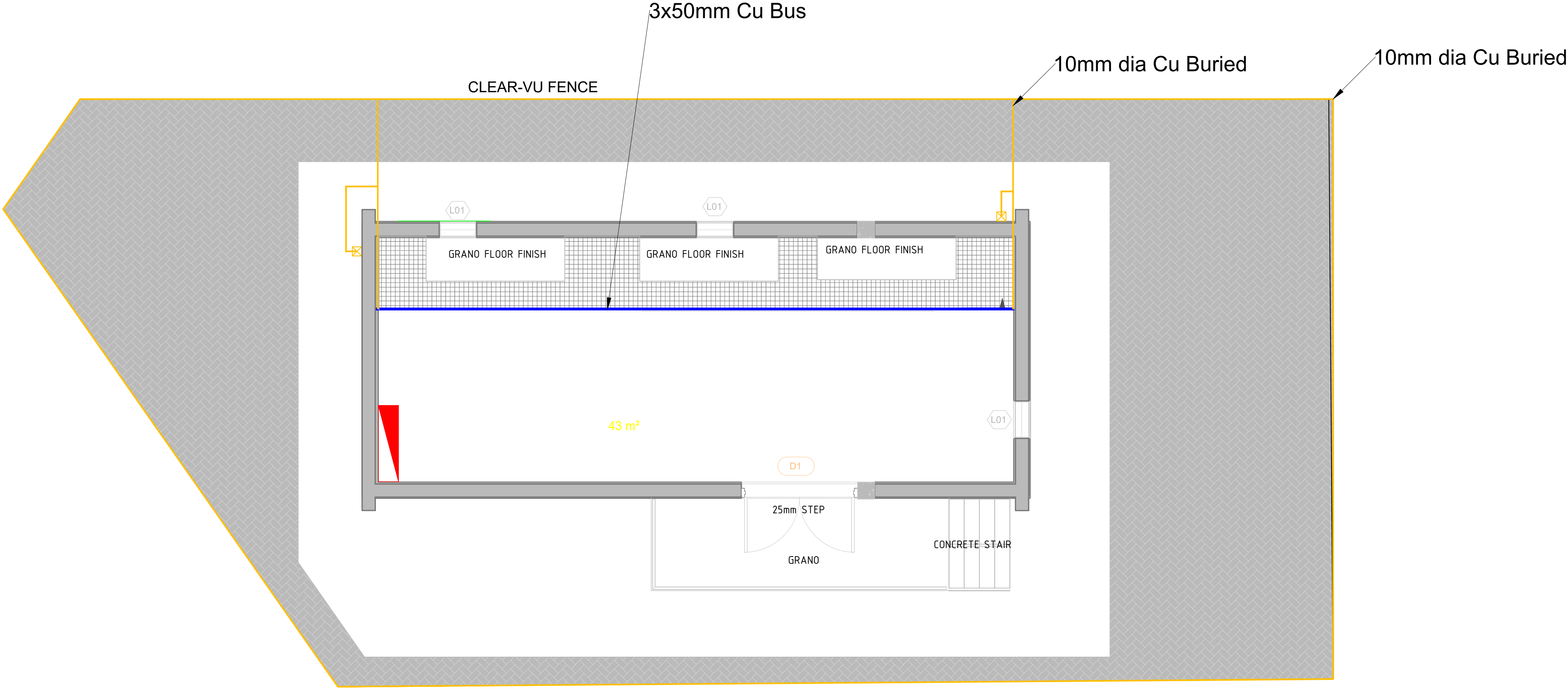
PROJECT

LA TERRA SWITCHING STATION

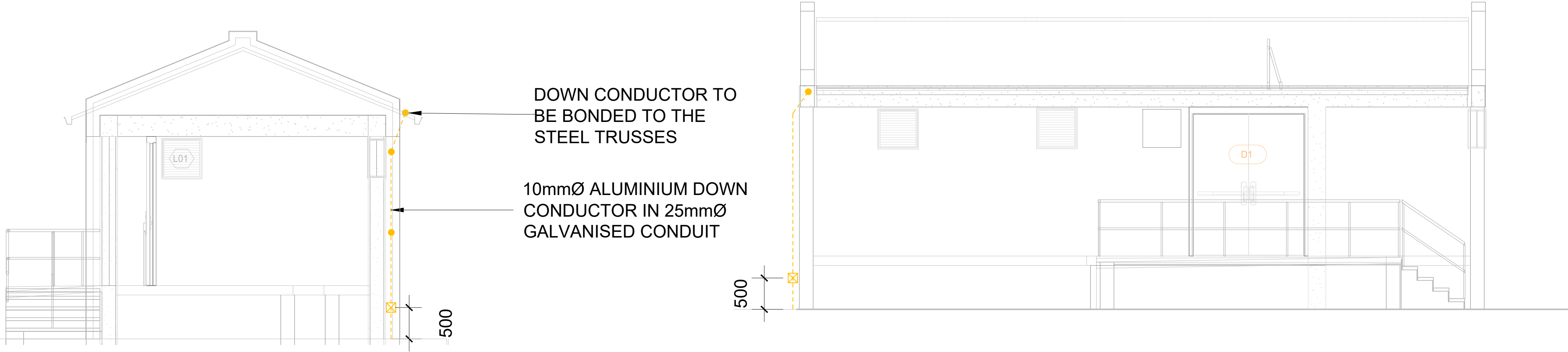
DRAWING DESCRIPTION

LA TERRA 11kV SWITCHING STATION, SMALL POWER

TENDER DRAWING		
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PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		REV
C1849-SMEC-01-EE-SP-0001		0



EATHING AND LIGHTNING PROTECTION LEGEND	
	EXOTHERMIC WELD
	TEST BOX
	10mm² BCEW
	10mm² ALUMINIUM CONDUCTOR
	50mm COPPER BAR
	DISTRIBUTION BOARD
NOTES:	
1. STEEL TRUSSES TO BE BONDED TO EACH OTHER AND DOWN CONDUCTORS.	



DOWN CONDUCTOR TO BE BONDED TO THE STEEL TRUSSES

10mmØ ALUMINIUM DOWN CONDUCTOR IN 25mmØ GALVANISED CONDUIT

NOTES

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NO.	DATE	REVISION DESCRIPTION
0	2021-11-05	FIRST REVISION

ENGINEER	PR ENG no.	DATE
CLIENT		DATE

PROJECT

LA TERRA SWITCHING STATION

DRAWING DESCRIPTION

**LA TERRA 11kV SWITCHING STATION
EARTHING & LIGHTNING PROTECTION**

TENDER DRAWING		
DESIGNED	DRAWN	CHECKED
TM	TM	VL
REV DATE	SCALE	ORIGINAL SIZE
2021-11-05	1:50	A1
DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		REV
C1849-SMEC-01-EE-ELP-0001		0



SINGLE LINE DIAGRAM LEGEND	
	SINGLE PHASE
	TWO PHASE
	THREE PHASE
	ISOLATOR
	CIRCUIT BREAKER
	SURGE ARRESTOR

NOTES:

1. SURFACE MOUNTED DB COMPLETE WITH LID COVER AND LOCKABLE MECHANISM.
2. FAULT LEVEL TO BE AT 6KA.
3. DB SHALL HAVE LABELS AND DANGER SIGNS
4. ENTRY TO BE ALLOWED FOR AT THE TOP AND BOTTOM OF THE DISTRIBUTION BOARD
5. PANELS ARE TO HAVE AN IP65 RATING
6. ALLOW 20% CONTINGENCY SPARE ALLOCATION OF UNEQUIPPED CUBICLES
7. SUPPLY ROUTE TO BE CONFIRMED ON SITE.

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ENGINEER	PR ENG no.	DATE
CLIENT		DATE

PROJECT

LA TERRA SWITCHING
STATION

DRAWING DESCRIPTION

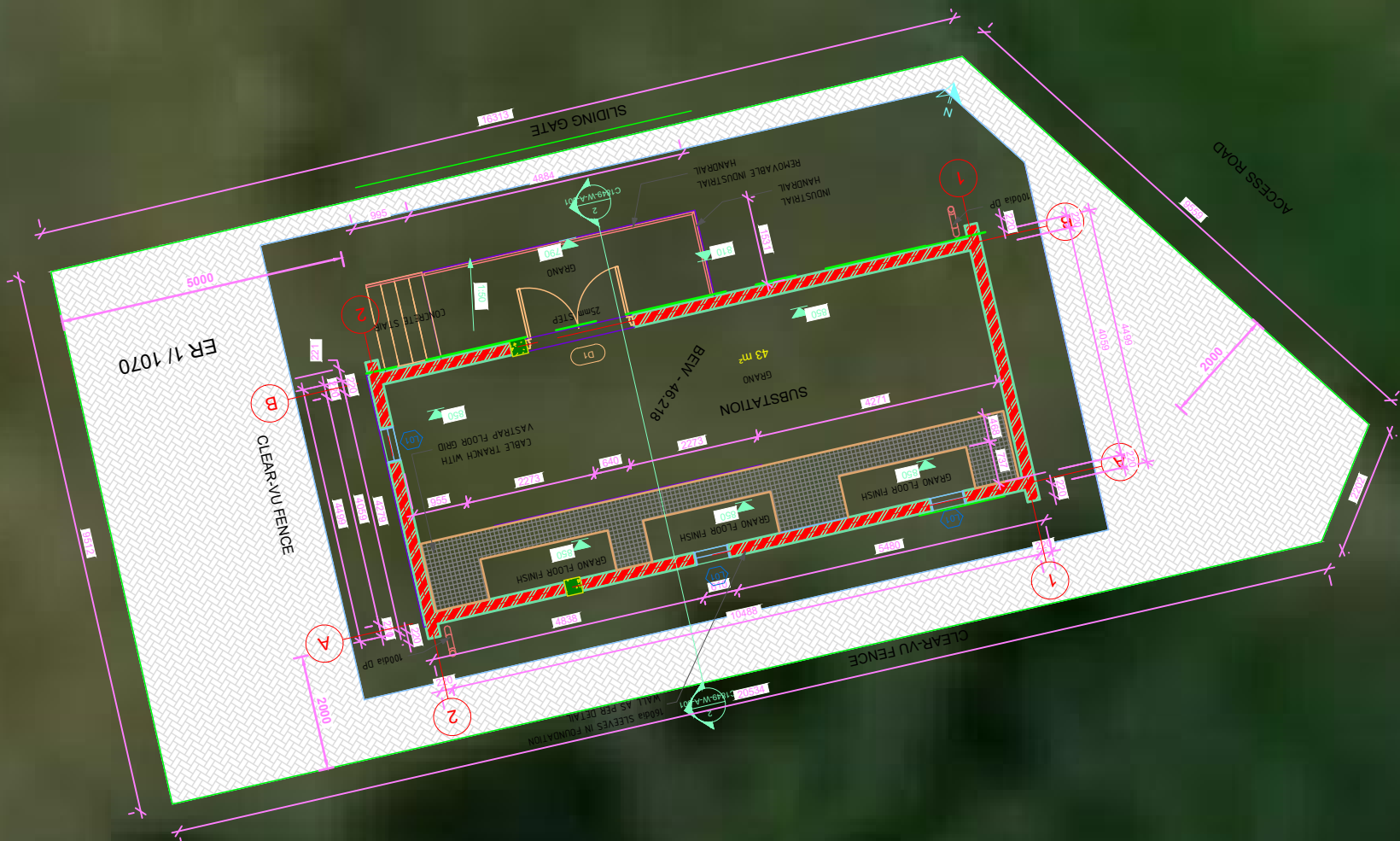
LA TERRA 11kV SWITCHING
STATION DISTRIBUTION
BOARD
SINGLE LINE DIAGRAM

TENDER DRAWING		
DESIGNED	DRAWN	CHECKED
TM	TM	VL
REV DATE	SCALE	ORIGINAL SIZE
2021-11-05	N/A	A1
DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		REV
C1849-SMEC-01-EE-DBSLD-0001		0



LEGEND	
	NEW PROPOSED 70mm ² Cu PILC CABLES
	NEW PROPOSED 70mm ² Cu PILC CABLES
	NEW PROPOSED 70mm ² Cu PILC CABLES
	EXISTING MINI-SUB
	NEW PROPOSED MINI-SUB

TENDER DRAWING									
NOTES 1.1 DO NOT SCALE THE DRAWINGS. 1.2 ALL DIMENSIONS TO BE VERIFIED ON SITE, PRIOR TO MANUFACTURING OR ORDERING OF EQUIPMENT. 1.3 ANY IN-CLARITIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONSULTING ENGINEER. 1.4 THIS DRAWING, OR PART THEREOF, SHALL NOT BE USED FOR ANY OTHER INSTALLATION PROJECT OTHER THAN THIS ONE. 1.5 THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.	 Member of the Surbana Jurong Group 65 RIEBEEK STREET, CAPE TOWN, 8001 PO BOX 72927. LYNNWOOD RIDGE, 0040 WEBSITE: www.smec.com TEL: 021 417 2900 FAX: 021 417 2999	 STELLENBOSCH STELLENBOSCH • FRANSCHHOEK MUNISIPALITEIT • DWARSDAL • MUNISIPALITEIT	REVISION SCHEDULE		PROJECT		DRAWING DESCRIPTION		
			NO.	DATE	REVISION DESCRIPTION	ENGINEER		PR ENG no.	DATE
			0	2021-11-05	FIRST REVISION				
						CLIENT			DATE
LA TERRA SWITCHING STATION		LA TERRA 11KV SWITCHING STATION CABLE LAYOUT PLAN							
DESIGNED	DRAWN	CHECKED							
TM	TM	VL							
REV DATE	SCALE	ORIGINAL SIZE							
2021-11-05	1:1000	A1							
DRAWING NUMBER						REV			
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE									
C1849-SMEC-01-EE-CLP-0001						0			



NOTES

1.1 DO NOT SCALE THE DRAWINGS.
1.2 ALL DIMENSIONS TO BE VERIFIED ON SITE. PRIOR TO MANUFACTURING OR ORDERING OF EQUIPMENT.
1.3 ANY IN-CLARITIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONSULTING ENGINEER.
1.4 THIS DRAWING, OR PART THEREOF, SHALL NOT BE USED FOR ANY OTHER INSTALLATION PROJECT OTHER THAN THIS ONE.
1.5 THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.



Member of the Surbana Jurong Group

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CLIENT



STELLENBOSCH
STELLENBOSCH • FRIOEL • FRANSCHWIERDE
MUNISIPALITEIT • DORPRAAT • MUNISIPALITEIT

REVISION SCHEDULE		
NO.	DATE	REVISION DESCRIPTION
0	10/11/2021	FIRST REVISION

ENGINEER	PR ENG no.	DATE
CLIENT		DATE

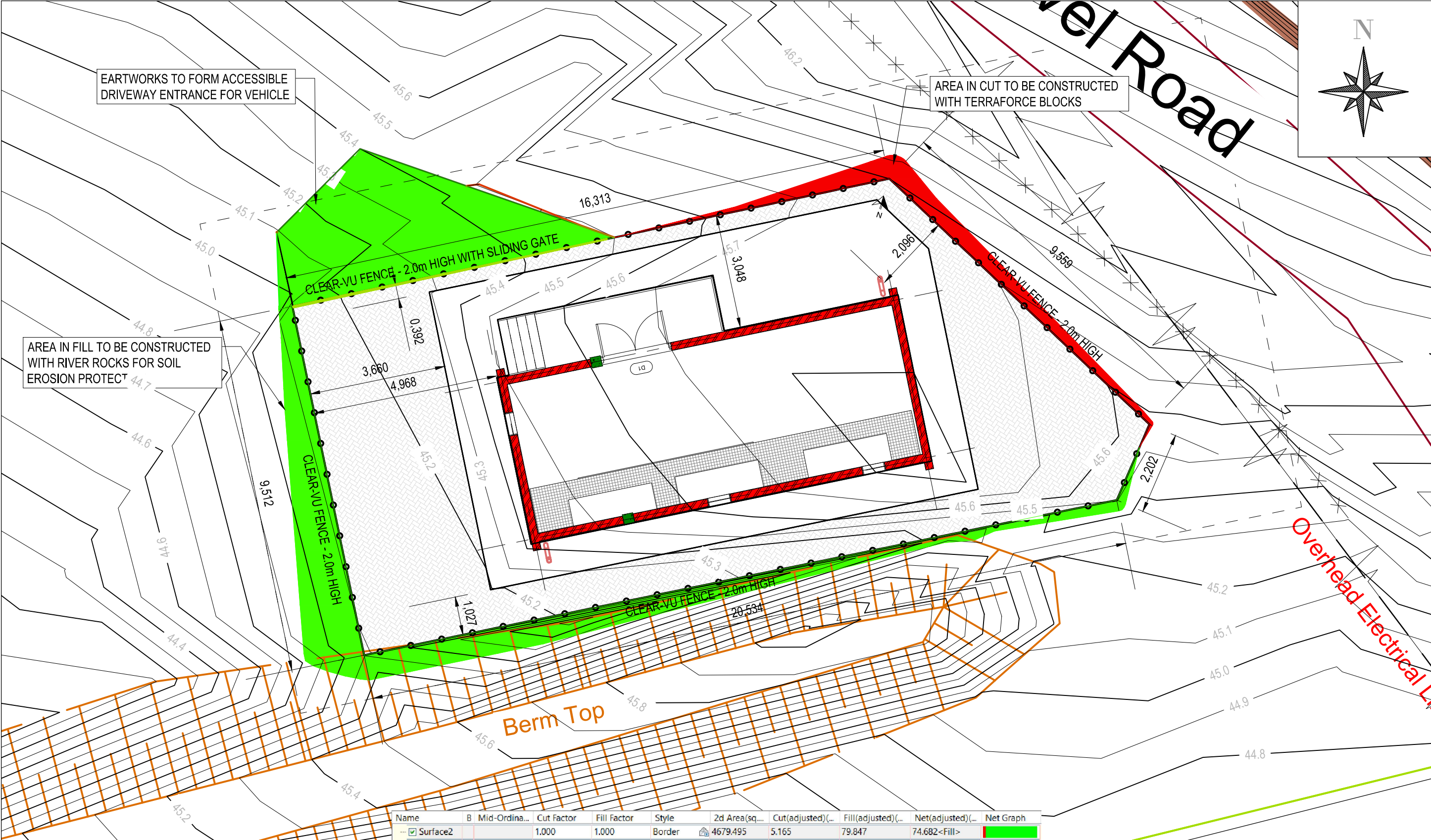
PROJECT

LA TERRA SWITCHING STATION

DRAWING DESCRIPTION

LA TERRA 11kV SWITCHING STATION BUILDING LOCALITY PLAN

DESIGNED	DRAWN	CHECKED
TM	TM	VL
REV DATE	SCALE	ORIGINAL SIZE
10/11/2021	1:1000	A1
DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		
C1849-SMEC-01-EE-BLP-0001		
		REV
		0



Name	B	Mid-Ordina...	Cut Factor	Fill Factor	Style	2d Area(sq...	Cut(adjusted)(...	Fill(adjusted)(...	Net(adjusted)(...	Net Graph
Surface2			1.000	1.000	Border	4679.495	5.165	79.847	74.682<Fill>	

No.	Date	Description	Initial
02	2021-10-21	POSITION AND ORIENTATION OF BUILDING AMENDED	BAA
01	2021-10-04	PROPOSED LEVELS ADDED	BAA
00	2021-05-18	FOR INFORMATION	BAA

for SMEC SOUTH AFRICA (Pty) Ltd.	for CLIENT
date	date

Designed By	B. AURET
Checked By	T. MAKOLA
Drawn By	B. AURET
Checked By	B. AURET

65 Riebeeck Street
Cape Town 8001
South Africa
PO Box 8022
Roggebaai 8012
South Africa
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www.smec.com


Member of the Surbana Jurong Group

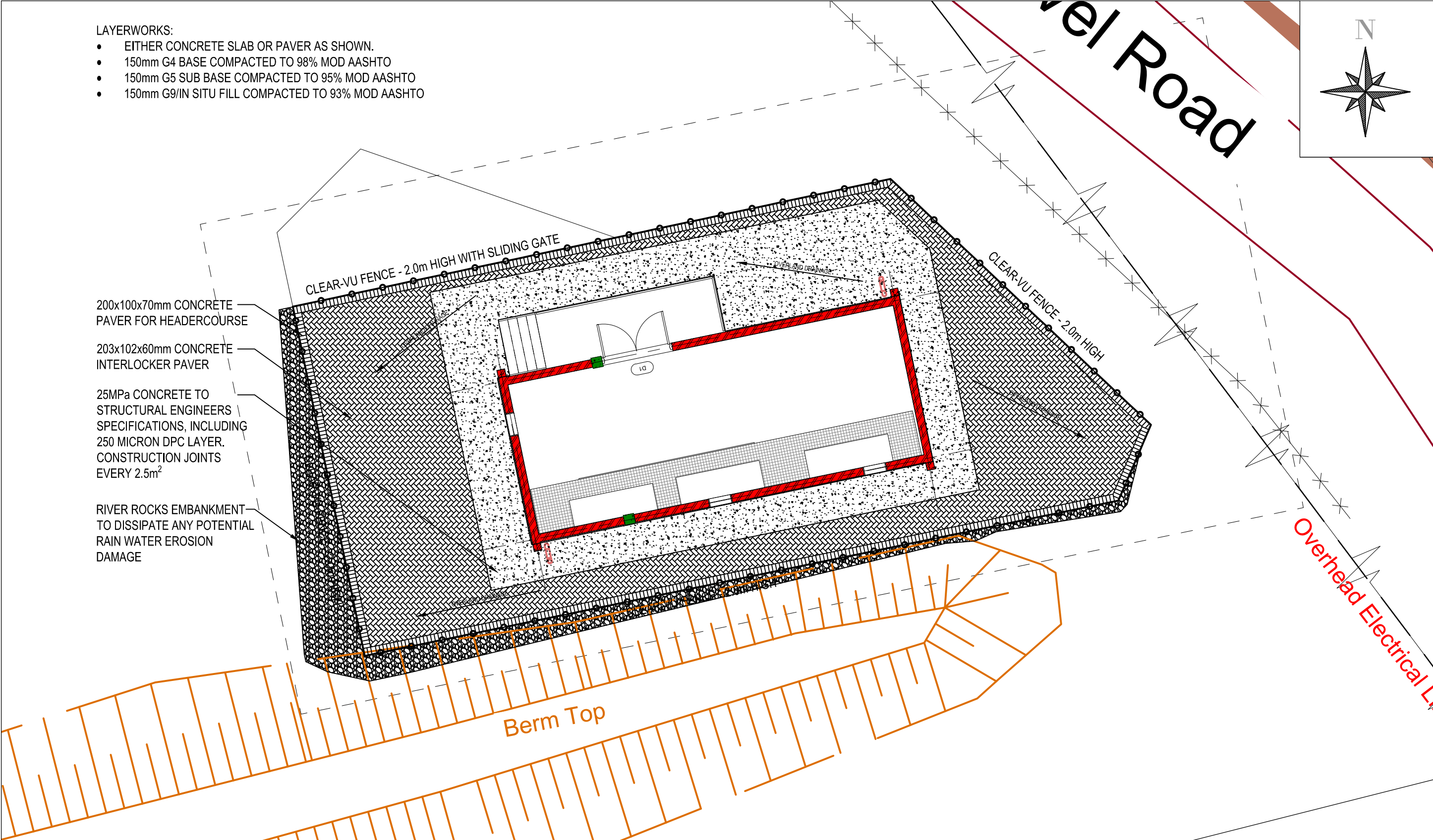
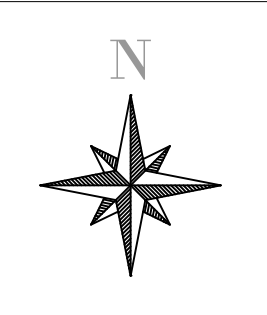
STELLENBOSCH MUNICIPALITY

LA TERRA SUBSTATION

La Terra Switching Station
Layout Plan

A3	Scale	1:100
SMEC South Africa (Pty) Ltd		
C1849-W-P-001		
Client drawing no.		
Revision No.	00	01 02

- LAYERWORKS:
- EITHER CONCRETE SLAB OR PAVER AS SHOWN.
 - 150mm G4 BASE COMPACTED TO 98% MOD AASHTO
 - 150mm G5 SUB BASE COMPACTED TO 95% MOD AASHTO
 - 150mm G9/IN SITU FILL COMPACTED TO 93% MOD AASHTO



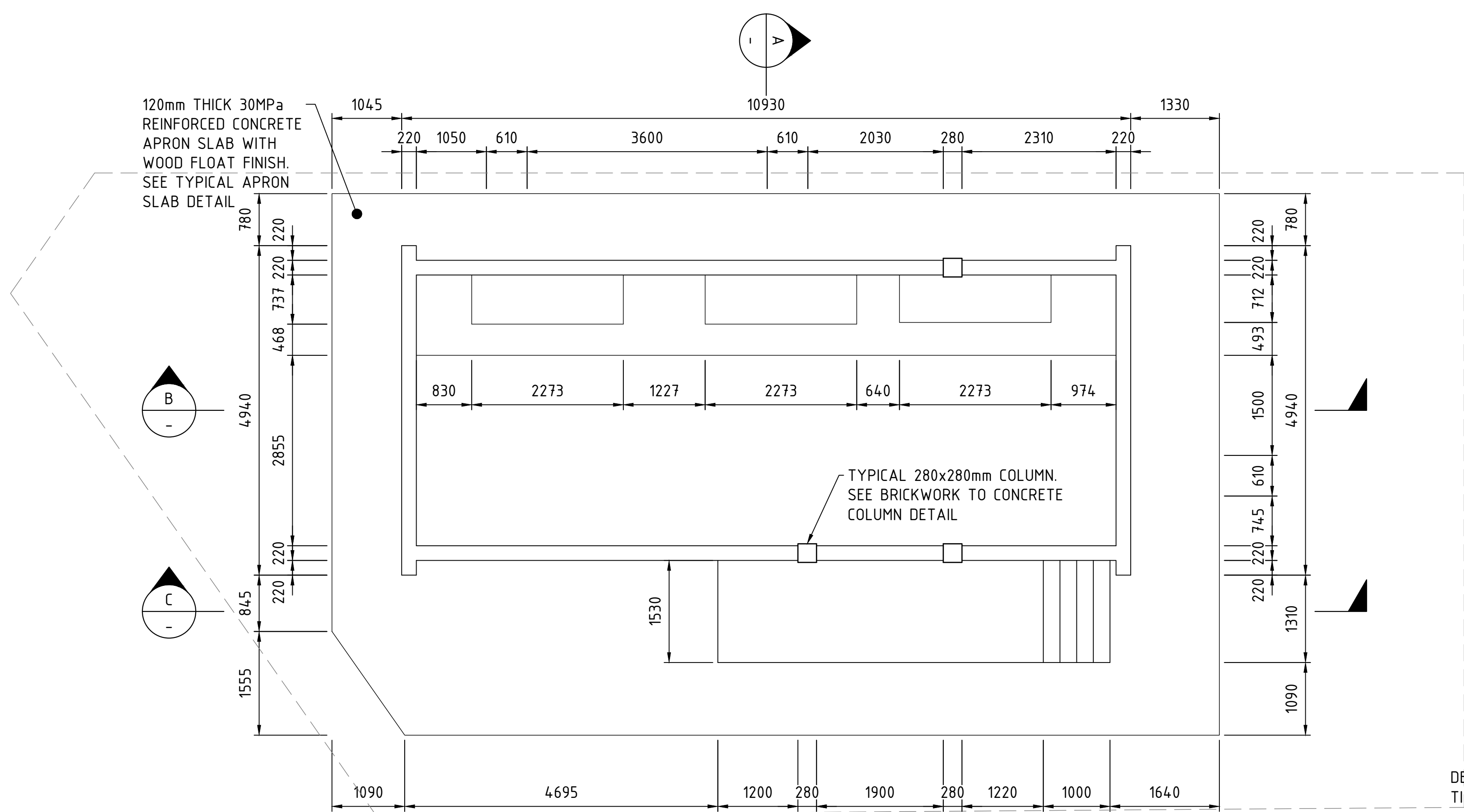
200x100x70mm CONCRETE
PAVER FOR HEADERCOURSE

203x102x60mm CONCRETE
INTERLOCKER PAVER

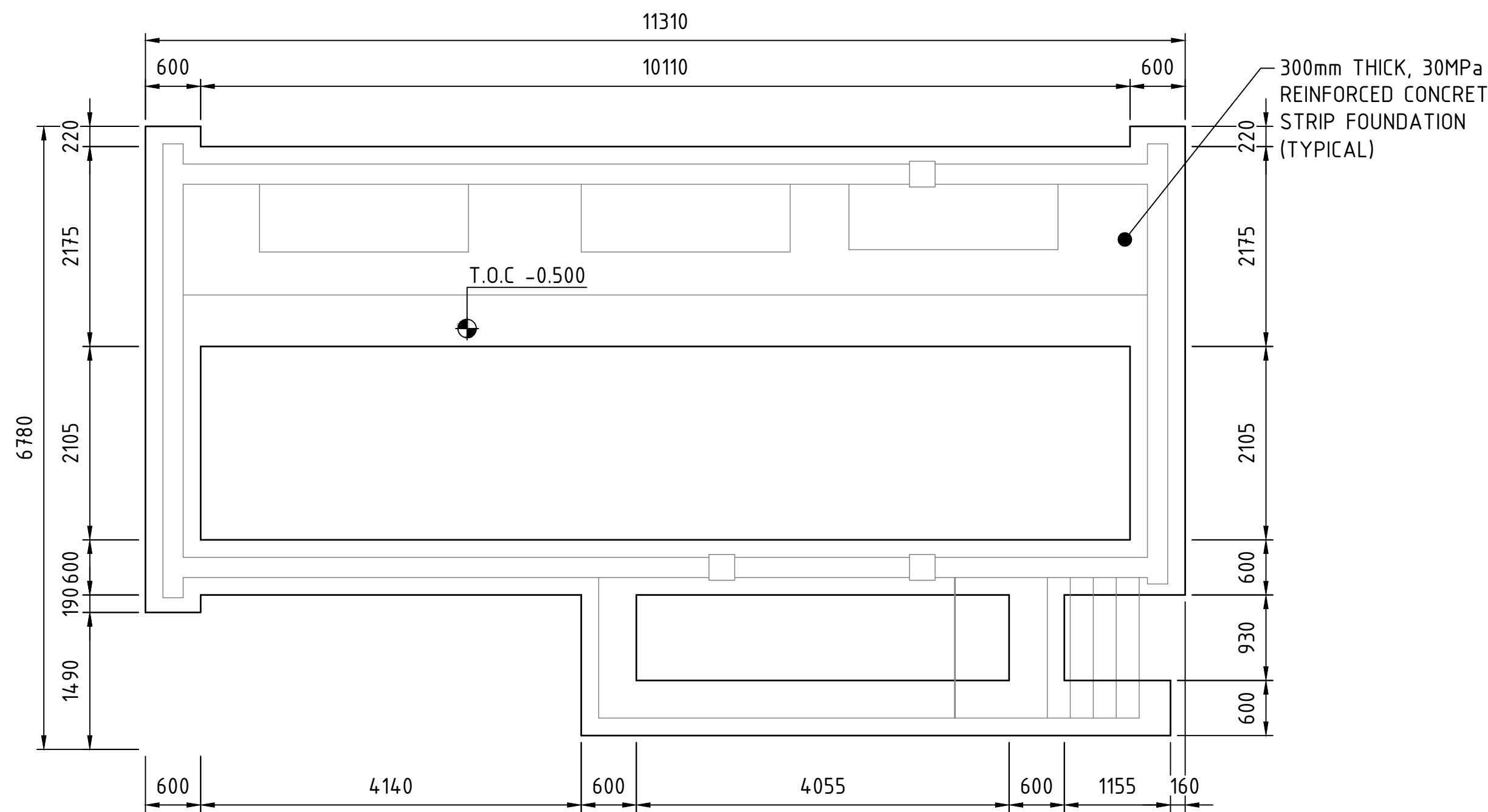
25MPa CONCRETE TO
STRUCTURAL ENGINEERS
SPECIFICATIONS, INCLUDING
250 MICRON DPC LAYER.
CONSTRUCTION JOINTS
EVERY 2.5m²

RIVER ROCKS EMBANKMENT
TO DISSIPATE ANY POTENTIAL
RAIN WATER EROSION
DAMAGE

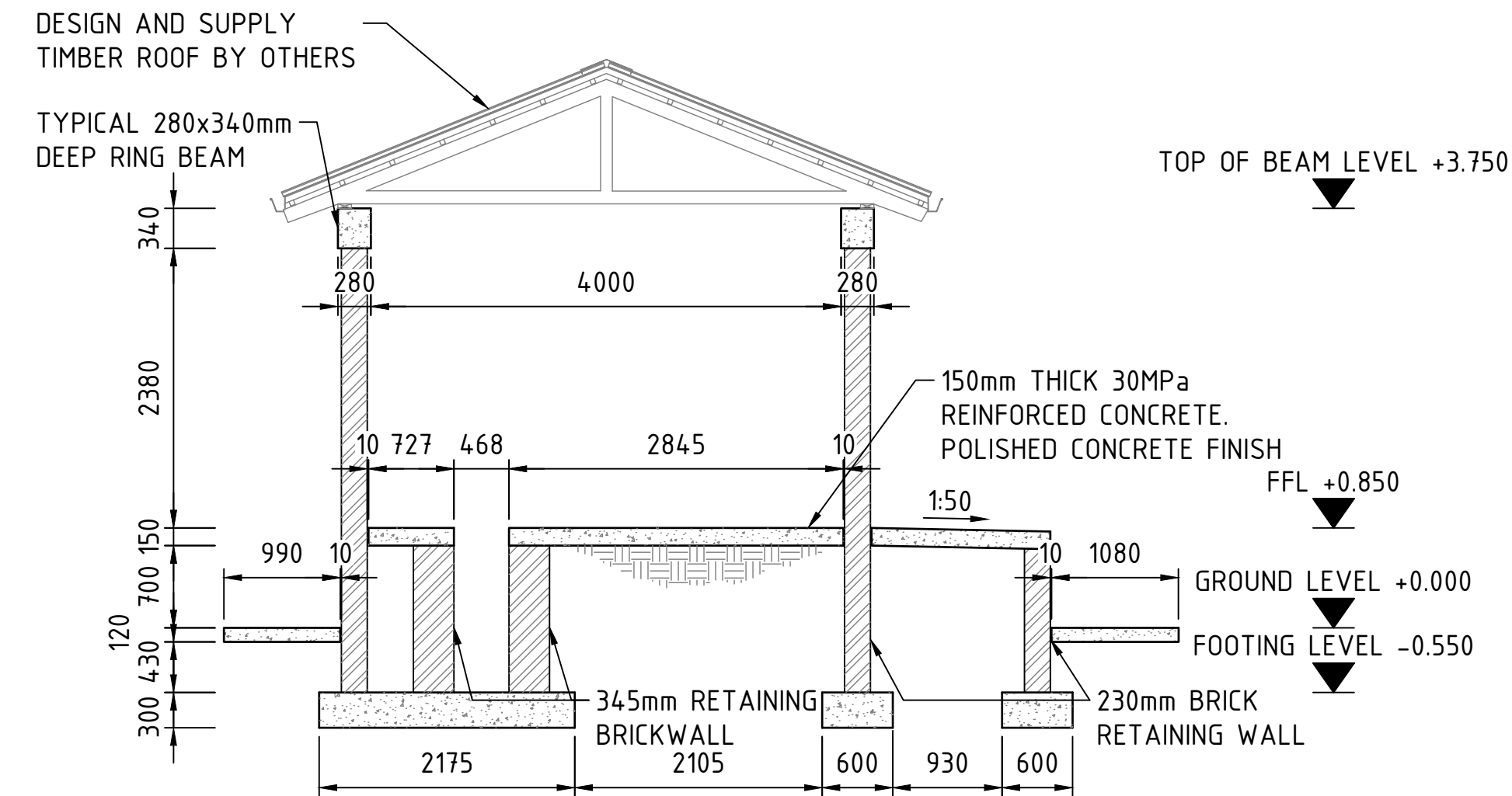
Revisions																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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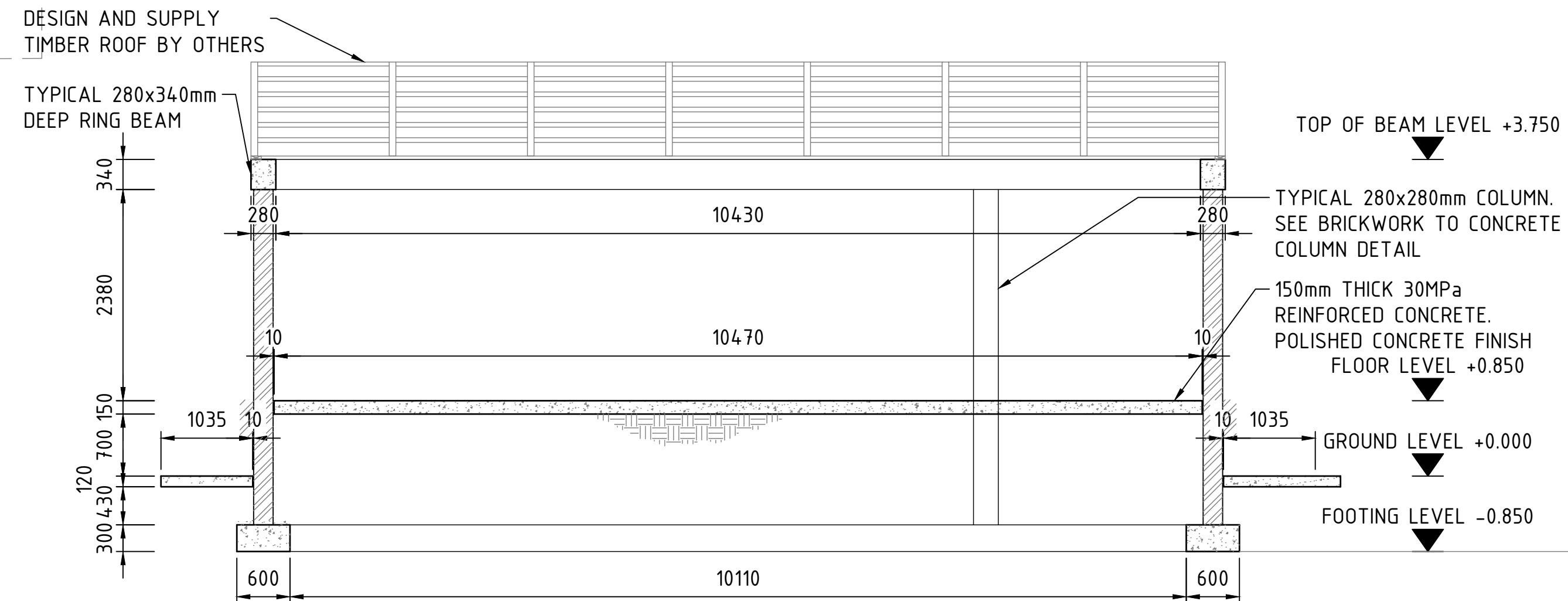
PLAN LAYOUT
SCALE 1:50



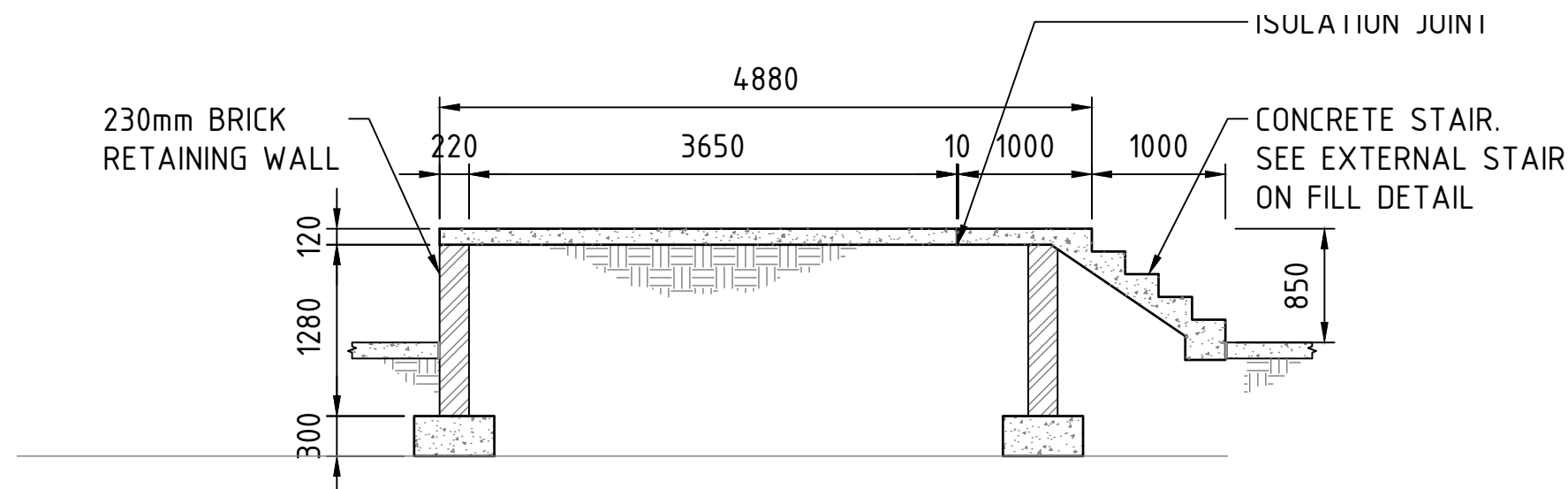
FOUNDATION LAYOUT
SCALE 1:50



SECTION A
SCALE 1:50



SECTION B
SCALE 1:50



SECTION C
SCALE 1:50

- NOTES:
- REFER TO DRAWING C1849-1-DNS-001 TO 002 FOR GENERAL NOTES AND SPECIFICATION.
 - REFER TO DRAWING C1849-1-DCN-015 FOR TYPICAL DETAILS

FOR APPROVAL

REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	DRAWING APPROVED	TITLE	NAME	SCALES AT AN A1 SIZE DRAWING	DESIGNER	CLIENT	DESCRIPTION
A	05.11.2021	ISSUED FOR APPROVAL	-	-	ENGINEER : RUDI PIETERS PR ENG No. : 20160564 SIGNATURE :	DRAFTER DRAFTING CHECK DESIGNER DESIGN CHECK PROJECT MANAGER PROJECT DIRECTOR	T.BUKANI P.ROOS J.ZHANG R.PIETERS T.VAN AS T.VAN AS	SCALE 1:50 	 Member of the Surbana Jurong Group 	 STELLENBOSCH MUNICIPALITEIT • EMANIPALA • MUNICIPAALITEIT	STELLENBOSCH MUNICIPALITY LA TERRA SWITCHING STATION STRUCTURAL DRAWING SWITCHING STATION LAYOUTS AND SECTIONS SHEET 1
PHASE		DRAWING TYPE		DRAWING NUMBER		REVISION					
1		DCN		010		A					



REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	DRAWING APPROVED	TITLE	NAME	SCALES: AT AN A1 SIZE DRAWING	DESIGNER	CLIENT	DESCRIPTION			
A	05.11.2021	ISSUED FOR APPROVAL	-	-	ENGINEER : RUDI PIETERS	DRAFTER	T.BUKANI	SCALE 1:50 	 Member of the Surbana Jurong Group		 STELLENBOSCH STELLENBOSCH • P.O. BOX 10000 MUNICIPALITEIT • EMANTJAPPA • MUNICIPAALITEIT	STELLENBOSCH MUNICIPALITY LA TERRA SWITCHING STATION STRUCTURAL DRAWING SWITCHING STATION LAYOUTS AND SECTIONS SHEET 2		
				PR ENG No. : 20160564	DESIGNER	J.ZHANG	SCALE 1:10 							
				SIGNATURE :	DESIGN CHECK	R.PIETERS								
					PROJECT MANAGER	T.VAN AS								
					PROJECT DIRECTOR	T.VAN AS								
								SMC PROJECT No. 1849						

TIME
15:02:25

PLOT DATE
04 Nov 2021

DRAWING FILE LOCATION / NAME
150 mm ON ORIGINAL
A1

CONCRETE

1. ALL CONCRETE & CONCRETE WORK SHALL COMPLY WITH: SANS 0100-2, SABS 1200 G.

2. CONCRETE MIX DESIGN TO BE PROVIDED BY AN INDEPENDENT PROFESSIONAL ENGINEER.

3. COVER.

3.1 COVER BLOCKS.
CONCRETE COVER TO REINFORCING IS AS FOLLOWS EXCEPT WHERE OTHERWISE NOTED ON BENDING SCHEDULES.

• BLINDING LAYER : 50mm

• STRIP FOUNDATION : 50mm

• SURFACE BED : 30mm

• COLUMNS : 30mm

• BEAMS : 30mm

3.2 MINIMUM SAMPLE SIZES FOR STRENGTH CONCRETE (CONCRETE TEST CUBE RESULTS) TO BE ACCORDING TO COLTO STANDARD SPECIFICATIONS TABLE 8305/4.

4. ADVERSE WEATHER REQUIREMENTS SHALL COMPLY TO SABS 1200 G.

5. READY MIX TO SITE SHALL COMPLY WITH SABS 1200 G.

6. PERMISSIBLE DEVIATIONS ACCORDING TO SABS 1200 G (6.2.3) – SEE TABLE BELOW.

6.1 DEGREE OF ACCURACY OF THE FOLLOWING ELEMENTS:

ELEMENT

DEGREE OF ACCURACY

• OFF SHUTTER CONCRETE : I

• FOUNDATIONS : II

• COLUMNS : II

• SLABS : II

• BEAMS : II

S.A.B.S 1200 G (6.2.3)

6.2.3 SPECIFIED PERMISSIBLE DEVIATIONS	PERMISSIBLE DEVIATION		
	DEGREE OF ACCURACY		
	III	II	I
	mm	mm	mm
a) REINFORCEMENT.			
1) SPACING BETWEEN TWO ADJACENT BARS.	±25	±20	±15
2) LONGITUDINAL LOCATION OF BENDS AND ENDS OF BARS.	±40	±30	±20
3) COVER TO REINFORCEMENT (SEE (e) BELOW).	-0+20	-0+20	-0+10
b) FORMWORK. FORMWORK SHALL BE CONSTRUCTED AS TO ENSURE THAT THE POSITION OF THE FINISHED WORK WILL BE AS SPECIFIED, SUBJECT TO THE RELEVANT PERMISSIBLE DEVIATION GIVEN IN (c) OR (d) BELOW, AS APPLICABLE.			
c) FOUNDATIONS. MASS AND REINFORCED CONCRETE.			
1) POSITION ON PLAN OF ANY EDGE OR SURFACE MEASURED FROM THE NEAREST GRID LINE OR AGREED CENTER LINE.	±50	±35	±20
2) LINEAR DIMENSION ON PLAN CAST AGAINST EXCAVATED SIDES.	±60	±40	±20
3) LINEAR DIMENSION ON PLAN CAST AGAINST FORMWORK.	±30	±20	±10
4) LEVEL OF UNDERSIDE OF CONCRETE.	-40+20	-30+15	-20+10
5) SURFACE LEVEL (i.e. TOP OF FOUNDATION) (EXCLUDING FLOOR SLABS).	-30+15	-20+10	-10+5
d) ELEMENTS OR COMPONENTS ABOVE FOUNDATIONS. (INCLUDING FLOOR SLABS).			
1) POSITION ON PLAN OF ANY EDGE OR SURFACE MEASURED FROM THE NEAREST GRID LINE OR AGREED CENTER LINE.	±25	±15	±5
2) LINEAR (OTHER THAN CROSS-SECTION) DIMENSIONS.	±30	±20	±10
3) CROSS-SECTION DIMENSIONS.	-10+20	-5+15	±5
4) LEVEL (DEVIATION FROM DESIGNED LEVEL WITH REFERENCE TO THE NEAREST TRANSFERRED DATUM (TD) OF THE UPPER OR LOWER SURFACE, AS MAY BE SPECIFIED, OF ANY SLAB OR OTHER ELEMENT OR COMPONENT).	-20+10	-15+5	-10+0
5) VERTICALITY, PER METER OF HEIGHT, SUBJECT TO A MAXIMUM OF.	5 70	5 50	2 30
6) OUT-OF-SQUARENESS OF A CORNER OR AN OPENING OR AN ELEMENT SUCH AS A COLUMN (SEE 6.1.2. (C)) FOR SHORT SIDE OF LENGTH.			
• UP TO AND INCLUDING 0.5 m.	±10	±5	±3
• OVER 0.5 m UP TO AND INCLUDING 2 m.	±20	±15	±10

ENGINEER : RUDI PIETERS

PR ENG No. : 20160564

SIGNATURE :

CONCRETE CONTINUED

• OVER 2 m, UP TO AND INCLUDING 4 m.

±25

±20

±15

7) EXPOSED CONCRETE SURFACE.

• FLATNESS OF PLANE SURFACE.

10

5

3

• ABRUPT CHANGES IN A CONTINUOUS SURFACE.

10

5

2

8) EXPOSED CONCRETE SURFACE TO BE PLASTERED.

• FLATNESS OF PLANE SURFACE.

15

10

5

• ABRUPT CHANGES IN A CONTINUOUS SURFACE.

10

5

3

e) COVER TO REINFORCEMENT
NO DEVIATION FORM THE MINIMUM COVER OF CONCRETE REINFORCEMENT SPECIFIED IN 5.1.3 (a) WILL BE PERMITTED.

f) LOCATION OF HOLDING DOWN BOLTS.

1) THE CENTER LINE OF A HOLDING-DOWN BOLT FROM ITS DESIGNATED LOCATION IN PLAN.

±3

±3

±3

2) THE TOP OF THE BOLT FROM ITS DESIGNATED ELEVATION.

-3+5

-3+5

-3+5

g) CONSTITUENTS IN CONCRETE MIX (INCLUDING WATER)
PERMISSIBLE DEVIATIONS OF QUANTITIES FROM APPROVED OR DESIGNATEDOR PRESCRIBED MIX, AS APPLICABLE.

7. CONCRETE STRENGTH OF MEMBERS UNLESS OTHERWISE SHOWN:

• BLINDING LAYER : 10MPa

• STRIP FOUNDATION : 30MPa

• BASES : 30MPa

• SURFACE BED : 30MPa

• COLUMNS : 30MPa

• BEAMS : 30MPa

• SLABS : 30MPa

8. 25mm CHAMFERS TO ALL EXPOSED CORNERS.

9. CONTRACTOR WILL BE RESPONSIBLE FOR ALL SETTING OUT OF WORKS FROM CONTROLLED BENCHMARKS ACCORDING TO SABS 1200 A (5.1).

10. 50mm BLINDING UNDER ALL PAD AND RETAINING WALL FOUNDATIONS.

11. ALL PILES TO BE ACCORDING TO SANS 1200 F.

12. FACTORS AFFECTING CONCRETE SHRINKAGE CRACKS. IF THE RATE OF WATER EVAPORATION FROM THE CONCRETE EXCEEDS 1,0 kg/m² PER HOUR, PRECAUTIONS SHOULD BE TAKEN TO REDUCE EVAPORATION (SEE FIGURE BELOW).

TO USE THIS CHART:

1. ENTER WITH AIR TEMPERATURE, MOVE UP TO RELATIVE HUMIDITY.

2. MOVE RIGHT TO CONCRETE TEMPERATURE.

3. MOVE DOWN TO WIND VELOCITY.

4. MOVE LEFT, READ APPROX. RATE OF EVAPORATION.

RELATIVE HUMIDITY
100 PERCENT

90
80
70
60
50
40
30
20
10

5 15 25 35

AIR TEMPERATURE,
DEG. C

4,0
3,0
2,0
1,0
0

RATE OF EVAPORATION,
kg/m² /hr

CONCRETE TEMPERATURE - 35°C
32°C
27°C
22°C
18°C
13°C
8°C

WIND VELOCITY - km/hr
32 km/hr
24 km/hr
16 km/hr
8 km/hr
3 km/hr
0

(FIGURE 7.7) EFFECT OF CONCRETE AND AIR TEMPERATURES, RELATIVE HUMIDITY AND WIND VELOCITY ON THE RATE OF EVAPORATION OF SURFACE MOISTURE FROM CONCRETE. IF THE RATE OF WATER EVAPORATION FROM THE CONCRETE EXCEEDS 1,0 kg/m² PER HOUR, PRECAUTIONS SHOULD BE TAKEN TO REDUCE EVAPORATION (SEE FIGURE 7.7).

L.R. MARAIS, B.D. PERRIE (2009). CONCRETE INDUSTRIAL FLOORS ON THE GROUND. C&CI PUBLICATION. FIG. 7.7. PP 121.

13. FORMWORK.

13.1 ALL FORMWORK TO BE DESIGNED AND SIGNED OFF BY AN INDEPENDENT PROFESSIONAL ENGINEER APPOINTED BY THE CONTRACTOR.

13.2 REMOVAL OF FORMWORK ACCORDING TO SANS 10100:1992 PART 2 TABLE 7 (SEE NEXT PANEL).

TITLE

NAME

DRAFTER T.BUKANI

DRAFTING CHECK P.PROOS

DESIGNER J.ZHANG

DESIGN CHECK R.PIETERS

PROJECT MANAGER T.VAN AS

PROJECT DIRECTOR T.VAN AS

CONCRETE CONTINUED

SANS 10100:1992 PART 2 TABLE 7

TYPE OF STRUCTURAL MEMBER OR FORMWORK

MINIMUM TIME

TYPE OF CEMENT USED

ORDINARY PORTLAND CEMENT AND PORTLAND CEMENT 15.

RAPID-HARDENING PORTLAND CEMENT(2) AND RAPID-HARDENING PORTLAND CEMENT 15 (3).

CEMENTS CONTAINING MORE THAN 15% OF GGBS OR FA.

WEATHER (SEE 3.2)

NORMAL

COOL

COLD

NORMAL

COOL

COLD

NORMAL

COOL

COLD

BEAM SIDES, WALLS AND UNLOADED COLUMNS

0.75

(4)

1.50

0.50

(4)

1

2

(4)

4

SLABS WITH PROPS LEFT IN PLACE

4

(4)

7

2

(4)

4

6

(4)

10

BEAM SOFFITS WITH PROPS LEFT IN PLACE, AND RIBS OF A RIBBED FLOOR CONSTRUCTION

7

(4)

12

3

(4)

5

10

(4)

17

SLAB PROPS

10

(4)

17

5

(4)

9

10

(4)

17

BEAM PROPS

14

(4)

21

7

(4)

12

14

(4)

21

(1) THE TIME OF REMOVAL OF FORMWORK ALLOWING FOE THE SURFACE FINISH IS TO BE DECIDED BY THE DESIGNER, THIS TABLE SHOULD BE REGARDED AS A GUIDE ONLY.

(2) SHORTER PERIODS MAY BE USED FOR SECTIONS HAVING A THICKNESS OF 300mm OR MORE.

(3) ONLY IF RAPID-HARDENING CEMENT IS USED AS A DIRECT REPLACEMENT FOR ORDINARY PORTLAND CEMENT. SHORTER REMOVAL TIMES FOR FORMWORK DO NOT APPLY IF MIXES ARE DESIGNED WITH RAPID-HARDENING CEMENT TO ACHIEVE THE SAME 28-D STRENGTH.

(4) IN COOL WEATHER, STRIPPING TIMES ARE TO BE DETERMINED BY INTERPOLATION BETWEEN THE PERIODS SPECIFIED FOR NORMAL AND COLD WEATHER.

14. CURING.

14.1 CONCRETE CURING SHALL BE CONTINUOUS FOR AT LEAST 7 DAYS FOR OPC CEMENT, AND AT LEAST 10 DAYS FOR BLAST FURNACE CEMENT OR A 50/50 MIXTURE OF OPC OR GGBFS.

14.2 CURING COMPOUNDS ARE APPLIED AS SOON AS BLEEDING HAS STOPPED AND BLEED WATER HAS EVAPORATED FROM THE SURFACE. THE CHOICE OF CURING COMPOUND IS ESPECIALLY IMPORTANT WHEN THE CONCRETE IS TO RECEIVE FURTHER TREATMENT SUCH AS PLASTERING OR PAINTING. SOME COMPOUNDS WILL PREVENT SUBSEQUENTLY APPLIED MATERIALS FROM ADHERING.

14.3 CONCRETE CURING SHALL BE IN ACCORDING TO BS 8001TABLE 12.4 (BELOW).

BS 8001 TABLE 12.4

SUGGESTED MINIMUM MOIST CURING PERIODS	
WEATHER	MINIMUM MOIST CURING PERIOD, DAYS
NORMAL: 18 TO 22°C 65% RELATIVE HUMIDITY, LOW WIND SPEEDS	5
HOT: WITH DRYING WINDS	7
COLD: 5 TO 12°C	9

15. BACK PROPPING.

15.1 THE CONTRACTOR MUST GET THE MINIMUM STRENGTH ON WHICH THE CONCRETE CAN SUPPORT ITS OWN WEIGHT FROM THE DESIGNER.

15.2 IN CASES WHERE RAPID-HARDENED CEMENT CONCRETE OR SIMILAR IS USED BY THE CONTRACTOR TO OBTAIN EARLY STRENGTH, THE CONTRACTOR MUST PROVE TO THE DESIGNER, COMPLIANCE TO MINIMUM STRENGTH REQUIREMENTS (THROUGH USE OF CONCRETE CUBE FROM SAME MIX).

15.3 DESIGN RESPONSIBILITY OF BACK PROPPING AND FORM WORK STRIPPING STAYS WITH THE CONTRACTOR'S FORM WORK DESIGNER.

15.4 BACK-PROPPING FOR A MULTI-STOREY BUILDING:

• FOR PRE-STRESSED AND POST-TENSIONED SLABS, THE CONTRACTOR MUST CONFIRM THE STRIPPING SEQUENCE WITH THE DESIGNER TO ENSURE COMPLIANCE PRIOR TO STRIPPING OF SUPPORT WORK ON.

• THE CONTRACTOR MUST AVOID CONSTRUCTION OF BRICKWORK ON TEMPORARILY PROPPED SLABS.

• BACK PROPPING FOR MULTI-STOREY BUILDINGS IN ACCORDANCE WITH THE FOLLOWING TABLE:

DESIGNER

SMEC

South Africa

Member of the Surbana Jurong Group

SABS

ISO 9001

SMEC PROJECT No. C1849

CLIENT

STELLENBOSCH

STELLENBOSCH • TOWN • FORTSCHRIEDER

MEUNISDALSTADT • EDENBURG • MEUNISDALSTADT

DESCRIPTION

STELLENBOSCH MUNICIPALITY
LA TERRA SWITCHING STATION
STRUCTURAL DRAWING
GENERAL NOTES & SPECIFICATIONS
SHEET 1 OF 2

PHASE
1

DRAWING TYPE
DNS

DRAWING NUMBER
001

REVISION
A

CONCRETE CONTINUED

TABLE 1: BACK-PROPPING REQUIREMENTS FOR MULTI-STOREY BUILDINGS. FLOOR 1-6 / (LAST FLOOR) ARE IN SEQUENCE; WITH FLOOR 1 AT THE BOTTOM AND FLOOR 6 ON TOP.

FLOOR	% OF BACK-PROPPING AT 28 DAYS CONCRETE STRENGTH FOR:					
	FLOOR 1	FLOOR 2	FLOOR 3	FLOOR 4	FLOOR 5	FLOOR 6
FLOOR 1	100%	75%	50%	25%	0%	0%
FLOOR 2		100%	75%	50%	25%	0%
FLOOR 3			100%	75%	50%	25%
FLOOR 4				100%	75%	50%
FLOOR 5					100%	75%
FLOOR 6						100%

16. SURFACE BEDS.

16.1 MIX DESIGN TO YIELD A HIGH STRENGTH, DURABLE, LOW SHRINKAGE, ABRASION RESISTANT PRODUCT COMPLYING WITH THE FOLLOWING:

• 28 DAY CONCRETE CUBE STRENGTH : 35 MPa

• AGGREGATES : NOMINAL SIZE OF COARSE AGGREGATE TO BE A MAXIMUM OF 25% OFSURFACE BED THICKNESS LIMITED TO 37.5 mm.

• AGGREGATES & SAND : PREFERABLY BOTH, WELL GRADED AND FROM A DOLOMITIC AND/OR LIMESTONE SOURCE.

CEMENT : CEM II/A-V 32.5 (15/85 FLY ASH)

16.2 FLATNESS CRITERIA.

• FLOOR CLASSIFICATIONS TO BE ADHERED TO THROUGH USE OF THE FOLLOWING (SEE SURFACE BED DRAWING NOTES FOR CLASSIFICATION TYPE):

LEVEL BUT NOT FLAT

FLAT BUT NOT LEVEL

FIGURE 4.2: FLATNESS AND LEVELNESS

PROPERTY I

PROPERTY I

PROPERTY II

0.6

-0.2

-0.2

-0.2

(0.6) - (-0.2) = 0.8

(-0.2) - (-0.2) = 0.0

(-0.2) - (0.5) = -0.7

FIGURE 4.3: EXAMPLES OF MEASUREMENTS OF PROPRTY I OVER 300 mm AND THE RESULTANT DETERMINATION OF CHANGE IN ELEVATIONAL DIFFERENCE OVER A DISTANCE OF 300 mm (PROPERTY II). ALL DIMENSIONS IN mm

TABLE 4.1: DEFINITION OF SURFACE REGULARITY TERMS (PART OF TABLE)

PROPERTY ELEVATIONAL DIFFERENCES OR MEASUREMENTS DERIVED FROM ELEVATIONAL DIFFERENCES THAT ARE LIMITED FOR EACH CLASS OF FLOOR.

PROPERTY I - THE ELEVATIONAL DIFFERENCE IN mm BETWEEN TWO POINTS 300 mm APART, SEE ALSO FIGURE 4.3

PROPERTY II - TO CONTROL FLATNESS, CHANGE IN ELEVATIONAL DIFFERENCE BETWEEN TWO CONSECUTIVE MEASUREMENTS OR ELEVATIONAL DIFFERENCES (PROPERTY I) EACH MEASURED OVER 300 mm, SEE ALSO FIGURE 4.3

PROPERTY III - THE ELEVATIONAL DIFFERENCE IN mm BETWEEN THE CENTRES OF THE FRONT LOAD WHEELS OF MATERIALS HANDLING EQUIPMENT

FOR APPROVAL

CONCRETE CONTINUED

16.3 DATA ANALYSIS AND PERMISSIBLE LIMITS A REPRESENTATIVE SAMPLE OF ELEVATIONS IS TO BE MEASURED, ANALYSED AND COMPARED WITH THE PERMISSIBLE LIMITS FOR PROPERTIES II AND IV GIVEN IN TABLE 4.2 (SEE NEXT PANEL) THE FLOOR IS NON-COMPLIANT IF:

- MORE THAN 5% OF THE TOTAL NUMBER OF MEASUREMENTS EXCEED THE 95% PROPERTY LIMIT.
- ANY MEASUREMENT EXCEEDS THE 100% PROPERTY LIMIT, AND ANY POINT ON THE PROPERTY IV SURVEY GRID IS OUTSIDE ±15 mm DATUM.

TABLE 4.2: PERMISSIBLE LIMITS ON PROPERTY II AND IV IN FREE-MOVEMENT AREAS

FLOOR CLASSIFICATION	TYPICAL FLOOR USE	PROPERTY II LIMIT (mm)		PROPERTY IV LIMIT (mm)	
		95%	100%	95%	100%
FM 1	WHERE VERY HIGH STANDARDS OF FLATNESS AND LEVELNESS ARE REQUIRED. FLOORS TO FM 1 CLASSIFICATION MAY NEED TO BE CONSTRUCTED USING LONG STRIP METHODS (SEE SECTION 2.2.3)	2.5	4.0	4.5	7.0
FM 2	BUILDINGS CONTAINING WIDE AISLE RACKING WITH STACKING OR RACKING OVER 8 m HIGH, FREE-MOVEMENT AREAS AND TRANSFER AREAS.	3.5	5.5	8.0	12.0
FM 3	BUILDINGS CONTAINING WIDE AISLE RACKING WITH STACKING OR RACKING UP TO 8 m HIGH. RETAIL AND MANUFACTURING FACILITIES.	5.0	7.5	10.0	15.0
FOR ALL CLASSIFICATIONS, ALL POINTS MUST BE WITHIN 15 mm FROM DATUM.					

CONCRETE INDUSTRIAL GROUND FLOORS - A GUIDE TO DESIGN AND CONSTRUCTION. CONCRETE SOCIETY TECHNICAL REPORT No. 34 (3RD ED. 2003). FIGURES 4.2, 4.3 & TABLES 4.1, 4.2. PP. 19-22.

LOAD BEARING BRICKWORK

1. BRICKWORK.
1.1 MORTAR SHALL BE CLASS 2 MORTAR ACCORDING TO SABS 0400. THUS MIX 50kg PORTLAND CEMENT WITH 200 LITER BUILDING SAND.
1.2 BRICKS TO BE BURNT CLAY BRICKS THAT COMPLY TO SABS 227.
1.3 SUPPLY BRICKFORCE IN EVERY FOURTH BRICK COURSE LAYER.
1.4 SAND GRADING ACCORDING TO SABS 1090.

DRAWING SYMBOLS

SECTION PLANE

B

010

SECTION DESIGNATION

SHEET NUMBER WHERE SECTION APPEARS

SECTION DIRECTION

SECTION MARK

DETAIL

SCALE 1:10

DETAIL DESIGNATION

SHEET NUMBER WHERE DETAIL ORIGINATES

DETAIL MARK

DETAIL DESIGNATION

SHEET NUMBER WHERE DETAIL APPEARS

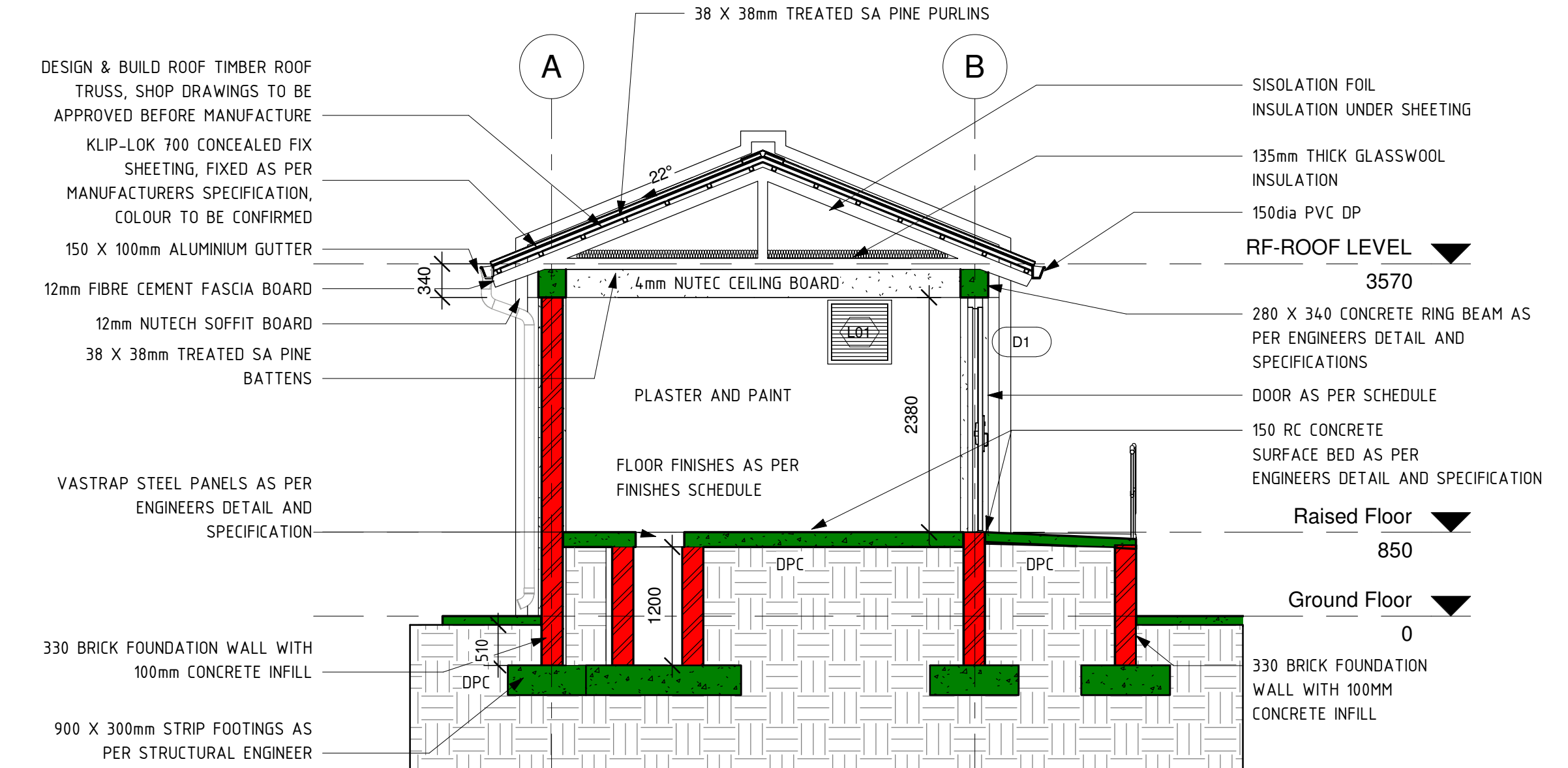
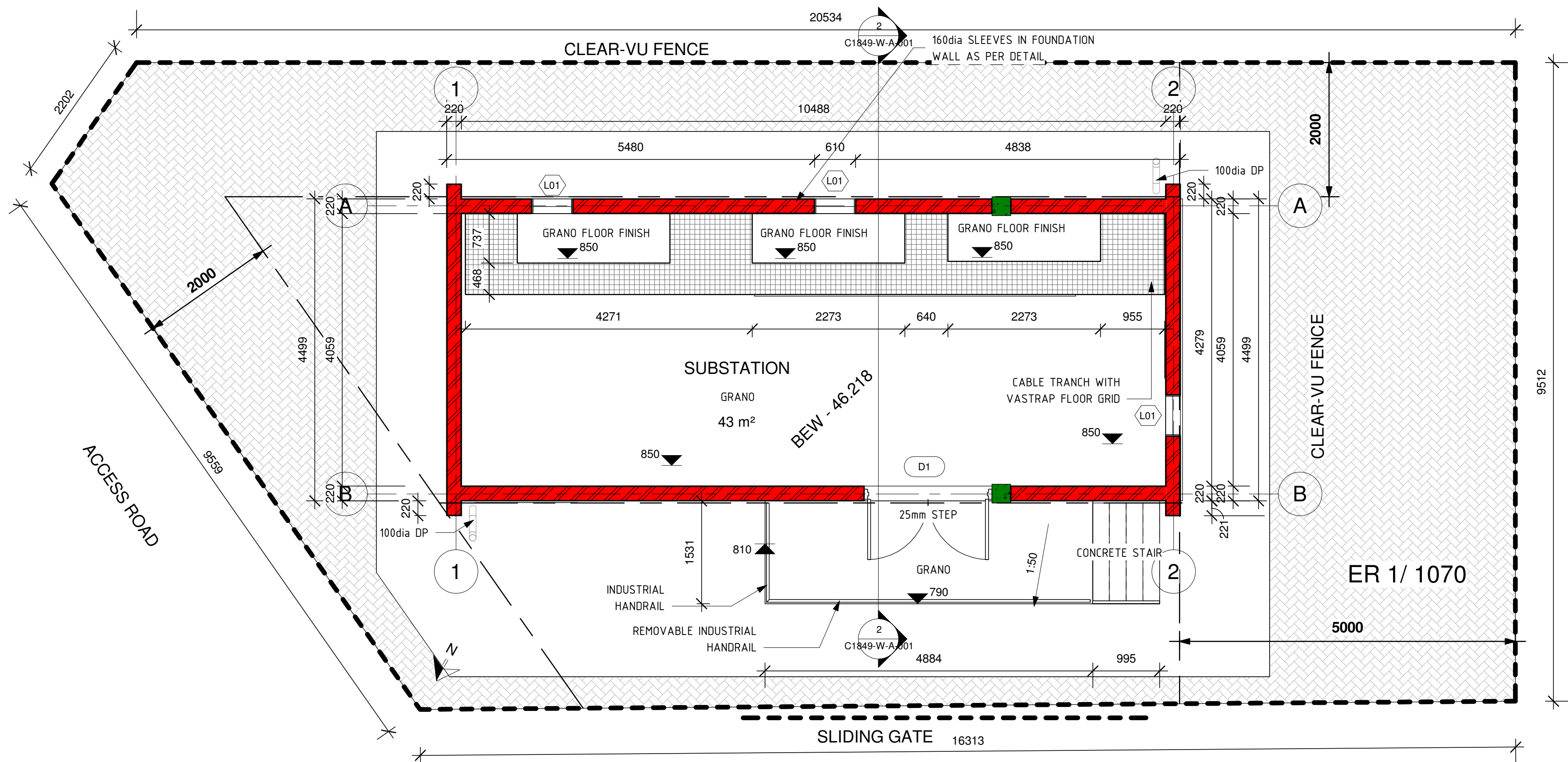
DETAIL CALL-OUT

SPAN DIRECTION

ABBREVIATIONS	
ALT	ALTERNATE
APPROX	APPROXIMATELY
B1	BOTTOM 1 LAYER (REINFORCING)
CHS	CIRCULAR HOLLOW SECTION (STEEL SECTION)
CJ	CONSTRUCTION JOINT
CL	CENTER LINE OR COVER LEVEL (CIVIL'S)
DIA / ∅	DIAMETER
DPC	DAMP PROOF COURSE
DWG	DRAWING
EF	EACH FACE (REINFORCING)
EJ	EXPANSION JOINT
ELA	EQUAL LEGGED ANGLE (STEEL SECTION)
ENG	ENGINEER
EQ	EQUAL
FF	FAR FACE (REINFORCING)
FFL	FINISHED FLOOR LEVEL
HD	HOLDING DOWN (BOLT)
ID	INSIDE DIAMETER
IF	INSIDE FACE (REINFORCING)
IJ	ISOLATION JOINT
IL	INVERT LEVEL
kPa	KILO-PASCALS
m	METERS
mm	MILLIMETERS
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM
MPa	MEGA-PASCALS
NGL	NOMINAL GROUND LEVEL
NF	NEAR FACE (REINFORCING)
No.	NUMBER OFF
NOM	NOMINAL
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE (REINFORCING)
PT	POST TENSIONED
QTY	QUANTITY
RC	REINFORCED CONCRETE
REV	REVISION
RHS	RECTANGULAR HOLLOW SECTION (STEEL SECTION)
SCJ	SAW CUT JOINT
SHS	SQUARE HOLLOW SECTION (STEEL SECTION)
SIM	SIMILAR
SMAW	SHIELDED METAL ARC WELDING
SSL	STRUCTURAL SERVICE LEVEL
SYM	SYMMETRICAL
T1	TOP 1 LAYER (REINFORCING)
TBC	TO BE CONFIRMED
THK	THICK (THICKNESS)
TOB	TOP OF BASE/BEAM
TOC	TOP OF CONCRETE
TYP	TYPICAL
ULA	UNEQUAL LEGGED ANGLE (STEEL SECTION)
ULT	ULTIMATE
UNO	UNLESS NOTED OTHERWISE
WPS	WELDING PROCEDURE SPECIFICATION

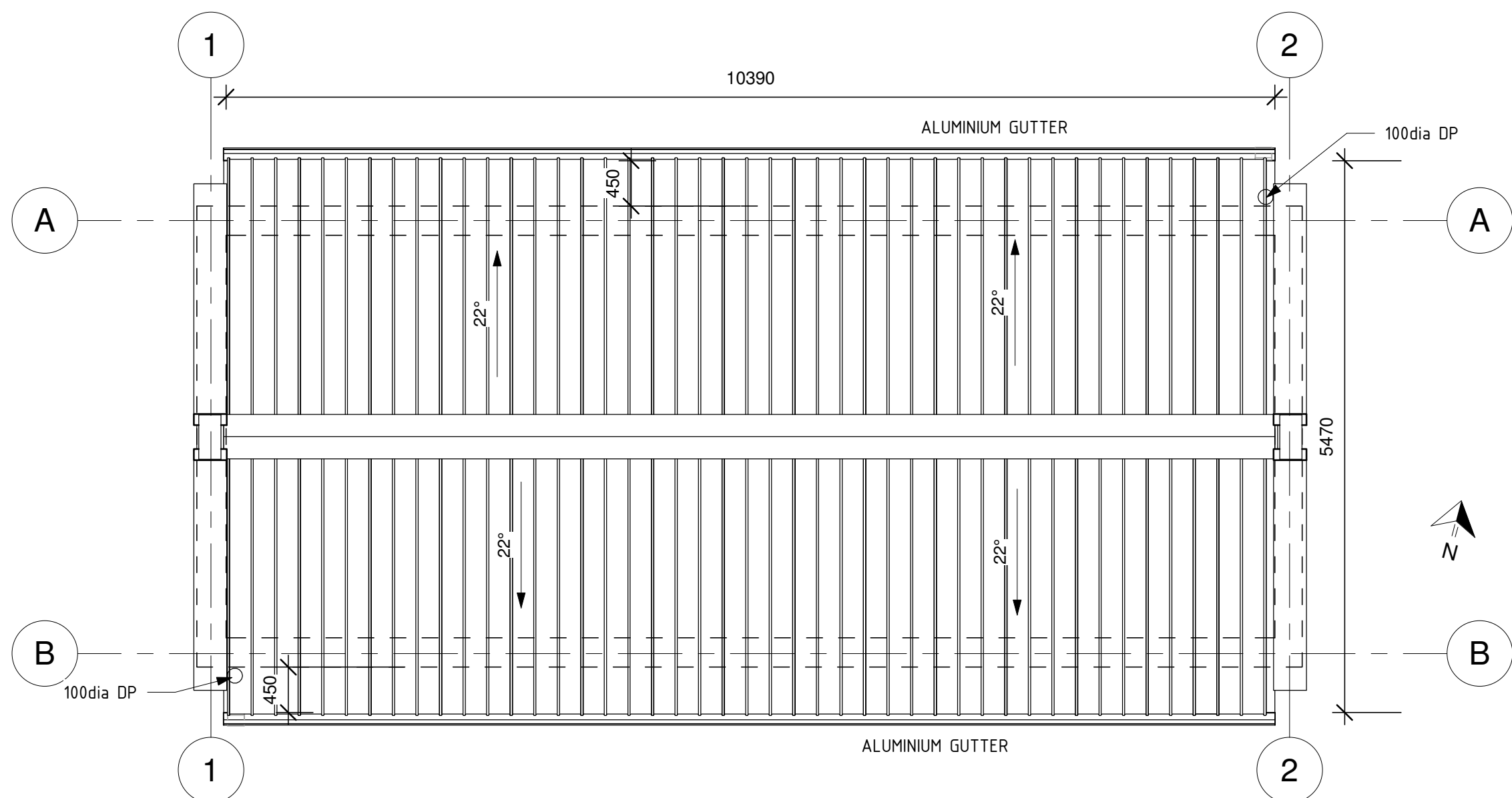
FOR APPROVAL

REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	DRAWING APPROVED	TITLE	NAME	DESIGNER	CLIENT	DESCRIPTION
A	05.11.2021	ISSUED FOR CLIENT APPROVAL	-	-	ENGINEER : RUDI PIETERS PR ENG No. : 20160564 SIGNATURE :	DRAFTER DRAFTING CHECK DESIGNER DESIGN CHECK PROJECT MANAGER PROJECT DIRECTOR	T.BUKANI P.ROOS J.ZHANG R.PIETERS T.VAN AS T.VAN AS	 SMEC PROJECT No. C1849		STELLENBOSCH MUNICIPALITY LA TERRA SWITCHING STATION STRUCTURAL DRAWING GENERAL NOTES & SPECIFICATIONS SHEET 2 OF 2
PHASE 1		DRAWING TYPE DNS		DRAWING NUMBER 002		REVISION A				



2 A-A
1 : 50

1 Raised Floor
1 : 50



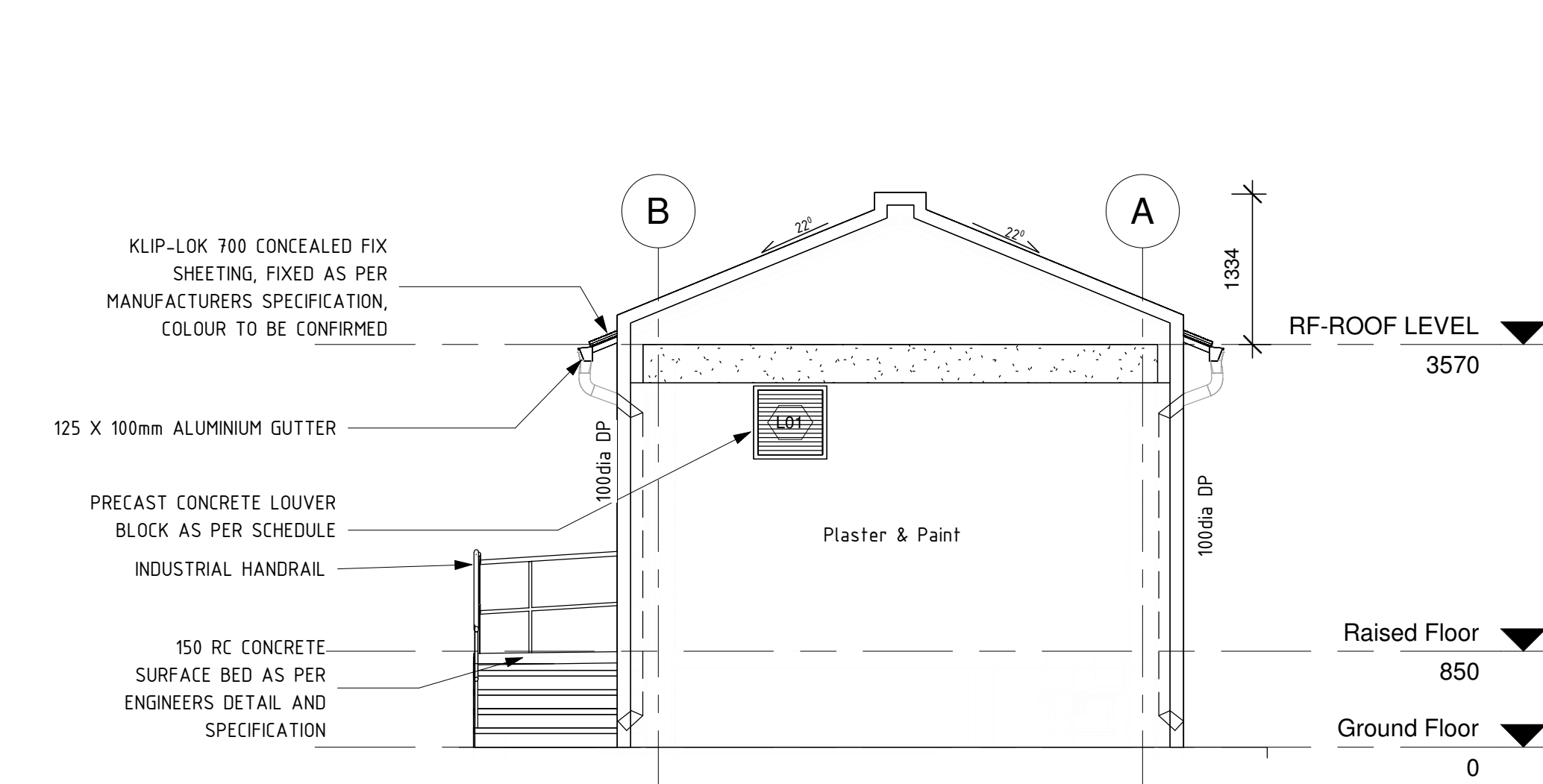
3 RF-ROOF
1 : 50

GENERAL NOTES		
ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS SANS 10400-2011 AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.		
GLAZING NOTES: ALL GLAZING TO COMPLY WITH PART N OF SANS 10400-2011		
STAIR & BALUSTRADE NOTES BALUSTRADE, HANDRAILS, HEIGHTS, AND OPENINGS TO COMPLY WITH PARTS M & D OF SANS 10400-2011 BASE: STAIR NOTES: MAX 200mm RISER MIN 250mm TREAD BALUSTRADES 1.0m HIGH WITH NO GAP MORE THAN 100mm		
IF THE STAIRCASE FORMS PART OF AN ESCAPE ROUTE IT IS TO COMPLY WITH PART M OF SANS 10400-2011		
DEMOLITION WORK: ALL DEMOLITION WORK TO BE CARRIED OUT IN ACCORDANCE WITH SANS 10400-2011 PART F NO DEMOLITION WORK IS TO BE CARRIED OUT WITH RELEVANT MUNICIPAL AND/OR CLIENT APPROVAL.		
PLUMBING & DRAINAGE ALL PLUMBING TO COMPLY WITH PART P OF THE SANS10400-2011		
ALL WASTE PIPES AND DRAINS TO BE ACCESSIBLE ALONG THEIR ENTIRE LENGTH, PROVIDE INSPECTION EYES AT ALL DRAIN BENDS AND JUNCTIONS AND AT A MAX. 25m ALONG STRAIGHT RUNS. CLEANING EYES TO BE PROVIDED AT ALL BENDS AND JUNCTION OF WASTE PIPES. WASTE TO BE FITTED WITH 64mm RESEAL TRAPS. WATER CONNECTIONS TO FITTINGS:- 15mm DIA TO WHB, WC AND SHOWERS 20mm DIA TO GEYSER 25mm DIA TO FHR ALL VENT PIPES TO DISCHARGE TO EXTERNAL AIR 50mm DIA WASTE PIPE REQUIRE A 75mm DIA SLEEVE 100mm DIA WASTE PIPE REQUIRE A 150mm DIA SLEEVE ALL NEW SEWER LINES TO RUN IN THE CEILING VOID OF THE FLOOR BELOW.		
FOR PLUMBING AND DRAINAGE LAYOUT PLANS AND CROSS SECTIONS REFER TO REGISTERED WET SERVICES ENGINEERS DRAWINGS FOR RATIONAL DESIGN DRAWINGS. ALL STORM WATER TO BE COLLECTED AND DRAINED TO COMPLY WITH PART P OF SANS 10400-2010 AND DRAIN TO MUNICIPAL STORM WATER DRAINAGE SYSTEM TO ENGINEERS DETAILS		
STRUCTURAL: ALL REINFORCED CONCRETE WORK AND RETAINING WALLS TO BE STRICTLY IN ACCORDANCE WITH REGISTERED STRUCTURAL ENGINEERS DETAILS AND SPECIFICATIONS		
MECHANICAL VENTILATION & LIGHTING ALL LIGHTING AND VENTILATION (FRESH AIR AND EXTRACT) TO COMPLY WITH PART D OF SANS10400-2011 IN ACCORDANCE WITH REGISTERED MECHANICAL ENGINEERS DRAWINGS AND REGISTERED ELECTRICAL ENGINEERS DRAWINGS ALL ARTIFICIAL LIGHTING TO COMPLY		
SANS 10400XA WALLS: NON-MASONRY WALL WILL HAVE 'R' VALUE AS PROVIDED. SANS10400-XA -4.4.3.1 DOUBLE SKIN MASONRY WITH PLASTER INSIDE OR RENDER OUTSIDE COMPLES SINGLE LEAF MIN 140mm WITH PLASTER INSIDE AND RENDER OUTSIDE COMPLES (SANS 10400-XA - 4.4.3.2) OTHER MASONRY WALLS WILL HAVE 'R' VALUE OF 0.35 SANS 10400XA-4.4.3.3		
FENESTRATION: AIR LEAKAGE SHALL NOT EXCEED 2L/s/m2 FENESTRATION AREA. 0.306L/s/m2 FIXED GLAZING AND 5L/s/m2 REVOLVING/SWING DOORS SANS 10400-XA- 4.4.1.1 FENESTRATION MORE THAN 15% TO NETT FLOOR AREA PER STOREY THEN SANS 10400-XA 4.4.4.2 FENESTRATION UP TO 15% OF FLOOR NET AREA PER STOREY THEN SANS 10400-XA 4.4.4.1 SOLAR HEAT GAIN AND HEAT CONDUCTANCE TO COMPLY WITH SANS 204 -4.3.4		

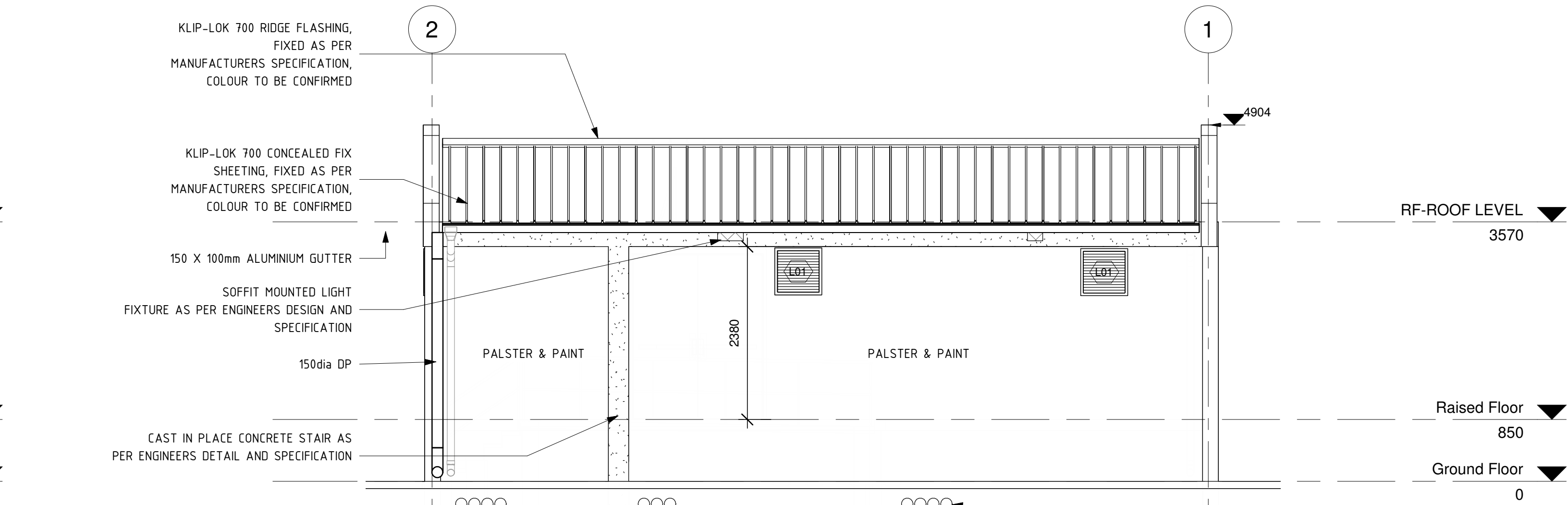
GENERAL DRAWING NOTES		
THE DESIGN ON THIS DRAWING IS COPYRIGHT AND REMAINS THE PROPERTY OF THE ARCHITECTS. ALL WORK TO BE CARRIED OUT STRICTLY IN ACCORDANCE WITH MUNICIPAL REGULATIONS. DRAWINGS NOT TO BE SCALED, ONLY ANNOTATED DIMENSIONS TO BE USED. ALL RELEVANT DATUM, LEVELS, DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. ALL DRAWINGS ARE TO BE CHECKED BY THE MAIN CONTRACTOR AND ANY DISCREPANCIES ON THE DRAWINGS OR BETWEEN THE DRAWINGS ARE TO BE REFERRED TO THE ARCHITECT. CONTRACTOR TO CHECK ALL QUANTITIES PRIOR TO ORDERING AND MANUFACTURE. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL BY ARCHITECT PRIOR TO MANUFACTURE.		

FENESTRATION CALCULATION		
0.35m² fenestration area/ 26m² X 100 = 1.33%		
REFER TO DRAWING NO 1000 CALCULATIONS FOR ALL SANS 10400-XA & SANS 204 CALCULATIONS		

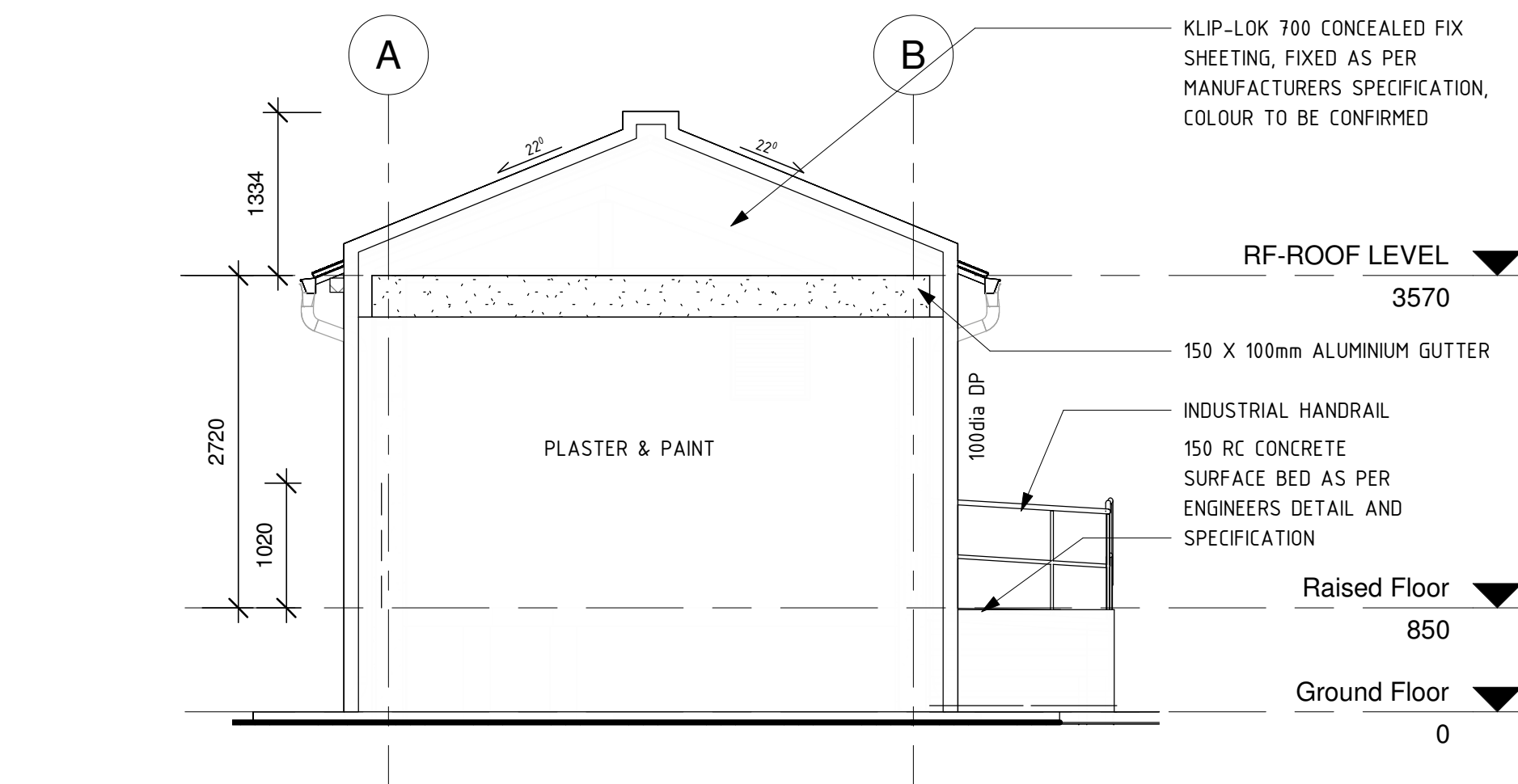
NOTES			CLIENT			REVISION SCHEDULE			PROJECT			DRAWING DESCRIPTION			TENDER DRAWING		
1.1 DO NOT SCALE THE DRAWINGS. 1.2 ALL DIMENSIONS TO BE VERIFIED ON SITE, PRIOR TO MANUFACTURING OR ORDERING OF EQUIPMENT. 1.3 ANY IN-CLARITIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONSULTING ENGINEER. 1.4 THIS DRAWING, OR PART THEREOF, SHALL NOT BE USED FOR ANY OTHER INSTALLATION PROJECT OTHER THAN THIS ONE. 1.5 THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.			SMEC Member of the Surbana Jurong Group 230 ALBERTUS st, LA MONTAGNE PO BOX 72927, LYNNWOOD RIDGE, 0040 WEBSITE: www.smeccom TEL: 012 481 3800 FAX: 012 803 7943			G. Linde PR. ARCH PR ARCH no. DATE 26/10/2021			LA TERRA SWITCHING STATION			Floor Plan, Roof Plan & Section A-A			DESIGNED G. LINDE DRAWN JP THERON CHECKED G. LINDE		
															REV DATE 26/10/2021 SCALE 1 : 50 DRAWING NUMBER C1849-W-A-001		
															PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE C1849-W-A-001		



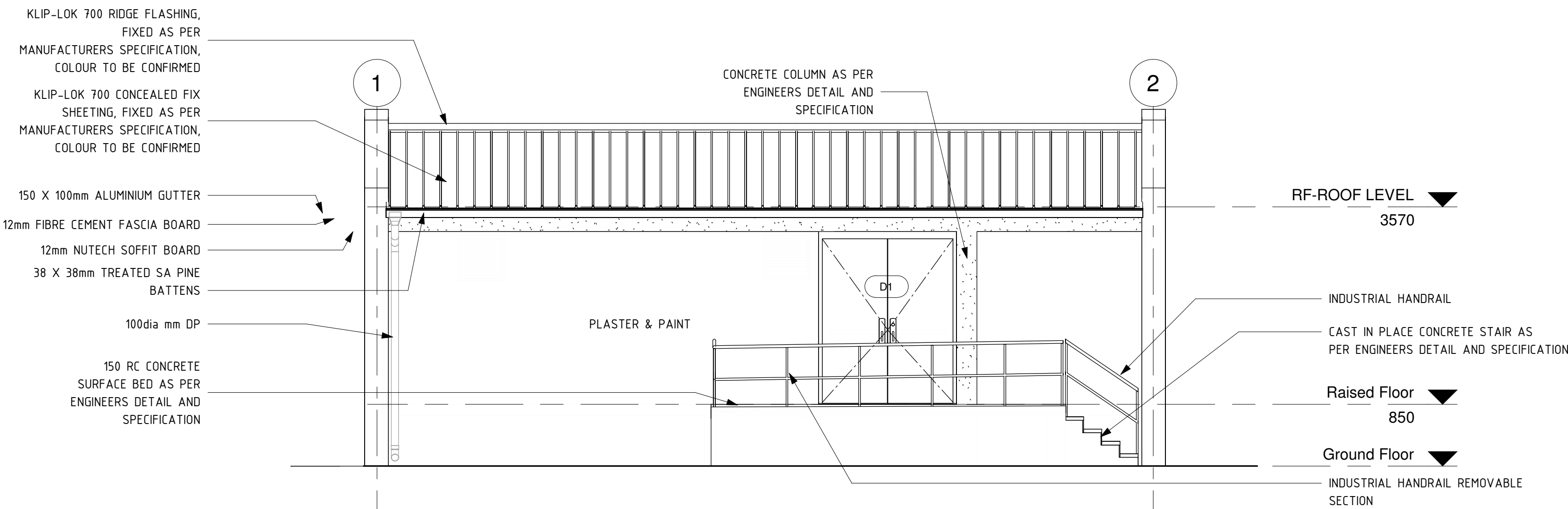
1 East
1 : 50



2 North
1 : 50



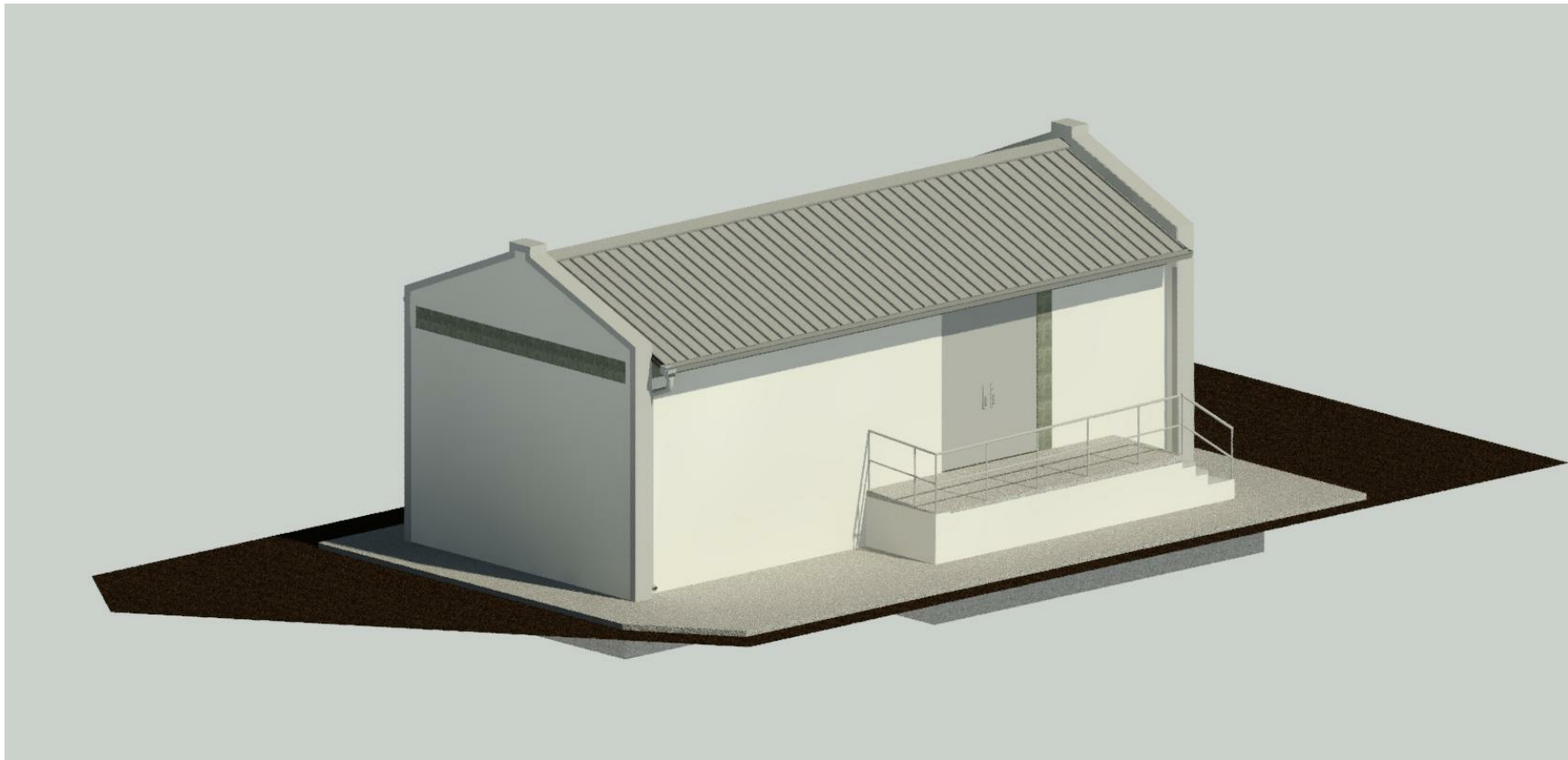
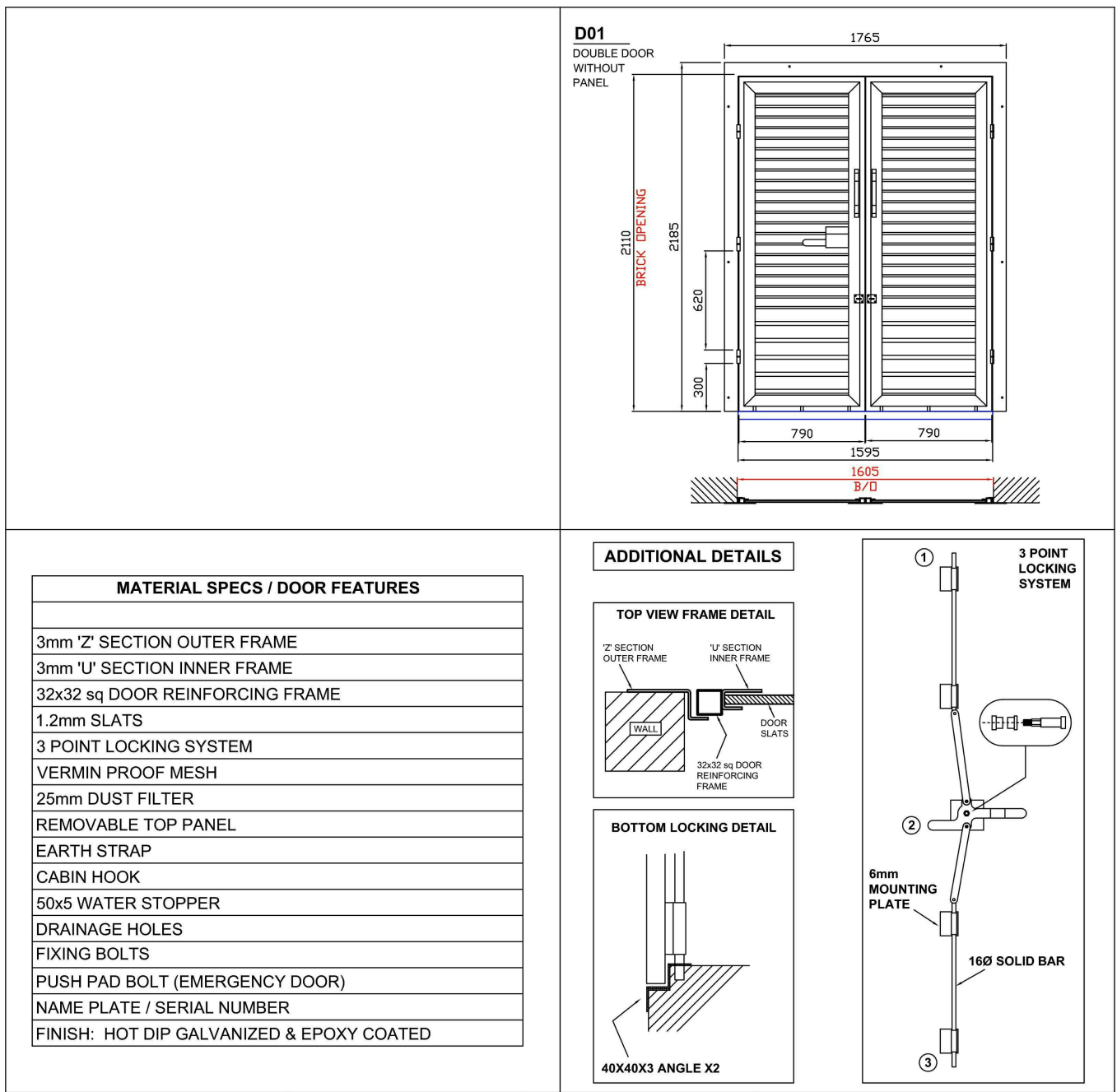
4 West
1 : 50



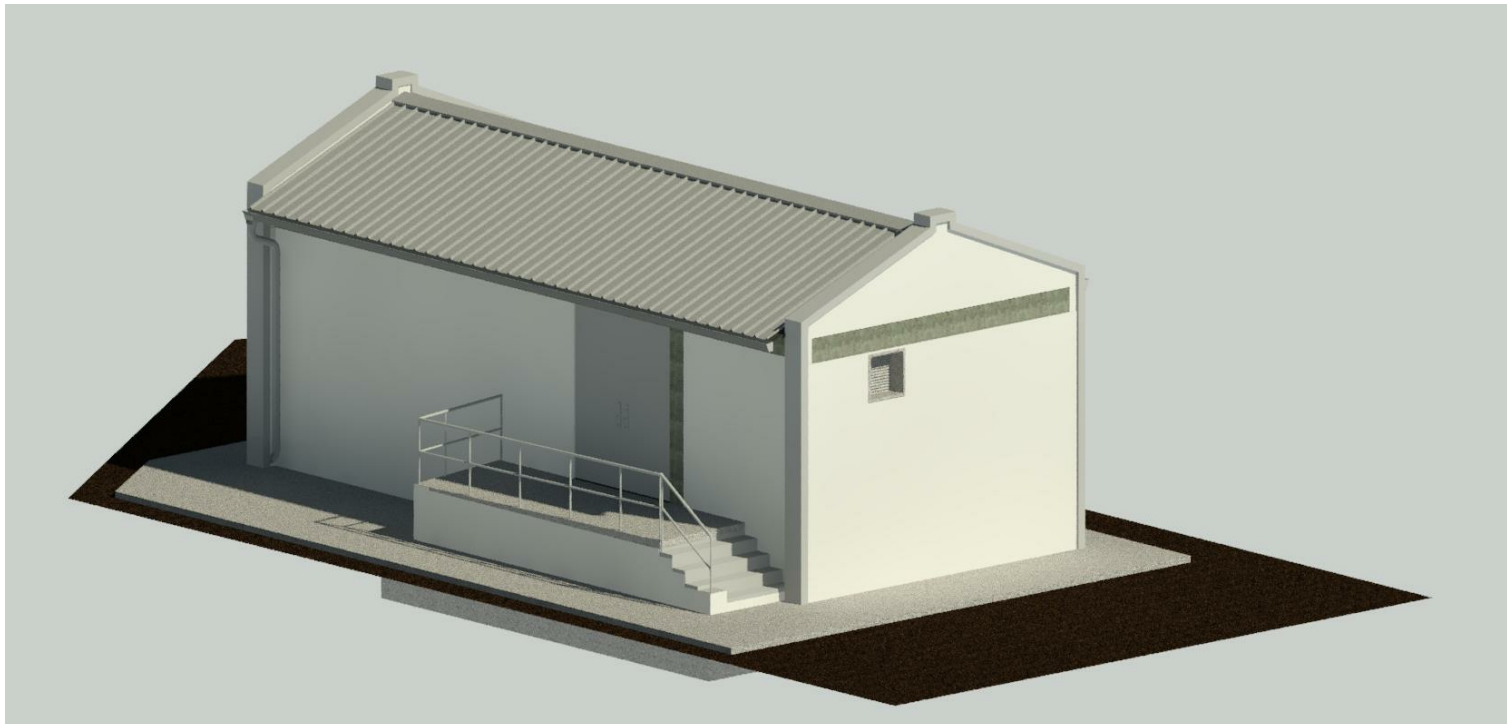
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FENESTRATION CALCULATION		
0.35m² fenestration area/ 26m² X 100 = 13%		
REFER TO DRAWING NO 1000 CALCULATIONS FOR ALL SANS 10400-XA & SANS 204 CALCULATIONS		

NOTES			CLIENT			REVISION SCHEDULE			PROJECT			DRAWING DESCRIPTION		
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												ELEVATIONS		
												DESIGNED G. LINDE		
												DRAWN JP THERON		
												CHECKED G. LINDE		
												REV DATE 26/10/2021		
												SCALE 1 : 50		
												ORIGINAL SIZE A1		
												DRAWING NUMBER PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		
												C1849-W-A-002		



3 -3D-_1
1:1



4 -3D-_2
1:1



5 -3D-_3
1:1

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THEN SANS 10400-XA 4.4.4.1
SOLAR HEAT GAIN AND HEAT CONDUCTANCE TO COMPLY WITH SANS 204 -4.3.4

FENESTRATION CALCULATION

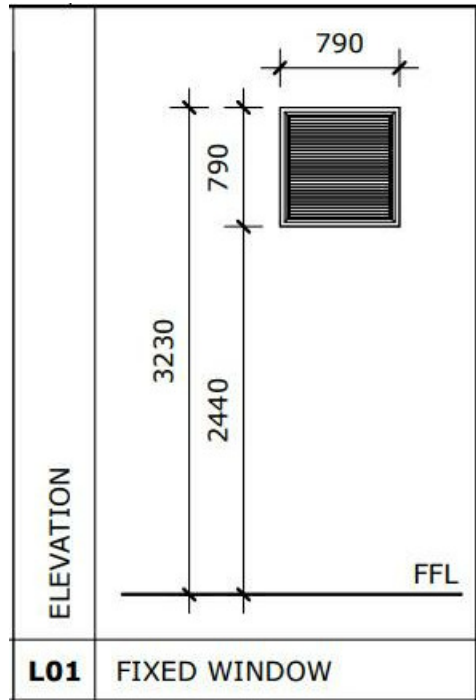
0.35m² fenestration area/ 26m² X 100 = 1.3%

REFER TO DRAWING NO 1000
CALCULATIONS FOR ALL SANS 10400-XA & SANS 204 CALCULATIONS

TENDER DRAWING

DESIGNED	DRAWN	CHECKED
G. LINDE	JP THERON	G. LINDE
REV DATE	SCALE	ORIGINAL SIZE
26/10/2021	As indicated	A1
DRAWING NUMBER		
PROJECT - AUTHOR - PHASE - DISCIPLINE - TYPE - SEQUENCE		
C1849-W-A-003		

Window Schedule						
WINDOW NUMBER	COUNT	HEIGHT	WIDTH	WINDOW TYPE	DESCRIPTION	COMMENTS
LO1	3	790	790	WB-300 WINVENT LOUVRE (84H+68H+88)	WINBLOK 800x800-300 / WINLOUVRE FIXED ALUMINIUM	PRE-CAST CONCRETE BLOCK WITH LOUVRE



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CLIENT

STELLENBOSCH
WINE & SPIRITS
WINE & SPIRITS

REVISION SCHEDULE		
NO.	DATE	REVISION DESCRIPTION

G. Linde
PR. ARCH

PR ARCH no.

26/10/21
DATE

CLIENT

DATE

PROJECT

LA TERRA
SWITCHING STATION

DRAWING DESCRIPTION

DOOR & WINDOW SCHEDULE

SANS 10400-XA & SANS 204 – Report

Report Date:

Project Description: La Terra Sub-station - Stellenbosch

Site Address: As per titleblock

Energy Efficiency in Buildings

Occupancy Classification of Building

Occupancy: D4Design Occupancy Time: 0 Hrs per Day

Building Total Net Floor Area: 26 m²

Building Total Floor Area: 34 m²

Climatic Zone of Building

Climatic Zone: 4

Maximum Energy Demand & Consumption

Design Assumption for Building Classification

Energy Demand & Consumption

Max. Energy Demand Non-specified VA/m²

Max. Energy Demand Non-specified kVA (kW)

Max. Energy Consumption Non-specified kWh/(m²)

Max. Annual Energy Consumption Non-specified kWh

Building Orientation

Orientation of windows / longer building axis: NorthOptimal orientation achieved

Dominant windows of habitable rooms or longer axis of the building to be orientated within 15 deg's of true north.

Floor Construction

Slab-on-ground

Concrete slab-on-ground? Yes

Suspended floor as building envelope? No

In-slab heating to be provided? No

In-slab heating to be provided? No

Insulation Requirements

Slab-on-ground

Perimeter insulation required? Yes

Min. Insulation R-value: 1.0 & refer SANS 10400-XA (4.4.2) / SANS 204 (4.3.2)

Under-floor insulation required? No

Suspended floor

Insulation of unenclosed perimeter required? No

Perimeter & under-floor insulation required? No

External Wall Construction

SANS 10400-XA Required R-value

Wall Type? Masonry

Minimum R-value required: 0.35Refer SANS 10400-XA (4.4.3) & SANS 204 - Table 4 and Advisory Note.

Compliant masonry walling

Double-skin masonry wall, no cavity, plastered internally or rendered externally, or

Single-leaf masonry wall, nominal wall thickness not < 140 mm, plastered internally and rendered externally.

SANS 204 Required CR-value

Minimum CR-value required: 0Hours

Advisory Note - Applicable to masonry walls only in terms of SANS 204

Double brick wall types: With 50 mm air cavityCR-value: 60

Fenestration – Buildings with Natural Environmental Control

Constants

Conductance (G_g) constant: 1.4

Solar Heat Gain (Q_{g1000}) constant: 6.13

Max. Conductance / Solar Heat Gain

Ground Storey

Net Floor Area of Storey / Room: 26.00

Fenestration Area of Storey / Room: 0.35

% Fenestration Area to Net Floor Area: 1.34

First Storey

Net Floor Area of Storey / Room: 0

Fenestration Area of Storey / Room: 0

% Fenestration Area to Net Floor Area: 0

Second Storey

Net Floor Area of Storey / Room: 0

Fenestration Area of Storey / Room: 0

% Fenestration Area to Net Floor Area: 0

Third Storey

Net Floor Area of Storey / Room: 0

Fenestration Area of Storey / Room: 0

% Fenestration Area to Net Floor Area: 0

Achieved Aggregate Conductance / Solar Heat Gain

Ground Storey

Conductance (G_g) for Storey / Room: 0.60

Solar Heat Gain (Q_{g1000}) for Storey / Room: 0.04

First Storey

Conductance (G_g) for Storey / Room:

Solar Heat Gain (Q_{g1000}) for Storey / Room:

Second Storey

Conductance (G_g) for Storey / Room:

Solar Heat Gain (Q_{g1000}) for Storey / Room:

Third Storey

Conductance (G_g) for Storey / Room:

Solar Heat Gain (Q_{g1000}) for Storey / Room:

Fenestration – Buildings with Centrally Controlled Artificial Ventilation or Air Conditioning

Air-conditioning Energy Value

Energy index: 0.22

Serene Green Low E

Ground Storey Facade

Orientation

Allowable Air-conditioning Energy Value

Achieved Air-conditioning Energy Value

North

North East	52.75	#REF!
East		
South East	17.28	#REF!
South		
South West	52.54	#REF!
West		
North West	17.28	#REF!

First Storey Facade

Orientation	Allowable Air-conditioning Energy Value	Achieved Air-conditioning Energy Value
North		
North East	52.75	#REF!
East		
South East	17.28	#REF!
South		
South West	52.54	#REF!
West		
North West	17.28	#REF!

Second Storey Facade

Orientation	Allowable Air-conditioning Energy Value	Achieved Air-conditioning Energy Value
North		
North East	52.75	#REF!
East		
South East	17.28	#REF!
South		
South West	52.54	#REF!
West		
North West	17.28	#REF!

Roof Assembly

SANS 10400-XA Required R-value

Minimum Total R-value required: 3.7 m²/KW

Direction of heat flow: Up

Construction Type R-value

Basic roof assembly: Metal sheeting type

R-value for roof covering material: 0.3 m²/KW

R-value for ceiling: 0.05 m²/KW

Required added R-value for insulation: 3.35 m²/KW

SANS 204 Required R-value

Construction Type R-value

Roof venting: Unventilated

Basic roof construction? Metal cladding @ > 12° pitch w/ suspended ceiling below rafter

Basic R-value for Roof

Direction of heat flow: UPDOWN

Outdoor air film (7m/s): 0.03

Metal cladding: 0

Roof air space (100 mm to 300 mm, non-reflective): 0.15

Plasterboard, gypsum (10 mm, 880 kg/m³): 0.07

Indoor air film (still air): 0.11

Total R-value: 0.36 m²/KW

Thermal Insulation

Minimum added R-Value of insulation required: 3.34 m²/KW

Generic insulation product added? Flexible mineral/rockwool

Density of generic insulation added: 60 – 120 kg/m³

Thickness of generic insulation required: 115 mm

Air Infiltration and Leakage

Max. Permissible Air Leakage (AL): 2.0 L/sm² – Operable glazing

Max. Permissible Air Leakage (AL): 0.31 L/sm² – Non-operable glazing

Max. Permissible Air Leakage (AL): 5.0 L/sm² – Glazed double action swing doors and revolving doors

At with 75 Pa pressure difference when tested in accordance with SANS 613.

Chimneys and Flues

Type of burning device? -----

Roof Lights and Skylights

Roof light or skylight installed? No

External Doors

Door serves: External DoorRefer SANS 204 (4.4.3) - Door seals / draught protection.

Exhaust Fans

Exhaust fan serves: -----

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MAX 200mm RISER MIN 250mm TREAD

BALUSTRADES 1.0m HIGH WITH NO GAP MORE THAN 100mm

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THEN SANS 10400-XA 4.4.4.2

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C1849-W-A-004		

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WEBSITE: www.smec.com
TEL: 012 481 3800
FAX: 012 803 7943



CLIENT



STELLENBOSCH
MUNICIPALITY • ERVENBURG • MONTAGNE

REVISION SCHEDULE		
NO.	DATE	REVISION DESCRIPTION

G. Linde	-----	26/10/2021
PR. ARCH	PR ARCH no.	DATE
-----	-----	-----
CLIENT		DATE

PROJECT

LA TERRA
SWITCHING STATION

DRAWING DESCRIPTION

SANS 10400XA
CALCULATIONS

Pg. 1 of 6

Pg. 2 of 6

Pg. 3 of 6

Pg. 4 of 6



**CONSTRUCTION OF THE LA TERRA 11KV SWITCHING STATION IN THE
FRANSCHHOEK AREA OF STELLENBOSCH**

TENDER NUMBER B/SM 46/22

APPENDIX B: SAFETY SPECIFICATION



Project Health and Safety Specification

In terms of Construction Regulations 2014

Client

STELLENBOSCH MUNICIPALITY

Description of Project Works

**C1849 - CONSTRUCTION OF LA TERRA
SWITCHING STATION**

Project Location

**LA TERRA
OFF DIRKIE UYS STREET
FRANSCHOEK**

Date

NOVEMBER 2021

Project Health and Safety Specification developed by:

Mark Winter PrCHSA, ROSPROF (SA), CMIOSH (UK)
Cell: 071 603 2213
Tel: 021 701 0470
Email: markw@safeppractice.co.za



PROJECT HEALTH AND SAFETY SPECIFICATION

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- 1.2 Background to the Health and Safety Specification
- 1.3 Purpose of the Health and Safety Specification
- 1.4 Implementation of the Health and Safety Specification
- 1.5 Project Directory
- 1.6 Project Details
- 1.7 Existing Environment
- 1.8 Available Drawings
- 1.9 Project Health and Safety Requirements
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- 1.11 Project Close Out
- 1.12 Safety File Return to Client

2. Further Requirements

- 2.1 Duties of Principal Contractor / Contractor in terms of Construction Regulations 2014
- 2.2 Management and Supervision of Construction Work
- 2.3 Notification of Intention to Commence Construction Work
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- 2.12 Health and Safety Committee
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 - 2.14.2 Awareness
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- 2.29 Water Environments



- 2.30 Fire Precautions on Construction Sites
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- 2.34 Excavation
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- 2.41 Noise Induced Hearing Loss
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- 2.61 COVID-19
- 2.62 General Practices when Working at Heights
- 2.63 Traffic Accommodation
- 2.64 Ventilation and Lighting in the Work Place
- 2.65 Nuclear Density Gauge (Troxler)
- 2.66 Ergonomics Regulation of 2019

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Annexure B Legal Appointments

Annexure C Baseline Risk Assessment

Annexure D Baseline Risk Assessment for Project – COVID-19

Annexure E COVID-19 Site Safety Signage

Annexure F Not thought to be applicable to this project

Annexure G Safety Specification and Baseline Risk Assessment Issue Register



1.0 SPECIFIC PROJECT INFORMATION

1.1 INTRODUCTION AND DEFINITIONS

PLEASE NOTE THAT THE REQUIREMENTS OF THE NEW CONSTRUCTION REGULATIONS 2014 HAVE BEEN IN EFFECT SINCE 7TH AUGUST 2014. THE NEW REGULATIONS PLACE ADDITIONAL LEGAL DUTIES UPON PRINCIPAL CONTRACTORS AND CONTRACTORS. ALTHOUGH THIS HEALTH AND SAFETY SPECIFICATION INCLUDES MUCH OF THE CONTENT OF THESE NEW REQUIREMENTS, THE CONTRACTOR WILL BE DEEMED TO BE FAMILIAR WITH THE REQUIREMENTS OF THESE REGULATIONS, AND TO HAVE FACTORED IN ALL THE DUTIES PLACED UPON CONTRACTORS AND PRINCIPAL CONTRACTORS IN THE TENDER. A COPY OF THE REGULATIONS CAN BE VIEWED ON THE DEPARTMENT OF LABOUR'S WEBSITE.

This Health and Safety Specification contains clauses that are generally applicable to construction activities, as well as imposing pro-active controls associated with activities that impact on Health and Safety as it relates to plant and machinery. Compliance to the requirements of the Occupational Health and Safety Act 1993 is in addition to the requirements of this Health and Safety Specification and is part of the Contractor's responsibility. The Client will monitor that the Contractors comply with the requirements of such legislation.

ALL REFERENCES TO CLIENT IN THIS HEALTH AND SAFETY SPECIFICATION ALSO REFER TO SAFETY AGENT, WHERE SO APPOINTED.

Definitions (as per the Construction Regulations 2014) applicable to this Health and Safety Specification:

"agent" means a competent person who acts as a representative for a Client;

"angle of repose" means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

"bulk mixing plant" means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

"client" means any person for whom construction work is being performed;

"competent person" means a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

"construction site" means a work place where construction work is being performed;

"construction supervisor" means a competent person responsible for supervising construction activities on a construction site;

"construction vehicle" means a vehicle used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site for the purposes of performing construction work;

"construction work" means any work in connection with-



- the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work ;

"construction work permit" means a document issued in terms of regulation 3;

"contractor" means an employer who performs construction work;

Note:

a) Includes organisations and or self-employed person that contracts with a client, principal contractor, or a contractor to carry out construction work.

"demolition work" means a method to dismantle, wreck, break, pull down or knock down of a structure or part thereof by way of manual labour, machinery, or the use of explosives;

"design" in relation to any structure, includes drawings, calculations, design details and specifications ;

"designer" means a competent person who-

- prepares a design;
- checks and approves a design;
- arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
- designs temporary work, including its components;
- an architect or engineer contributing to, or having overall responsibility for a design;
- a building services engineer designing details for fixed plant;
- a surveyor specifying articles or drawing up specifications;
- a contractor carrying out design work as part of a design and building project; or
- an interior designer, shop-fitter or landscape architect;

"excavation work" means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

"explosive actuated fastening device" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

"fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

"fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guard-rails, screens, barricades, anchorages or similar equipment;

"fall protection plan" means a documented plan, which includes and provides for -

- all risks relating to working from a fall risk position, considering the nature of work undertaken;
- the procedures and methods to be applied in order to eliminate the risk of falling; and
- a rescue plan and procedures;

"fall risk" means any potential exposure to falling either from, off or into;

"health and safety file " means a file, or other record containing the information in writing required by these Regulations;

"health and safety plan" means a site, activity or project specific documented plan in accordance with the Client's health and safety specification;



"health and safety specification" means a site, activity or project specific document prepared by the Client pertaining to all health and safety requirements related to construction work;

"material hoist" means a hoist used to lower or raise material and equipment, excluding passengers;

"medical certificate of fitness" means a certificate contemplated in regulation 7(8);

"mobile plant" means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

"National Building Regulations" means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R. 919 of 30 July 1999 and R. 547 of 30 May 2008;

"person day" means one normal working shift of carrying out construction work by a person on a construction site;

"principal contractor" means an employer appointed by the Client to perform construction work;

"Professional Engineer or Professional Certificated Engineer" means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);

"Professional Technologist" means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000;

"provincial director" means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

"scaffold" means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

"shoring" means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

"structure" means-

- any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
- any falsework, scaffold or other structure designed or used to provide support or means of access during construction work; or
- any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling;

"suspended platform" means a working platform suspended from supports by means of one or more separate ropes from each support ;

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

"the Act" means the Occupational Health and Safety Act , 1993 (Act No. 85 of 1993);



"tunneling" means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral.

Reference should be made to the following documentation in conjunction with this Safety Specification (including existing surveys, drawings and reports):

Tender documents
Drawings

IMPORTANT NOTE:

This Health and Safety Specification has been prepared to comply with the requirements of the Construction Regulations 2014.

1.2 BACKGROUND TO THE HEALTH AND SAFETY SPECIFICATION

Historically, the Construction Industry has had a poor health and safety record. Due to the complex and potentially dangerous operations being undertaken, there is a high risk of incidents, accidents and injuries. In many instances poor adherence to the Act and Regulations has resulted in severe consequences for Health and Safety performance. The Client is determined that the highest Health and Safety standards will prevail throughout the Contract and that there will be full commitment from all parties involved.

To achieve this goal the Client has prepared this Health and Safety Specification. The Health and Safety Specification sets out guidelines and minimum levels of awareness and guidance for Health and Safety requirements for the project. Contractual responsibility for adhering to these requirements rests with the Contractors. All employees are encouraged to be pro-active in compliance.

The Client is committed to ensuring the highest Health and Safety standards for all work undertaken within the Contract.

Contractors as employers are fully responsible and accountable for compliance with all Health and Safety requirements.

IMPORTANT NOTE:

Compliance with the Occupational Health and Safety Act and Regulations shall not be limited to this Health and Safety Specification and definitions contained in this document.

Contractors shall be conversant with the requirements and effects of Health and Safety legislation upon their activities, in particular the Construction Regulations, 2014, and the Occupational Health and Safety Act, 1993, and to have made adequate resource in their tender submission to comply with all legislative requirements.

The Contractor's personnel will be responsible for the auditing of the implementation of the Health and Safety Specification and maintaining the document control and record systems associated with the Health and Safety Specification. The Client will conduct Health and Safety audits of the works too.

1.3 PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

The purpose of this site specific Health and Safety Specification is to comply with legal requirements and to provide health and safety information about specific project risks known by the Client, Designer and Safety Agent to be applicable to this project. This document also provides minimum health and safety requirements, standards and expectations that the principal contractor and contractors must adhere to.



The Contractor must take into account all information in this specification and ensure that their tenders include adequate resource and competence to deal with the matters detailed herein so that all relevant contents are dealt with in a way which is in compliance with legislation and the ethical concerns for the safeguarding of employees, contractors and other persons affected by the construction activities.

The Health and Safety Specification will be implemented during construction of the works and any construction activity that the Client has control over.

This will also assist in ensuring that all the costs related to the compliance with Occupational Health Act 85 of 1993 and the Construction Regulations 2014, as well as this Health and Safety Specification, are taken into consideration at Tender stage.

No advice, approval of any document required by the Health and Safety Specification such as hazard identification and risk assessment action plans or any other form shall be construed as an acceptance by the Client of any obligation that absolves the Contractor from achieving the required level of performance and compliance with legal requirements.

Further, there is no acceptance of liability by the Client which may result from the Contractor failing to comply with the Health and Safety Specification unless the Client has issued an instruction to any requirement, i.e. the Contractor remains responsible for achieving the required performance levels.

1.4 IMPLEMENTATION OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification forms an integral part of the Contract, and Contractors shall make it an integral part of their Contracts with Contractors and Suppliers. Contractors employed by the Client are to ensure that the provisions of the Health and Safety Specification are applied both on the site and in respect of all off site activities relating to the project, in particular in transport activities and project dedicated off site fabrication works.

The Contractor shall enforce the provisions of the Health and Safety Specification amongst all Contractors and suppliers for the project.

The Contractor shall sign the acknowledgment on the last page of this safety specification that he/she has familiarized him/herself with the content of the Health and Safety Specification and shall comply with all obligations in respect thereof.

The successful Contractor will be required to compile a Health and Safety Plan based on the requirements of the Occupational Health Act 85 of 1993 and these Specifications, which will need to be approved by Client prior to commencement with construction work.

1.4.1 Client Duties

In terms of the Construction Regulations 2014 the Client (or their Agent, where appointed) has legal duties. Where an Agent (refer to "definitions" section of this document) is appointed in terms of this project, these Health and Safety duties assigned will also apply.

All references to "Client" will apply to their appointed "Safety Agent", where so appointed, in this Health and Safety Specification.

The Client must:

- Prepare a baseline risk assessment for the construction work
- Prepare a suitable, sufficiently documented and coherent site specific Health and Safety specification for the intended construction work, based on the baseline risk assessment
- Include the health and safety specification in the tender documents
- Ensure that potential principal contractors submitting tenders have made adequate provision for the cost of health and safety measures

- Ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely
- Take reasonable steps to ensure co-operation between all contractors appointed by the Client to enable each of those contractors to comply with the regulations
- Ensure, before work commences, that every principal contractor is registered and in good standing with the compensation fund, or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993 (Act no 130 of 1993)
- Appoint each principal contractor in writing for the project, or part thereof
- Discuss and negotiate with the principal contractor the contents of the principal contractor's safety plan and thereafter finally approve that plan for implementation
- Ensure that a copy of the principal contractor's health and safety plan is implemented and maintained
- Ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days
- Ensure that a copy of the health and safety audit report is provided to the principal contractor within 7 days after the audit
- Stop any contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the principal contractor's health and safety plan for site
- Where changes are brought about to the design or construction work, make sufficient health and safety information and appropriate resources available to the principal contractor to execute the work safely
- Ensure that the health and safety file is kept and maintained by the principal contractor.
- Where the Client requires additional work to be performed as a result of a design change or error in construction due to the actions of the Client, the Client must ensure that sufficient safety information and appropriate additional resources are available to execute the required work safely.
- Where more than one principal contractor is appointed, the Client must take reasonable steps to ensure co-operation between all principal contractors and contractors to ensure compliance with the Regulations
- Where the Client has appointed a Safety Agent for the project, their details for this project are contained in the Project Directory section of this health and safety specification.

1.4.2 Designer Duties

It must be noted that the Designer also has Health and Safety duties assigned in terms of the Construction Regulations. Where the contractor fulfils a design function in terms of this project (refer to "definitions" section of this document), these duties will also apply. Please refer to Regulation 6 of the Construction Regulations 2014.

Please note that the designer of temporary works must ensure that:

- all temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
- the designs of temporary works are done with close reference to the structural design drawings issued by the contractor, and in the event of any uncertainty consult the contractor;
- all drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
- the loads caused by the temporary works and any imposed loads are clearly indicated in the design.



1.5 PROJECT DIRECTORY		
Project Client	Stellenbosch Municipality	Tel: 02 1808 8334
Contact Person	Victor Dyusha	e-mail: victor.dyusha@ Stellenbosch.gov.za
Architect	SMEC	Tel: 021 417 2900
Contact Person	Gerhard Linde	e-mail: gerhard.linde@smec.com
Project Manager	SMEC	Tel: 021 417 2900
Contact Person	Thinus van As	e-mail: Thinus.vanAs@smec.com
Sub Station Engineer	SMEC	Tel: 012 481 3800
Contact Person	Vuyisile Lloyd	e-mail: vuyisile.lloyd@smec.com
Electrical Engineer	SMEC	Tel: 021 417 2900
Contact Person	Tebogo Makolo	e-mail: Tebogo.Makola@smec.com
Civil Engineer	SMEC	Tel: 021 417 2900
Contact Person	Byron Auret	e-mail: byron.auret@smec.com
Structural Engineer	SMEC	Tel: 021 417 2900
Contact Person	Kenneth Wright	e-mail: Kenneth.wright@smec.com
Construction Safety Agent	Safe Working Practice	Tel: 021 701 0470
Contact Person	Mark Winter	Cell: 071 603 2213 e-mail: markw@safepractice.co.za
OTHER PARTIES DIRECTORY		
Department of Labour for submission of Annexure 2: Notification of Construction Work WESTERN CAPE – Fezeka Ngalo		Tel: 021 441 8158 e-mail: fezeka.ngalo@labour.gov.za Cell: 083 365 0681
Department of Labour http://www.labour.gov.za/Contacts/Labour-centres/Pages/defaults.aspx BELLVILLE P. O. Box 1789 Bellville 7535		Tel: 021 441 8158 e-mail: fezeka.ngalo@labour.gov.za Cell: 083 365 0681



Telecommunications, Water, Gas and Electricity Contractor to apply for and refer to wayleave information from service providers for the nature and location of services. Refer all queries Project Manager.	
COVID-19 Hotlines National Coronavirus Hotline Provincial Coronavirus Hotline	Tel: 0800 029 999 Tel: 021 928 4102

1.6 PROJECT DETAILS

Description of Works

Construction of single storey station with basement, including,

- Excavation
- Bulk earthworks
- Platform
- Foundations and slab
- Painting
- Plastering
- Electrical reticulation
- Roof sheeting and trusses
- Paving
- Installation of services
- Fencing
- Concrete works
- Site clearance
- Fire protection

This description of the works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contact.

Anticipated Construction Duration

8 Months.

Provisional Start Date

March 2022.

Completion Date

December 2022.

Construction Work Permit Required for the Project?

No.

1.7 EXISTING ENVIRONMENT

Hazards particular to this project by virtue of location:

- Agricultural environment.
- Existing live services present (electricity and storm water)
- Possibility of snakes
- Site located in existing farm and wedding venue area.



Overhead, Above Ground and Underground Services crossing the site:

Overhead: Electrical cable running along farm access road on perimeter of site.

Underground: Stormwater line and electricity line located on site.

Ground level: Not thought to be applicable but contractor to confirm

Service Drawings available: no, but a survey is available, refer queries to project manager

Wayleaves required: Yes

Permits required: TBA

Isolations required: Yes, for electrical services

Existing structures and surrounding land use (with a significant impact on Health & Safety):

- Farmland abuts the site.
- La Terra Wedding Venue is located approx 130m from the switching station construction.
- Another structure also in close proximity to site – use unknown.

Existing ground conditions and ground survey report:

- A geo tech report is available.
- Refer queries to the project manager

Existing Traffic Systems

Condition: Gravel farm road to site, located off Dirkie Uys Street, Franschoek (surfaced road)

Restrictions to access: None known but note that access to site is a single lane gravel farm road.

Speed restrictions: 30 kph max speed limit on gravel road to site.

1.8 AVAILABLE DRAWINGS

Refer to tender documentation.

1.9 PROJECT HEALTH AND SAFETY REQUIREMENTS

Significant health and safety hazards identified by Designer and Safety Agent:

Members of the public and road traffic and traffic accommodation – the site is located on a agricultural site, on a farm, with a wedding venue close by and a gravel farm access gravel road which will be shared by construction traffic with occasional contact with members of public expected (road traffic accessing the farm/wedding venue). Thus the health and safety of members of public and road users must be a priority at all times and all necessary steps must be taken to prevent unauthorised entry to site and to protect members of the public from any dangers associated with the construction works being undertaken. The contractor is responsible for the directional signage or other traffic accommodation measures required for site. Site must be securely fenced against unauthorised entry.



Lifting Operations – all operators must provide copies of their up to date competency and medical certificates and driver's license. Loads must be slung by person with appropriate training and competence. Daily plant inspection registers to be completed and records kept in the safety file. Valid load test certificates and record of inspections by competent personnel must be available and maintained throughout the project. Rotating amber lights and reverse alarms to be active when operating all plant on site. Plant must be effectively separated from members of public and unauthorised personnel. Use trained flag persons as applicable. Exclusion zone under lifting operations to be enforced as applicable. Particular attention must be paid to lifting operations in windy conditions.

Temporary works, including scaffolding, formwork, support work – all temporary work must be designed by competent temporary works designers and constructed and inspected by competent personnel at the appropriate intervals as required by legislation and good practice and site circumstances. Results to be entered into register on site. All temporary works structures must be adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them. No loads to be imposed onto the structure that the structure is not designed to withstand. All required leading edge protection must be in place and storage of temporary works materials must be in a safe manner. Exclusion zones and/or other measures to keep unauthorised personnel from accessing work areas underneath must be enforced.

Working at height – all access equipment to be built and maintained in a safe condition by competent and trained personnel. All scaffold and formwork structures must be built as per the SANS Regulations. This must be assessed by the contractor and method statements for these activities to be submitted for approval prior to work commencement. A Fall Protection Plan and Rescue Plan will be required for approval prior to commencement of any activities at height. All workers must have Fall Protection Plan training in the form of a toolbox talk with a signed register of attendance. Workers working at height must have appropriate and sufficient safety equipment. Safety harnesses with securely attached lanyards must be worn in areas where safety while working at height cannot be assured by other means. Edge protection in the form of guard rails and toe boards must be in place to prevent materials and people from falling. Medical certificates of fitness will be required for all contractors' staff, including those working at height.

Noise and Dust control: Measures to be put in place by the appointed contractor to minimize the dust and noise on site.

Hot works – All hot works will require a method statement. A permit to use equipment is required after it has been inspected and found to be in good condition and task specific documents are in place. All hot works will require a fire extinguisher at less than 20 meters on hand.

Risk of fires caused by construction works and / or Smoking – ensure correct measures are in place for fire control to ensure no fires will break out. Fire extinguishing equipment to be readily available at all times especially during high risk activities. The smoking of cigarettes is also to be monitored and adequate smoking areas and smoking control measures to be put in place.

Electrical work may only be undertaken after the requisite isolations have been implemented and all required safety measures are in place. All required personal protective equipment must be worn. Live decommissioning may only be undertaken by trained and competent contractor's personnel who are authorised and supervised by competent personnel provided by the contractor, and, if so identified, the project client and professional team.

COVID-19 – The Principal Contractor is to review and implement measures for the safety management, hygiene & health procedures, protocols and practices, informing employees, monitoring and compliance with all Governmental Decrees regarding the management of the COVID-19 situation.

The Principal Contractor is to review at least the following, but not limited to, information.

- What is COVID-19?
- How does COVID-19 spread?
- What are the symptoms of COVID-19?
- When should testing for COVID-19 occur?
- How can COVID-19 infection be prevented?
- COVID-19 and Stigma's or false information – What is true and what is false?

The below national and international information sources are recommended for review.

World Health Organization

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

The Department of Health (Republic of South Africa)

<http://www.health.gov.za/index.php/outbreaks/145-corona-virus-outbreak/465-corona-virus-outbreak>

The National Institute for Communicable Diseases (Republic of South Africa)

<http://www.nicd.ac.za/diseases-a-z-index/covid-19/frequently-asked-questions/>

The Principal Contractor is recommended to be able to demonstrate/implement the below:

- Workplace safe work procedure and risk assessments.
- Hygiene protocols:
 - Washing of hands – How, why and when.
 - The use of hand sanitizers – How, why and when.
 - Disinfecting of surfaces and workplace cleanliness – How, why and when.
- Social distancing within the workplace – How, why and when.
- Communication with employees:
 - Employee and external Contractor inductions.
 - Awareness training.
- Safety signage in at least 3 languages – English, Afrikaans & Xhosa.
- Additional control measures:
 - Employee thermometer testing.
 - Provision of PPE – gloves, masks, etc...
 - Handwashing sessions – company wide.
 - Employee health monitoring.

Strict COVID 19 control measures by the Principal Contractor is to be implemented.

Other construction hazards expected include, but are not limited to, the following:

Bricklaying
Compacting and Filling
Compactor Operations
Cutting Off Disc
Electric Tools and Electrical Installations
Flammable Liquids / Gas
Hand tools
Hazardous Substances
Manual Handling of General Items
Painting
Plastering
Scaffold Erection / Dismantling
Shuttering Walls, Beams, Columns
Steel Fixing



Tower Scaffold
Working at Height (excluding scaffold)

NOTE: Please refer to end of this Health and Safety Specification for the baseline risk assessment for these risks.

ACTIVITIES REQUIRING APPROVED METHOD STATEMENTS (FOR HEALTH AND SAFETY)

- Site establishment.
- As per contract programme

ACTIVITIES REQUIRING PERMITS (FOR HEALTH AND SAFETY PURPOSES)

Permit to Dig: To be advised by project management

Permit to Enter Excavations: Contractor to liaise with project management

Road Works Permit: Not thought to be applicable.

Permit to Work with Electricity: Contractor to liaise with project management

Confined Space Permit: Not thought to be applicable.

Hot Works Permit: Yes, Principal Contractor is to formally manage all hot works.

Permit to Work under Power Lines or Electric Cables: Contractor to assess on site

Blasting: Not thought to be applicable

Client issued permit for work in restricted areas: n/a

Temporary Works: Principal Contractor to manage temporary works formally.

COVID 19 (Travel Permit): None foreseen (As per government regulations).

CONTRACTOR SAFETY OFFICER PROVISION

Records of safety audits undertaken by the Contractor's Safety Officer must be kept on site in the safety file and non-conformances reported by the Safety Officer to the Contractor's management team. All non-conformances identified by the Safety Officer must be investigated and corrective action taken by the Contractor to prevent re-occurrence.

Please note that as from 7th August 2018 the safety officer must be professionally registered with the SACPRINCIPAL CONTRACTORMP. Proof of registration with the SACPRINCIPAL CONTRACTORMP must be provided.

If registered as a Candidate, proof of mentorship and weekly visits by mentor must be available on site.

Principal Contractor to ensure that a part-time Safety Officer conducts at least fortnightly inspections for the duration of the project.

MEDICAL CERTIFICATE OF FITNESS

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner in the form of an Annexure 3 template.



MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor. Proof of all-inclusive assessment of the Construction Manager's Competency in construction management and H&S competency must be available in the Safety File.

The Construction Manager and designated construction supervisor/s must, as a minimum, have training in Legal Liability, Construction Regulations 2014 and the OHS Act and Regulations.

TRAFFIC MANAGEMENT AND TRAFFIC SAFETY OFFICER PROVISION

Not thought to be applicable except possibly minor management at junction with entrance to site.

ENVIRONMENTAL CONDITIONS

Contractor must take into account the affect of adverse weather conditions on site activities and implement control measures to mitigate risk. This includes risk of exposure to excessive heat, cold, rain and wind. Particular attention must be paid to lifting operations in windy conditions. The open nature of the site works will not preclude any of the above.

ARRANGEMENTS FOR ACCESS, PARKING, DELIVERIES, ETC.

Access to site by Construction Vehicles: Off gravel access road to La Terre.

Access to site by Construction Workers and Visitors: As above.

All service providers must sign a 37.2 Mandatory Agreement and must be inducted before they can be allowed on site.

ARRANGEMENTS FOR SITE CAMP, ABLUTIONS AND YARD

Site camp location and set up

- | | | |
|---------------------------------------|---|--------------------------------------|
| • Restrictions / requirements: | } | |
| | } | |
| • Storage areas: | } | Contractor to advise in consultation |
| | } | with Project Manager |
| | } | |
| • Security: | } | |

Ablutions and Welfare Arrangements

Contractor to supply ablutions and facilities in line with the Construction Regulations 2014, refer to section 2.31 of this health and safety specification regarding the below. Please note that toilets should be provided with built in facilities for hand washing:

- | | | |
|------------------------------|---|--|
| • Toilets: | } | |
| • Washing facilities: | } | |
| • Drinking Water: | } | Contractor to provide as per Regulations |
| • Shelter: | } | |
| • Showers: | } | |



PROTECTION OF SITE AGAINST UNAUTHORISED ACCESS BY PUBLIC

Excavation Fencing: Note that excavations accessible to the public, or adjacent to public roads / thoroughfares, must have (1) barrier/fence at least 1m in height, and (2) warning illuminants at night or when visibility is poor, or have other suitable precautionary measures if both of these are not practicable.

Orange plastic barrier mesh fencing is to be used at a minimum.

General Fencing of Site: Note that construction sites in built up areas adjacent to public way must be fenced off and have controlled access points.

Work area and site yard/laydown area are to be fenced off with 1.8m fence panels and access to be controlled via gates.

Warning Notices: Construction warning signage must be prominently displayed to avoid unauthorised access to site and to warn of dangers associated with construction works.

Look Outs: TBA

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The Client requires the Contractor to ensure that employees (and others under his/her control) wear the following minimum PPE:

Overalls: Yes.

Safety Harnesses: Yes, as per risk assessment.

Hard Hats: Yes, as per risk assessment.

Reflective Vests: Yes.

Goggles / gloves / ear defenders / respiratory protection: Yes.

Safety Footwear: Yes.

Specialist Equipment (e.g. for confined Spaces): Yes, as per risk assessment.

COVID-19 PPE:

Disposable Gloves: As per COVID 19 Risk Assessment.

Disposable Overall: As per COVID 19 Risk Assessment.

Respiratory Protection (i.e. any face mask endorsed by Department of Labour): As per COVID 19 Risk Assessment and/or Government Regulations.

Eye Protection (i.e. goggles or face shield that fully covers the front and side of the face): As per COVID 19 Risk Assessment and/or Government Regulations.



HAZARDOUS SUBSTANCES

The following materials and substances have, or may have, to be used in the works and are identified as potentially posing special health and / or safety hazards during the project. Appropriate measures will need to be specified for their control:

Cement – Fuels (Petrol & Diesel) – Oils – Solvents

1.10 INTERFACE AND RESTRICTIONS BY CLIENT

Contractor must note that the following Client activities will continue during construction:

- No reason for client's staff to visit site, but there is a chance this may happen.
- The farm and wedding venue and facilities on site will remain operational during the construction works.
- The surrounding area remains accessible to the general public.

The following Client safety rules and/or requirements are to be observed:

All workers are to receive induction prior to commencement of work on site.

Other safety rules and requirements to be advised at induction.

Please also refer to tender document.

The following were highlighted by the client:

- PPE to be worn at all times.
- Public safety to be a priority at all times.
- Toilets to be utilized for urinating. Not against poles, structures, in bushes etc. (Fines to be issued for non-compliance)

Restrictions on times, access or other restrictions by Client

Please refer to tender document.

Other restrictions may be advised at induction.

The following were highlighted by the client:

- Work hours are as stated in tender.

1.11 Project Close Out

The Health and Safety files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project in the form of a consolidated safety file. The following list is an example of what should be included but is not exhaustive. The Safety Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are responded to. Documentation would include all health and safety related records from the start of the project. All records to be in hard copy or electronic format and submitted to the Safety Agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

Consolidated Health and Safety close out file requirements include:

- Health and safety specification (most recent version)
- Principal Contractor's health and safety plan/s
- Site safety organograms
- Legal appointments
- Notification to Department of Labour of commencement of work / Construction Work Permit



- Workman's Compensation Letters of Good Standing for the project
- Full safety files for all contractors as well as their close out reports
- List of all contractors who worked on site
- Letters of safety plan approval of contractors by the Principal Contractor
- Mandatory agreements (section 37.2 agreements)
- Incident and accident records / Occupational Disease records
- Contractor Nonconformance records
- Safety agent's audit reports
- Safety Officer reports
- Method Statements
- Risk assessments
- Safe work procedures
- Medical surveillance certificates of fitness. Medical records are to be kept according to the Occupational Health and Safety Act, as amended.
- All temporary works drawings (suspended beams/scaffolds, etc.)
- Copies of test results, policies, and procedures for environmental monitoring (silica, noise, dusts, etc.)
- Detailed registers of all material used
- Copies of all Checklists completed

1.12 SAFETY FILE RETURN TO CLIENT

The consolidated Health and Safety Files for the Project is to be handed over by the Principal Contractor to the Client upon Project Completion in either hard copy or electronic format.

2.0 FURTHER REQUIREMENTS

2.1 Duties of Principal Contractor / Contractor in terms of Construction Regulations 2014

A Principal Contractor must:

- provide and demonstrate to the Client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the Client's documented health and safety specifications, *which* plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the Client, the Client's Safety Agent, or a Contractor; and
- on appointing any other contractor, in order to ensure compliance with the provisions of the Act –
 - provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;
 - ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;



- ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
- appoint each contractor in writing for the part of the project on the construction site
- take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;
- ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;
- stop any contractor from executing construction work which is not in accordance with the Client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
- where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely;
- discuss and negotiate with the contractor the contents of their health and safety plan and finally approve that plan for implementation;
- ensure that a copy of both the principal contractor and contractor's health and safety plan is available on request to an employee, an inspector, a contractor, the Client, or the Client's Safety Agent;
- hand over a consolidated health and safety file to the Client upon completion of the construction work, to include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- in addition to the documentation required in the health and safety file include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done;
- ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

A contractor must prior to performing any construction work-

- provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the Client's health and safety specification and provided by the principal contractor, which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the Client, the Client's Safety Agent or the principal contractor;
- before appointing another contractor to perform construction work be reasonably satisfied that the contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the Act;



- as far as is reasonably practicable, promptly provide the principal contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where a contractor appoints another contractor to perform construction work, the duties that apply to the principal contractor will apply to the contractor as if he or she were the principal contractor.

A principal contractor must take reasonable steps to ensure co-operation between all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations.

No contractor may allow or permit any employee or person to enter any site unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the Client, the Client's Safety Agent or the Principal Contractor.

A contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3 (a template of which can be found in the Construction Regulations, 2014).

2.2 Management and Supervision of Construction Work

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor. Proof of all-inclusive assessment of the Construction Manager's Competency in construction management and H & S competency must be available in the Safety File. The Construction Manager must, as a minimum, have a Construction Regulation course. No contractors may be left unsupervised on site by the principal contractor.

A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

Where the construction manager has not appointed assistant construction managers, or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed.

No construction manager appointed in terms of the Regulations may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.



A contractor must, after consultation with the Client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.

No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor

A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site. Proof of all-inclusive assessment of the Construction Supervisor's competency in construction supervision and H&S competency must be available in the Safety File. The Construction Supervisor must, as a minimum, have a supervision course as per Unit Standard 262845 (Civil Engineering), 119080 (Building Construction) and 262884 (Civil Engineering).

A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor, and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties.

Where the contractor has not appointed such an employee, or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector.

No construction supervisor appointed may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

2.3 Notification of Intention to Commence Construction Work

The Contractor shall notify the Provincial Director of the Department of Labour of the intention to commence construction work at least 7 days prior to the works commencing if the intended construction work will:

- Include excavation work
- Include work at height where there is a risk of falling
- Include the demolition of a structure, or
- Include the use of explosives to perform construction work.

If the construction work involves construction of a single storey dwelling for a Client, and such Client will be residing in such dwelling upon completion, the Contractor must also notify the Provincial Director of the Department of Labour at least 7 days before the works commence.

This must be done on a form similar to an Annexure 2 (template of which can be found in the Construction Regulations, 2014). A copy of the notification letter to the Provincial Director shall be forwarded to the Client for record purposes.

2.4 Construction Work Permit

Not thought to be applicable to this project.



2.5 Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site

The Contractor shall submit management and supervisory appointments as well as any relevant appointments in writing (as stipulated by the Construction Regulations 2014 and the Occupational Safety and Health Act 1993), prior to commencement of work (refer to **Annexure B** at the end of this Health and Safety Specification).

2.6 Competency for Contractor's Responsible Persons

The Contractor's responsible persons shall be competent in health and safety and be familiar with the Occupational Health and Safety Act 1993, and applicable regulations. Valid proof of pertinent health and safety courses attended by such persons will be required to be presented to the Client.

2.7 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The successful Contractor shall submit to the Client a valid letter of good standing with the Compensation Insurer prior to appointment.

2.8 Occupational Health and Safety Policy

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the company operations. The Policy must be communicated to all employees and proof thereof must be available in the Safety File.

2.9 Health and Safety Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated when there is a change in the site team.

2.10 Risk Assessments

Baseline Risk Assessment

The Client shall cause a baseline risk assessment to be conducted by a competent person before the design process and tender process commence, and the assessed risks shall form part of the health and safety specifications.

The Contractor must, before commencement of any construction work, and during construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site and must include:

- The identification of the risks and hazards to which persons may be exposed to;
- An analysis and evaluation of the risks and hazards identified; based on a documented method
- A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- A monitoring plan; and
- A review plan

The Contractor must ensure that, as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated, and addressed in a risk assessment.



The Contractor must ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and/or control measures **before any work commences** and thereafter **at the times determined in the risk assessment monitoring and review plan of the relevant site**.

The Principal Contractor must ensure that all contractors are informed regarding any hazard that is stipulated in the risk assessment **before any work commences** and thereafter **at the times determined in the risk assessment monitoring and review plan of the relevant site**.

The Contractor must consult with the health and safety committee or with a representative trade union or representative group of employees if no health and safety committee exists, on the monitoring and review of the risk assessments for the site.

The Contractor must ensure that copies of risk assessment for this site are available on site for inspection purposes by interested parties (inspector, the Client, Client's Safety Agent, any contractor, any employee, a representative trade union, a health and safety representative or safety committee member).

A Contractor must review the relevant risk assessment where changes are effected to the design and/or construction that result in a change to the risk profile, or when an incident has occurred.

Preventative measures must first address the elimination of the hazard or risk. Should PPE be required to reduce risk, the equipment or clothing to be used must be SABS approved.

In general, the Contractor must ensure that the Risk Assessment involves identifying the hazards present in a work activity on site. This is followed by an evaluation of the extent of the risk involved taking into account those precautions already being taken.

The following general principle should be followed when conducting a risk assessment:

- All relevant risks and/or hazards should be systematically addressed;
- The risk assessment should address what actually happens in the workplace during the work activity;
- All employees and those who may be affected must be considered, including maintenance staff, security guards, visitors, and Contractors;
- The risk assessment should highlight those groups and individuals who may be required to work alone or who have disabilities;
- The risk assessment process should take into account the existing safety measures and controls.
- The level of detail on a risk assessment should be appropriate to the level of risk.

2.11 Health and Safety Representative(s)

The Contractor shall ensure that Health and Safety Representative(s) is/are elected and trained to carry out his / her functions. The Safety Representative(s) must be democratically nominated, elected, and appointed in writing. The Health and Safety Representative(s) shall carry out regular inspections, keep records and report to the supervisor to take appropriate action. The Safety Representative(s) shall attend Health and Safety Committee Meetings. The Health and Safety Representative shall be part of the team that will investigate incidents, accidents, and non-conformances. The Safety Representative(s) must be (a) full time employee(s) who is/are acquainted with conditions and activities at that workplace or section thereof. The Safety Representatives must have Safety Representative training and must be capable of performing their duties.



2.12 Health and Safety Committee

Where two or more health and safety representatives have been appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

PLEASE NOTE THAT THE SAFETY AGENT MAY REQUIRE THAT THE PRINCIPAL CONTRACTOR CONVENES A SAFETY COMMITTEE MEETING ON SITE IN THE INTERESTS OF HEALTH AND SAFETY ON SITE. SUCH COMMITTEE MEETING MAY REQUIRE ATTENDANCE OF CONTRACTORS SAFETY OFFICERS/SAFETY REPRESENTATIVES, CONSTRUCTION SUPERVISION AND THE SAFETY AGENT.

2.13 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner in the form of an Annexure 3 template (refer to the Construction Regulations 2014 on the Department of Labour website for a sample of this form).

Employees required to perform work at heights or from fall risk position must be medically fit to perform such work, such employee's medicals must specify "Fall Risk" or "Working at heights" in the exposure section of the annexure 3 template.

2.14 Health and Safety Training

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records. Once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

2.14.1 Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment (PPE). A copy of attendance registers of all employees who attend inductions shall be kept.

2.14.2 Awareness

The Contractor shall conduct periodic toolbox talks on site, weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health and safety file as evidence of training.

2.15 Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons on appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence. All training must be conducted by an accredited training provider and the certificates must display the applicable unit standards and the expiry dates thereof.



2.16 General Record Keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training, etc. are kept on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

2.17 General Inspection, Monitoring and Reporting

The Contractor shall carry out inspections as required by this Health and Safety Specification, as well as by health and safety legislation.

2.18 Emergency Procedures

The Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following:

- List of key personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the emergency; and
- Information on hazardous materials / situations, including each material's hazardous potential impact or risk on the environment or human and measures to be taken in the event of an accident.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, dangers as a result of riot / service delivery protests / intimidation, etc. The Contractor shall advise the Client in writing of any on-site emergencies, together with a record of action taken, within 24 hours of the emergency occurring. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available to site personnel.

2.19 First Aid Box and First Aid Equipment

The Contractor shall provide first aid box/es and appoint, in writing, First Aider(s) for this project in line with the results of the Contractor's risk assessment for the project, this health and safety specification as well as the provisions of the General Safety Regulations. The appointed First Aider(s) are to be sent for accredited first aid training before starting on site. Valid certificates are to be kept on site.

- First Aid box/es must be adequately stocked at all times, accessible and be controlled by a qualified First Aider.
- Perishables to be checked and replaced when expired.
- Stock per content list as per the General Safety Regulations Annexure.
- Signage to be in place.
- To be numbered and sealed with name of first aider on or above the First aid box.
- Dressing logbook to be available in the first aid box.
- If more than 5 employees are present, there must be a first aid box available.
- Register to be checked by a Competent person.

If required by the Client, the Contractor shall have a stretcher on site to be used in case of a serious incident.

2.20 Accident / Incident Reporting and Investigation

The Contractor shall, in addition to the prescribed requirements of the Occupational Health and Safety Act and General Safety Regulations, investigate, record, and report all Section 24 reportable incidents to the Client within 24 hours of the incident occurring. Incident investigations shall be conducted by the



Contractor's appointed Accident Investigator – this Investigator must be a competent person or persons who have sufficient knowledge to carry out an investigation.

In the event of a fatality or a permanent disabling injury the Contractor must submit proof of reporting of incident to Department of Labour as well as proof of preventative measures to the Client. The Client reserves the right to conduct investigations into any incidents that they deem fit and the Contractor is required to provide full co-operation in this regard.

2.21 Hazards and Potential Situations

The Contractor shall immediately notify other Contractors of any hazardous or potentially hazardous situations, which may arise during performance of the activities.

2.22 Occupational Health and Safety Signage

The Contractor shall ascertain and provide adequate on site health and safety signage. This signage shall include, but shall not be limited to, Hard Hat / Helmet Area; Safety Shoes to be worn on site; Dust Masks to be worn in areas where there might be exposure to excessive dust; Ear Plugs / Muffs to be worn where there might be noise exposure over 85 dB; Gloves; Safety Goggles; Safety Harness, Workers in Excavation, traffic management, etc. The Contractor shall be responsible to maintain the quality and replacement of signage. Signage must comply with the requirements of SABS.

2.23 Management of Contractors by Principal Contractor

The Principal Contractor shall ensure that all contractors under his control are complying with the respective Health and Safety Plans, as well as Health and Safety Legislation.

2.24 Stacking of Materials

In addition to the provisions for the stacking of articles in the General Safety Regulations, 2003, the contractor must ensure that –

- a competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- adequate storage areas are provided;
- there are demarcated storage areas; and
- storage areas are kept neat and under control.

2.25 Housekeeping and General Safeguarding on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including-

- the proper storage of materials and equipment;
- the removal of scrap, waste and debris at appropriate intervals;
- ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;
- ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in the regulations;
- ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons; and



- ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

2.26 Construction Vehicles and Mobile Plant

A contractor must ensure that all construction vehicles and mobile plant-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by a person who-
 - has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate those construction vehicles and mobile plant;
 - has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner in the form of Annexure 3.
- have safe and suitable means of access and egress;
- are properly organized and controlled in any work situation by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water, or any other area lower than the working surface by installing adequate edge protection, which may include guard-rails and crash barriers;
- are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an acoustic warning device which can be activated by the operator;
- are equipped with an automatic acoustic reversing alarm;
- are equipped with fire extinguishers (2.5 – 4.5 kg); and
- are inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

A contractor must ensure that-

- no person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organized in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary, indicated by suitable signs;
- all construction vehicles and mobile plant left unattended at night, adjacent to a public road in normal use or adjacent to construction areas where work is in progress, have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- all construction vehicles or mobile plant when not in use, have buckets, booms, or similar appendages, fully lowered, or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set, and ignition secured;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools, material, and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- all construction vehicles or mobile plant travelling, working, or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.



- all plant and vehicles are to be fitted with amber rotating beacons and reverse alarms.
- ALL construction site vehicles must be inspected daily especially if it has dangerous "items" (fuel, explosives, etc.) on vehicle, completed inspection registers must also be available for inspection.
- the vehicles must resemble the original manufacturer's product. Levers, alarms, and amber lights to be fitted to construction vehicle for notification of vehicle.
- fire extinguishers, signage, and licence disc to be correctly mounted and displayed.
- when the vehicle is stationary no key to be left in or on vehicle or plant.
- Drip tray must be present when stationary.

2.27 Electrical Installations and Machinery on Construction Sites

A contractor must, in addition to compliance with the Electrical Installation Regulations and the Electrical Machinery Regulations, ensure that –

- before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
- the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;
- all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

2.28 Use and Temporary Storage of Flammable Liquids on Construction Sites

A contractor must, in addition to compliance with the provisions for the use and storage of flammable liquids in the General Safety Regulations, 2003, ensure that –

- where flammable liquids are being used, applied, or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;
- no person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- an adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- only the quantity of flammable liquid needed for work on one day is taken out of the store for use;
- all containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- where flammable liquids are decanted, the metal containers are bonded and earthed; and
- no flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids
- proper containers are to be used for fuel. Marked and labelled as per the content.
- diesel on site; more than 800 litres must have a certificate, fire safe certificate. Locked in a ventilated, secure area with a drip tray and have a designated, responsible person to use it.

2.29 Water environments

Not thought to be applicable to this project.

2.30 Fire precautions on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that –

- all appropriate measures are taken to avoid the risk of fire;
- sufficient and suitable storage is provided for flammable liquids, solids, and gases;
- smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- in confined spaces and other places in which flammable gases, vapours or dust can cause danger-
 - only suitably protected electrical installations and equipment, including portable lights, are used;
 - there are no flames or similar means of ignition;
 - there are conspicuous notices prohibiting smoking;
 - oily rags, waste, and other substances liable to ignite are without delay removed to a safe place; and
 - adequate ventilation is provided;
- combustible materials do not accumulate on the construction site;
- welding, flame cutting, and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;
- suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;
- the fire equipment contemplated above is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- a sufficient number of workers are trained in the use of fire-extinguishing equipment;
- where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;
- the means of escape is kept clear at all times;
- there is an effective evacuation plan providing for all -
 - persons to be evacuated speedily without panic;
 - persons to be accounted for; and
 - plant and processes to be shut down; and
- a siren is installed and sounded in the event of a fire.

2.31 Construction Employees' Facilities

A contractor must, in terms of the Construction Regulations 2014, provide:

- Shower facilities after consultation with the employees or employees' representatives, or at least one shower facility for every 15 persons;
- at least one sanitary facility for each sex and for every 30 workers;
- Toilets to be within walking distance
- Hygiene registers to be completed
- Proof of safe disposal of effluent waste disposal certificates to be obtained
- changing facilities for each sex;
- and sheltered/shaded eating area.
- Protection from the Elements and raised off the ground.
- Every employer shall provide sanitary facilities at the workplace in accordance with the provisions of Parts F, P and Q of the National Building Regulations.
- Sufficient clean water for all employees. 500ml to each employee every hour.

A contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

2.32 Fall protection

The Contractor must:

- designate a competent person to be responsible for the preparation of a fall protection plan
- ensure that the fall protection plan contemplated above is implemented, amended where and when necessary and maintained as required; and
- take steps to ensure continued adherence to the fall protection plan.

A fall protection plan contemplated above must include-

- a risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- a programme for the training of employees working from a fall risk position and the records thereof;
- the procedure addressing the inspection, testing, and maintenance of all fall protection equipment; and
- a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A Contractor must ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the fall protection plan.

A Contractor must ensure that all unprotected openings in floors, edges, slabs, hatchways, and stairways are adequately guarded, fenced, or barricaded or that similar means are used to safeguard any person from falling through such openings;

Also that no person is required to work in a fall risk position, unless such work is performed safely as contemplated in above and fall prevention and fall arrest equipment are approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and securely attached to a structure or plant, and the structure of plant and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and person who could fall, and fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

2.33 Temporary works

A Contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.

A Contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.

A Contractor must ensure that-

- all temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them, and that no loads are imposed onto the structure that the structure is not designed to withstand;
- all temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
- detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other Contractors, the Client, the Client's Safety Agent, or any employee;
- all persons required to erect, move, or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;

- all equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
- all temporary works structures are inspected by a competent person immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed and the results have been recorded in a register and made available on site;
- no person may cast concrete, until authorization in writing has been given by the competent person contemplated above;
- if, after erection, any temporary works structure is found to be damaged or weakened to such a degree that its integrity is affected, it is safely removed or reinforced immediately;
- adequate precautionary measures are taken in order to-
 - secure any deck panels against displacement; and
 - prevent any person from slipping on temporary works due to the application of release agents;
- as far as is reasonably practicable, the health of any person is not affected through the use of solvents or oils or any other similar substances;
- upon casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its own weight and any imposed load, and is not removed until authorization in writing has been given by the competent person
- the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design.
- provision is made for safe access by means of secured ladders or staircases for all work to be carried out above the foundation bearing level;
- a temporary works drawing, or any other relevant document includes construction sequences and methods statements;
- the temporary works designer has been issued with the latest revision of any relevant structural design drawing;
- a temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site; and
- the temporary works drawings are approved by the temporary works designer before the erection of any temporary works.

No Contractor may use a temporary works design and drawing for any work other than its intended purpose.

2.34 Excavation – minor – up to 1m

A contractor must-

- ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
- evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.
- take the steps that are necessary to render the circumstances safe for all persons involved;
- must ensure that every excavation, including all bracing and shoring, is inspected-
 - daily, prior to the commencement of each shift;
 - after an unexpected fall of ground;
 - after damage to supports; and
 - after rain,
 by the competent person, in order to ensure the safety of the excavation and of persons, and those results must be recorded in a register kept on site and made available on request to an inspector, the Client, the Client's Safety Agent, any other contractor or any employee;
- must cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be –
 - adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and

- provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor, or have resort to any other suitable and sufficient precautionary measure where this is not practicable;
- must cause warning signs to be positioned next to an excavation within which or where persons are working or carrying out inspections or tests.

2.35 Demolition Work

Not thought to be applicable to this project.

2.36 Tunnelling

Not thought to be applicable to this project.

2.37 Scaffolding

A Contractor must appoint a competent person in writing who must ensure that all scaffolding work operations are carried out under his or her supervision and that all scaffold erectors, team leaders and inspectors are competent to carry out their work as per the SANS 10085 of 2004.

A Contractor using access scaffolding must ensure that such scaffolding, when in use, complies with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act and SANS 10085. Scaffold must be;

- Level and balanced upon the correct footing such as base jacks, U-Jacks, and mobile wheels
- Have the correct Ledgers and bracing methods to secure the frames and Standards
- To be fully boarded with the correct edge protection on both the 0.500m and 1 metre height per working platforms.
- Working platforms to be in accordance with the Tables 4 and 5 of the SANS 10085 for weight restrictions
- Have the correct access that is fitted within the scaffold and grants access to the working platforms and must be fitted with a trap door system.
- Secured with fastening methods such Reveal and fixed ties according to table 7 of SANS 10085. Buttresses to be used when required.
- signage must be displayed to indicate if the scaffold is safe or unsafe to use.
- Trestles to be built in accordance to section 10.16.1 of the SANS 10085 and safety requirements to be met by the scaffolding inspector and scaffold supervisors on site.

2.38 Bulk mixing plant

Not thought to be applicable to this project, contractor to advise safety agent if this is not correct.

2.39 Rope Access Work

Not thought to be applicable to this project.

2.40 Hazardous Chemical Substances (HCS)

In addition to the requirements in the HCS Regulations, the principal contractor must provide proof in the Health and Safety Plan that:

- Material Safety Data Sheets (MSDS's) of the relevant materials / hazardous chemical substances are available prior to use by the contractor. All MSDS's shall be available for inspection by the agent at all times.
- Risk assessments are done at least once every 6 months.
- Exposure monitoring is done according to OESSM and by an Approved Inspection Authority (AIA) and that the medical surveillance programme is based on the outcomes of the exposure monitoring.



- How the relevant HCS's are being/going to be controlled by referring to:
 - Limiting the amount of HCS
 - Limiting the number of employees
 - Limiting the period of exposure
 - Substituting the HCS
 - Using engineering controls
 - Using appropriate written work procedures
- The correct PPE is being used.
- HCS are stored and transported according to SABS 072 and 0228.
- Training with regards to these regulations was given.

The Health and Safety plan should make reference to the disposal of hazardous waste on classified sites and the location thereof (where applicable).

The First Aider must be made aware of the MSDS and trained in how to treat HCS incidents appropriately.

2.41 Noise Induced Hearing Loss

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan:

- Proof of training with regards to these regulations.
- Risk assessment done within 1 month of commencement of work.
- That monitoring carried out by an AIA and done according to SABS 083.
- Medical surveillance programme established and maintained for the necessary employees.
- Control of noise by referring to:
 - Engineering methods considered
 - Admin control (number of employees exposed) considered
 - Personal protective equipment considered/decided on
- Describe how records are going to be kept for 40 years.

2.42 Explosives and Blasting

Not thought to be applicable to this project.

2.43 Personal Protective Equipment (PPE)

The Contractor shall carry out PPE or clothing needs analysis in accordance with his risk assessment, to determine the necessary PPE or clothing to be used during construction. The Contractor shall make provision to keep adequate quantities of appropriate, SABS approved PPE or clothing on site at all times.

The Contractor must ensure that personnel are trained in the correct use of PPE to be used.

The Contractor must ensure that lost, stolen, worn out or damaged PPE is replaced as required and receipt signed for by employees on site.

2.44 Asbestos

Not thought to be applicable to this project.

2.45 Pressure Vessels (Including Gas Bottles)

The Contractor shall comply with Pressure Vessel Regulations, including:

- Providing competency and awareness training to the operators;
- Providing PPE or clothing;
- Providing and maintain appropriate signage in areas where pressure vessels are used, as applicable;
- Inspect equipment regularly and keep records of inspections;
- Providing appropriate firefighting equipment (Fire Extinguishers).
- Under pressure vessels to have the following in place;
 - Service date
 - Seals on valves with no leaks and not broken
 - flash arrestors
 - Should be stored and chained together
 - Oxygen / Acetylene bottles to have clips
 - Signage to be visible
 - Gauges in working condition and be visible
 - Permits for use
 - Pressure equip Regs 6. (1) The user shall ensure that the pressure equipment is operated and maintained within its design and operating parameters.

2.46 Fire Extinguishers and Fire Fighting Equipment

The Contractor shall provide adequate, regularly serviced fire extinguishers located at strategic points on site. The Contractor shall keep spare serviced portable fire extinguishers. The Contractor shall have adequate persons trained or competent to use the Fire Fighting Equipment.

Safety signage shall be posted up in all areas where fire extinguishers are located.

2.47 Lifting Machinery and Tackle

The Contractor shall ensure that lifting machinery and tackle is inspected before use and on a monthly basis. The Contractor shall have lifting machinery and tackle inspector who will inspect the equipment at intervals required by the Driven Machinery Regulations, taking into account that:

- All lifting machinery and tackle have a safe working load clearly indicated
- Regular inspection and servicing is carried out
- Records are kept of inspections and of service certificates
- Thorough examinations are carried out by competent personnel at the frequencies required by legislation
- There is proper supervision in terms of guiding the loads which includes a trained banks man to direct and check lifting tackle if it is safe for use
- Forklift to be inspected every year and lift plan every 2 years
- Load test certificate to be no older than 6 months
- Sufficient props to be used and max weight to be displayed
- Slings to be checked with regard to integrity, chains, serial numbers, checked for tears, cuts links and all other materials
- Hooks to be oiled, not in a fixed position and closed to prevent materials from slipping/falling off
- Lifting equipment must be used for the scope of work carried out

2.48 Ladders and Ladder work

The Contractor shall ensure that all ladders are numbered and inspected regularly keeping record of inspections. It should be noted that Aluminium ladders are preferred to wooden ladders.



2.49 General Machinery

The Contractor shall comply with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing and training those that use machinery and enforce compliance.

2.50 Portable Electrical Tools

The Contractor shall ensure that use and storage of all explosive actuating fastening devices and portable electrical tools are in compliance with relevant legislation.

The Contractor shall consider that:

- A competent person undertakes routine inspections;
- Only authorised persons use the tools;
- There are safe working procedures applied;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.

2.51 High Voltage Electrical Equipment

The Contractor shall ensure that, where the work is under, on or near high-voltage electrical equipment the Electrical Installation Regulations, together with safety instructions (Regulations of the Owner of the Equipment) are complied with. Such equipment includes:

- Eskom and the Local Authority equipment
- The Contractor's own power supply; and
- Electrical equipment being installed but not yet taken over from a Contractor by The Client.

2.52 Public Health and Safety

The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from onsite activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

2.53 Night Work

The Contractor shall not undertake any night work without prior arrangement and a written permit from the Client. The Contractor shall ensure that adequate lighting is provided for all night work and failure to do so shall result in work being stopped.

2.54 Environmental Conditions and Flora and Fauna

The Contractor must be mindful of adverse weather conditions upon the health and safety of the workforce. This includes inclement weather, strong wind, heat stress, extreme cold, etc. The Contractor's risk assessment process must take into account the risks associated with such weather conditions. The same is true when working in an environment where there is a risk to employees' health and safety from presence of poisonous flora, or wildlife (including bees, snakes, etc). The Contractor's risk assessment process must take these risks into account.



2.55 Occupational Health

Exposure of workers to occupational health hazards and risks are quite common in any work environment, especially in construction. Occupational health hazards and risks exposure is a major problem and all Contractors are to ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards and risks.

The occupational hazards and risks may enter the body in three ways:

- Inhalation through breathing e.g. cement dust;
- Ingestion through swallowing maybe through food intake;
- Absorption through the skin (pores) e.g. painting or use of thinners.

The contractor is required to ensure that all his personnel are medically fit prior to being allowed onto the work site.

All Contractors should ensure that Occupational Hygiene surveys are conducted as per the Occupational Health and Safety Act to ensure employees are not exposed to hazards. Risk Assessments should identify areas where surveys are to be conducted.

2.56 Suspended Platforms

Not thought to be applicable to this project.

2.57 Material Hoists

Not thought to be applicable to this project.

2.58 Explosive Actuated Fastening Device

Not thought to be applicable to this project.

2.59 Confined Spaces

Not thought to be applicable to this project but contractor to ascertain on site and implement safe practices regarding confined space work as required.

2.60 Alcohol and drugs (GSR 2)

1. A contractor shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a site.
2. No employee shall be under the influence of or have in his or her possession or partake of or offer any other person intoxicating liquor or drugs.
3. An employer or a user, as the case may be, shall, in the case where a person is taking medicines, only allow such person to perform duties at the site if the side effects of such medicine do not constitute a threat to the health or safety of the person concerned or other persons at such site.



2.61 COVID-19 (PLEASE NOTE THAT THIS SECTION IS CONSTANTLY UNDER REVIEW)

This section is based on the requirements of Government Gazette No 43257 dated 29th April 2020, and the latest Disaster Management Act 2002.

The importance of the management and control of this virus by contractors on site is paramount.

For this reason no work is permitted on site until the contractor has submitted proposals in their safety plan to the safety agent and professional team on how the risk of COVID-19 transmission on site will be managed by the contractor (monitoring and implementation of control measures through administrative, physical and other control measure).

DEFINITIONS (*Disaster management Act of 2002*)

'adequate space' means not more than one person per one and a half metres of floor space;

'Alert Level' means the determination made under sub regulation 3(2);

'clinical case' means a patient that presents with clinical signs and symptoms of COVID-19;

'COVID -19' means the Novel Coronavirus (2019- nCov2) which is an infectious disease caused by a virus that has previously not been scientifically identified in humans, which emerged during 2019 and was declared a global pandemic by the WHO in 2020;

'Criminal Procedure Act' means the Criminal Procedure Act, 1977 (Act No 51 of 1977);

'enforcement officer' includes a member of the South African Police Service, the South African National Defence Force. metro police. traffic officers, immigration inspectors; and a peace officer as defined in section 1 of the Criminal Procedure Act;

'essential services' means the services listed in Annexure D;

'face mask' means a cloth face mask or homemade item that covers the nose and mouth, or another appropriate item to cover the nose and mouth;

'gathering' means any assembly, concourse or procession in or on -
(a) any public road, as defined in the National Road Traffic Act, 1996 (Act No. 93 of 1996); or
(b) any other building, place or premises. including wholly or partly in the open air, and including, but not limited to, any premises or place used for any sporting, entertainment, funeral, recreational, religious, or cultural purposes; but excludes a workplace and a place of residence for those persons ordinarily residing at the residence;

'health protocols' means the COVID-19 health protocols determined by the Director General of Health;

'head of an institution' means the accounting officer of a public institution and the chief executive officer or the equivalent of a chief executive officer of a private institution;

'institution' means any public or private institution, including a sole practitioner and any other business owned and operated by a single person, that is engaged in the supply or distribution of a good or service as set out in the Table 1, or which regulates such supply or distribution, including professional regulatory bodies designated in directions made in terms of regulation 4 of the Regulations;



'isolation' means separating a sick individual with a contagious disease from healthy individuals that are not infected with such disease in a manner that aims to prevent the spreading of infection or contamination;

'national state of disaster' means the national state of disaster declared by Government Notice No. R. 313 of 15 March 2020;

'quarantine' means the restriction of activities or separation of a person, who was or may potentially have been exposed, to COVID-19 and who could potentially spread the disease to other non -exposed persons, to prevent the possible spread of infection or contamination to healthy individuals;

'the Act' means the Disaster Management Act, 2002 (Act No. 57 of 2002); and

'WHO' means the World Health Organisation.

Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several Coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered Coronavirus causes Coronavirus disease COVID-19.

COVID 19 is a viral pandemic that has and is causing a great deal of damage to human health, countries' economies and health systems and has led to lock downs, work stoppages and restriction of movement that threatens the existence of many jobs, as well as the way we conduct our normal working and social lives.

In response to the pandemic the government has passed legislation and guidance for employers and employees in the work environment.

People can catch COVID-19 from others who have the virus. The disease can spread from person to person through small droplets from the nose or mouth which are spread when a person with COVID-19 coughs or exhales. These droplets land on objects and surfaces around the person. Other people then catch COVID-19 by touching these objects or surfaces, then touching their eyes, nose or mouth. People can also catch COVID-19 if they breathe in droplets from a person with COVID-19 who coughs out or exhales droplets. This is why it is important to stay more than one meter away from a person who is sick.

Please refer to Annexure A for details on the criteria that must be considered in the contractor's safety plan response.

2.62 General Practices when Working at Heights

- No Homemade structures or ladders will be permitted on the project.
- Trestle tables are not to be fully extended and must be fully boarded, no drums to be used.
- Surroundings to be clear of rubble.
- Fall protection, fall prevention, and fall rescue plans to be in place and communicated to site employees.
- Ladders to be structurally sound and not broken and in accordance to GSR 13A.
- Only competent persons may be allowed to work at heights
- Correct personal protective equipment to be used (safety harness and lanyard) and edge protection / life lines to be used.
- Anchor points to be in place and determined by an engineer. Anchor points must be pull tested prior to use.
- GSR (6) 6. No employer shall require or permit any person to work in an elevated position and no person shall work in an elevated position, unless such work is performed safely from a ladder or scaffolding, or from a position where such person has been made as safe as if they were working from scaffolding.



- Construction regulation 10 of 2014 to be implemented when working at heights and to prevent any person from falling from heights.
- Employees required to perform work at heights or from fall risk position must be medically fit to perform such work, such employee's medicals must specify "Fall Risk" or "Working at heights" in the exposure section of the annexure 3 template.

2.63 Traffic Accommodation

- Traffic accommodation plan issued by the contractor must be approved by the professional team.
- Plans for signage deployment must be in order and must be placed correctly.
- No signs to be obstructed.
- Displayed traffic signs must be maintained in a daily register to be checked morning and evenings after works have been finalised.

2.64 Ventilation and Lighting in the Work Place

Every employer shall cause every workplace in his undertaking to be lighted in accordance with the illuminance values specified in the Schedule to the General Safety Regulations:

Provided that where specialised lighting is necessary for the performance of any particular type of work, irrespective of whether that type of work is listed in the Schedule or not, the employer of those employees who perform such work shall ensure that such specialised lighting is available to and is used by such employees.

The Contractor must ensure that:

- the average illuminance at any floor level in a workplace within five meters of a task is not less than one fifth of the average illuminance on that task;
- glare in any workplace is reduced to a level that does not impair vision;
- lighting on rotating machinery in such that the hazard of stroboscopic effects is eliminated; and
- luminaires and lamps are kept clean and, when defective, are replaced or repaired forthwith.

With a view to the emergency evacuation of indoor workplaces without natural lighting or in which persons habitually work at night, every employer shall, in such workplaces, provide emergency sources of lighting which are such that, when activated, an illuminance of not less than 0.3 lux is obtained at floor level to enable employees to evacuate such workplaces: Provided that where it is necessary to stop machinery or shut down plant or processes before evacuating the workplace, or where dangerous materials are present or dangerous processes are carried out, the illuminance shall be not less than 20 lux.

The contractor must ensure that the emergency sources of lighting prescribed above:

- are capable of being activated within 15 seconds of the failure of the lighting prescribed by subregulation (1);
- will last long enough to ensure the safe evacuation of all indoor workplaces;
- are kept in good working order and tested for efficient operation at intervals of not more than three months; and
- where directional luminaires are installed, these are mounted at a height of not less than two meters above floor level and are not aimed between 10° above and 45° below the horizontal line on which they are installed.

The contractor must ensure that all rooms, stairways, passageways, gangways, basements, and other places where danger may exist through lack of natural light, to be lighted such that it will be safe.

The contractor must ensure that every workplace in his undertaking is ventilated either by natural or mechanical means in such a way that –

- the air breathed by employees does not endanger their safety;
- the time-weighted average concentration of carbon dioxide therein, taken over an eight-hour period, does not exceed one half per cent by volume of air;
- the carbon dioxide content thereof does not at any time exceed three per cent by volume of air;
- the prescribed exposure limits for airborne substances therein are not exceeded; and
- the concentration therein of any explosive or flammable gas, vapour or dust does not exceed the lower explosive limit of that gas, vapour, or dust.

2.65 Nuclear Density Gauge (Troxler)

Not thought to be applicable to this project.

2.66 Ergonomics Regulation of 2019

"competent person" in relation to ergonomics, means a person who– (a) has in respect of the work or task to be performed the required knowledge, training and experience in ergonomics and, where applicable, qualifications specific to ergonomics: provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and (b) is familiar with the Act and the applicable regulations made under the Act;

"ergonomic risk" means a characteristic or action in the workplace, workplace conditions, or a combination thereof that may impair overall system performance and human well-being;

"ergonomic risk assessment" means a programme, process, or investigation to identify, analyse, evaluate and prioritise any risk from exposure to ergonomic risks associated with the workplace;

"ergonomics" means the scientific discipline concerned with the fundamental understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimise human well-being and overall system performance;

The ergonomics regulations will apply to any employer or self-employed person who carries out work at the workplace who may expose any person to an ergonomic risk in the work place and any designer, manufacturer, importer or supplier of machinery, plant, or work systems for the work place.

An employer must, before the commencement of any work that may expose employees to ergonomic risks, have an ergonomic risk assessment performed by a competent person.

The ergonomic risk assessment must be done at intervals not exceeding two years and must include the following;

- a complete hazard identification and all persons who may be affected by the ergonomic risk.
- how employees may be affected by the ergonomic risks;
- the analysis and evaluation of the ergonomic risks;
- the prioritisation of ergonomic risks.

An employer must review the relevant ergonomic risk assessment if:

- such assessment is no longer valid;
- control measures are no longer effective;
- technological or scientific advances allow for more effective control methods;
- there has been a change in –
 - the work methods;
 - the type of work carried out; or
 - the type of equipment used to control the exposure; and



- an incident occurs or medical surveillance reveals an adverse health effect, where ergonomic risks are identified as a contributing factor.

An employer must ensure that an employee is placed under medical surveillance, which is overseen by an occupational medicine practitioner, if–

- the ergonomic risk assessment referred to in regulation 6 indicates the need for the employee to be placed under medical surveillance; or
- an occupational health practitioner recommends that relevant employees must be under Medical surveillance, in which case the employer may call upon an occupational medicine practitioner to ratify the appropriateness of such recommendation.

An employer must ensure that the medical surveillance consists of–

- in the case of a new employee, an initial health examination before the employee commences employment or within 30 days of commencement of such employment;
- a periodic health examination informed by the ergonomic risk assessment, at intervals specified by an occupational medicine practitioner, but not exceeding two years; and
- an exit health examination informed by the ergonomic risk assessment.

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Both the Client and the Contractor have a duty in terms of health and safety legislation to do all that is reasonably practicable to make members of the public and others being affected by the construction processes aware of possible risks and put preventative measures in place to mitigate the risks. The public and/or visitors shall go through a brief health and safety induction detailing hazards and risks they may be exposed to and what measures are in place to control these hazards and risks.



OTHER HEALTH AND SAFETY SPECIFICATION REQUIREMENTS

The contractor must be aware of the following additional requirements:

What	When	Output
Awareness training (Toolbox Talks)	At least weekly and before hazardous work is carried out	Attendance Register
Health and Safety Committee Meetings	Monthly	Minutes signed by the employer (Contractor) covering: a) Health and Safety Representative Checklist b) Safety report from Safety Officer and Safety Agent
Health and Safety Reports	Monthly	Report covering: a) Incidents/Accidents and Investigations b) Non-conformance c) Health and Safety Training d) HIRA Updates e) Internal and External Audits
General Inspections	As per Health and Safety Specification and OHSA	Report on Health and Safety Specification and OHSA compliance: a) Scaffolding b) Lifting Machinery c) Excavation
General Inspections	Monthly	Covering: a) Firefighting Equipment b) Portable Electrical Equipment c) Ladders
Record keeping	Ongoing	Covering: a) General complaints b) Fines c) General incidents d) MSDS e) Surveillance Medicals f) Inspection Register g) Dept of Labour Notices
Permits	Before commencement with certain activities	As stipulated by the Health and Safety Specification and the OHSA / Construction Regulations

Key:

OHSA – Occupational Health and Safety Act, 1993



ANNEXURE A – REQUIREMENTS FOR THE SAFETY PLAN ASSESSMENT (INCLUDING COVID 19 REQUIREMENTS)

The Contractor must note that the information below is pertinent to the compilation of their safety plan response to this site-specific safety specification and it would be preferred if the Safety Plan is written in the order of the assessment documented below.

No	Item	Notes
1	Project Directory	Please state details of Project Client, Project Manager/Principal Agent, Safety Agent, Consulting Engineer, etc. (Name, address, contact details).
2	Contractors Directory	Please indicate if you will be using Contractors on this project, if yes, include their details, trade, and FEM details.
3	Other Parties Directory	Please indicate contact details for any services applicable (electricity, water, etc.) as well as Department of Labour and Emergency Services.
4	Project Safety Statement	The Project Safety Statement must be included in the Safety Plan.
5	Health and Safety standards for the project (OHS Act, construction regulations, basic conditions of employment, etc.)	Health and Safety standards must be included in the Safety Plan.
6	Project Particulars	Scope of works must be included in the Safety Plan. This is critical.
7	Existing environment – Structures and Surroundings, Services (Electrical, Water, Sewerage, etc.), Traffic Arrangements, Parking, Access to Site, Storage of Plant and Materials	Please include these items in the plan. The items must be Site Specific, the location of services and services that will be affected must be mentioned.
8	Management Structure for safety on the Project	A structured organogram with names of the responsible people must be included.
9	Appointed Persons, Supervision	The required appointments must be identified. A list of the appointed persons must be included in the Safety Plan.
10	Security Procedures	Please indicate if a security company will be appointed and include the contact information in the Safety Plan.
11	Registers list and inspection frequency	A list of the Inspection Registers that will be on file must be included in the Safety Plan.
12	Design Co-ordination	Please indicate your procedure for implementation of design changes by designer on the project, and the procedures for liaison and implementation of temporary works design on the project.
13	Contractor Co-ordination	Mention must be made of how Contractors will be co-ordinated on site to ensure that they work together and not adversely affected health and safety.



No	Item	Notes
14	Housekeeping, stacking and storage	Housekeeping policies and procedures must be included in the Safety Plan.
15	Waste Disposal Arrangements	Waste disposal arrangements procedures must be included in the Safety Plan.
16	Noise and dust control	Please indicate if any noisy operations (more than 85 decibels) will be carried out and what measures will be used to reduce noise exposure to workforce.
17	Training Requirements	Training requirements must be identified and recorded.
18	Plant and Equipment	A list of plant and equipment to be used on site must be included in the Safety Plan.
19	Safety Monitoring Arrangements	The name, contact details and SACPCMP registration status of the Safety Officer must be included in the Safety Plan. State how often the Safety officer will be on site (note safety specification requirement in section 1.7).
20	Information for Contractors	State how information will be given to Contractors on site.
21	Consultation/communication arrangements with Employees	State how information will be given to employees e.g. notice board.
22	Selection of Contractors Procedures	Principal contractor must state what health and safety procedures they will use to assess the competence and resources of their contractors on site.
23	Activities with risk to Health and Safety (Risk Assessment)	A Baseline Risk Assessment must be included in the Safety Plan, it must address the Risks identified in the Safety Specification as well as the risk of any other hazards that the Principal Contractor is aware of that are relevant to the site.
24	Hazardous Substances	Must be listed in the Safety Plan and addressed in the Risk Assessment.
25	First Aid and Medical Procedures	Please indicate name of first aider, position of first aid box, location of nearest medical facility and emergency numbers.
26	Fire and Emergency Procedures	List of emergency telephone numbers must be drawn up and included in the Safety Plan. The position of Fire Extinguishers, Assembly Point location, fire drill frequencies, numbers of fire marshals, etc.
27	Accident and Incident Reporting and investigation	State the Accident and Incident Reporting and investigation procedures of your company.
28	Welfare and Site Facilities	Elaborate on toilets and eating areas, water provision, COVID-19 ablution provision, how will workers be protected during wet weather conditions etc.
29	Site Rules	The Site Rules must be included in the Safety Plan.
30	Personal Protective Equipment	The necessity must be identified by Risk Assessments, the required PPE for site risks and COVID-19 control measures.
31	Health & Safety File arrangements	Please indicate arrangements for the return of the Health and Safety File to the safety agent at the end of the project.



No	Item	Notes
32	Method Statements/Safe System of Works	A list of Method Statements/Safe System of Works must be included in Safety Plan for all High-risk activities. PLEASE NOTE THAT THIS IS PARTICULARLY RELEVANT FOR COVID-19. NO WORK MAY COMMENCE UNLESS COVID-19 RISKS AND CONTROL MEASURES HAVE BEEN APPROVED BY THE PROFESSIONAL TEAM. REFER TO SECTION 2.61 OF THIS SAFETY SPECIFICATION.
33	Permits and wayleaves	List of activities that Principal Contractor anticipates will require permits and wayleaves (including those stated in the safety specification) to be included.
34	Fall Prevention and Protection Plan and Fall Rescue Plan	A copy of the Fall Prevention and Protection Plan, fall rescue plan and fall risk assessment must be included in the Safety Plan.
35	Demolition method statement	A copy of the Demolition Method Statement must be included in the Safety Plan.
36	Confined spaces	The Principal Contractors' procedures for managing access, egress and work in confined spaces must be specified in the Safety Plan. Includes permit procedures, air monitoring, PPE, etc.
37	Safety Representatives and Safety Committees	When a project has more than 20 employees a designated employee must be chosen by the labourers to represent them. A safety committee must be established if 2 or more safety representatives are appointed. Please note Safety Specification requirements regarding this section (section 2.12).
38	Have the significant hazards from the safety specification been addressed?	See section 1.9 of the Specifications and ensure practical measures have been detailed in the safety plan.
39	Safety File - Safety Policies in File and Signed by 16(1) CEO.	Safety Policies must be signed and explained to employees.
40	Safety File - A copy of the valid Letter of Good standing from FEM / Workman's Compensation must be on file.	A copy of the valid Letter of Good standing from FEM / Workman's Compensation must be on file.
41	Safety File - Signed copy of the 37.2 Mandatary Agreement	A 37.2 Mandatary Agreement needs to be signed between the Client and the Principal Contractor.
42	Safety File - Appointment letter from Client (as well as 5.1.K)	The Client must appoint the Principal Contractor in writing.
43	Safety File – Notification / Permit	A copy of the Annexure 2 Notification (and proof of submission) to Department of Labour must be available. This can be in the form of a Department stamp, email, or copy of Construction Work Permit.



CONTROL MEASURES THAT MUST BE INCLUDED FOR SAFETY PLAN SUBMISSION PURPOSES:

Issues that must be included by the contractor in their COVID-19 safety plan response should include arrangements for the following (please note that reference to contractors' employees / staff / workers / personnel on site must include control of their (sub)contractors, visitors and suppliers):

Workplace Plan - A plan must be developed by the contractor for the phased in return of employees to site. Please refer to the latest regulations and amendments, all persons who are able to work from home should do so.

Coordination on Site Relating to COVID-19 matters - The Employer must appoint a manager as a COVID-19 Compliance Officer (required of all industries, businesses, entities, both private and in the public sector). This compliance officer is responsible for overseeing the following:

- implementation of the workplace plan; and adherence to the standards of hygiene and health protocols relating to COVID-19 at the workplace;
- developing a plan for the phased in return of their employees to the workplace, prior to reopening the workplace for business, which plan must correspond with Annexure E of the Disaster Management Act 2002 (as amended April 2020) and be retained for inspection and contain the following information:
 - which employees are permitted to work;
 - what the plans for the phased-in return of their employees to the workplace are;
 - what health protocols are in place to protect employees from COVID-19; and
 - the details of the COVID-19 compliance officer;
 - phase in the return of their employees to work to manage the return of employees from other provinces, metropolitan and district areas; and
 - develop measures to ensure that the workplace meets the standards of health protocols, adequate space for employees and social distancing measures for the public and service providers, as required.

Transportation to Site - Procedures for Transportation of Workers to Site – employees should be advised that if using transport, passengers must wear a cloth mask to be allowed entry into the vehicle. Hand sanitisers must be made available, and all passengers must sanitise their hands before entering. Public transport vehicles must be sanitised on a daily basis. Please note that the government mandated limit on passengers per vehicle must be strictly adhered to.

Site access - Entry to site may only be through pre-arranged security controlled access points. Contractor must detail how will members of public be prevented from accessing site (risk of cross contamination between persons working on site and members of public).

Provision of Visitors Book for signing in and out of site. Records of all personnel entering site and their contact details must be kept.

Screening on Site - Contractor to advise how will personnel on site be screened on a daily basis for symptoms of COVID-19, including a symptom check as well as temperature assessment (digital thermometer). The contractor must describe their procedure for employees on site, suspected of having COVID-19 symptoms, refusing to undergo **medical** examination, prophylaxis, treatment, isolation, and quarantine. Sites with more than 500 employees must have testing facilities.

Risk assessment and safety procedure - Contractor must provide a written policy concerning the protection of it staff from COVID-19. Contractor must compile a COVID-19 risk assessment and safety procedures for the site. The Policy must include how will it be communicated to all on site and records kept thereof. The Risk Assessments must include the identification of exposure levels, identification of "high contact" activities, the identification of vulnerable workers and special measures for their protection, including protection against unfair discrimination or victimization. The COVID-19 risk



assessment and COVID-19 OHS policy must be submitted to DoEL if employer have more than 50 employees.

Safety Signage and Hotline Number - Contractor to implement placement of COVID-19 safety signage and hotline number at site entrance and on site, warning of hazards and advising control measures (see samples in Annexure to this document). Please note that signage must representative of the local languages.

Communication Procedures - Contractor to describe comprehensive induction and toolbox talk procedures to include COVID-19. Toolbox talks should be conducted weekly on COVID-19 control measures and risks on site, include personal hygiene - manner of controlling coughing and sneezing on site - in elbow.

Emergency Procedure - Contractor must describe communication of COVID-19 symptoms and protocol that must be followed if person demonstrates symptoms, or is thought to have COVID-19 - symptoms of COVID-19 include cough, sore throat, shortness of breath or fever/chills (or $\geq 38^{\circ}\text{C}$ measured temperature), redness of eyes, also additional symptoms – body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness. Contractor must advise personnel on site of the symptom reporting procedure to site management of COVID-19 symptoms, and referral protocol for screening or testing if showing symptoms.

Emergency COVID-19 protocol that must be put in place by Principal Contractor must include:

- Sick workers may not enter workplace.
- If sick worker already on site then worker must be isolated in designated area for isolation on site, provided with FFP1 surgical mask and transported for self-isolation or for medical examination or testing at identified testing site.
- Worker placed on sick leave.
- On receiving their results, the employee and/or health professional supporting the employee should notify their workplace so that the employee is managed accordingly. The workplace should proactively take steps to obtain this information to avoid any delays in reporting.
- Assess the risk of transmission, disinfect area and workers workstation, refer exposed workers for screening, etc.
- Lodge claim with Workman's Compensation if infection occupationally acquired.
- Worker may only return to work after undergoing a medical evaluation confirming worker has tested negative for COVID-19.
- Worker must be closely monitored for symptoms on return to work.
- If worker has been diagnosed with COVID-19 the employer must notify Dept of Health and Dept of Employment and Labour

NOTE THAT: personnel on site, or presenting themselves to site who appear sick, or have symptoms associated with COVID-19 may not be allowed on site.

Welfare and Washing Facilities, Sanitising and Disinfection - Contractor must describe provision of soap and clean running water and sanitisers at site entrance and at other locations on site. Correct manner of washing / disinfecting hands, 20 second rule. Use of paper towels only. Disinfection of work surfaces and equipment control procedures required - carried out before work begins, regularly during day and after work ends. Toilets, common areas, door handles, shared electronic equipment and any other shared equipment must be regularly cleaned and disinfected, biometric systems disabled or made COVID-19 safe.

Hand sanitiser must contain 70% alcohol.

Employees working away from home should be provided with hand sanitiser by the employer.

COVID-19 PPE on Site - Contractor must describe controls for wearing of PPE on site, including wearing of cloth masks on site - people working and visiting site must be instructed on the correct way of



wearing cloth masks, procedure for maintenance and replacement of cloth masks. Surgical masks and N95 masks should only be worn by frontline health workers, not site staff. Note that some surgical masks should be kept on site to give to persons exhibiting COVID-19 symptoms prior to being taken away for testing.

Employer is required to provide each employee with at least 2 cloth masks.

Supervision and Monitoring on Site - Monitoring systems must be in place by Contractor to ensure compliance with safety protocols and identify infections among employees - supervision monitoring and enforcement - how will it be done by the contractor?

Ventilation on Site - How will ventilation and air quality be made safe on site.

Waste Management - Sufficient refuse bins must be on site for disposal of tissues, used PPE. Procedure for safe removal of contents of bins; used PPE, other detritus should be made in contractors safety plan.

Social Distancing Measures - Contractor must describe, so far as practicable how can numbers of workers be minimised on site at any one time (e.g.: through staff rotation, staggered working hours, shift systems, remote working arrangements or similar to achieve social distancing? (1.5m). Note that contractor must minimise contact between workers themselves and workers and public.

Depending on what is reasonably practicable, site must be arranged so that there is distance of at least 1.5m between workers and members of public or put physical barriers in place or provide workers with face shields or visors.

COVID-19 Investigation procedure - Contractor must describe how will they investigate the cause of COVID-19 infection (including control failure and risk assessment review, checking of PPE requirements, admin support to contact tracing implemented by Dept of Health).

Important notes:

If more than 50 employees in contractors employ the employer must submit this risk assessment and written policy re health and safety of employees from COVID-19 to Safety Committee and Department of Employment and Labour.

Monitoring by the Safety Agent will be strict - noncompliance with COVID-19 control measures will be reported immediately to the principal contractor for action purposes. If necessary, transgressors will be removed from site for re-induction, or a recommendation for permanent barring from site will be made.

As this is an ongoing medical crisis it is likely that control measures to prevent the spread of the virus will be updated by the government on a regular basis. Hence the measures in this section of the safety specification will be reviewed on an ongoing basis, as we receive updated information from the government.



ANNEXURE B – LEGAL APPOINTMENTS	
The contractor shall make the following appointments, as required:	
Chief Executive Officer (OSH Act 16(1))	
Contract Director/Manager (OSH Act 16(2))	
Construction Manager (CR 8(1))	
Construction Supervisor (CR 8(7))	
Assistant Construction Supervisor (CR 8(8))	
Construction Safety Officer (CR 8(5))	
Traffic Safety Officer	
Safety Representative (where > 20 employees on site)	
Temporary work Designer (CR 12(1))	
Temporary work Supervisor (CR12(2))	
Construction risk assessor (CR 9(1))	
Excavation Supervisor (CR13(1)(a))	
Demolition Supervisor (CR14(1))	
Scaffold Supervisor (CR16(1))	
Suspended Platform Supervisor (CR17(1))	
Material Hoist Inspector (CR19(8)(a))	
Material Hoist Operator (CR19(6))	
Bulk Mixing Plant Supervisor (CR20(1))	
Bulk Mixing Plant Operator (CR20(2))	
Controller of Explosive Actuated Fastening Devices Nails, Cartridges or Studs Issue and Collection (CR21(2)(g)(1))	
Construction Vehicle and Mobile Plant Operator (CR23(1)(d)(i))	
Controller of Temporary Electrical Installations (CR24(c))	
Stacking Supervisor (CR28(a))	
Fire Extinguishing Equipment Inspector (CR29(h))	
Fall Protection Plan Developer (CR 10(1)(a))	
Incident Investigator (OSH Act 9(2))	
Competent Person – Confined Spaces (GAR 5(1))	
COVID 19 – Compliance Officer and COVID 19 – Manager (to address employees concerns and keep them informed re COVID-19)	

ANNEXURE C - BASELINE RISK ASSESSMENT FOR PROJECT

Irrespective of the risk presented on site, it will be ensured that sufficient supervision is in place on site, that personnel are trained in accordance with legislation, including the requirement for site specific inductions on site to inform personnel on site of the risks and hazards applicable to the site. Site supervision is responsible for ensuring that the control measures required below are implemented on site.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
1.	Bricklaying	Caustic contamination with mortar Contact with sharp bladed tools	- Use only trained personnel - Safe means of access to be provided - Safe/Suitable working platform required where working at height - PPE for mortar to include gloves where practicable and goggles/masks where there is a risk of contamination
	Compacting and Filling	Contact with tipping materials Contact with moving plant Vehicles/personnel falling into excavations Contact with underground services	- Trained banksman to control vehicles movement - Only trained personnel use plant - Personal Protective Equipment to be worn - Personnel to stand clear as materials are being tipped - Use stop blocks and signs to warn vehicles of excavations, where applicable - Stand clear of plant whilst materials are being compacted - Establish position of underground services and protect services from damage
3.	Compactor Operations	Crushing of feet	- Only trained and competent personnel to use the machine - Ensure operative wears steel toe cap shoes or boots at all times
4.	Cutting Off Disc	Noise Cuts from machine Fire (particularly at refuelling) Flying debris Blade shattering Contamination by fume created or exhaust fume	- Use competent personnel. - Hot works control- fire extinguisher, fire watchman. (Permit may be required) - PPE to include gloves, eye protection, hearing protection - Solid working position. - Clear working area - Correct grade of blade must be used. - Good ventilation to be provided (forced if necessary). - Changing of wheels to be by competent persons only - Cut off discs must not be used for grinding (grinding disc thicker) - Bystanders to wear hearing protection, as applicable
5.	Electrical Commissioning	Electric shock	- Personnel to comply with permits to work issued by Client - Personal protective equipment to be worn by employees to prevent electric shock - First aid treatment to be readily available - Only competent and trained persons may decommission or commission electrical equipment
6.	Electric Tools and Electrical Installations	Electric shock Fire	- Electric tools and installations to be in good condition - Inspect electric tools before use - Do not use electric tools in wet/damp conditions - Use personal protective equipment such as insulated gloves - Electrical installations register to be maintained, inspected by competent person
7.	Excavations (Working in and around)	Toxic fumes Collapse of trench walls/trapping Falling into excavation Collapse of adjacent structures	- Deep excavations / monitor air for toxic fumes - Prevent collapse by battering back sides to a safe angle or install temporary support - Protect vehicles from falling into excavations – provide barriers, signage, etc. as necessary - Beware of undermining of other structures (e.g. buildings, scaffolds) - Record excavation inspections by competent person on daily basis - Provide suitable means of access/egress in case of emergency. - Excavations formed by explosives must be accompanied by method statement approved by Client



	HAZARD	RISK	MINIMUM CONTROL MEASURES
8.	Fire	Injuries to workers, pedestrians, residents, road users, damage to property through fire	- No littering on site which could become fire hazard, maintain site in clean condition. - No fires to be lit on site. Have a working fire extinguisher at hand at all times. - No smoking or naked flame near flammable substances or in unauthorised areas - Ensure proper storage/use of Petrol/diesel/flammable substances – post warning notices
9.	Flammable Liquids and Gases (Use of)	Fire Explosion	- No littering on site which could become fire hazard, maintain site in clean condition. - Have a working fire extinguisher at hand at all times. - No smoking or naked flame near flammable substances or in unauthorised areas - Ensure proper storage/use of Petrol/diesel/flammable substances – post warning notices - Equipment must be in good condition, maintained - Personnel using substances must be trained in safe use and risks
10.	Hand tools	Injuries caused by use of hand tool Impact with the tool Falls due to access problems Contamination with substance being worked	- Ensure: - Tool is correct for job - Tool is in good order and suitably sharp - Personnel must be competent/instructed in tool usage and tool safely - Lighting is sufficient - Access is safe, working platform is secure, leading edge is guarded - Operative is wearing all necessary PPE
11.	Hazardous Substances	Injuries to workers through use of hazardous substances, e.g. injuries to eyes, skin, etc.	- Use substances in accordance with data sheet, particularly reference protective clothing required (example: gloves, goggles, etc.) - Know what First Aid measures are - Have welfare facilities available for washing of hands, etc.
12.	Hot Works	Burns to eyes or other parts of the body	- Personal Protective Equipment to include eye, skin and hearing protection - Respirator maybe be required where cutting galvanized steel or anywhere else toxic fumes and gases arise. Dust can also be a problem and forced ventilation may be required.
13.	Lifting Operations	Falling material Crushing by materials Hand injuries to the slinger Toppling crane	- Check test certificate - Check examination certificate - Check inspection have been carried out - Check certificates for lifting equipment (chains, slings, shackles, etc.) - Ensure lifting gear is rated to carry load (SWL) - Ensure materials being lifted are properly packaged and slung. - Be aware that there should be a minimum clearance of 600mm between any slewing parts of a crane and any fixed installation to prevent being trapped. - Access to the work area during lifting operations is to be restricted to those involved with and trained in the work in hand. Do not allow members of the public to gain access to the area. - Only trained banksmen to be used. - The crane driver and the banksman are to ensure that the signals given are clearly understood.



	HAZARD	RISK	MINIMUM CONTROL MEASURES
14.	Manual Handling of General Items	Muscular skeletal injuries if the load is too heavy or awkward Operative falling/ tripping Contamination from the substance being carried Fall of material being carried	- Personnel should be aware of safe manual handling techniques - Personnel to wear Personal Protective Equipment when carrying items, e.g. safety footwear and gloves. - Ensure good housekeeping against tripping/fall hazards. - Operative to get assistance if load too heavy- team lift if necessary. - Utilise mechanical lifting and carrying aids where possible. - Personnel to ensure access equipment, ladders will take weight of operative and load being carried. - Personnel to ensure item being carried is properly bonded or is not be liable to break apart whilst being manually handled.
15.	Members of Public – Protection of	Injury to member of public and road users from site works	- Barriers and signage to be in place - Workers must warn away any members of public from the works - Footpaths and bridges which are open to public must be closed off if in area of works or otherwise made safe so that no injury occurs to members of public - Traffic turning into site – traffic management and signage as required. - Signage to be on road at site entrance warning motorists that construction traffic turning into/out of site access. Keep roads free of mud where possible - Refer to plant risk assessment for details on plant safety precautions - NOTE: SIGNAGE TO BE POSTED ON SITE TO WARN OF CONSTRUCTION TRAFFIC MOVEMENTS. SAFE MEANS OF ACCESS FOR BOTH CONSTRUCTION TRAFFIC TO SITE AND PRIVATE HOMEOWNERS MUST BE AGREED.
16.	Noise and Dust	Breathing in dust can cause long term health problems, noise can damage hearing	- Wear respiratory and hearing protection - Dampen down and minimise dust where possible.
17.	Painting	Contact with paint	- Refer to safety data sheet for usage instructions, hazards and precautions required. - When working at height, refer to risk assessment addressing this hazard below.
18.	Plant or Vehicles and Equipment Operation	Workers injured by passing traffic Road users and pedestrians at risk from plant operation Noise	- Implement traffic protection measures - Trained and competent operators must be used - Check plant and vehicles on daily basis before use and record inspections. Maintain vehicles in safe condition. - Medical certificates of fitness required for construction plant. - Crossing of road by construction vehicles or machines must be limited to the practical minimum - Plant and vehicles must be fitted with amber rotating beacons and reverse alarms. - Wear appropriate protective clothing/equipment, e.g. goggles, gloves, ear defenders, etc. as appropriate.
19.	Plastering	Falling materials Fall from height Contact with materials	- Ensure standard safety procedures are followed - Ensure there is a safe working area - Ensure safe access and egress - Ensure competent personnel are used

	HAZARD	RISK	MINIMUM CONTROL MEASURES
20.	Road Working – working in or next to road	Injury to workers caused by passing traffic Injury to road users and pedestrians by works	- Flagmen to be used where interface with construction plant with passers-by or where hazard posed by delivery vehicles turning into/out of site. - Traffic management plan to be approved by Municipality and, if necessary, traffic department - No construction activities to commence until adequate provision made to accommodate traffic in accordance with the South African Traffic Signs Manual. - Use safety signage to warn traffic and pedestrians of construction works - Where existing walk ways/pavements affected by works, must direct pedestrian traffic away to safe walking area. - Wear reflective waistcoats when working on or near the road or road shoulder as well as any other required personal protective clothing. - Crossing of road by personnel must be limited to the practical minimum - Use of fencing or other barriers as appropriate
21.	Scaffold Erection/ Dismantling	Personnel falling from a height Items of scaffold falling onto personnel Scaffold collapsing onto those below	- Ensure - scaffold is designed to take the imposed loads - scaffolding is constructed properly - scaffold is not overloaded - scaffolders are fully trained - scaffolding is regularly checked by competent person and record of inspection retained. Written inspections to be recorded on weekly basis - scaffolders must adhere to the safe systems of work. - all fall arrest equipment to be checked and certified in good working order - that ALL understand the safe system of work
22.	Shuttering Walls, Beams, Columns	Falling from height Falling materials from height Cuts and abrasions from splinters and nails	- Ensure all personnel wear the appropriate Personal Protective Equipment - Ensure at all times there is a safe working platform - Use only trained and competent personnel - If electrical tools are being used ensure they have been tested and safe to use - Ensure timber is de-nailed after use - Ensure safety standards are followed at all times - Ensure there is a safe means of access and egress at all times
23.	Steel Fixing	Back injuries caused by manual handling Eye injuries from tie wire Trips / falls Falling from height	- PPE must include safety boots and goggles - Manual handling training may be required - Care to be taken when working near over head lines - Use only trained personnel - Provide safe means of access - Maintain and regularly inspect all lifting appliances and equipment - Cap starter bars to prevent injuries where feasible - Construct scaffold walk ways to cross reinforcing mesh, as required
24.	Temporary Works – shoring, scaffold, falsework, formwork	Collapse of temporary work	- Wear personal protective equipment such as gloves and goggles - Temporary work must be built by trained person and also be inspected by competent person and results entered into register on site
25.	Tower (Mobile Aluminium Tower) Scaffold	Over Turning Falls	- Tower to be on firm level ground with wheels or feet properly supported. - Height not to exceed 3 times the base dimension. i.e. 2x3m Base Tower not exceed 6m. - Erection by competent person - Inspection before first use - Weekly record of inspection required - Guard rails and Toe boards as per normal scaffolds - Beware when moving of overhead obstructions, such as power lines - Never move in strong winds



	HAZARD	RISK	MINIMUM CONTROL MEASURES
26.	Working at Height	Personnel falling from height Falling debris Those beneath being injured	• All access equipment is properly constructed (inspections record must be maintained) • Only trained personnel construct, dismantle or control the access equipment • All access equipment must have full toe boards and guardrails - comply with SANS 10085 on erection, use and dismantling of scaffolding • No access equipment may be loaded above the level of the guardrail • No access equipment to be loaded above its safe working load • Where work involves leaning out on an open leading edge, then all personnel are to be fitted with full body harness. The harness must be connected at all times • All fall arrest equipment to be correctly maintained • Ensure if ladders are being used for access, they are either footed or tied. Also the ladder must be set at the correct level of 1 in 4 or approximately 75°

ANNEXURE D - BASELINE RISK ASSESSMENT FOR PROJECT – COVID-19

It must be ensured that sufficient supervision is in place on site, that personnel are trained in accordance with legislation, including the requirement for site specific inductions on site to inform personnel on site of the COVID 19 risks and hazards applicable to the site. Site supervision is responsible for ensuring that the control measures required below are implemented on site.

No.	HAZARD	MINIMUM CONTROL MEASURES
1.	COVID-19 - Contracting COVID-19, person to person transmission	- Do not share tools / equipment, crockery/cutlery/towels/bedding or anything that can facilitate the spread of the virus. - Masks have not been proven to definitively protect against every contagion. However, masks prevent a person from unconsciously touching their eyes, nose and mouth, so they may offer a measure of protection. Masks are for single use only, not to be worn two days in a row. - Avoid touching your eyes, nose, and mouth and shaking hands with others. - Cough or sneeze into a tissue and dispose thereof safely into a bin provided. - Wash your hands frequently with soap and running water for no less than 20 seconds. If you have none available use a hand sanitiser with at least 70% alcohol. - Apply social distancing principles, stay at least 1.5m away from people/employees where possible. - Avoid crowds and gatherings. - Clean frequently touched objects/surfaces. - The following cleaning products can be used: - Hypochlorite (e.g. Household Bleach) - Alcohol (70%) - Hydrogen Peroxide - Phenolic Compounds - Quaternary Ammonium Compounds

No.	ACTIVITY	HAZARD	MINIMUM CONTROL MEASURE
2.	Site Preparation	Site might be infected with COVID-19 contagion during lock down	- Inspect the site to assess conditions. Revise any policies, method statements for risks and hazards identified for review. - Decontaminate the site, in affected areas, ensure the availability of hand washing facilities and sanitizers, throughout the site, and at entrances. Ensure sanitising and hand washing facilities are available at ablution areas, common eating areas, offices, canteens, security
3.	Occupational Health	Older workers of 60+, workers with underlying auto-immune or chronic diseases are at increased risk of infection (note that workers may be symptom free but infected with COVID-19)	All workers are to be screened and have a valid certificate of fitness on return to work. A full questionnaire to be completed daily before entry on site, and those identified as high risk, or exhibiting flu like symptoms, must be separated and refused entry to site until declared symptom free by a medical practitioner.
4.	Labour	Underlying auto-immune or chronic diseases, socio-economic status, having to use public transport to get to work	- A full questionnaire to be completed daily before entry on site, and those identified as high risk, or exhibiting flu like symptoms, must be separated and refused entry to site until declared symptom free by a medical practitioner. - Daily temperature readings to be taken on entry to site; Induction, toolbox talks to be done daily on topics relating to COVID-19, personal hygiene and PPE. Strict enforcement on use of PPE - Public traffic must comply with government guidelines re wearing of masks and sanitising requirements.

No.	ACTIVITY	HAZARD	MINIMUM CONTROL MEASURE
5.	Transportation (Public and on Site)	Maximum allowed capacity exceeded; No facilities for sanitising vehicles and passengers; No additional protective measures available, e.g. face masks; Unlicensed drivers and operators	Selection and provision of transport services compliant with gazetted requirements; Policy and procedures and rules for travel, where possible to limit the use of public transport, or to arrange selective methods of transport, ongoing toolbox talks and supply of cloth masks to be worn when travelling or moving on and off site. Vehicles sanitised between trips; hand sanitiser provided for passengers. Public transport services can carry 100% of their loading capacity except for long-distance services which are allowed to only carry up to 70% of their loading capacity.
6.	Social Distancing	Many construction tasks require more than 1 worker that will be required to work within the limit of 1,5m Access/Egress to and off site; Welfare facilities, Meeting areas	- Demarcation and spacing of queueing areas; segregation of queueing areas and public outside site perimeters; Meeting/eating areas large enough to maintain 1.5m distance at maximum occupancy. - Only essential workers to spend time on site, Staggered meeting/eating times, use of Zoom, Skype, Microsoft Teams for meetings where necessary. Individual, segregated facilities for safe keeping.
7.	Waste Management	Spreading of virus and contact with virus causing infection from handwashing, drying hands, cleaning equipment, disposal of contaminated waste and other related aspects	Establish and follow protocols for disposal of potentially infected waste (receptacles). Awareness through notices (posters) regarding correct procedures of waste disposal. Competent supervision and adequate awareness training required. Provide adequate supplies of material and consumables, provision of sealable disposal containers/bags through appropriate waste removal company. Provide adequate supply of paper towels. If contractors used ensure appropriate management.
8.	Signage	Unauthorised entry to site and work areas compromising workers health (contamination). Acts and behaviour that compromises worker	Installation of posters and signage with the site rules and protocols that need to be maintained at strategic points. Competent supervision and adequate awareness training required. Disciplinary steps to be taken against transgressors.
9.	Welfare Facilities	Spreading of virus and contact with virus causing infection	- Limiting of personnel on site to minimum number required to maintain control and management. Implement and maintain cleaning and disinfecting programme. - Site rules for social distancing to 1.5m. Use technology to avoid proximity between individuals where possible
10.	Use of Personal Protective Equipment	Risk of spread of droplet infection through coughing, sneezing when in close contact with other people	- No employee/ visitor will be allowed on site without a cloth mask. Adequate training must be provided in the correct use and disposal of these masks. Cloth masks must be washed and ironed. Where possible face shields should be used to protect mouth, nose and eyes. Regular cleaning of face shields required. - No sharing of PPE will be permitted. Adequate supervision required. COVID PPE does not replace conventional PPE.

ANNEXURE E - COVID-19 SITE SAFETY SIGNAGE





ANNEXURE F – GUIDELINES TO HEALTH AND SAFETY BILL OF QUANTITIES

Not thought to be applicable to this project.



**ANNEXURE G – SAFETY SPECIFICATION AND BASELINE RISK ASSESSMENT
ISSUE REGISTER**

Date of Original Safety Specification Compilation	Compiled By	Issue Date
November 2021.	Mark Winter	25 th November 2021.

Revision Summary	Revised By	Revision Date

Acknowledgement:

I, _____ representing
_____(Contractor), have satisfied myself with the content of this Health and Safety Specification and shall ensure that our employees and contractors on site comply with the requirements of this document, our safety documentation and health and safety legislation.

Signature of Contractor

Date

Comments:

Guidance Document for the Calculation of Local Content

1. DEFINITIONS

Unless explicitly provided in this guideline, the definitions given in SATS 1286:2011 apply.

2. GENERAL

2.1. Introduction

This guideline provides tenderers with a detailed description of how to calculate local content of products (goods, services and works) by components/material/services and enables them to keep an updated record for verification requirements as per the SATS 1286:2011 Annexure A and B.

The guideline consists of two parts, namely:

- a written guideline; and
- three declarations that must be completed:
 - Declaration C: “Local Content Declaration – Summary Schedule” (see Annexure C);
 - Declaration D: “Imported Content Declaration – Supporting Schedule to Annex C” (see Annexure D); and
 - Declaration E: “Local Content Declaration – Supporting Schedule to Annex C” (see Annexure E).

The guidelines and declarations should be used by tenderers when preparing a tender. A tenderer must complete Declarations D and E, and consolidate the information on Declaration C.

Annexure C must be submitted with the tender by the closing date and time as determined by the Tender Authority. The Tender Authority reserves the right to request that Declarations D and E also be submitted.

If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.

NOTE:

Annexure A is a note to the purchaser in SATS 1286:2011; and
Annexure B is the Local Content Declaration IN SATS 1286:2011.

2.2. What is local content?

According to SATS 1286:2011, the local content of a product is the tender price less the value of imported content, expressed as a percentage. It is, therefore, necessary to first compute the imported value of a product to determine the local content of a product.

2.3. Categories: Imported and Local Content

The tenderer must differentiate between imported content and local content.

Imported content of a product by components/material/services is separated into two categories, namely:

- products imported directly by the tenderer; and
- products imported by a third party and supplied to the tenderer.

2.3.1. Imported Content

Identify the imported content, if any, by value for products by component/material/services. In the case of components/materials/services sourced from a South African manufacturer, agent, supplier or subcontractor (i.e. third party), obtain that information and Declaration D from the third party.

Calculate the imported content of components/materials/services to be used in the manufacture of the total quantity of the products for which the tender is to be submitted.

As stated in clause 3.2.4 of SATS 1286:2011: "If information on the origin of components, parts or materials is not available, it will be deemed to be imported content."

2.3.1.1. Imported directly by the tenderer:

When the tenderer import products directly, the onus is on the tenderer to provide evidence of any components/materials/services that were procured from a non-domestic source. The evidence should be verifiable and pertain to the tender as a whole. Typical evidence will include commercial invoices, bills of entry, etc.

When the tenderer procures imported services such as project management, design, testing, marketing, etc and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.2. Imported by a third party and supplied to the tenderer:

When the tenderer supplies components/material/services that are imported by any third party (for example, a domestic manufacturer, agent, supplier or subcontractor in the supply chain), the onus is on the tenderer to obtain verifiable evidence from the third party.

The tenderer must obtain Declaration D from all third parties for the related tender. The third party must be requested by the tenderer to continuously update Declaration D. Typical evidence of imported content will include commercial invoices, bills of entry etc.

When a third party procures imported services such as project management, design, testing, marketing etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.3. Exempt Imported Content:

Exemptions, if any, are granted by the Department of Trade and Industry (**the dti**). Evidence of the exemptions must be provided and included in Annexure D.

2.3.2. Local Content

Identify and calculate the local content, by value for products by components/materials/services to be used in the manufacture of the total quantity of the products.

3. ANNEXURE C

3.1. Guidelines for completing Annexure C: Local Content Declaration – Summary Schedule

Note: The paragraph numbers correspond to the numbers in Annexure C.

C1. Tender Number

Supply the tender number that is specified on the specific tender documentation.

C2. Tender description

Supply the tender description that is specified on the specific tender documentation.

C3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

C4. Tender Authority

Supply the name of the tender authority.

C5. Tendering Entity name

Provide the tendering entity name (for example, Unibody Bus Builders (Pty) Ltd).

C6. Tender Exchange Rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

C7. Specified local content %

Provide the specified minimum local content requirement for the tender (i.e. 80%), as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MDB) 6.2.

C8. Tender item number

Provide the tender item number(s) of the products that have a local content requirement as per the tender specification.

C9. List of items

Provide a list of the item(s) corresponding with the tender item number.
This may be a short description or a brand name.

Calculation of local content

C10. Tender price

Provide the unit tender price of each item excluding VAT.

C11. Exempted imported content

Provide the ZAR value of the exempted imported content for each item, if applicable. These value(s) must correspond with the value(s) of column D16 on Annexure D.

C12. Tender value net of exempted imported content

Provide the net tender value of the item, if applicable, by deducting the exempted imported content (C11) from the tender price (C10).

C13. Imported value

Provide the ZAR value of the items' imported content.

C14. Local value

Provide the local value of the item by deducting the Imported value (C13) from the net tender value (C12).

C15. Local content percentage (per item)

Provide the local content percentage of the item(s) by dividing the local value (C14) by the net tender value (C12) as per the local content formula in SATS 1286.

Tender Summary

C16. Tender quantity

Provide the tender quantity for each item number as per the tender specification.

C17. Total tender value

Provide the total tender value by multiplying the tender quantity (C16) by the tender price (C10).

C18. Total exempted imported content

Provide the total exempted imported content by multiplying the tender quantity (C16) by the exempted imported content (C11). These values must correspond with the values of column D18 on Annexure D.

C19. Total imported content

Provide the total imported content of each item by multiplying the tender quantity (C16) by the imported value (C13).

C20. Total tender value

Total tender value is the sum of the values in column C17.

C21. Total exempted imported content

Total exempted imported content is the sum of the values in column C18. This value must correspond with the value of D19 on Annexure D.

C22. Total tender value net of exempted imported content

The total tender value net of exempt imported content is the total tender value (C20) less the total exempted imported content (C21).

C23. Total imported content

Total imported content is the sum of the values in column C19. This value must correspond with the value of D53 on Annexure D.

C24. Total local content

Total local content is the total tender value net of exempted imported content (C22) less the total imported content (C23). This value must correspond with the value of E13 on Annexure E.

C25. Average local content percentage of tender

The average local content percentage of tender is calculated by dividing total local content (C24) by the total tender value net of exempted imported content (C22).

4. ANNEXURE D

4.1. Guidelines for completing Annexure D: “Imported Content Declaration – Supporting Schedule to Annexure C”

Note: The paragraph numbers correspond to the numbers in Annexure D.

D1. Tender number

Supply the tender number that is specified on the specific tender documentation.

D2. Tender description

Supply the tender description that is specified on the specific tender documentation.

D3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

D4. Tender authority

Supply the name of the tender authority.

D5. Tendering entity name

Provide the tendering entity name (i.e. Unibody Bus Builders (Pty) Ltd).

D6. Tender exchange rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

Table A. Exempted Imported Content

D7. Tender item number

Provide the tender item number(s) of the product(s) that have imported content.

D8. Description of imported content

Provide a list of the exempted imported product(s), if any, as specified in the tender.

D9. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D10. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the exempted imported product(s).

D11. Imported value as per commercial invoice

Provide the foreign currency value of the exempted imported product(s) disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D12. Tender exchange rate

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D13. Local value of imports

Convert the value of the exempted imported content as per commercial invoice (D11) into the ZAR value by using the tender exchange rate (D12) disclosed in the tender documentation.

D14. Freight costs to port of entry

Provide the freight costs to the South African Port of the exempted imported item.

D15. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the exempted imported product(s) as stipulated in the SATS 1286:2011.

D16. Total landed costs excl VAT

Provide the total landed costs (excluding VAT) for each item imported by adding the corresponding item values in columns D13, D14 and D15. These values must be transferred to column C11 on Annexure C.

D17. Tender quantity

Provide the tender quantity of the exempted imported products as per the tender specification.

D18. Exempted imported value

Provide the imported value for each of the exempted imported product(s) by multiplying the total landed cost (excl. VAT) (D16) by the

tender quantity (D17). The values in column D18 must correspond with the values of column C18 of Annexure C.

D19. Total exempted imported value

The total exempted imported value is the sum of the values in column D18. This total must correspond with the value of C21 on Annexure C.

Table B. Imported Directly By Tenderer

D20. Tender item numbers

Provide the tender item number(s) of the product(s) that have imported content.

D21. Description of imported content:

Provide a list of the product(s) imported directly by tender as specified in the tender documentation.

D22. Unit of measure

Provide the unit of measure for the product(s) imported directly by the tenderer.

D23. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported product(s).

D24. Imported value as per commercial Invoice

Provide the foreign currency value of the product(s) imported directly by tenderer disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D25. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D26. Local value of imports

Convert the value of the product(s) imported directly by the tenderer as per commercial invoice (D24) into the ZAR value by using the tender exchange rate (D25) disclosed in the tender documentation.

D27. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported directly by the tenderer.

D28. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported directly by the tenderer as stipulated in the SATS 1286:2011.

D29. Total landed costs excl VAT

Provide the total landed costs (excluding VAT) for each item imported directly by the tenderer by adding the corresponding item values in columns D26, D27 and D28.

D30. Tender quantity

Provide the tender quantity of the product(s) imported directly by the tenderer as per the tender specification.

D31. Total imported value

Provide the total imported value for each of the product(s) imported directly by the tenderer by multiplying the total landed cost (excl. VAT) (D29) by the tender quantity (D30).

D32. Total imported value by tenderer

The total value of imports by the tenderer is the sum of the values in column D31.

Table C. Imported by Third Party and Supplied to the Tenderer

D33. Description of imported content

Provide a list of the product(s) imported by the third party and supplied to the tenderer as specified in the tender documentation.

D34. Unit of measure

Provide the unit of measure for the product(s) imported by the third party and supplied to tenderer as disclosed in the commercial invoice.

D35. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D36. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported products.

D37. Imported value as per commercial invoice

Provide the foreign currency value of the product(s) imported by the third party and supplied to the tenderer disclosed in the commercial invoice accepted by SARS.

D38. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D39. Local value of imports

Convert the value of the product(s) imported by the third party as per commercial invoice (D37) into the ZAR value by using the tender exchange rate (D38) disclosed in the tender documentation.

D40. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported by third party and supplied to the tenderer.

D41. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported by third party and supplied to the tenderer as stipulated in the SATS 1286:2011.

D42. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each product imported by third party and supplied to the tenderer by adding the corresponding item values in columns D39, D40 and D41.

D43. Quantity imported

Provide the quantity of each product(s) imported by third party and supplied to the tenderer for the tender.

D44. Total imported value

Provide the total imported value of the product(s) imported by third party and supplied to the tenderer by multiplying the total landed cost (D42) by the quantity imported (D43).

D45. Total imported value by third party

The total imported value from the third party is the sum of the values in column D44.

Table D. Other Foreign Currency Payments

D46. Type of payment

Provide the type of foreign currency payment. (i.e. royalty payment for use of patent, annual licence fee, etc).

D47. Local supplier making the payment

Provide the name of the local supplier making the payment.

D48. Overseas beneficiary

Provide the name of the overseas beneficiary.

D49. Foreign currency value paid

Provide the value of the listed payment(s) in their foreign currency.

D50. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D51. Local value of payments

Provide the local value of each payment by multiplying the foreign currency value paid (D49) by the tender rate of exchange (D50).

D52. Total of foreign currency payments declared by tenderer and/or third party

The total of foreign currency payments declared by tenderer and/or a third party is the sum of the values in column D51.

D53. Total of imported content and foreign currency payment

The total imported content and foreign currency payment is the sum of the values in column D32, D45 and D52. This value must correspond with the value of C23 on Annexure C.

5. ANNEXURE E

5.1. Guidelines to completing Annexure E: “Local Content Declaration-Supporting Schedule to Annexure C”

The paragraph numbers correspond to the numbers in Annexure E

E1. Tender number

Supply the tender number that is specified on the specific tender documentation.

E2. Tender description

Supply the tender description that is specified on the specific tender documentation.

E3. Designated products

Supply the details of the products that are designated in terms of this tender (for example, buses/canned vegetables).

E4. Tender authority

Supply the name of the tender authority.

E5. Tendering entity name

Provide the tendering entity name (for example, Unibody Bus Builders (Pty) Ltd) Ltd).

Local Goods, Services and Works

E6. Description of items purchased

Provide a description of the items purchased locally in the space provided.

E7. Local supplier

Provide the name of the local supplier that corresponds to the item listed in column E6.

E8. Value

Provide the total value of the item purchased in column E6.

E9. Total local products (Goods, Services and Works)

Total local products (goods, services and works) is the sum of the values in E8.

E10. Manpower costs:

Provide the total of all the labour costs accruing only to the tenderer (i.e. not the suppliers to tenderer).

E11. Factory overheads:

Provide the total of all the factory overheads including rental, depreciation and amortisation for local and imported capital goods, utility costs and consumables. (Consumables are goods used by individuals and businesses that must be replaced regularly because they wear out or are used up. Consumables can also be defined as the components of an end product that are used up or permanently altered in the process of manufacturing, such as basic chemicals.)

E12. Administration overheads and mark-up:

Provide the total of all the administration overheads, including marketing, insurance, financing, interest and mark-up costs.

E13. Total local content:

The total local content is the sum of the values of E9, E10, E11 and E12. This total must correspond with C24 of Annexure C.